

IAMGOLD CORP

FORM 6-K (Report of Foreign Issuer)

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Industry	Gold & Silver
Sector	Basic Materials
Fiscal Year	12/31

FORM 6-K
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Report of Foreign Private Issuer

**Pursuant to Rule 13a-16 or 15d-16
of the Securities Exchange Act of 1934**

Date: **November 23rd, 2004**
Commission File Number **001-31528**

IAMGold Corporation
(Translation of registrant's name into English)

220 Bay Street, 5th Floor
Toronto, Ontario M5J 2W4, Canada
Tel: (416) 360-4710
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F ☐ Form 40-F ☒

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

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Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes ☐ No ☒

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

IAMGOLD CORPORATION

Date: November 23rd, 2004

/s/ Larry E. Phillips

Larry E. Phillips
Vice-President, Corporate Affairs & Corporate
Secretary

EXHIBIT INDEX

Exhibit	Description
99.1	Technical Report on the Tarkwa Gold Mine, Ghana, dated July 1, 2004 (the "Tarkwa Report")
99.2	Technical Report on the Damang Gold Mine, Ghana, dated July 1, 2004 (the "Damang Report")
99.3	Technical Report on the St. Ives Gold Mine, Western Australia, dated July 1, 2004 (the "St. Ives Report")
99.4	Technical Report on the Agnew Gold Mine, Western Australia, dated July 1, 2004 (the "Agnew Report")
99.5	Technical Report on the Konttjarvi, Ahmavaara and SK deposits, Finland, dated October, 2004 (the "Finland Report")
99.6	Technical Report on the Cerro Corona Project, Department of Cajamarca, Peru, dated October 7, 2004 (the "Cerro Corona Report")
99.7	Consent dated November 4, 2004 of Rick Skelton (in connection with the Tarkwa Report)
99.8	Consent dated November 4, 2004 of Rick Skelton (in connection with the Damang Report)
99.9	Consent dated November 4, 2004 of Michael Warren (in connection with the St. Ives Report)
99.10	Consent dated November 4, 2004 of Michael Warren (in connection with the Agnew Report)
99.11	Consent dated November 4, 2004 of Justin Osborne (in connection with the Finland Report)
99.12	Consent dated November 4, 2004 of Ian Glacken (in connection with the Finland Report)
99.13	Consent dated November 4, 2004 of Bruce Davis (in connection with the Cerro Corona Report)
99.14	Consent dated November 4, 2004 of Nathan H. Brewer (in connection with the Cerro Corona Report)
99.15	Consent dated November 4, 2004 of John Duke (in connection with the Cerro Corona Report)

Exhibit 99.1

An Independent Technical Report on the Tarkwa Gold Mine, Ghana

Report Prepared for

Gold Fields Limited and IAMGold Corporation

Effective Date: July 1, 2004
Issue Date: October 25, 2004

**Prepared under the Guidelines of National Instrument 43-101 and
accompanying documents 43-101.F1 and 43-101.CP**

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An Independent Technical Report on the Tarkwa Gold Mine, Ghana

1 EXECUTIVE SUMMARY

The Tarkwa gold mine (“Tarkwa”) is operated by Gold Fields Limited (“Gold Fields”) the majority share holder, with 71.1% of the issued shares of the owner Gold Fields Ghana Limited (“GFGL”). The proposed transaction means the acquisition by IAMGold Corporation (“IAMGold”) of the Acquired Interests from Gold Fields and its affiliates and the issue by IAMGold of the Consideration Shares to Gold Fields and its affiliates as consideration thereof, resulting in the acquisition by IAMGold of all of the interests of Gold Fields in certain of its subsidiaries which collectively hold all of the mining assets of Gold Fields located outside of Southern African Development Community (“SADC”).

Tarkwa is located in south western Ghana approximately 300 km by road west of Accra, the capital, at a latitude 5°15’N and longitude 2°00’W. Tarkwa is located 4 km east of the town of Tarkwa with good access roads and an established infrastructure. The mine is served by a main road connecting to the port of Takoradi, some 140 km to the southeast on the Atlantic coast.

Tarkwa operates under mining leases with a total area of 20,700 hectares (“ha”). Five leases relate to the Tarkwa property and are dated April 18, 1997 (expiring April 17, 2027) and two to the Teberebie property dated February 2, 1988 and June 18, 1992 (expiring 2018).

Since 1999 all mining has been from open pit extraction, following the closure of uneconomic underground operations. Operations were expanded after August 2000 with the acquisition of Teberebie, increasing the total mining rate from 15.3 million tonnes per annum (“Mtpa”) to 36 Mtpa and the heap leach production capacity from 7.2 Mtpa to 12.6 Mtpa. Until 2004 mining was carried out by a contractor. Following feasibility studies, mining is now on an owner operated basis and processing utilises a conventional Carbon-in-Leach (“CIL”) (4.2 Mtpa capacity) as well as a heap leach (14.4 Mtpa capacity) operation.

Steffen, Robertson and Kirsten (UK) Ltd.

Registered in England and Wales

Reg. No. 1575403

Registered Address:

21 Gold Tops,
Newport,
Gwent.
NP9 4PG

Offices in:

Australia
North America
Southern Africa
South America
United Kingdom

Production is from a series of surface pits exploiting narrow auriferous conglomerates with a total output in the 2004 financial year of 16 million tonnes ("Mt") of ore and gold production of 550,000 ounces. The orebody comprises a series of sedimentary Banket quartz reef units similar to those mined in the Witwatersrand Basin of South Africa. There is the potential also for future underground production.

The Tarkwa Mineral Resource and Mineral Reserve Statement as at June 30, 2004 is given in Table 1.1 below:

Table 1.1: Tarkwa Mineral Resource and Mineral Reserve Statement June 30, 2004

Mineral Reserves				Mineral Resources			
	Mt	g/t	Koz		Mt	g/t	Koz
Proved				Measured			
o/p	199.8	1.3	8,560		200.5	1.5	9,610
s/p	4.1	0.9	120		4.3	0.9	120
Total Proved	203.9	1.3	8,680	Total Measured	204.8	1.5	9,730
Probable				Indicated			
o/p	147.7	1.3	6,050		187.3	1.4	8,210
u/g							
Total Probable	147.7	1.3	6,050	Total Indicated	187.3	1.4	8,210
Total Mineral Reserves	351.5	1.3	14,730	Total Measured & Indicated	392.1	1.4	17,940
Inferred							
	o/p	3.3	1.5		160		
	u/g	16.3	4.0		2,070		
	Total Inferred	19.5	3.6		2,230		

The open-pit Mineral Resource estimate is derived from an open-pit optimization carried out using a gold price of USD 400 per ounce. Mineral Resources and Mineral Reserves are reported after inclusion of a 10% tonnage factor for the volume of ore material in a block and a corresponding reduction is applied to the waste tonnage. The underground Mineral Resource estimate is also based on a gold price of USD 400 per ounce which equates to a cut-off grade of 3.7 g/t for Akontansi and 2.7 g/t for Kotraverchy.

The Mineral Reserve estimate is derived from an open-pit optimization carried out using a gold price of USD 350 per ounce. The Mineral Reserve is based on heap leach, CIL Plant and owner mining cost. The current mine life on which the Mineral Reserves are based continues for 24 years until 2028.

Tarkwa has been assessed and is operated in accordance with Ghanaian environmental requirements, administered by the Environmental Protection Agency, and holds the required current Environmental Permit and Environmental Certificates. The Environmental Certificate covers all activities including the CIL Plant and the tailings facility. The total cost for reclamation was updated in March 2004 and includes the new CIL Plant. Environmental provisions have been included in the operating costs as they are confirmed as necessary contributions to fund ongoing environmental cost and closure provisions.

2 INTRODUCTION AND TERMS OF REFERENCE

2.1 Terms of Reference

Steffen, Robertson and Kirsten (UK) Limited (“SRK”) is a subsidiary of the International group holding company, SRK Global Limited (the “SRK Group”). SRK has been commissioned by the directors of Gold Fields prepare an Independent Technical Report (“ITR”) on Tarkwa in support of the proposed transaction between Gold Fields and IAMGold.

This ITR has been prepared in accordance with the rules and companion policies of the Ontario Securities Commission (“OSC”) enacted by Section 143 of the Securities Act, specifically:

- National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”);
- Form 43-101F1 (the “Form”); and
- Companion Policy 43-101CP (the “Companion Policy”).

In accordance with the applicable Rules and Companion Policies, this ITR has been prepared under the direction of the Qualified Persons (“QPs”) who assume overall professional responsibility for this ITR. The ITR however, is published by SRK, the commissioned entity, and accordingly SRK assumes responsibility for the views expressed herein. Consequently with respect to all references to QPs and SRK: ‘all references to SRK mean the QP and vice-versa’.

The ITR principally comprises a technical-economic appraisal of Tarkwa and has been prepared in accordance with the rules and companion policies stated above, which cover the standards of disclosure for mineral projects under the OSC guidelines which came into effect on 1 February, 2001. It is the recognised format for reporting on the Toronto Stock Exchange.

2.2 Purpose of the ITR

Tarkwa is operated by GFGL and Gold Fields is the majority share holder, with 71.1% of the issued shares of GFGL. The proposed transaction means the acquisition by IAMGold of the Acquired Interests from Gold Fields and its affiliates and the issue by IAMGold of the Consideration Shares to Gold Fields and its affiliates as consideration thereof, resulting in the acquisition by IAMGold of all of the interests of Gold Fields in certain of its subsidiaries which collectively hold all of the mining assets of Gold Fields located outside of Southern African Development Community (“SADC”).

In this regard Gold Fields will transfer to IAMGold ownership of its interests in:

- Orogen Holding (BVI) Limited (“Orogen”): Orogen holds Gold Fields indirect interests of: 100% of St. Ives Gold Mine in Western Australia (“St. Ives”); 100% of Agnew Gold Mine in Western Australia (Agnew); 80.7% of Cerro Corona development property in Peru (currently under option); 100% of Arctic Platinum Project in Finland; and a

portfolio of other exploration properties and investments;

- Gold Fields Ghana Holdings Limited (“GF Ghana Holdings”): GF Ghana Holdings holds Gold Fields indirect interests of a 71.1% interest in and claim on loan account against GFGL, which owns and operates Tarkwa and a 71.1% interest in Abosso Goldfields Limited (“AGL”), which owns and operates the Damang Gold Mine (“Damang”) in Ghana; and
- Gold Fields Guernsey Limited, which include a portfolio of exploration properties and investments.

For the transfer of ownership Gold Fields will be issued with 351,690,218 IAMGold Shares in addition to a number of IAMGold Shares equivalent to the net cash contributions made by Gold Fields into the Acquired Companies between 24 June 2004 and the Completion Date.

SRK has been informed that Gold Fields and IAMGold have signed definitive agreements to implement the Transaction on 29 September 2004 subject to satisfaction of certain conditions precedent.

2.3 **Scope of Work**

The scope of work undertaken by SRK comprised a technical and economic review of Tarkwa’s Life of Mine (“LoM”) Plan dated June 30, 2004 and covering the period 2005 – 2028. The review covered the following technical disciplines:

- Geology;
- Mineral Resource Estimation;
- Mineral Reserve Estimation;
- Planning and Production Scheduling;
- Mining Engineering and Open-Pit Design;
- Geotechnical Engineering;
- Mineral Processing and Metallurgy;
- Tailings Engineering and Waste Disposal;
- Environmental and Water Management;
- Capital Expenditure and Operating Costs; and
- Technical Economic Modelling.

2.4 **Sources of Information and Site Inspection**

The ITR has been prepared based on information provided to and taken in good faith by SRK by the management of Gold Fields and, specifically, Tarkwa. SRK has not independently verified by means of re-calculation the underlying data, however SRK has:

- undertaken inspection visits to surface, processing facilities, surface structures and associated infrastructure at Tarkwa during August and September 2004;
- held discussion and enquiry following access to key personnel based at the individual site operations and at head office;
- reviewed and, where considered appropriate by SRK, modified the Tarkwa Mineral Resources and Mineral Reserve estimates dated June 30, 2004;

- reviewed the Tarkwa LoM plan, supporting documentation and the associated technical-economic projections (“TePs”), including assumptions regarding future operating costs, capital expenditures and gold production; and where considered appropriate by SRK modified these; and
- examined historical information and results provided by GFGL in support of, in particular, the forecasts contained in the LoM plan and two year budgets.

Key documentation provided to SRK in support of this ITR and as generated by Gold Fields is:

- the Competent Persons Report for Mineral Resources and Mineral Reserves, June 2004; and
- a Technical Report on Tarkwa Gold Mine, Ghana, May 2003.

SRK has satisfied itself that such information is both appropriate and valid for valuation as reported herein. SRK considers that with respect to all material technical-economic matters it has undertaken all necessary investigations to ensure compliance, both in terms of level of investigation and level of disclosure. In doing so, SRK has not reproduced the information provided to it by Gold Fields without due consideration or appropriate modification.

Where fundamental base data has been provided (LoM plans, capital expenditures, operating budgets etc) for the purposes of review, SRK recognises the requirements of 43-101F1 Item 25 and accordingly states that SRK has performed all necessary validation and verification procedures deemed appropriate in order to place an appropriate level of reliance on such information.

Dr John Arthur, a QP and Principal Geologist with SRK, and Mr. Rick Skelton, a QP and Principal Mining Engineer with SRK, visited Tarkwa during August 2004. In addition site visits have been undertaken by other SRK team members, qualified in disciplines other than geology and mining, during the period of September 2004. SRK representatives have held discussions with Gold Fields personnel and examined the geology, mineral resources, laboratory facilities, exploration methodology and potential, processing facilities, mining operations, slope stability, groundwater issues, infrastructure, terrain, tailings facilities and environment.

2.5 **Qualifications of Consultant and Qualified Persons**

The SRK Group comprises 500 staff, offering expertise in a wide range of resource engineering disciplines. The SRK Group’s independence is ensured by the fact that it holds no equity in any project and that its ownership rests solely with its staff. This permits the SRK Group to provide its clients with conflict-free and objective recommendations on crucial judgment issues. The SRK Group has a demonstrated track record in undertaking independent assessments of resources and reserves, project evaluations and audits, technical reports and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies and financial institutions worldwide. The SRK Group has also worked with a large number of major international mining companies and on their projects, providing mining industry consultancy service inputs.

This report has been prepared based on a technical and economic review by a team of consultants principally sourced from the SRK Group's office in the United Kingdom. These consultants are specialists in the fields of gold geology, mineral resource and mineral reserve estimation and classification; mine engineering and pit modelling, geotechnical engineering; gold processing, hydrogeology and hydrology, tailings management, infrastructure, environmental management and mineral economics.

Neither SRK nor any of its employees and associates employed in the preparation of this report has any beneficial interest in Gold Fields or its assets. SRK will be paid a fee for this work in accordance with normal professional consulting practice.

The individuals who have provided input to this ITR, who are listed below, have extensive experience in the mining industry and are members in good standing of appropriate professional institutions.

Dr John Arthur:	Ph.D, C.Eng, CGeol, MIMMM;
Mr Rick Skelton:	MSc, C.Eng, MSAIMM, MIMMM;
Dr Neil Holloway:	Ph.D, C.Eng, FIMMM;
Dr Ian Brackley:	Ph.D, C.Eng, FSAIMM, MIMMM;
Mr Keith Philpott:	MSc, BSc, C.Geol, Eur Geol, FGS;
Mr Lee Barnes:	MSc, C.Eng, MIMMM.

In compliance 43-101F1 Part 5 subsection 5.1 this ITR has been prepared by following Qualified Persons:

- the Qualified Person with overall responsibility for this independent technical report and the reported Mineral Reserve is Mr Rick Skelton who is an employee of SRK. Mr Skelton is a mining engineer with 35 years' experience in the mining industry and has supervised numerous due-diligence reviews and various technical studies on similar gold mining assets; and
- the Qualified Person with overall responsibility for reported Mineral Resource is Dr John Arthur who is an employee of SRK. Dr Arthur is a resource geologist with 16 years experience in the mining industry and has been responsible for the reporting of Mineral Resources on various gold mining properties, specifically specialising in resource estimation and classification.

SRK has previously carried out a number of consultancy commissions for Gold Fields at Tarkwa and these are listed in Appendix B to this report.

2.6 Monetary Rates and Units

All monetary units, unless otherwise stated, are quoted in US dollars ("USD").

All units conform to metric usage except where otherwise stated. Where gold weight is not expressed in metric units it is expressed in troy ounces ("oz") where one troy ounce equals 31.10348 grammes ("g").

2.7 Technical Reliance

SRK places reliance on Tarkwa's QPs that all technical information provided to SRK as at July 1, 2004, is both valid and accurate for the purpose of compiling this ITR. The Tarkwa Mineral Resource and Mineral Reserve estimates have been prepared under the direction of Mr. G. S. G. Chapman, Mineral Resource Manager at Tarkwa who is a full time employee of Gold Fields and has 28 years experience in the gold mining industry and is registered with the South African Council for Natural Scientific Professions ("SACNASP").

2.8 Legal Reliance

SRK has placed reliance on representatives of Gold Fields that the following legal aspects pertaining to Tarkwa are correct as at July 1, 2004:

- that "a statement by the Directors of any legal proceedings that may have an influence on the rights to explore for minerals, or an appropriate negative statement" has been included in the body of the various circulars relating to the proposed transaction;
- that the legal ownership and title of all mineral and surface rights has been verified; and
- that no significant legal issue exists which would affect the likely viability of a project and / or the estimation and classification of the Mineral Resources and Mineral Reserves as reported herein.

2.9 Accounting and Financial Reliance

In consideration of all financial aspects relating to the valuation of Tarkwa, SRK has placed reliance of the Financial Officers of Tarkwa that the following information is accurate as at July 1, 2004:

- unredeemed capital balances;
- assessed losses;
- opening balances for debtors, creditors and stores; and
- working capital and taxation logic.

In generating the valuation of Tarkwa, SRK has relied upon the commodity price and macro economic forecasts as included in Section 17, which have been generated by NM Rothschild & Sons (New York) ("Rothschild"), Financial Advisors to Gold Fields.

2.10 Warranties and Limitations

SRK's opinion is effective July 1, 2004 and is based on information provided by Tarkwa and Gold Fields throughout the course of SRK's investigations, which in turn reflect various technical-economic conditions prevailing at the time of writing. These conditions can change significantly over relatively short periods of time and as such the information and opinions contained in this report may be subject to change.

The achievability of LoM plan, budgets and forecasts are neither warranted nor guaranteed by SRK. The forecasts as presented and discussed herein have been proposed by Tarkwa's management and cannot be assured; they are necessarily based on economic assumptions, some of which are beyond the control of Tarkwa. Future cash flows and profits derived from such forecasts are inherently uncertain and actual results may be significantly more or less

favourable .

This report includes technical information, which requires subsequent calculations to derive subtotals, totals and weighted averages. Such calculations may involve a degree of rounding and consequently introduce an error. Where such errors occur, SRK does not consider them to be material.

2.11 **Disclaimers and Contingency Statements for US Investors**

The United States Securities and Exchange Commission (the “SEC”) permits mining companies, in their filings with the SEC, to disclose only those mineral deposits that a company can economically and legally extract or produce from. Certain terms are used in this report, such as “resources”, that the SEC guidelines strictly prohibit companies from including in filings.

Mineral Reserve estimates are based on many factors, including, in this case, data with respect to drilling and sampling. Mineral Reserves are derived from estimates of future technical factors, future production costs, future capital expenditure and future gold price. The Mineral Reserve estimates contained in this report should not be interpreted as assurances of the economic life of Tarkwa or its future profitability. As Mineral Reserves are only estimates based on the factors and assumptions described herein, future Mineral Reserve estimates may need to be revised. For example, if production costs increase or product prices decrease, a portion of the current Mineral Resources, from which the Mineral Reserves are derived, may become uneconomical to recover and would therefore result in Mineral Reserve estimates with lower tonnages and contained gold.

The LoM plans, the TePs and the Financial Model (“FM”) include forward-looking statements in compliance with the requirements of NI 43-101. These forward-looking statements are necessarily estimates and involve a number of risks and uncertainties that could cause actual results to differ materially.

3 PROPERTY DESCRIPTION AND LOCATION

3.1 Location and Access

Tarkwa is located in south western Ghana approximately 300 km by road west of Accra, the capital, at a latitude 5°15'N and longitude 2°00'W. Tarkwa is located 4 km east of the town of Tarkwa with good access roads and an established infrastructure. The mine is served by a main road connecting to the port of Takoradi, some 140 km to the southeast on the Atlantic coast (Figure 3.1).

3.2 Mining Leases

Tarkwa operates under mining leases with a total area of 208.28 km². Five leases relating to the Tarkwa property are dated April 18, 1997, expiring on April 17, 2027. Two mining leases dated February 2, 1988 and June 18, 1992 and expiring in 2018, relate to the Teberebie property. There are no additional reconnaissance or prospecting licences held by Tarkwa.

SRK notes that the current LoM Plan envisages extraction from Teberebie until the end of 2022. SRK does not envisage a problem with the extension of the lease to cover continued operations in this area if required, however this cannot be guaranteed.

There is an area of overlap between the Tarkwa and Damang licenses, in that over one area Damang has rights to a depth of 30 m and Tarkwa rights below this depth (Figure 4.2). Damang is the adjacent property to the north that is owned and operated by AGL, which Gold Fields has a 71.1% interest in (Section 9).

Table 3.1: Mining Leases

Location	Lease Number	Date Granted	Expiry Date	Area (km ²)
Tarkwa	WR 637/97	April 18, 1997	April 18, 2027	22.27
Tarkwa	WR 640/97	April 18, 1997	April 18, 2027	34.19
Tarkwa	WR 639/97	April 18, 1997	April 18, 2027	49.51
Tarkwa	WR 638/97	April 18, 1997	April 18, 2027	43.00
Tarkwa	WR 641/97	April 18, 1997	April 18, 2027	43.34
Teberebie	WR 1518/96	February 2, 1988	February 1, 2018	15.97 (includes 1518/96)
Teberebie	WR 1520/96	June 18, 1992	June 17, 2018	See above
Total				208.28

3.3 Information on Equity

GFGL was incorporated in Ghana in 1993 as the legal entity holding the Tarkwa concession mining rights and opencast operations commenced early in 1997 with the winding down and closure of the original underground operations. Gold Fields is the operator of the mine and majority share holder with 71.1% of the issued shares of GFGL. IAMGold, through its wholly owned subsidiary Repadre Capital Corporation, holds 18.9%, and the Ghanaian Government a 10% free carried interest, as required under the Mining Law of Ghana.

Figure 3.1: Locality Map



The Government of Ghana has a 10% non-participating interest in all exploration and mining ventures with the right to purchase an additional 20% equity interest in the mining venture at a fair market price.

Royalties of 3% - 12% of mineral revenue are paid to the Government of Ghana. The current 3% royalty rate is based on a 30% operating ratio. Where the operating ratio is below 30% the rate is still 3% but the unused margin can be carried forward to reduce the operating ratio in subsequent years. Where the operating ratio is over 30% but less than 70%, the rate of royalty is 3% plus 0.225% of every one percent by which the operating ratio exceeds 30%. Where the operating ratio is 70% or more, the rate is 12%. The formula for calculating the operating ratio is revenue versus operating costs and capital cost allowances (royalty payments, and taxes imposed on income are not allowable operating costs).

Companies may export gold to any foreign refiner upon approval of the Government. The Government has a pre-emptive right to purchase the gold production at fair market value, although this right has never been exercised. Offshore foreign currency retention accounts for the receipt of foreign currency, including the proceeds from gold production, are permitted.

3.4 **Environmental Liabilities**

Environmental issues and liabilities are discussed in Section 14.

4 ACCESSIBILITY, CLIMATE AND INFRASTRUCTURE

4.1 Topography, Climate and Vegetation

The topography of the area comprises a series of prominent ridges and valleys (to approximately 200 m height) within a generally low lying plain. A large low lying flood plain lies to the northwest. No major rivers traverse the mining area, the nearest one being the Huni River some 8 km to the northwest which flows along the concession boundary. The area is drained by minor streams towards the west.

A tropical climate at Tarkwa is characterized by two wet seasons (March-July and September-November) with a mean annual rainfall of approximately 2000 mm. Evaporation averages approximately 130 mm per month. Mean monthly temperatures range from 21-32° C. Although there may be minor disruptions to operations during the wet season there is no long term constraint on production due to climate at particular times of the year.

The vegetation comprises a mixture of tropical rain forest and semi-deciduous forest. Deforestation due to subsistence farming by the local population has degraded the natural vegetation in the environs of the mines to secondary forest, scrub and cleared land. No primary forest is found on the concession.

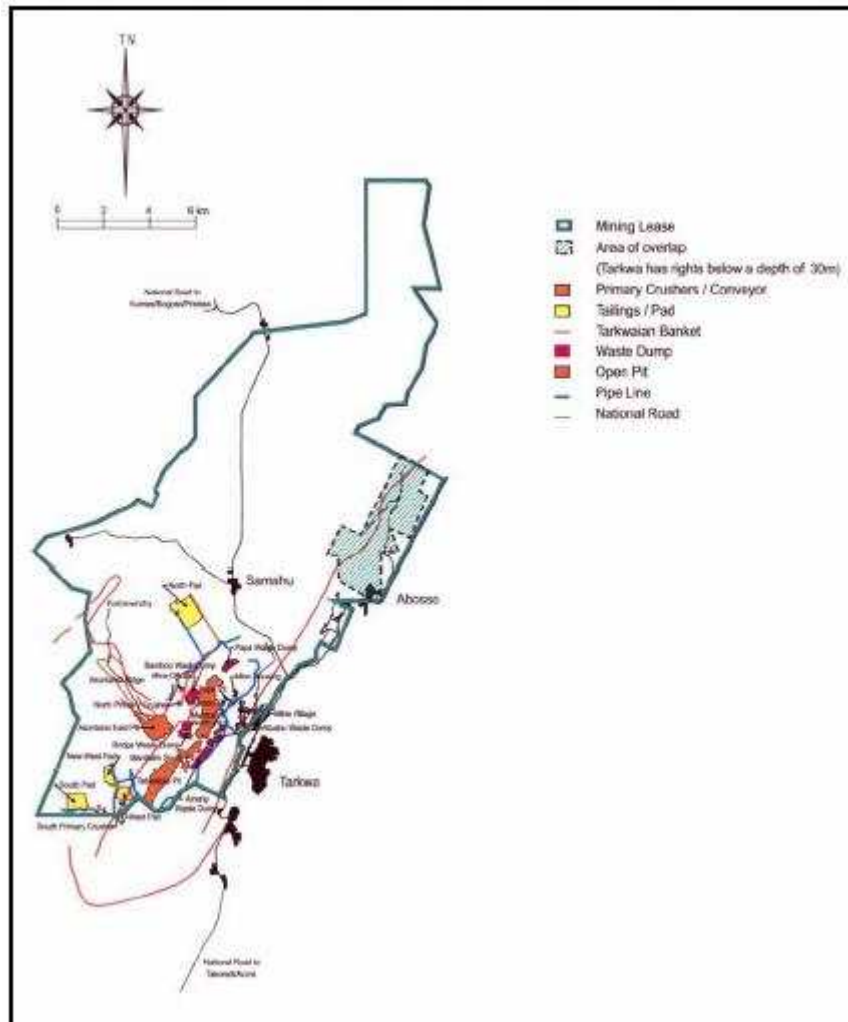
4.2 Local Infrastructure and Economy

The industries of the Tarkwa region are mining (gold, manganese) and subsistence farming which occurs throughout the area with cocoa, plantain, pineapple, cassava, maize, yam and some oil palm, rubber and coffee being the principal crops.

The mine has access to the national electricity grid from the Volta River Authority (“VRA”). The electricity supply to Tarkwa is sourced from the VRA Tarkwa substation via a 34.5 kilovolts (“kV”) line. The Tarkwa substation is part of the 161 kV ring network, located between the Takoradi and Prestea substations. The substation is well situated, having total capacity of 550 megawatts (“MW”) in close proximity and with Prestea being connected to the Cote d’Ivoire power line, which has a capacity of 240 MW. In addition, Tarkwa is connected to the hydro-electric generating stations at Akasombo via the transmission grid on a ring feed arrangement. The installed capacity at Tarkwa is about 91 megavolt ampere (“MVA”), consisting of one 25 MVA at 11 kV and two 33 MVA at 34.5 kV. The current maximum demand is a 42 MVA.

A main asphalt road that connects the mine to the port of Takoradi services the Tarkwa area. From Takoradi an easterly coastal road connects with the capital Accra. Domestic communications are provided by way of a microwave link and landlines. International communications are provided by a direct satellite system and land lines.

Figure 4.1: Mine Infrastructure



5 HISTORY

5.1 Ownership and Operations

Mining activities around the town of Tarkwa date back to the late 19th century when several small mining companies operated an area then known as the Abontiakoon Concession. In 1935, the property was taken over by the Amalgamated Banket Area Limited (“ABA”), which also acquired the old Tarkwa mine and the properties of Mantraim, Pepe, Akontansi, Kotraverchy, Patet-Sommahoo and Teberebie, and Awunaben-Ahoonabe areas.

The amalgamation resulted in an expansion programme including the sinking of the Abontiakoon Vertical Shaft (“AVS”), the construction of new residential buildings and workers compounds, the construction of a workshop and store at AVS from 1936 to 1938 and the completion of a new 30,000 tonnes per month (“tpm”) central mill in 1940. The Tarkwa South Mine was dewatered in 1940 and development undertaken to link with Mantraim Vertical Shaft, also being sunk at that time. Prior to the takeover by ABA, eight vertical shafts and numerous pits had been excavated. Operations at Akontansi had resumed in 1937 but ceased at the end of 1943. The Pepe workings were established in 1940 and mined as open cuts.

In 1943, as a result of World War II, the mine was closed and only essential plant equipment maintained. Operations were resumed in 1946, with a temporary suspension of activities for three months during 1947 due to a general strike.

In 1950, the amalgamation of ABA, Gold Coast Banket Areas Ltd (Fanti Mines) and South Banket Areas (Tamso / Effuanta Mines) became effective with the administrative and mining operations being directed by ABA.

Operations were again suspended toward the end of 1955 because of general strike action. After the strike in February 1956, ABA was given a financial grant by the Government of Ghana to assist with the long term planning and operation. In 1956, the working of the Pepe opencast mine was stopped and in 1958 the Mantraim incline shaft was closed. In 1960 the Fanti Main shaft was closed and allowed to flood. In 1960, owing to the refusal of the Ghanaian Government to grant further subsidies to ABA, all workings were abandoned and allowed to flood.

Realizing the effect this would have on the livelihood of the mine employees in the Tarkwa district, the government purchased the entire site from ABA. In May 1961, the property was commissioned as one of the properties of the State Gold Mining Corporation (“SGMC”). The Tarkwa mines were renamed Tarkwa Goldfields Limited in 1963.

The Apinto Shaft was sunk between 1973 and 1976 to access additional sources of ore. In 1986, a rehabilitation programme financed by the World Bank helped sustain the Tarkwa Goldfields Limited operations. In June 1993, the Government of Ghana entered into an agreement with GFGL under which GFGL would operate the mine under a management contract.

In 1996, a pre-feasibility study into an open pit / heap leach operation, undertaken on behalf of GFGL by SRK concluded that such a project was economic. This study was followed up with a feasibility study and the subsequent approval to proceed with the project.

The initial development, known as Tarkwa Phase I, was completed in April 1998 at a cost of USD149 million (“M”) and entailed a total mining rate of 14.5 Mtpa comprising 9.8 Mtpa waste and 4.7 Mtpa heap leach feed ore.

An expansion, known as Tarkwa Phase II was completed in July 1999 at a cost of USD10M. This increased the mining rate to 20.7 Mtpa and ore feed to the heap leach pads to 7.2 Mtpa.

In August 1999, GFGL suspended all underground mining operations at the Apinto shaft and AVS sections for economic reasons. The milling plant continued to process the remaining ore and clean-up material until shutdown in December 1999. At that stage, GFGL withdrew totally from the underground operations resulting in the flooding of the underground workings.

In August 2000, following the acquisition by Ghanaian Australian Goldfields Limited (“GAG”) of the Teberebie lease and operations, GFGL acquired the northern part of the Teberebie lease from GAG. The facilities, comprising the Teberebie open pit and heap leach pads and associated equipment were re-commissioned at a cost of USD11 M and placed into production. This expansion, known as Tarkwa Phase III, increased the mining rate by 15.3 Mtpa to 36 Mtpa and the heap leach production capacity from 7.2 Mtpa to 12.6 Mtpa.

Until 2004, open pit operations were carried out by a contractor African Mining Services (Ghana) Pty Ltd. (“AMS”) a joint venture between two Australian contractors; Henry Walker Eltin and Ausdrill. Following a bankable feasibility study (“BFS”) of utilizing a conventional CIL plant (completed in December 2002 by Lycopodium Pty Limited “Lycopodium”) and a study into owner mining operations, projected output targets were increased to a 16 Mtpa heap leach operation and a 4.2 Mtpa CIL operation and owner mining operation with effect from mid 2004.

The existing surface operation exploits narrow auriferous conglomerates from various pits: namely (from west to east) Kotraverchy, Akontansi Ridge, Akontansi East, Pepe, Mantraim, West Hill and Teberebie.

5.2 **Historical Production**

Production for the past eight years is as shown in Table 5.1 below:

Table 5.1: Historical Production from Tarkwa

Financial Year (July to June)	Ore Processed (Mt)	Metal Production (oz Au)
2004	16.0	550,000
2003	15.2	540,000
2002	14.9	544,000
2001	11.7	440,000
2000	8.0	296,000
1999	5.0	206,200
1998	0.2	55,235
1997	0.2	48,845

5.3 Historical Exploration

Historical exploration is outlined in Section 7.

5.4 Historical Mineral Resource and Mineral Reserve Statements

As an operating mine, the Mineral Resource and Mineral Reserve estimates at Tarkwa are updated annually as at June 30. Reconciliations are carried out systematically at Tarkwa between actual production and the Mineral Resource and Mineral Reserve estimates on a monthly and annual basis. These are described further in Section 10.

6 GEOLOGY

6.1 Regional Geology

The Tarkwa orebodies are located within the Tarkwaian System which forms a significant portion of the stratigraphy of the Ashanti Belt in southwest Ghana. The Ashanti Belt is a north-easterly striking, broadly synclinal structure made up of Lower Proterozoic sediments and volcanics underlain by the metavolcanics and metasediments of the Birimian System. The contact between the Birimian and the Tarkwaian is commonly marked by zones of intense shearing and is host to a number of significant shear hosted gold deposits including Prestea, Bogoso and Obuasi.

The Tarkwaian unconformably overlies the Birimian and is characterized by lower intensity metamorphism and the predominance of coarse grained, immature sedimentary units which from oldest to youngest are:

- Kawere Series (250 – 700 m) – poorly sorted, polymictic conglomerates and quartzites with no significant mineralization;
- Banket Series – well sorted conglomerates and quartzites with clasts generally considered to be Birimian in origin and containing significant gold mineralization, hosting the Tarkwa orebody. In the Pepe area the Banket Series is approximately 32 m thick and at Kotraverchy up to 270 m thick;
- Tarkwa Phyllite Series (120 – 140 m) – fine grained chloritic siltstones, mudstones and schists with no significant mineralization; and
- Huni Series (1370 m) – fine grained massive quartzites with no significant mineralization.

6.2 Local Geology

The local geology is dominated by the Banket Series which can be further sub-divided into a footwall and hangingwall barren quartzite separated by a sequence of mineralized conglomerates and pebbly quartzites. The stratigraphy of the individual quartzite units is well established with auriferous reefs interbedded with barren immature quartzites. The units thicken to the west and current flow parameters indicate a flow from the east and north-east. Tarkwa's geological location is shown in Figure 6.1.

Sedimentological studies of the detailed stratigraphy within individual reef units have led to the recognition of both lateral and vertical facies variations. The modelling of these has resulted in the recognition of a cycle of events from initial channel formation and rapid downcutting of the central channel (basin downwarp time units T1 and T2) through a period of uplift and reworking (T3) and finally a period of meandering channel bars and flow reduction leading to the development of low grade silty interbeds. This sequence has been recognised in each of the main reef units with the T3 sequence recognised as the principal episode of gold deposition and concentration.

**GOLD Fields Ghana
Tarkwa Mines**

Figure 2.1
Geology of West and Central Ghana and the Location of the Tarkwa Concession

Arrows: Gold mines Ghana 1:50,000
Scale: 1:50,000

Legend for the Regional Geology of South West Ghana

Quaternary cover	Tarkwa Phyllon
Intuiting	Banket Series
Onion (Sub-Granite)	Volcanic Rocks
Dark Coast Sub-Granite	Upper Ophiolite
Dark Coast Sub-Granite	Lower Ophiolite
Banket Series	

Legend for the Tarkwa Concession

Tarkwa Concession
Repealed Concessions

Legend for the Tarkwa Gold Mines

Tarkwa Gold Mines

Legend for the Tarkwa Gold Mines

Tarkwa Gold Mines

6.3 Structure

Structurally, the Tarkwaian belt has been subject to moderate folding and at least five episodes of deformation are thought to be represented at Tarkwa. Thrust faults occur between Pepe and Akontansi and between Akontansi Ridge and Kotraverchy. The original deposition occurred in a listric basin environment with associated low to steep angle normal faulting. Subsequent compression and folding led to development of thrust faults and reversing of previous normal faults. The final stages involved further thrusting in a southwest direction.

This has led to the individual deposits at Tarkwa having significantly different structural controls and differing degrees of structural complexity. At Pepe, the orebody forms on a gentle anticline with limb dips from horizontal to a maximum of 35°. The area is cut by north-east trending normal faults but no significant fault losses are reported. At Akontansi East, the strata dip north-west at 18° and are cut by north-east trending normal and reverse faults with low angle thrusts occurring at the east and west margins. The area is also intruded by numerous dykes and sills and is considered to be structurally complex. Throughout Akontansi, numerous small scale structures occur which are only identified either during grade control or mining with reverse faulting leading to duplication of the reef adjacent to fault planes. At Kotraverchy, the north-east plunging anticline is cut obliquely by a number of shallow angle thrusts and cross cut by numerous strike slip faults. The Kotraverchy area is recognised as being structurally complex and as a result the grade control drill spacing will be reduced to 12.5 x 25 m in the next phases of grade control drilling.

The geological model at Tarkwa has been refined considerably since mining commenced and the large amount of grade control and mining data has allowed much more detail to be introduced to the model. This has, in turn, led to the development of the domaining models described in a following section. There is still a considerable amount of small scale faulting which is only identified through grade control drilling and it is likely that this is having an influence on the reconciliation between the diamond drilling and grade control resource models, although the primary cause is probably un-modelled strike changes.

6.4 Deposit Types

The orebody at Tarkwa consists of a series of sedimentary Banket quartz reef units similar to those mined in the Witwatersrand Basin of South Africa. The operation is currently mining multiple reef horizons from seven open pits and there is further potential for mining underground in the future.

6.5 Mineralization

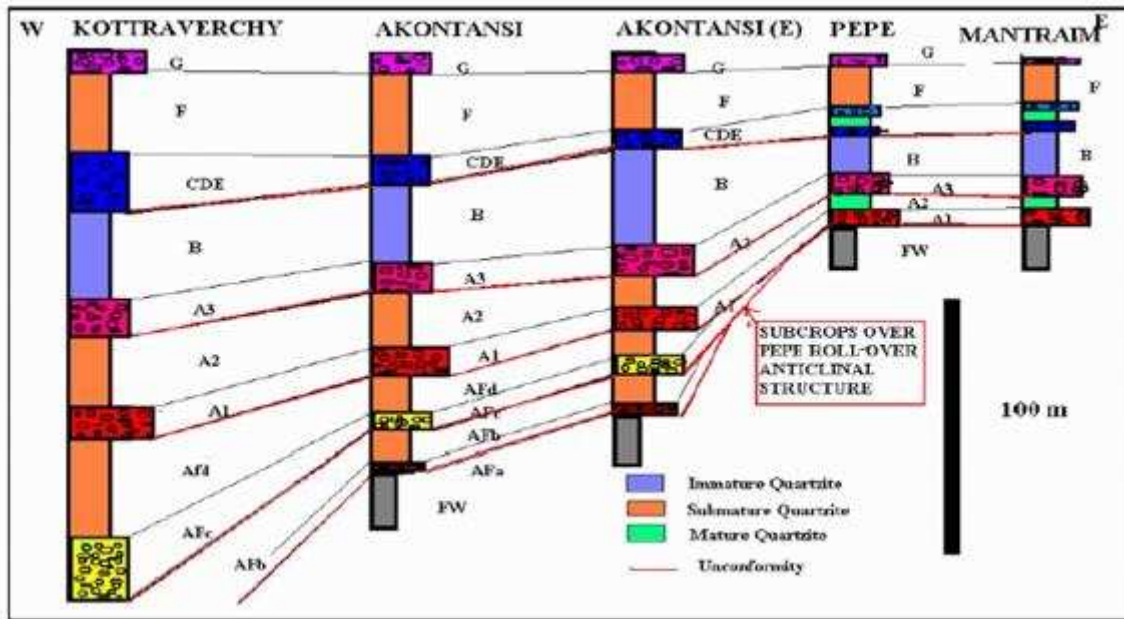
Mineralogically, the gold occurs as free particles with an average size of between 50-150 µm and is mostly entrained within the silicified interstitial matrix between conglomerate clasts. Gold is generally found native with only minor electrum and with only 3-7% silver. Accessory oxides present in the ore include magnetite, goethite, ilmenite and rutile.

The principal orebodies are shown in Figure 6.2.

The mineralized reefs are identified below from the base upwards (younging):

- AFc – 0.2-3.0 m thick, only occurs in the west and is scoured by the A1 in the east. Well sorted with rounded clasts of quartzite and visible gold;
- A1 – between 2-7 m thick, moderately to poorly sorted conglomerate and thin quartzites with occasional visible gold;
- A3 – occurs up to 7 m thick, moderately sorted, the conglomerate forms as thin discontinuous lenses within a package of cross bedded quartzites, visible gold is rare;
- B2 (or B) – up to 3 m thick, very coarse quartzites with thin lags of sub-rounded pebble conglomerate;
- CDE – up to 8 m thick and can be subdivided into the lower C reef and upper E reef both of which are conglomeratic and are separated by the D reef quartzite; and
- G – varies from 2-6 m thick poorly sorted conglomerate with clasts of quartzite and phyllite.

Figure 6.2: Schematic cross section from west to east through the principal orebodies



7 EXPLORATION AND DRILLING

7.1 Exploration History

Initial exploration commenced in June 1993 at Pepe. To date, the vast majority of drilling has targeted the open pit potential although a number of deeper holes have investigated the underground potential at Akontansi and Pepe/Mantraim. Prior to GFGL's involvement, SGMG carried out selected drilling mostly along the Pepe Anticline targeting shallow underground potential. However, these holes are not used owing to data quality issues. Data from GAG at Kotraverchy and from Pioneer Goldfields at Teberebie is included in the GFGL database.

7.2 Exploration Methodology

Exploration is initially carried out using diamond drilling to produce continuous core sampling through the sequence of mineralized reefs. Core is logged and halved with one half retained for quality control and validation purposes. The remaining core is sent to Transworld laboratories in Tarkwa for assay. Check assaying is carried out at SGS laboratory which is also based in Tarkwa. Core drilling is initially carried out on a wide spaced grid of 200 m along strike and 100 m in the dip direction (400 x 200 m in some cases). This grid is then filled to a final spacing of 100 x 100 m. Core logging and sampling is carried out based on the recognition of geological boundaries and marker horizons.

Grade control is carried out by close spaced infill drilling of the exploration grid using reserve circulation ("RC") drilling on 25 x 25 m grid spacing. In some areas of known structural complexity this spacing is reduced to either 25 x 12.5 m or 12.5 x 25 m. The Kotraverchy pit area is planned to be drilled using this closer spaced grade control.

7.3 Drilling

Currently, a total of 1,770 exploration holes have been drilled of which 1,358 have been drilled by GFGL. The GFGL drilling has primarily been carried out using diamond coring methods; however, the total includes 211 RC drillholes. Total exploration drilling to date amounts to some 230,000 m.

The following list summarizes the data available for completion of the 2004 model:

• Diamond Drilling:	1,274 holes	(123,960 m)
• PQ Holes:	8 holes	(547 m)
• RC on a 100 m grid:	227 holes	(11,780m)
• RC on a 50 m grid:	56 holes	(4,483 m)
• RC on a 25 x 50 m grid:	175 holes	(2,074 m)
• Grade control holes (RC):	13,873 holes	(454,543 m)

All grade control drill holes have also been captured in the geological database. The primary database captures the following:

- (1) The collar positions of all RC and diamond cored holes.
- (2) Down-the-hole survey data.
- (3) Lithological data.
- (4) Assay data.
- (5) The final stratigraphic zoning of all boreholes.

Mining software geological databases are used for final data storage and data manipulation. During import of raw data into the Surpac database, validation routines are carried out.

8 SAMPLING

8.1 Sampling Method and Approach

Initial exploration drilling is carried out using diamond coring with sampling at 25 to 50 cm intervals from the hangingwall contact to the footwall. Samples are also taken in the footwall and hangingwall to test for low grade dilution.

Sampling during RC drilling and grade control is carried out on the basis of vertical 1 m composites with sampling starting at the hangingwall of the uppermost reef horizon and continuing below the footwall of the lowermost package. An initial split is carried out at the drill rig using a 3-tier riffle splitter and a 3.5 kg sample is bagged for analysis. Representative rock chips are collected during the drilling and logged on site by a geologist to establish the stratigraphic context of the sampling and to provide a geological description of each sample.

Belt sampling is carried out at both processing facilities, referred to as the North and South plants, with a sample taken every five minutes and composited to four hours to produce a 4 kg sample. This procedure has been in place since March 2002 and prior to this belt samples were undertaken at 15 minute intervals. This sample is then pulverized and assayed in triplicate. The average of the three assays is reported as the final belt assay.

8.2 Sample Preparation, Analysis, Security and Data Verification

All original assaying for grade control samples is carried out at the SGS laboratory in Tarkwa, while for core samples Transworld is the primary laboratory and SGS the secondary. Both GFGL and SGS have comprehensive quality control procedures and protocols in place which involve duplicate and repeat assays, blanks, standards and external laboratory checks. The following checks are carried out:

- GFGL produce a duplicate sample for 5% of all samples taken (1 in 20) which involves the production of two samples from the same sample interval during the initial sample collection at the drill site, and provides information on sample repeatability and sampling error;
- the laboratory produces a repeat sample for 5% of all samples (1 in 20) from the initial coarse reject to check for laboratory preparation errors;
- 10% of all sample pulps are re-assayed as a check on analytical error;
- all samples which assay >3.0 g/t are re-assayed;
- each batch of 50 fire assays includes one standard and one blank as well as, on average, two duplicates and two repeats; and
- 5% (1 in 20) sample pulps are re-assayed by an external laboratory to check analytical precision. Currently the external laboratory is Transworld laboratory in Tarkwa.

The SGS laboratory is ISO 9001 and 9002 compliant and is aiming for ISO 17025 compliance by the end of 2005. Transworld has not yet achieved ISO compliance but is reported to be aiming to achieve this in the near future.

A recent study carried out by D F Bongarcon of Agoratech International has indicated that the 3-tier splitter should be replaced with a single pass system and that a larger sample size should be initially collected. SRK has not reviewed the results of this study in detail and the changes to the sampling protocol have only recently been implemented so no reconciliation results are available as yet.

The sampling and assay methodologies employed at Tarkwa are standard within the mining industry for mineralization of the type associated with the Tarkwa deposit and in SRK's opinion are carried out to a high standard and are adequate for the intended purposes. Tarkwa carries out ongoing grade and tonnage reconciliation studies which are discussed in further detail in Section 10.3. Data are compared between the exploration drilling, grade control and belt sampling results. The underlying data supporting the resource estimate is considered by SRK to be generated and input in the corresponding resource models in satisfactory manner. Given the operating history of Tarkwa and the ongoing reconciliation studies SRK considers the sampling and assay information to be reliable and has therefore not carried out any check sampling or assays. Reliance is therefore placed on the information provided by GFGL in this respect.

9 ADJACENT PROPERTIES

The mining leases held by GFGL are adjacent to the mining lease held by AGL approximately 35 km to the north. Ownership of AGL mirrors that of GFGL, and AGL conducts operations at the Damang gold mine to the north of Tarkwa.

Bogoso / Prestea Gold Mine (“Bogoso”) is an open pit mining operation owned and operated by Bogoso Gold Limited which is 90% owned by Golden Star Resources Limited (“Golden Star”) and 10% by the Government of Ghana, and lies south of Bogoso Township in the west of Ghana approximately 120 km from the port of Takoradi.

Iduapriem Gold Mine (“Iduapriem”) lies 6 km south of Tarkwa and is an open pit mining operation owned and operated by AngloGold Ashanti Limited (“AngloGold”), with 10% held by the Government of Ghana.

Technical information on Bogoso and Iduapriem is available in public domain documents published by Golden Star and AngloGold respectively that are available on these companies’ websites.

Akoon Gold Mine is situated to the north of Tarkwa and was an underground operation from 1912 to 1999. Gold Coast Resources Inc. currently owns an option on this closed facility.

10 MINERAL RESOURCES

10.1 Introduction

The process of estimating the Mineral Resource at Tarkwa involves the use of a number of factors based on historical results and planned dilution. Both exploration and grade control drill results are used for geological modelling and grade interpolation. Currently, Mineral Resources are classified according to the guidelines set out in the South African Code for Reporting Mineral Resources and Mineral Reserves (the “SAMREC Code”). SRK considers that the derivation of the Tarkwa Mineral Resource and Mineral Reserve also conform to the definitions and guidelines prepared by the CIM Standing Committee on Mineral Resources and Mineral Reserves and approved by the CIM Council of the Canadian Institute of Mining, Metallurgy and Petroleum in August 2000 (the “CIM Standards”).

Historically, the Mineral Resource model derived from exploration drilling, has consistently underestimated the tonnage when compared to the production results. This has led GFGL to carry out a comprehensive study of the historical results comparing the original wide spaced exploration drilling (diamond cored), the grade control (RC) drilling and the production data from individual pits.

The current 2004 model replaces the previous model (2001) and has been produced using the data and assumptions which have resulted from a two year study. The methods used for geological modelling, calculation of dilution, and grade interpolation have not been changed since the 2001 model. The inclusion of sedimentologically based domains is, however, new. In addition, a tonnage factor has been introduced to the Mineral Resource estimates in an attempt to better reconcile the actual production tonnage with that estimated from the exploration model.

10.2 Geological Modelling

10.2.1 Modelling Procedures

The process for creating the geological model used as the basis for the Mineral Resource has changed recently. Previously, the orebodies were modeled as a series of three dimensional (“3-D”) footwall and hangingwall digital terrain model (“DTM”) (triangulation) surfaces using the results from the available drilling. GFGL has now switched to producing a 3-D wireframe solid model for each reef based on block modelling of the reef thickness which produces a more realistic estimate of volume.

The first stage of modelling the exploration areas is to create a footwall triangulation surface using the intersection point in each borehole. The vertical thickness (“VT”) of the reef is then calculated for each borehole and this variable is interpolated into a 25 x 25 m block model using an inverse distance squared model. The interpolated VT value is added to the footwall triangulation surface to create a series of 25 x 25 m spaced points which are triangulated to create a physical hangingwall surface.

Currently, the Kotraverchy, Akontansi and Teberebie orebodies have not been re-modelled in this way (86% of Mineral Resource). The Pepe and Mantraim North areas are currently using the new 3-D surface method for geological modelling. Plans are in place to convert the remaining areas over to the new method although the timeframe for this is not in place.

Wireframe modelling is carried out using a set of guidelines which have been drawn up on site. The purpose of this is to standardize the modelling procedure and provide GFGL geologists with a standard protocol for the following:

- risk area identification;
- database checks;
- wireframe checks; and
- statistical checks of validity.

The geological modelling is initially based on the exploration diamond core drilling. However, where closer spaced (25 m) RC drilling has been carried out for grade control, the assay results and drill logs from the RC data are combined with the results from the diamond drilling. The inclusion of grade control drilling in the modelling procedure has led to significant changes in the position of the orebodies in some areas of the operation, when compared to the initial model based on wide spaced (100-200 m) exploration drilling. In some cases these changes are manifested as changes in the elevation of the individual reefs by up to 20 m in places due to revised interpretations. This will influence the stripping ratio in the immediate area and therefore will affect the pit optimization.

The inclusion of the closer spaced drilling also allows better definition of variations in orebody thickness. However, there does not appear to be a significant difference between the original modelled thickness and that produced using the grade control data.

The orebodies at Tarkwa are cut by numerous faults which generally run perpendicular to the strike and are predominantly reverse faults. Movement on the faults is in both dip and strike directions, although vertical displacements are generally less than 20 m. The faults have been modelled as 3-D planes and the orebody reef models have been clipped against these faults to prevent duplication of reef volumes.

A number of igneous intrusions also cross cut the reef orebodies and can cause areas to be sterilized. However, the major intrusions have been identified during the exploration drilling, modelled as 3-D wireframes and taken into account in the resource estimation process. Minor intrusions do occur which are not picked up by the initial exploration drilling at the 100 m spacing. However, these are usually picked up by the grade control drilling.

SRK has reviewed the geological modelling procedure and protocols and is in general agreement with the methodology employed. It is obvious that the exploration drilling is not accurately defining the location and shape of the orebody on a local scale and the updated

model is still underestimating tonnage. However, the grade control drilling appears to be adequate and is currently running approximately 18-24 months ahead of mining which allows the changes to the geological model between exploration and grade control to be incorporated in the annual mine planning.

10.2.2 Domaining

A major new aspect to the Mineral Resource estimation procedure for the 2004 model is the modelling of specific sedimentological domains within individual deposits. The domaining procedure uses a number of sedimentological characteristics to define the domain boundaries for each individual reef. These characteristics are listed here in order of decreasing significance:

- Palaeocurrent direction has been mapped throughout the mine and indicates a radial pattern with the primary flow direction from the northeast and east. Locally, the current direction can be directly linked to gold mineralization in the proximal (up stream) areas of the deposit such as Pepe, Mantraim and Teberebie. The domains for these areas are defined as a series of narrow strips striking from north-east in Pepe/Mantraim through to east in the Teberebie area.
- Footwall control plays a more significant part in delineating domains as the distance from the source increases in the more distal areas of the mine such as Akontansi. The footwall control occurs as a result of sub cropping footwall beds normal to the flow direction which has disrupted the flow and formed a series of ridges. The footwall control domains tend to strike perpendicular to the flow current direction and the majority of the domains at Akontansi strike to the north-west.
- Reef thickness increases to the west with a corresponding decrease in grade and it is essential to take the thickness into account so as to restrict the interpolation of grade into areas of increased thickness. T3 time units are identified from diamond drilling and used to help outline the individual domains.
- Gold grade and accumulation are used in the local estimation to delineate pay shoots within individual domains. In the distal areas at Kotraverchy, the grade plays a more significant role in the delineation of the domains used for local grade interpolation.

SRK considers the development of a detailed sedimentological model for a deposit such as Tarkwa to be appropriate and the application of these domains during the grade interpolation procedure is providing increased confidence in the local grade estimation. It is obvious from the work carried out both at Tarkwa and at South African Witwatersrand Basin gold mines that an understanding of sedimentological controls on gold mineralization are essential for the production of enhanced local grade estimates. As additional drilling is completed, it is essential that the current models are updated as there are large areas of the current domains with only wide spaced drilling informing the model. In addition, the newer areas of the mine such as Kotraverchy require drilling over a wider area in order to improve the resolution of the current domains and in certain areas it may be necessary to further sub-domain based on structural complexity.

10.3 Tonnage and Grade Reconciliation

10.3.1 Application of Tonnage Factor

Detailed reconciliation studies have been carried out since the commencement of mining in the mid 1990s. It has been apparent, since that time, that the Mineral Resource estimated from the exploration data is significantly underestimating the tonnage of ore, when compared to the results from the belt weightometers, by some 10% on average, although this figure varies up to 30% in areas of high structural complexity. The grade reconciliation with the exploration model is generally good and the result is an increase in contained metal in the grade control/production data when compared to the exploration model.

Since 2002, a detailed programme of reconciliation studies and re-modelling has been instigated by GFGL in an attempt to identify where the discrepancy is occurring in the resource estimation process. This process has included re-modelling of specific areas, as well as detailed checking of the equipment used for calculating tonnages, and the drilling and sampling protocols used for both exploration and grade control drilling.

The results of this study have resulted in a tonnage factor being applied to that portion of the Mineral Resource model which is informed by diamond drilling only, with a minimum spacing of 100 x 100 m.

Figure 10.1 summarizes the results of the monthly tonnage reconciliation between the original and the current exploration models and the belt weightometer for the two year period between July 2002 and May 2004.

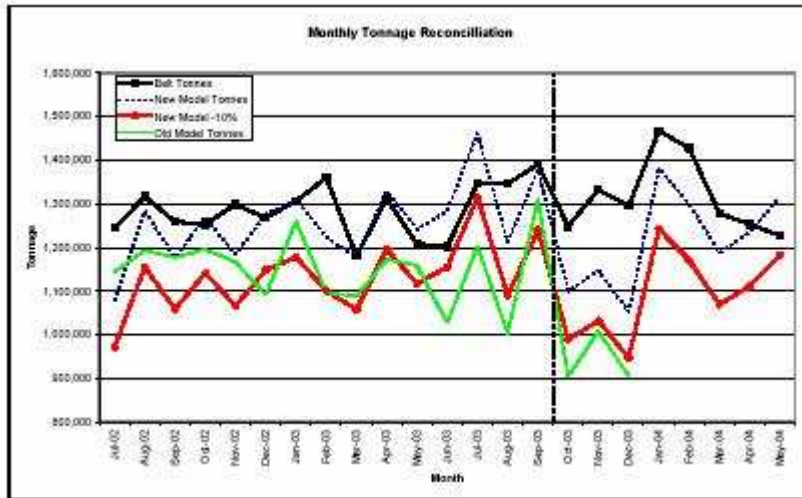
The monthly variation plot shows that the old model produced a consistent underestimation of tonnage within a range of between 4% and 30% underestimation by the resource model and at an average of 9%. The new resource model shows a similar range between the minimum and maximum variation of between 4% overestimation and 19% underestimation when compared to the belt tonnage. However, it should be noted that the new model includes a 10% tonnage factor which was not included in the old model and when this factor is excluded, the two models show very similar values (6-29% underestimation). The period since October 2003 has shown a consistent underestimation of tonnage by the new model including the 10% factor, at an average of some 8% while for the initial period between July 2002 and September 2003 the average variation was only 2%.

Additional factors which may be having an effect on the exploration tonnage estimate are:

- the density estimate;
- the duplication of reefs adjacent to reverse faults and thrusts, and areas of increased structural complexity which would not be picked up at the resolution of exploration drilling;
- conservative calculation of reef thickness during core logging when compared to RC estimates and visual grade control during mining;

- inaccurate modelling of the reef footwall which is then used as the basis for calculation of the exploration model thickness; and
- variations in topography due to use of aerial topographic surveys during exploration drilling and detailed surveys carried out during grade control drilling.

Figure 10.1: Monthly Tonnage Reconciliations July 2002 – May 2004



The results indicate that the new model, while providing a better reconciliation with the belt tonnage than the previous model, is still not providing a consistent reconciliation. It is likely that additional factors are influencing the tonnage distribution. Although SRK considers the factor to be appropriate given the current information SRK recommends that domaining exercises to delineate areas of higher and lower tonnage factors continue to be investigated.

10.3.2 Grade Reconciliation

Grade reconciliations of the new model and the old model when compared to the monthly average from the belt sampling indicate that the grade has not changed significantly between the two models and that both are providing a good reconciliation with the actual Run-of-Mine ("RoM") grade.

Grade reconciliation for the RC drilling is indicating an underestimation of the grade. A recent study by D F Bongarcon has indicated that current sample size is insufficient and an updated RC sample protocol has been initiated. However, it is too early to state whether this has had any effect on the RC grade estimate.

10.4 Dilution Parameters

The dilution model was changed in 2001 after a reconciliation study suggested that the previous 40 cm skin at 0.0 g/t Au (80 cm total dilution) was overly conservative. The current

model applies a 30 cm hangingwall and 20 cm footwall (true thickness) skin to the reef wireframe at a grade of 0.15 g/t. In some cases where reefs lie very close together and are mined together, the dilution skin between the two is given an average grade of the adjacent reef. Dilution is applied to the resource model separately from application of the tonnage factors described previously.

10.5 Data Analysis

All assay data is captured electronically and in hard copy format from SGS laboratories. Basic statistics are produced after completion of wireframe modelling to check the validity of samples which lie within the geological model as well as the stationarity of the domains. 1 m composites are produced from the hangingwall intersection with a minimum of 40 cm allowed at the base to allow for shorter composite lengths. Statistics are calculated for vertical thickness, grade, and metal accumulation.

High grade cuts are performed based on a visual examination of the data distribution on QQ plots. In most cases, the number of high grade values is less than 1% and these are cut only for the purpose of semi-variogram modelling and are included in the sample population used for the final grade interpolation. Diamond core exploration data is combined with RC grade control data where available to provide as much information as possible for semi-variogram modelling. The modelling is carried out within individual domains and the domain boundaries are regarded as hard boundaries with no influence allowed from adjoining domains. In some cases, insufficient data is available to produce down hole semi-variograms.

SRK considers the approach taken by GFGL to be appropriate, given the size of the database available. The process for dealing with high grade samples is acceptable given the relatively small number which could be classified as outliers. Furthermore, by excluding a small number of samples from the experimental semi-variograms the noise is significantly reduced and structural details are enhanced allowing more confidence in the final model.

10.6 Grade Interpolation

Grade is interpolated into 50 x 50 x 3 m blocks using a simple kriging ("SK") algorithm. Local mean values are calculated for each individual reef domain using a 400 x 400 m moving window and a minimum of 20 composites. The boundary of the domain is treated as a hard boundary for calculation of the local mean. Search parameters are based on the individual semi-variograms produced for each reef in each of the domains. A dip domain model is created for each domain based on the strike and dip of the triangulation surfaces which make up that particular reef model within the domain.

SK is carried out using all available data within the search radius, but the algorithm treats the domain boundary as a soft boundary and for blocks near the edge of the domain the search can include composites within a 50 m skin of the adjoining domain. This has the result of reducing the edge effect and therefore reduces any conditional bias for blocks around the edge of the domain. High grades are included in the kriging population used for grade interpolation. The data uses a combination of both RC and exploration composites.

Post

processing is carried out for calculation of recoverable resources using a Selective Mining Unit (“SMU”) of 10 x 5 x 3 m and based on an assumption of a 25 x 25 m grade control drill spacing and a log normal grade distribution for a number of cut-offs ranging from 0.5-2.0 g/t.

Block proportions are calculated using Datamine software and are cross checked against the physical wireframe volume and also against a block model produced using the Surpac software system. The results are within 0.01% of each other and are considered accurate. Each block is given a proportion of ore and waste to which a tonnage factor is then applied. The factor is also applied to the proportion of waste to take into account the increased tonnage of ore within the block.

10.7 Mineral Resource Statement

The Mineral Resource Statement in Table 10.3 represents the Mineral Resource at Tarkwa estimated by GFGL as at June 30, 2004. In SRK’s opinion the tonnage and grade estimates and classification are appropriate according to the SAMREC Code and CIM Standards.

Table 10.1: Tarkwa Mineral Resource Statement, June 30, 2004

Mineral Resource Classification	Mt	g/t	Koz
Measured			
open-pit	200.5	1.5	9,610
surface stockpile	4.3	0.9	120
Measured sub-total	204.8	1.5	9,730
Indicated			
open-pit	187.3	1.4	8,210
Indicated sub-total	187.3	1.4	8,210
Total Measured and Indicated	392.1	1.4	17,940
	Mt	g/t	Moz
Inferred			
open-pit	3.3	1.5	160
underground	16.3	4.0	2,070
Inferred Total	19.5	3.6	2,230

Mineral Resources are reported after inclusion of a 10% tonnage factor for the volume of ore material in a block and a corresponding reduction is applied to the waste tonnage. Dilution is applied to the blocks and a pit optimization is carried out using a USD 400 per ounce gold price. After calculation of the pit shell the dilution is subtracted from the blocks and the Mineral Resource quoted is essentially the tonnage of the undiluted ore blocks which lie within the outline of the un-engineered pit shell.

The underground Mineral Resource estimate is also based on a gold price of USD 400 per ounce which equates to a cut-off grade of 3.7 g/t for Akontansi and 2.7 g/t for Kotraverchy.

The Measured and Indicated Mineral Resources are quoted inclusive of those Mineral Resources modified to produce the Mineral Reserves.

Measured Mineral Resources are classified as those where the lower 90% confidence limit is within 11% of the mean. Indicated Resources are classified as those where the lower 90% confidence limit lies between 11 and 22% of the mean. Inferred Resources are classified as those where the lower 90% confidence limit is greater than 22% of the mean.

SRK considers that the use of the current 10% tonnage factor is acceptable given the detailed reconciliation studies which indicate that 10% is the minimum and therefore is providing a conservative estimate.

SRK has not recalculated the base information supporting the Mineral Resource estimates as derived from bore-hole and assay data, this given the extensive history of Tarkwa and geological investigations undertaken by GFGL and previous owners. However, SRK has undertaken sufficient checks through the course of its investigations to enable an appropriate level of reliance to be placed on such data, as provided.

11 MINING AND MINERAL RESERVES

11.1 Mining Operations

Mining operations at Tarkwa since July 2004 have been carried out on an owner operated basis. Prior to that, for four years, operations were carried out by a contractor AMS. This followed an owner operated cost assessment completed by GFGL, including a review of the capital and operating costs to be used for a base line comparison with contract mining. The review indicated that the most productive and cost efficient mining fleet was a combination of Liebherr R 994 excavators and CAT 785C dump trucks. Mining production requirements are now significantly higher than the previous throughput rate of 14.4 Mtpa in order to prepare for the increased material movement anticipated in January 2005 when the CIL plant is planned to be commissioned.

11.2 Mining Method

The mining at Tarkwa exploits seven distinctive areas, namely from west to east: Kotraverchy, Akontansi Ridge, Akontansi East, Pepe, Mantraim, West Hill, and Teberbie. The location of the mining areas is defined through the long term planning process. The boundaries of the pits are pegged out by survey. The area is cleared of bush and topsoil with a bulldozer. This material is later relocated for rehabilitation purposes. After clearing, RC grade control drilling is carried out, and the grade control geological models constructed. The short term plans and forecasts are updated with this information prior to the commencement of mining. From the highest point in the pit, material is free-dug or blasted to the first blasting reference level ("RL"). Fresh rock and transitional zones are drilled and blasted in 6 m lifts with excavation in 3 m flitches. Less weathered material is excavated without the requirement of blasting. Ore and waste is currently loaded by 8 hydraulic excavators (four Liebherr 994 and three Liebherr 984 and one Liebherr 994C). The current truck fleet consists of 24 rear-dump CAT 785C with a payload capacity of around 90 t and 2 CAT 773 rear dump trucks.

Mining is highly selective. Backhoe excavators are used to select off waste from the ore, and vice versa, to an estimated accuracy of approximately 30 cm. Pit geologists supervise all digging. Ore material is either RoM, delivered to one of two primary crushers, or low grade, which is stockpiled close to the north primary crusher, dependent on grade. Waste material is hauled to the nearest waste dump.

Blasting currently utilizes, and will continue to utilize, relatively close patterns and small diameter holes, typically a 3.2 x 3.6 m grid with a hole diameter of 102 mm. Slightly larger diameter holes and an increased grid size will be utilized in the partially weathered material while a decreased grid size will be utilized in harder material. The small diameter holes are used to preserve, as far as possible, the integrity of the ore/waste contacts, and allow for visual identification of the zones by the pit geologists.

Currently, approximately 1.5 million bank cubic metres ("bcm") of material is mined monthly (3.8 Mt). Total current RoM is approximately 1.2 million tonnes per month

("Mtpm"), which is expected to increase to roughly 1.6 Mtpm after the commissioning of the CIL Plant.

The primary objective of the scheduling is to maximize production from the lowest cost per ounce pits, without neglecting the development of subsequent mining areas.

11.3 Optimization

An optimization was conducted that formed the basis for all mine planning requirements. The following parameters were used:

- owner operator mining, July 2004 to end of mine life;
- Heap Leach North (9.7 Mtpa) to end of mine life and Heap Leach South (6.3 Mtpa) to 2010;
- CIL milling (4.2 Mtpa) from January 2005 to end of mine life;
- gold price USD 350 per ounce; and
- starting projected topography and mining face positions at July 2004.

Tarkwa has recently introduced a mine scheduling software package (Xpac) together with a financial evaluation package (Xeras) that have improved the methodology and the detail whereby Tarkwa estimates the Mineral Reserves.

Tarkwa has derived updated cost and project parameters for the optimization of the Tarkwa Mineral Resources, generally based on the 2004/5 budgets. SRK has reviewed the updated unit costs for mining, processing and administration with those used for the 2003 Mineral Reserves and considers that these are appropriate.

Tarkwa has been consistent in the methodology for excluding certain capital costs from the optimization process, specifically the costs for extending the heap leach pads and for the replacement of mining equipment. This approach would satisfy a corporate objective to maximise the development of the Mineral Resources and the total gold produced and revenue.

11.4 Mining Operating and Capital Costs

The mining costs that have been used for optimization have been derived on the same basis as the 2004/05 operating budget was prepared. There has been a material change from the average mining costs for 2003, due to the implementation of owner mining with significantly lower mining costs than for contract mining. There has been a significant increase in the cost of fuel (USD0.52/l for 2004 compared with USD0.35/l in 2003), however this has been offset by a reduced cost for the Maintenance and Repair Contract ("MARC") prices that were negotiated by GFGL.

Whilst the owner mining has demonstrated significantly lower unit mining costs than the contractor mining, the cost adjustment factors ("CAFs") that have been derived for the owner mining are higher than those that have been derived from previous studies. This has had the impact of reducing the quantity of deeper Mineral Reserves in certain areas.

The mining operating costs prepared for the 2004/05 operating budget were developed using the best available estimates of unit costs and rates for the new owner mining operation. As this is the first year of owner mining there is no operating history to compare with. The mining operating costs can be compared with those developed for the BFS in December 2002. Differences are explained by the unit costs that were finally contracted with Caterpillar Inc. for the MARC, and for the increased costs for fuel. The changes in operating costs as each unit of mining equipment ages, have been reflected in the projected annual operating costs.

The mining capital costs were developed in accordance with the mining equipment life as contracted for the MARC, and from the estimated annual usage of each unit of equipment. Additional mining capital cost has been provided for relocation of infrastructure as these are impacted by the expansion of the pits.

Table 11.1 illustrates the historical production for the past three fiscal years (July to June) at Tarkwa. Note that historical costs are based on contractor mining.

Table 11.1: Tarkwa Historical Production and Cash Costs

Production History	Year ended June Units	2004	2003	2002
Production				
Ore Mined	(kt)	17,164	16,067	14,630
Head Grade	(g/t)	1.43	1.46	1.58
Waste Mined	(kt)	43,987	27,521	28,986
Strip Ratio	(koz)	2.6	1.7	2.0
Tonnes treated	(kt)	16,000	15,210	14,914
Yield	(g/t)	1.1	1.1	1.1
Gold Produced	(koz)	550	540	544
Total Cash Costs	(USD/oz)	230	194	171

11.5 Stockpiles

The stockpiles as included in the Mineral Reserve comprise surface low grade mineralization accumulated from the mining operations since the start of mining at Tarkwa. The opening balance of Mineral Resource for this mineralised material (4.3 Mt at an average grade of 0.88 g/t) is based on the truck count for tonnage and grade control data for the grade of stockpile material placed.

SRK notes that a modifying factor of 95% tonnage recovery has been applied to the stockpile to convert it to a Mineral Reserve. SRK considers that this factor is appropriate.

11.6 Cut-off Grade

The heap leach cut-off grade and the CIL milling cut-over grades that have been applied to each of the deposits, have been based on the operating costs assumptions as used for the optimization. These include provision for royalty and head office management fees, operating costs for mining, processing and overheads / sundries, but have excluded any provision for extending the heap leach pads and for replacing mining equipment, that GFGL has considered to be capital costs. Further optimization of the cut-off / cut-over grades to

improve cash flows is carried out during the production scheduling as per the planning methodology used at Tarkwa.

11.7 Engineered Pit Designs

The optimization has been constrained in certain locations due to infrastructure constraints on the development of the open cuts. Where infrastructure can be relocated, the capital cost for this has been considered during the scheduling process. The CIL plant has been considered to be a fixture, and the optimization has been constrained to preclude relocation of this plant.

Engineering the pit cutbacks and thereby considering and including access ramps has reduced the average slope angles in certain of the deposits, from those average angles used for the optimization. With the benefit of the designs for the 2004 strategic plan, the average slope angles could be modified to more closely represent the influence of access ramps.

11.8 Geotechnical Constraints

SRK has previously recommended a range of geotechnical measures including the adoption of mapping and monitoring and the reduction of all slope angles by 5°. Tarkwa has now implemented these proposals, following training by SRK GFGL now carries out ongoing geotechnical assessment.

Generally, for long term slopes, there is a 12 m batter height and 8 m berm width, with overall slopes of 36-45° in the upper, weathered strata and 55-65° in the lower, fresh strata. If a ramp exists in the wall, the overall slope angle is effectively reduced. LoM plans are considered achievable with the above slope configurations.

Geotechnical staff has been assigned to collect geotechnical data for analysis and to advise on mine design. Wall monitoring has become routine and a preliminary series of piezometric boreholes have been drilled in order to monitor water movements. Appropriate software has been purchased to analyse wall failure potential and on-site users have been trained to use it in order to advise the mine planners. The data is regularly reviewed on-site (at least twice a year) by external geotechnical engineers in order to ensure that designs meet accepted standards. The maximum pit for the selected gold price as defined by the Whittle optimization, including mining dilution, forms the basis of the LoM pit design.

11.9 Scheduling

The schedule for the LoM has been determined for the following assumptions / constraints:

- limiting the total mining capacity to 100 Mtpa;
- closing the South Plant with effect from 2011; and
- during the cut-off optimization, limiting the tonnage of low grade stockpile being accumulated.

GFGL acknowledges that these specific constraints could be further optimized. GFGL has also identified a number of other strategic options that have the potential to further improve the project returns and these are planned to be investigated by GFGL during 2004 and 2005.

11.10 Mineral Reserve Statement

The Mineral Reserve Statement in Table 11.2 represents the Mineral Reserve at Tarkwa estimated by GFGL as at June 30, 2004. In SRK's opinion the tonnage and grade estimates and classification are appropriate according to the SAMREC Code and CIM Standards.

Table 11.2: Tarkwa Mineral Reserve Statement, June 30, 2004

	Mt	g/t	Koz
Proved			
open-pit	199.8	1.3	8,560
surface stockpile	4.1	0.9	120
Proved sub-total	203.9	1.3	8,680
Probable			
open-pit	147.7	1.3	6,050
Probable sub-total	147.7	1.3	6,050
Total Proved and Probable	351.5	1.3	14,730

The Mineral Reserve estimates are based on a gold price of US D350 per ounce. The Mineral Reserve is based on heap leach, CIL and owner mining cost. Proved Mineral Reserves are derived from Measured Mineral Resources and Probable Mineral Reserves from Indicated Mineral Resources.

SRK has reviewed the methodology used by GFGL at Tarkwa for the estimation of the 2004 Mineral Reserve. The generally low grade for the Tarkwa deposits makes the Mineral Reserve particularly sensitive to changes in the resource models, operating costs and the gold price. The increase in the Mineral Reserve between 2003 and 2004 is consistent with changes in the resource models and the gold price. For the planning methodology applied by GFGL, and for the operating cost assumptions as stated by GFGL, SRK considers that the derivation of the Mineral Reserve at Tarkwa to be appropriate and conform with the guidelines and definitions of the SAMREC Code and CIM Standards.

Table 11.3: Tarkwa Mineral Reserve Sensitivities

Gold Price	(USD/oz)	315	333	350	368	385	400
Proved and Probable	(Mt)	297.2	330.6	351.5	382.9	398.1	417.2
Reserve Average Grade	(g/t)	1.3	1.3	1.3	1.3	1.3	1.3
Contained Gold	(Moz)	12.5	13.8	14.7	16.0	16.6	17.4

GFGL has produced a series of Mineral Reserve sensitivities (Table 11.3) that provide an indicative estimate of the Mineral Reserves at a range of gold prices. These estimates are derived by factorising pit shells optimized at each gold price.

12 METALLURGY AND MINERAL PROCESSING

12.1 Metallurgy

12.1.1 Weathering, density, porosity

The degree of weathering of the gold-bearing conglomerates at Tarkwa is critical to the viability of the mine due to its effect on the gold extraction. The weathering has affected rocks near the surface by oxidation with consequent clay alteration, which in turn affects porosity, density and metallurgical characteristics of the deposit. From the outset the mine has sought to model the weathering alteration characteristics of the deposit. Initially, a qualitative visual estimate was used to gauge porosity, which was subsequently updated to a wetting test where the quantity and rate of water absorption was measured. The procedure currently in use is a direct measurement of the porosity percentage, or void space, through an immersion technique. 6,000 porosity and bulk density determinations have been made on 5 cm core samples taken every 50 cm in the various reef units and in some of the intervening quartzite beds from 1,070 drill holes at Pepe, Mantraim, Akontansi and Kotraverchy.

The weathering profile, hence porosity, of the ore varies from surface as this relates to the fluctuations in ground water levels, which generally vary from 1 to 40 m. Faulting, fracturing and primary lithologic permeabilities modify the depth to porosity relationship. The mine uses a manual method of contouring the different porosity values (P Codes). The weathering zones are shown in Table 12.1.

Table 12.1: Ore Weathering Characteristics

		%			Range (%)
Highly Weathered	Beta-1	>5	5	<2.57	>90
		4-5	4	2.57-2.59	86-90
Weathered	Beta-2	3-4	3	2.59-2.62	82-86
		2-3	2	2.62-2.65	75-82
Highly Competent	Gamma	1-2	1	2.65-2.67	60-75
	Delta	0-1	0	2.67-2.70	<60

The ore is a free milling conglomerate with negligible sulphide content. In terms of the less heap leach amenable ore types, the gravity concentration recoverable gold component varies from 30% to 70%. The optimum grind size for stirred tank leaching corresponds to a P_{80} of 75 μm . The ore contains a mild preg-borrowing component necessitating the use of a CIL type of circuit. In this configuration, based on laboratory tests and modelling, a recovery in excess of 95% in a leach residence time of 24 hours is believed to be readily achievable.

12.1.2 Methodology for quantitative prediction of metallurgical recovery

Using the P Codes and the geological block model reef zones, the gold dissolution may be accurately predicted for the heap leach operation. The average relative density values of the zones, together with the predicted gold dissolutions, for the Pepe, Mantraim/Teberebie and Akontansi/Kotraverchy deposits are shown in Table 12.2 below.

Table 12.2: Heap Leach Dissolution Predictions

P Code	Pepe		Mantraim/Teberebie		Akontansi/Kotraverchy	
	Average Relative Density	Gold Dissolution %	Average Relative Density	Gold Dissolution %	Average Relative Density	Gold Dissolution %
0	2.68	60	2.68	50	2.67	50
1	2.65	67	2.65	60	2.65	60
2	2.6	79	2.61	75	2.61	75
3	2.59	85	2.59	82.5	2.60	82.5
4	2.58	88	2.58	86	2.59	86
5	2.44	91	2.45	91	2.47	91

12.2 Mineral Processing

12.2.1 Introduction

Tarkwa currently utilizes conventional heap leach techniques to recover gold. Operations consist of two separate heap leach circuits, the Tarkwa plant (North Plant) and the Teberebie plant (South Plant). The North Plant was commissioned by GFGL in 1998, while the South Plant was originally commissioned in 1992 by Teberebie Goldfields Limited and, subsequent to GFGL's purchase in August 2000, was re-commissioned at a cost of USD1 M. The two plants each have multiple stage crushing processes combined with agglomeration and a combined capacity of approximately 1.2-1.3 Mtpm.

The BFS was based on incorporating the then current 14.4 Mtpa heap leach operation, with a newly constructed 4.2 Mtpa CIL Plant and owner mining. The addition of the CIL Plant complements the existing heap leach operation by providing processing flexibility and with a means to target those ores with a much lower P Code that are less amenable to heap leaching.

12.2.2 Heap Leach Process

For LoM planning, heap leach production is now based on 815,000 tpm at the North Plant and 530,000 tpm at the South Plant. This is similar to the 12 month average achieved in F2004.

Crushing & Agglomeration

The crushing facilities at the North Plant were commissioned by GFGL in March 1998 at an original design throughput of 1,350 tonnes per hour ("tph"). The plant is currently operating at a mean rate of 1,400 tph with surge rates up to 1,700 tph and an overall availability of 85%. The 3-stage plant currently crushes to a P_{80} of 12.5 mm. The crushing facilities at the South Plant currently operate at a mean rate of 800-850 tph. The 4-stage plant crushes to a finer product than the North Plant with a product P_{80} of 9 mm.

Agglomeration at the North Plant is carried out in three agglomeration drums with a feedrate of approximately 800,000 tpm (436 tph per drum). Agglomeration at the South Plant is carried out through a single agglomeration drum which has a nominal rate of 480,000 tpm (784 tph) but is operating above this. The South Plant drum is currently operating towards

the upper limits of its capacity. Cement consumption is similar to that at the South Plant.

The original project design criteria specified cement consumption of 6 kg/t for less competent ore and 4 kg/t for the balance of the ore. Early operations started at significantly higher cement consumption rates of up to 12 kg/t, but this has been progressively reduced to the current level of 4 kg/t. Cement addition may reduce further if the proportion of more competent ore in the feed increases.

Pad and Ponds

The design philosophy for the leach pads has been by means of a modularized approach using predefined cells to accept the stacked ore. At the North Plant, cells have been laid out in six phases with detailed design done for the first five.

Table 12.3: Leach pad capacities

Phase	Capacity remaining Mt	Approximate Life (months)	Construction period
1 – 2	9.5	12	
3	17.3	21	
4	31.5	39	August 2004 - March 2006
5	42.8	53	August 2008 - March 2010
Total	101.1	125	

The figures in Table 12.3 above are based on the base date of July 1, 2004 and production rate of 815,000 tpm.

Prior to GFGL's acquisition of the South Plant, Teberekie Goldfields Limited had placed approximately 34 Mt on a series of heap leach pads. Subsequent to the acquisition, GFGL completed extensive remediation and repair work at the leach pads and ponds prior to the initiation of leaching activities.

For the LoM, it is proposed that pad expansions at the North Plant be conducted in two phases: phase 4 with module widths of 75 m and lengths of 800 m, and phase 5 with module widths of 75 m and lengths of about 1,100 m. The heap geometry allows for lift heights of 10 m and 6 lifts for a maximum height of 60 m. Production rate design is 815,000 tpm.

For the LoM, the requirement at the South Plant is expected to be met through existing pad space and pad expansions (12.5 Mt) and two new valley leach areas (49 Mt). The life is 116 months based on 530,000 tpm. The heap geometry at the South Plant leach pads is similar to the North Plant leach pads, except the lift height is 6 m.

At both the North and South Plant heap leach cells are formed by first adjusting the topography to form a well-graded modular heap leach pad followed by a compacted 450 mm low permeability clay liner and then by a 1.5 mm thick high-density polyethylene ("HDPE") plastic liner. A layer of geofabric is placed over the HDPE liner to protect it from the pad gravel drainage layer that is placed prior to the stacking of ore. The pad gravel consists of 600 mm of +6 mm to 19 mm screened ore product from the open pit with 150 mm diameter

slotted drainage pipes placed under the gravel at 6 m centres.

At the North Plant, the process ponds consist of five ponds, namely the barren pond, the pregnant pond, the intermediate pond, the excess solution pond, and the detoxification/treatment pond. All of the ponds are double HDPE lined with leak detection systems. The solution treatment system was originally designed by Kappes, Cassidy & Associates Australia Pty Ltd. ("KCA") to handle 600,000 tpm and operational spray rates of 660 m³ per hour nominal. Since start up, treatment rates have been expanded to the current rate of 1140 m³/h. A new excess solution pond has been constructed in conjunction with the construction of the third phase (cells 16 to 22) and a further expansion of excess pond capacity is required for the phase 4 expansion. Additionally, a solution overflow containment dam is in use to collect clean storm water from the pads and/or solution from the detoxification plant.

While the original construction of the process ponds at South Plant was to a lower standard than the ponds at the North Plant, GFGL completed extensive repair and remediation work that has provided facilities that will not likely require any further upgrades. In addition to repairing pond liners, leak detections systems and reconstruction of lined structures and embankments, GFGL also constructed additional solution and storm water management structures.

A schematic of the heap leach process is shown in Figure 12.1.

Leaching and Adsorption

The basic design parameters for the leach cycle in the feasibility study includes a 240 day period for a solution application ratio of 3.4 m³/t at the North Plant and up to 5.3 m³/t with the more competent ore. These parameters are based on both laboratory data and historical leach performance at Tarkwa. Further upgrades to the solution reticulation system to meet the additional requirements (increase by some 60%) over the LoM are planned or are currently underway.

Three adsorption column types currently operate at the site. The North Plant is currently equipped with three trains of sealed-top column absorbers and five 5-stage tower columns. The South Plant is served by two trains of cascade type columns and two 5-stage tower columns. The current adsorption systems have adsorption efficiencies for the North Plant averaging 93% and 90% for the closed-top and tower column respectively while the South Plant averages 94% and 90% for cascade and tower columns respectively.

It is expected that over the LoM, cyanide consumption will increase marginally as the proportion of less weathered rock (higher P Code material) increases. Current cyanide application rates are roughly 0.42 kg/t at the North Plant and 0.48 kg/t at the South Plant. This is expected to increase to an average over the LoM of 0.55 kg/t and 0.62 kg/t for the North Plant and South Plant respectively.

All flows from the leach pad and active process areas are collected and excess solution is detoxified in separate processes at the North Plant and South Plant. Detoxification is carried out using sulphuric acid and hydrogen peroxide at approximately a 6X stoichiometric ratio. The regulatory target CN_{wad} is 0.1 ppm. The mine target is 0.05 ppm and levels of 0.01 ppm are routinely achieved. Design criteria on the detoxification ponds is based on an 48-hour residence time. Current capacity for the North Area is $800 \text{ m}^3/\text{h}$ while the required detoxification capacity for the South Area is $300 \text{ m}^3/\text{h}$.

At both the North Plant and the South Plant, there is no average annual make-up water requirement. However, to cover extreme conditions, a make-up water supply of $385 \text{ m}^3/\text{h}$ for the North Plant and $100 \text{ m}^3/\text{h}$ for the South Plant is in place.

12.2.3 CIL Process

With the anticipated increase in low P type material the recovery from the heap leach operation would decrease. Various studies, culminating in a feasibility study, were done to provide a solution. As part of the feasibility study, GFGL conducted an evaluation of the potential of various schemes and chose a conventional milling and CIL circuit to complement the existing heap leach circuit. The nameplate capacity of the new section is 4.2 Mtpa. Based on the physical characteristics of the ore, metallurgical testwork results and the proposed operating philosophy, the following treatment plant flow sheet has been selected for the mill-CIL Plant:

- single stage primary gyratory crushing (54" x 74" crusher) fed by direct truck dumping or front end loader (the RoM dump pocket is larger than the original feasibility study design);
- live crushed ore stockpile with reclaim;
- single stage semi-autogeneous grinding ("SAG") milling (8.22 m diameter x 12.2 m SAG mill with a dual pinion two 7,000 kW drives) in closed circuit with eight cyclones (the SAG mill is wider and has larger motors than the feasibility study design);
- a leach stage followed by seven CIL stages for optimum stage efficiency and minimum carbon inventory; and
- a 15 t Anglo American Research Laboratory ("AARL") / Zadra elution circuit with electrowinning using sludging stainless steel cathodes.

A schematic of the CIL process is shown in Figure 12.2. Apart from the changes noted above, the plant has been designed to allow for an easy expansion to 8.4 Mtpa. This involved larger drive trains for the conveyors and layout changes so that the envisaged additional equipment can easily be retrofitted. The capital required for this was USD2.1M. There has been an additional cost of USD7.1M due to adverse exchange rate movement. Milling is anticipated to start late September 2004.

Crushing, Coarse Ore Stockpile and Reclaim

RoM ore is loaded into the crusher dump pocket by either a CAT 992 or directly dumped from CAT 785 haul trucks.

The RoM hopper has a live capacity of 225 t and feeds directly into a 1,372 mm x 1,880 mm (54" x 74") primary gyratory crusher. The gyratory crusher handles RoM ore with a maximum lump size of 1,100 mm and is fitted with a rock breaker to handle oversize rocks. Primary crushed material discharges to a 300 t surge chamber directly underneath the crusher and feeds through a variable speed apron feeder to a 1.2 m wide conveyor belt for discharge onto the crushed ore stockpile. The crushed ore stockpile has a 12,600 t live capacity, which is equivalent to 24 hours of SAG mill feed. Material from the crushed ore stockpile is reclaimed via three apron feeders with each feeder capable of providing the SAG with ore at the full mill feed rate.

Grinding and Classification

The grinding circuit consists of a single stage SAG mill operating in closed circuit with 8 x 650 mm hydrocyclones. The selected duty for the SAG mill is 525 tph with a speed range of 65% to 75% critical speed availability. The SAG mill is 8.22 m in diameter by 12.2 m in effective grinding length with a dual pinion 2 x 7,000 kW drive and operates with a 10% volumetric ball loading. Operating with an 18% ball loading will be possible. The structural design has been for a 25% loading. Variable speed control will provide flexibility for processing of the various ore types and blends.

The discharge from the SAG mill is screened over a 2.4 x 6.1 m horizontal vibrating screen into the 60 m³ mill discharge hopper. Mill discharge pumps deliver the slurry to classifying cyclones to provide a product size of 80% passing (P_{80}) 75 μ m. The design concept for SAG mill discharge has incorporated provisions to install a trommel and/or a gravity circuit at a future date, should either recycle pebble crushing or gravity concentrators be required.

Studies indicated that below average amounts of grinding energy are required by the various ore types, however, the abrasion index was found to be quite high. The latter implies that liner and media consumption will be above average for all ore types.

Leaching and Adsorption

Cyclone overflow is introduced onto one of two 2.4 m wide x 6.1 m long trash screens with the underflow gravitating to a 29 m diameter high rate thickener. The thickener underflow is pumped to the leach/adsorption circuit while the overflow gravitates to a process water tank for return to the SAG milling circuit. Flocculant dosing at the thickener is closely monitored to maintain thickener underflow density to 50% solids.

The leach/adsorption circuit consists of one leach and seven adsorption tanks each with a live capacity of 3,255 m³. The tanks are interconnected with launders and slurry will flow by gravity through the tank train. Each tank is fitted with dual stage mechanical agitators with hollow shafts to facilitate aeration air discharge at the base of the CIL tank. In addition, tanks are fitted with two mechanically swept woven wire intertank screens to retain carbon.

Cyanide addition is staged into the early leach tanks with automatic control using an on-line cyanide analyzer. Fresh or regenerated carbon enters the circuit in the last adsorption tank

and is advanced through the tank column counter-current to the slurry flow using a recessed impeller pump.

Slurry discharge from the last adsorption tank gravitates to two 2.4 x 6.1 m vibrating screens. The screens are designed to recover any coarse carbon leaking from the intertank screens for return to the CIL circuit.

Elution and Gold Recovery

Loaded carbon is recovered from tank one in the adsorption column and transferred into a 15 t capacity acid wash column. Transfer and fill operations are controlled manually while all other aspects of the acid wash and the pumping sequence are automated.

During the acid wash, a dilute solution of hydrochloric acid is pumped into the bottom of the column to remove contaminants from the carbon. Following the acid wash, the column is rinsed with water prior to elution. Treated water is pumped through a solution heating circuit and injected into the elution column with cyanide. The loaded carbon is pre-soaked in the caustic/cyanide solution for 30 minutes to elute the gold. After the soak period, the pregnant eluate is rinsed from the carbon and transferred to two elution tanks in preparation for electrowinning.

Direct current is passed through stainless steel anodes and stainless steel mesh cathodes within the electrowinning cells and the electrolytic action causes the gold in solution to precipitate on the cathodes. Electrowinning will continue until the solution is depleted of gold, which will take nominally 8 hours. Barren eluate solution is returned to the leach feed tank, allowing any residual gold to be recovered. The cathodes are washed with high pressure spray water and the gold slime is recovered in a plate and frame filter press. The gold sludge filter cake is dried in calcination ovens and boxed for transport to the smelting site.

Barren carbon is transferred to a 625 kg/h horizontal regeneration kiln circuit where it is regenerated at 650-750°C. The regenerated carbon discharges to a quench tank then pumped over a carbon sizing screen located above the 7th CIL adsorption tank.

12.3 Processing Operating Costs

Table 12.4 shows the historical performances of the heap leach plants at Tarkwa. Historically throughput has exceeded budget in the three previous years and although operating costs have exceeded budget in two years on a unit (per tonne) basis processing operating costs have been at or under budget for two years and only 2% over budget in 2004.

In the LoM Plan the heap leach plants are projected to process up to 16Mtpa, which is the tonnage achieved in 2004. The LoM Plan unit operating cost is based on the actual cost achieved in 2004.

Table 12.4: Tarkwa Heap Leach Plants– Historical Performance

FY End June	Throughput Budget (Mt)	Throughput Actual (Mt)	Costs Budget (USDM)	Costs Actual (USDM)	Costs Budget (USD/t)	Costs Actual (USD/t)
2002	13.8	15.0	34.25	32.66	2.49	2.18
2003	14.6	15.3	34.31	35.90	2.35	2.34
2004	15.4	16.0	35.88	38.21	2.33	2.38

There is no historical data for the CIL Plant and the projected throughput in the LoM Plan of 4.2 Mtpa is the same as the nameplate capacity. The unit operating costs in the LoM Plan are based on the BFS costs, which have been derived from first principles and benchmarked.

A review of the performance of the heap leach plants over the past three years shows that, compared to budget, feed has been higher, grade has been marginally lower, recovery has been met and operating costs have been comparable. As the CIL Plant is yet to operate, there is no past performance. Overall, in SRK's opinion the basis of the LoM Plan is reasonable.

Figure 12.1: Schematic of the Heap Leach Process

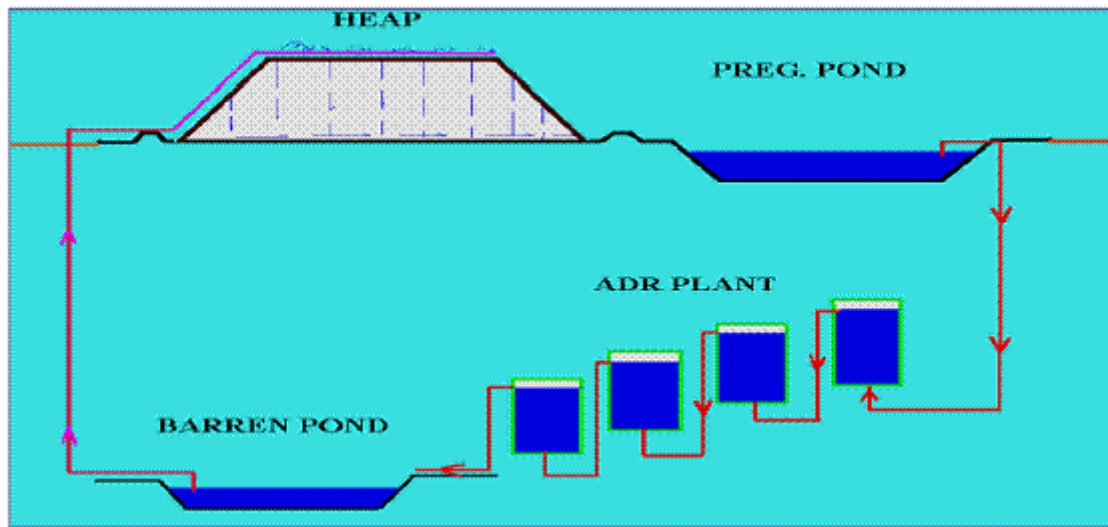
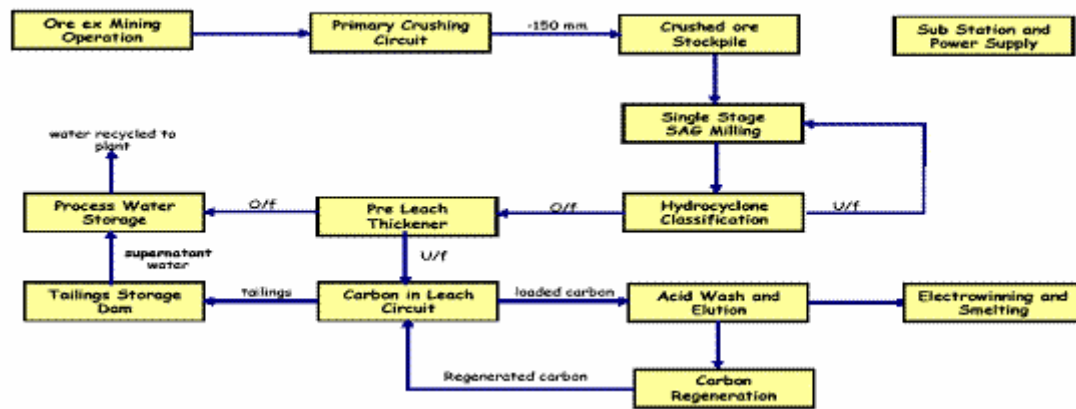


Figure 12.2 : Schematic of the CIL Process



13 TAILINGS

13.1 Introduction

At the time of this report, the tailings storage facility (“TSF”) has been constructed, but will only be commissioned in December 2004. The designers are Knight Piésold (Ghana) Limited (“Knight Piésold”), a company with an established reputation for the design of such facilities. Initial construction was under the supervision of Lycopodium and, subsequently, the supervising engineer was the owner, GFGL. Knight Piésold was responsible for quality assurance throughout the construction period. The TSF has a design capacity of 84 Mt, equivalent to 60 million m³ at a consolidated dry density of 1.4 t/m³. The monthly tonnage is 350,000 t, and the design life is 20 years. The TSF is a hillside impoundment south of the existing north heap leach pads. The containment is formed by a zoned earthfill embankment of 1,400 m length constructed parallel to the east-west ridge forming the northern boundary, and two shorter earthfill embankments constructed at right angles to the main embankment, and abutting into the ridge. The location of the facility was changed from the original position selected during the feasibility design, by moving it along the ridge, approximately 400 m closer to the CIL plant. This change was made for optimum use of the available space, and to allow for possible future extensions of the facility beyond the present 20 year design life.

13.2 Storage Capacity

The design capacity of the TSF of 84 Mt is less than the tonnage in the LoM Plan (99 Mt). A provision has been made for an expansion of the TSF by the addition of a new paddock on the west side, and this will provide the capacity for the additional tonnage. The additional cost of this extension will be approximately USD3.4 M.

13.3 Founding Conditions

A geotechnical investigation of the proposed site showed that the embankments will be founded on competent residual soils and weathered rock. The major part of the basin is on weathered quartzite at about 4 m depth overlain by residual silty sand, and a silty sand alluvium or colluvium to a maximum depth of 2 m. The ridge forming the northern boundary is of fractured and faulted phyllite. Fresh unweathered rock is at depths of between 3 m and in excess of 15 m below natural ground level, but typically at 4 m under the embankments. The residual soils within the basin area are fine-grained and are expected to have a low permeability when compacted.

13.4 Tailings Water Quality

Geochemical testing of the tailings indicates that the material presents a low environmental risk, and will not generate an acidic leachate or a leachate with high metal contents. These tests did not use process water and did not include process cyanide. Confirmatory tests will be carried out when representative process water is available. The TSF will be operated in accordance with the “South African Guideline on Cyanide Management for Gold Mining” prepared by the Chamber of Mines of South Africa.

13.5 Embankment Construction

The TSF will be raised in stages, and will finally occupy an area of approximately 145 ha, with a catchment area of 190 ha. A starter embankment has been constructed to provide storage for the first two years of operation. Thereafter the embankment will be raised annually to a maximum final height of 50 m. The starter wall has been formed using a combination of mine waste and low permeability fill from borrow areas located within the facility area. The embankments comprise a downstream bulk fill zone placed by the mining contractor using mine waste, a compacted transition zone constructed by an earthworks contractor using mine waste, and an upstream sealing layer constructed using low permeability material from borrow areas within the TSF basin. The sealing layer has been extended into a key which has been excavated at the upstream toe, to block the permeable surface zone, and minimise the seepage of water under the embankment. The Stage 2 works will be constructed on top of the Stage 1 embankment crest and thereafter the embankment will be raised using low-permeability fill by upstream construction with annual lifts.

The facility has been sized so that the average rate of tailings rise is low enough to provide adequate drying time for the tailings, dropping from an initial high rate of rise to 2 m per annum. When the facility is managed in accordance with the operating manual, a consolidated beach will be formed, capable of supporting upstream construction.

13.6 Underdrains

A toe blanket drain has been placed beside the inner toe of the embankment, and a network of finger drains has been installed over part of the basin, beneath the area to be occupied by the decant pool. These drains feed a substantial double concrete tower sump adjacent to the inner wall of the embankment and accessible from the embankment. A submersible pump will return drain water to the decant pool. On part of the outer toe of the embankment, on the north-west side where the initial pond will be located, a seepage cut-off trench has been excavated, to collect any seepage passing under the embankment. It will be directed to a sump and pumped back into the decant pool.

13.7 Seepage Prediction

As part of the design process a seepage assessment was undertaken using the software SEEPW. The assessment indicated that providing the facility is managed in accordance with the design intent, under average climatic conditions the phreatic surface through the embankment should be low and seepage rates through and under the embankments should also be low. Seepage through possible high permeability zones on the southern abutment may be significant, and monitoring boreholes are to be installed in the vicinity.

13.8 Tailings Delivery

Tailings will be pumped to the TSF from the CIL Plant via a 500 mm diameter HDPE pipeline installed in an unlined earth containment bund along its overland length of 2.2 km (from the process plant to the south-east corner of the TSF). From this point the tailings will be sub-aerially deposited into the facility through a combination of open-ended discharge and spigotting to form an extensive uniform beach with the objective of maximising in-situ tailings densities. Deposition will be from all three embankments to form a beach that slopes

downward towards the north-central part of the facility, where the supernatant pond will form, remote from all confining embankments.

13.9 **Return Water System**

Clarified supernatant water will be returned to the plant from a vertical metal decant tower. Three steel towers have been constructed to decant water at different stages of the life of the facility, as the pool moves up the slope. The towers are surrounded by filter fabric and rock fill, with circular apertures allowing the entry of water. The water will be removed using submersible pumps, and the towers therefore act as sumps for these pumps.

A maximum return rate of 200 l/second from the facility will be required, and water will be returned to the plant via an HDPE pipeline running alongside the tailings delivery line. The supernatant pond will gradually move north towards the final pond position adjacent to the ridge in the middle of the facility and remote from all confining embankments. Pumping of return water will be from the final, most northerly tower.

13.10 **Water Balance**

A water balance model was developed for the TSF and applied to average and extreme rainfall conditions. The model considered the effects of supernatant water, seepage, rainfall run-off, and also allowed for the incorporation of input and output from the heap leach operation. The water modelling indicated that the TSF water balance is slightly positive, generating a moderate water surplus over the life of the facility. In extreme rainfall conditions, with precipitation greater than a 1 in 50 year event, it will be necessary to discharge water, and this will be sent to the heap leach detox plant for treatment and discharge. In any lesser event, Knight Piésold has confirmed that there will be no discharge, though the pool on the surface of the facility will remain enlarged for up to a year or more, until the excess has been removed as plant make-up water.

13.11 **Operating Manual**

The TSF will be operated in accordance with an operating manual, which will define responsibilities, operating procedures, monitoring procedures and emergency responses.

13.12 **Monitoring and Auditing**

The monitoring programme will be included in the operating manual. The monitoring installations comprise sampling wells for water quality, stream sampling points, levelling points and embankment piezometers for the monitoring of stability. There will be fixed inspection and reporting procedures for monitoring of both operations and performance. All monitoring installations and procedures will be in accordance with the requirements of the Ghanaian EPA and with good international practice. The TSF will be inspected quarterly by an independent tailings engineer.

13.13 **Risk Assessment**

A risk assessment has been carried out in accordance with the “ANCOLD Guidelines on Tailings Dam Design, Construction and Operation” of October 1999, and the “ANCOLD Guidelines on Assessment of the Consequences of Dam Failure” of May 2000. It was concluded that, while the risk will be low if the TSF is constructed and operated correctly, the

consequences of a failure would be severe. Consequently, strict standards of design and operation must be adhered to, and an Emergency Action Plan (“EAP”) is required for implementation in the event of an embankment failure and subsequent flow slide. This EAP is in preparation, and will be included in the operating manual.

13.14 **Rehabilitation and Closure**

The outer slope of the embankment will be vegetated during the operating phase. Topsoil has been stockpiled from the basin area for final rehabilitation.

During the final period of operations, tailings deposition will be carefully controlled to form the final geometry, to minimise the earthworks required. On closure, the surface of the TSF will be left to dry and consolidate, and a final permanent spillway will be cut in natural ground through the ridge forming the southern boundary of the facility.

All infrastructure associated with the TSF, including pipelines, exposed sections of the decant towers and power lines will be removed.

The surface of the TSF will be vegetated and the vegetation will be maintained. Seepage in the sumps will be monitored, treated if necessary and released. When monitoring shows that treatment is no longer necessary, the sumps will be backfilled and the flows released directly to the environment.

14 ENVIRONMENT AND WATER MANAGEMENT

14.1 Environmental policy

The management of GFGL is committed to adherence to policies and responsible operating practices which promote the conservation or enhancement of the natural and social environments in which the company operates. The Environmental Policy is included as Appendix D.

14.2 Environmental Assessment and Permitting

14.2.1 General

Tarkwa has been assessed and is operated in accordance with Ghanaian environmental requirements, administered by the Environmental Protection Agency (“EPA”), and holds the required current Environmental Permit and Environmental Certificate. The Environmental Certificate follows the Environmental Permit. The operations have been the subject of the following:

- Environmental Impact Statement (EIS 1996).
- Environmental Action Plan (1996).
- Environmental Management Plan (“EMP”) (1999).
- Costed Reclamation Plan and Conceptual Decommissioning Study (2001).
- Supplementary Environmental Impact Statement for the South Facilities (2001).
- Supplementary Costed Reclamation Plan for the South Facilities (2001).
- Supplementary Environmental Management Plan for the South Facilities (2002).
- Environmental Management Plan (2002).
-

The EPA also requires the following for the duration of the operations:

- monthly monitoring returns;
- an annual environmental report; and
- an update of the Environmental Management Plan at intervals of three years (the next is required in 2005).

The Environmental Certificate issued by the EPA covers all activities, including the CIL plant and the tailings facility (see Section 14.2.2 below). The airstrip has an Environmental Permit, but has not yet received the subsequent Environmental Certificate. No problems are anticipated. The EPA may suspend or revoke an Environmental Permit or Environmental Certificate if it is considered necessary.

14.2.2 Permitting for the new C IL plant, Phase IV Project

The original mine plan incorporated a phased expansion of operations involving deepening the open pits and a transition from near surface deposits to harder less porous ores. The Environmental Impact Statement (1996) included a description of the CIL plant and tailings facility as part of the project development.

In its review of the environmental requirements for the Phase IV Project, the EPA requested an Addendum to the “Costed Reclamation Plan and Environmental Management Plan” and “a full report on the operations and management of the CIL Plant, tailings storage facility, and the mine pits”. The scope of the latter study was later changed by the EPA to a “Supplementary Environmental Impact Statement”. The following documents were prepared and submitted:

- Supplementary Environmental Impact Statement for the CIL Mill Project;
- Addendum to the Environmental Management Plan; and
- Addendum to the Costed Reclamation Plan.

The potential environmental impacts for the Phase IV Project have been examined and environmental management plans to mitigate or limit the impact on the environment are outlined in the above documents.

Construction of the CIL Plant and TSF have utilised existing infrastructure and facilities currently in use at Tarkwa.

14.3 **Environmental Management**

Environmental management at Tarkwa is conducted within the framework of an ISO14001 certified Environmental Management System. An Environmental Management Plan has been approved for the period December 2002 to November 2005, but it does not yet include the CIL plant and tailings facility.

The Environmental Manager reports directly to the Mine Manager. There are separate Health and Safety and Community Affairs Managers. There is a Sustainable Development Manager responsible for both Tarkwa and Damang. He is devoting particular attention to the involvement of Non-Governmental Organisations (“NGOs”) and other third parties in sustainable development activities.

The Environmental Department is training selected individuals in other departments to take environmental responsibility for the activities of their departments, thus reducing the duties of the Environmental Department in policing the mine, and releasing staff for their monitoring and rehabilitation activities.

The mitigation and control measures which will be implemented specifically for the CIL plant and tailings facility are set out in the Addendum to the EMP, which provides an overview of the environmental initiatives to be undertaken, including performance indicators and the responsible personnel..

Issues covered in the EMP for the CIL plant include, air emissions, cyanide management, noise, hazardous substance storage, bunding and drainage, waste management, monitoring and emergency response. Issues covered for the TSF include, dust, monitoring, pipelines, deposition of tailings, water management and emergency response.

There are no outstanding contentious issues with the EPA and there is a good relationship with the local community.

14.4 Existing Environment

The existing environmental setting of the proposed project area has been detailed in various reports on Tarkwa (Tarkwa EIS (SRK 1996) and the Teberebie EIS (Jay Mineral Services Ltd 1990)).

The original ecological value of land in the concession area was downgraded by past human activity prior to large-scale surface mining and processing. This has included forestry, charcoal burning, hunting, agricultural practices and artisanal mining. No important or rare plant habitats were identified in the Tarkwa EIS or Teberebie EIS, with only occasional sightings of a limited number of remaining animals.

14.5 Socio-Economic

Resettlement

A large resettlement programme was carried out during the original mine development, in cooperation with the local community and the authorities. There was no requirement to relocate or resettle any additional persons as a result of the CIL development. The nearest downstream resident from the proposed TSF and CIL plant is 2 km away.

Employment

The CIL Plant development will create an additional 100 jobs, increasing the total employed to approximately 1290, as well as other jobs for contractors and employment in service areas, and provide significant input to both the local and national economy. The increased numbers of employees are accommodated and served by existing facilities and those who are not have been given housing allowances to acquire their own accommodation.

Community involvement

Tarkwa maintains, and is expanding, sustainable development programmes for the improvement of community infrastructure, sustainable livelihoods and stakeholder engagement. The Gold Fields Trust Fund, established to provide funding for local community and national assistance projects in Ghana, is used for community development projects. This fund is maintained by donations by Gold Fields of 0.5% of pre-tax profits from Ghanaian mines and USD1.00 for each ounce of gold produced by those mines.

14.6 Discharge Water Quality

14.6.1 General

There have been occasional discharges of silt to the local streams, and the mine has constructed numerous silt traps to prevent recurrences. In 2004, there were several mercury and chromium levels which exceeded the limits, but repeat tests did not confirm these values, and they are thought to be a result of sample contamination or laboratory errors. During 2003, 1.2 million m³ of uncontaminated storm-water and detoxified process solution was discharged. Iron and manganese levels in some streams exceeded standards.

Water containing cyanide will be discharged to the tailings impoundment. In conditions of extreme rainfall, it may be necessary to discharge tailings water. This water will be directed to the heap leach detoxification facilities, to ensure environmental compliance is maintained. The operating cost for the CIL plant includes an allowance for detoxification, which should not be required during normal operations.

14.6.2 **Acid mine drainage**

Testing has shown that there is a low potential for acid generation by the waste rock and tailings, and monitoring results have confirmed this finding.

The ore to be treated in the CIL Plant is not associated with sulphides. As a result, there is minimal potential for acid generation, and this has been confirmed by acid base accounting testing on samples of ore and tailings. Assay results indicate that there are only trace levels of arsenic present. Arsenic contamination of mine drainage has not been experienced in current or historic operations on the property and is not expected in association with future operations.

14.7 **Noise**

Blasting is carefully monitored to ensure adherence to the applied limits. This is particularly important because of the proximity of Tarkwa town.

14.8 **CIL Plant**

The CIL Plant design includes dust suppression, water recycling and containment of hazardous substances. Hazardous materials and potentially contaminated rainfall run-off from around the operational area will be contained. Facilities such as the mill, process tanks, reagent storage tanks and pipelines will be enclosed within concrete bunded areas. The bunds will be interconnected to increase the storage capacity for containment. Should an extreme event occur, the bunded area will overflow to the event pond, which is a secondary containment storage pond, with an HDPE liner.

14.9 **Tailings Storage Facility**

The TSF has been designed for maximization of in situ tailings density, recovery and re-use of tailings fluids, minimization of seepage, provision for containment under extreme storm events and provision for containment under maximum credible earthquake events.

The facility is equipped with drainage/seepage collection systems to capture seepage from the facility and to lower the phreatic surface in the vicinity of the embankment. The drainage system will consist of basin under-drainage, an upstream toe drain, and downstream seepage trenches.

The tailings design includes a closure and reclamation plan, and rehabilitation of the outer embankments will be carried out during the operating life of the facility. Topsoil was stripped and stockpiled from the entire basin before construction.

14.10 Rehabilitation and Decommissioning

The ore and waste material at Tarkwa does not demonstrate the potential for Acid Mine Drainage (“AMD”). The reclamation plan does not, therefore, include any of the remedial measures associated with AMD.

14.10.1 Rehabilitation

Rehabilitation of disturbed land is undertaken as soon as it is no longer required for mining or associated activities. The reclamation of disturbed areas, including borrow-pits, areas cleared for construction, open-pits, waste dumps and roads is accomplished by re-contouring of disturbed areas, establishment of storm-water controls to minimise erosion, back-filling of open-pit areas where practicable, placement of topsoil and planting of indigenous grasses and trees.

The progress of re-vegetation is monitored to ensure that the re-establishment of productive natural communities is achieved, and erosion is minimised. Demonstration plots of food crops and common commercial species are established within areas of restorable lands.

In terms of the Reclamation Security Agreement with the EPA, an update of the Costed Reclamation Plan is submitted every two years, and this includes a Completion Progress Report, describing work performed in relation to tracts of “disturbed land” and the level of reclamation. When the Completion Progress Report is approved by the EPA, the value of completed reclamation works is used to adjust the basis for the Reclamation Bond (14.11.3 below). In 2003, as a typical example, 85 ha of disturbed lands was rehabilitated.

14.10.2 Decommissioning

The details of the decommissioning strategies are described in the “Conceptual Decommissioning Plan” approved by the EPA, and in the Tarkwa EMP. The restoration measures which are applied depend on the classification of the land as “restorable” or “non-restorable”. Restorable lands are covered with topsoil and re-vegetated. On non-restorable lands, such as the rocky inner areas of open-pits which have not been backfilled, the measures and success criteria are reduced.

Waste rock dumps will be re-shaped, covered with a soil layer and vegetated. Appropriate storm-water controls will be constructed to minimise erosion.

Open-pits will be surrounded by a perimeter berm, with signs to warn the public of the hazard. Waste rock will be used for backfilling of mined-out pits where practical from an economic, environmental, logistical and long-term resource exploitation perspective. Open-pits which have been backfilled will be treated in a similar fashion to the waste rock dumps. The slopes and floors of pits which have not been backfilled will generally be rock, which it is impractical to re-forest during reclamation. Where possible, topsoil will be spread and vegetated.

In many pits the water level will rise, forming a pool which may spill, and this water will be directed into natural water courses. Fish species of value to post-mining land users will be established in suitable ponds. As an example, a pit lake has formed in the nearby Teberebie Pit since the cessation of mining in 1999, the water quality meets applicable standards and Tilapia fish are multiplying. The geology of the pit walls is the same as at Tarkwa, indicating that the favourable projections for water quality and future use are justified.

The ore heaps on the leach pads will be re-sloped as necessary, with the installation of appropriate drainage controls to minimise erosion. They will be rinsed until the quality of the water reaches agreed standards. The top surface of the rinsed heaps is classified as restorable land, and will be covered with a layer of soil and re-vegetated.

Roads which will not be left intact after reclamation will be ripped and revegetated. The reestablishment of natural vegetation will be encouraged on steep cuttings, embankment slopes and road sections over competent rock. Roads to be left intact for use will be graded, watered and left in serviceable condition. Effective storm-water controls will be implemented.

Any infrastructure not taken over by the Government of Ghana will be dismantled, removed or disposed of appropriately. The cleared area will be made safe for post mining land use. Areas with flat or gentle slopes will be categorised as restorable lands and will be ripped as necessary and re-vegetated with grasses, shrubs and trees. Topsoil will be placed where surface materials are not suitable for re-vegetation. The construction of final storm water controls will follow decommissioning.

Rehabilitation of the tailings facility will be undertaken progressively, from year two onwards, as upstream construction of the facility will allow lower lifts to be rehabilitated. The final tailings beach surface will not be re-vegetated until the tailings have dried and consolidated sufficiently which is expected to take one to two years following the end of deposition of tailings. This will involve the placement of topsoil / sub soil and re-vegetation of the top and slopes.

Decommissioning and rehabilitation of the open pits and waste rock dumps will be as described in the Costed Reclamation Plan and Conceptual Decommissioning Study (2001).

14.10.3 Reclamation Bond

The total cost for reclamation has been updated in March 2004, and includes the new CIL plant. The total life of mine liability has been estimated to be USD26.6M.

The system of bonding used by the EPA involves an assessment of the cost to rehabilitate the land which remains disturbed at the time of the review, and subtracting from it the cost for areas already rehabilitated to an accepted standard. There are three levels of accepted completion and associated reduced bonding costs:

Primary completion	reduced to 30%
Completion	20%
Final completion	0% (bond no longer required for this area)

At the time of the Reclamation Security Agreement of September 2003, the adjusted cost estimate derived in this manner was USD12.0M. The security is 50% of the adjusted cost estimate. Initial security is USD6.0M, based on the adjusted cost estimate of USD12.0M, and is composed of a Banker's Guarantee for USD5.4M, and a cash deposit of USD0.6M. The Security Agreement is updated at two year intervals.

The EPA requires the Costed Reclamation Plan to be updated at two year intervals.

15 HUMAN RESOURCES AND SAFETY

Tarkwa is adequately resourced with the appropriate levels of technically qualified and experienced personnel in production and related support functions.

Tarkwa has 2,631 employees, including contractors' staff, as at 30 June 2004. A total of 11 managers report to the General Manager. A Health & Safety policy is documented with a Health & Safety Manager reporting to the General Manager and the latter, together with the Mining Manager and Metallurgical Manager being responsible for various areas of activity.

The CIL Mill Project will be incorporated into the existing health and safety programme. Associated training, reporting, health and safety standards, monitoring and emergency procedures will be maintained property-wide. The health and safety programme has been successful at the Tarkwa Gold Mine in reducing worker injuries and improving safety in the workplace.

Table 15.1: Historical Safety Statistics

Total Accidents	2001	2002	2003
Medically treated injuries	11	25	38
Lost day injuries	6	6	12
Fatalities	0	1	1

Table 15.1 shows the Tarkwa safety statistics for the last three years ending June. Tarkwa is currently planning to achieve OHSAS 18001 accreditation by the end of May 2005.

16 TECHNICAL ECONOMIC INPUT PARAMETERS

16.1 Introduction

The following section includes discussion and comment on the technical-economic aspects of the LoM plan associated with the Tarkwa Tax Entity. Specifically, comment is included on the basis of projections, production schedules, operating costs and capital expenditures. These have been compiled into detailed TePs on an annual basis to derive the revenue and cost inputs necessary to generate the FMs. Key aspects associated with the generation of the TePs and their derivations are discussed.

16.2 Basis of the Technical-Economic Input Parameters

The valuation of the Tarkwa Tax Entity as presented in Section 17, has, inter alia, been based on the LoM plan and the resulting production profile and associated revenue stream from gold sales, operating costs and capital expenditure profiles as provided to SRK by GFGL, and reviewed and adjusted by SRK where deemed appropriate. The generation of a LoM plan requires substantial technical input and detailed analysis and is critically dependent upon assumptions of the long-term commodity prices and the respective impact on cut-off grades, potential expansion and/or reduction in the Mineral Resource and Mineral Reserve and the return on capital expenditure programmes.

The basis of forward projections of operating costs for mature mining operations are generally based on historical performance, with certain modifications for inflation, projected improvements in productivity and other cost-reduction initiatives.

Unless otherwise stated, operating expenditures comprise.

- **Cash Cost Components** : namely direct mining costs, direct processing costs, direct general and administration costs, consulting fees, management fees, transportation, and realisation charges.
- The incremental components, including royalties but excluding taxes paid, required to yield **Total Cash Costs** . Royalties in this regard include the amount of 3% paid on gross revenue to the Government of Ghana and is payable for all gold sold;
- The incremental components, including terminal separation liabilities, reclamation and mine closure costs (the net difference between the total environmental liability and the current bond amount) but excluding non-cash items such as depreciation and amortisation. Incrementally these cash expenditures summate to yield **Total Working Costs** ; and
- **Total Costs** : the summation of total working costs, net movement in working capital and capital expenditure.

In addition to long-term capital projects, the LoM capital expenditure programmes generally include significant detail based on approved expenditure programmes (typically two-years). Where warranted, SRK has made provision over and above these expenditures, specifically, for example, where no detail is available beyond this two-year period to cater for normal on-

going capital expenditure requirements.

Environmental provisions have been included in the operating costs as they are confirmed as necessary contributions to the fund ongoing environmental cost and closure provisions. Notwithstanding this approach the most likely scenario will result in expenditures from such provisions being expended on commencement of the closure programme. SRK considers that there are potential opportunities to realise salvage value on closure, although owing to the indeterminate nature of estimating such values these have been excluded from the LoM projections included herein.

16.3 Technical-Economic Parameters

The TePs for Tarkwa include:

- Commodity sales profiles derived from all ore sources;
- Total Working Cost profiles as previously defined; and
- Capital Expenditure Profiles.

All expenditures are based in calendar years and stated in July 1, 2004 money terms.

16.4 Special Factors and Operational Risks

SRK has included its view on the achievement of the LoM plans and the appropriateness of the Mineral Reserve statements when presenting the data in Sections 10, 11, 12 13 and 14. At the time of writing, SRK considers these projections to be both technically and economically achievable.

In all likelihood many of the identified risks and/or opportunities will have an impact on the cash flows as presented in Section 17, some positive and some negative. The impact of one or a combination of risks and opportunities occurring cannot be specifically quantified to present a meaningful assessment. SRK has however provided sensitivity tables for single and multi parameters. The sensitivity range covers the anticipated range of accuracy in respect of commodity prices, operating expenditures and capital expenditure projections. These sensitivities are necessarily simplistic and are based on the current Mineral Reserve. Actual movements in respect of commodity prices, operating expenditures and capital expenditure would result in different cut-off grades, Mineral Reserve estimates and LoM Plans and therefore these sensitivities should be viewed as indicative only.

16.5 General Risks and Opportunities

Tarkwa operations are subject to certain inherent risks, which apply to some degree to all participants of the gold mining industry. These include:

- **Commodity Price Fluctuations** : These may be influenced inter alia, by demand for gold in industry and jewellery, actual or expected sales by central banks, sales by gold producers in forward transactions and production and cost levels for gold in major producing countries. In the period between January 1, 2002 and June 30, 2004 the gold price has ranged between 307 USD per ounce and 415 USD per ounce. As at 30 June 2004 the USD gold price was 397 USD per ounce.

- **Inflation Rate Fluctuations** : Specifically the United States Consumer Price Index.
- **Country Risk** : Specific country risk including political and economic stability in the longer term as indicated by the International Country Risk Grade (“ICRG”).
- **Legislative Risk** : Specifically changes to future legislation (tenure, mining activity, labour, health and safety and environmental) within Ghana.
- **Environmental Liability Risk** : The inability of Tarkwa to fund the balance of its environmental liabilities from estimated operating cash flows, should operations cease prior to the stated LoM period. This would result in an outstanding liability since the estimated rehabilitation expenditure exceeds the amounts available in the respective rehabilitation trust funds as at June 30, 2004. As at July 1, 2004 the total outstanding liability remaining to be funded is estimated at USD11.6M.
- **Mining Risks** : Specifically Mineral Reserve estimate risks, uninsured risks, industrial accidents, labour disputes, unanticipated ground water conditions, human resource management, and safety performance.

In contrast, whilst certain of the above also reflect opportunities, SRK recognise that as of yet, an un-quantified opportunity is the beneficial application of new technology and also discovery of additional Mineral Resources.

In addition to those stated above, the individual operations may be subject to certain specific risks and opportunities, which independently may not be classified to have material impact but in combination may do so.

17 ASSET VALUATION

17.1 Introduction

The following section presents discussion and comment on the valuation of the Tarkwa Tax Entity. Specifically, comment is included on the methodology used to generate the FM including basis of valuation, valuation techniques and valuation results.

In generating post-tax pre-finance cash flows for the purpose of valuation, SRK has relied upon Gold Fields for certain inputs to the FMs. Further in reproducing the results of the FM in this ITR, SRK provides assurances to the Directors of Gold Fields, that the technical-economic inputs including operating costs, capital expenditure and saleable product profiles of the Tarkwa Tax Entity, as provided to and reviewed by SRK, are accurately incorporated into the FM.

17.2 Basis of Valuation

In generating the FM and deriving the valuations, SRK has:

- incorporated an annual United States customer price index ("US CPI") of 2% per annum as provided by Rothschild;
- incorporated a real terms gold price of USD400 per ounce as provided by Rothschild;
- Assumed a nominal discount factor of 7.46% for all assets to establish a base case. (Note that this does not necessarily reflect the nominal Weighted Average Cost of Capital ("WACC") assuming Gold Fields' expected average tax rate; country inflation rate and debt/capital ratio);
- relied upon Gold Fields for all accounting inputs as required for the generation of the FM;
- relied upon Gold Fields that for the purpose of valuation the assumption that 100% of the sales revenue as derived from the quantum of gold production sold and the forecast USD gold price is available to the Tarkwa Tax Entity;
- reported a Discounted Cash Flow ("DCF") valuation, dated July 1, 2004, which includes Mineral Reserves only;
- performed sensitivity analyses to ascertain the impact of discount factors, commodity prices, total working costs and capital expenditures;
- assigned no salvage value for plant and equipment on cessation of operations;
- valued the Tarkwa Tax Entity on a stand alone basis only; and
- not included hedging or forward sale components in the valuation.

17.3 Limitations and Reliance on Information

The cash flows reported for the Tarkwa Tax Entity are contingent upon the current and anticipated performance of mine management, as well as the expected achievement of the operating parameters as provided to and reviewed by SRK and set out in this ITR.

The cash flow projections and valuation is based upon the anticipated operating performance as well as information provided to SRK by Gold Fields at the date hereof. It should be understood that unforeseen developments might affect SRK's opinion, or the reasonableness

of any assumptions or basis used.

The LoM plans and the FM include forward-looking statements that are not historical facts. These forward-looking statements are necessarily estimates and involve a number of risks and uncertainties that could cause actual results to differ materially. Notwithstanding this, SRK considers that at the time of compilation, the Mineral Reserves and associated depletion resulting in cash flow projections are appropriate and technically and economically achievable.

17.4 Valuation Methodology

The valuation methodology for the Tarkwa Tax Entity is based on the Net Present Value (“NPV”) of the ring-fenced mining asset. Supplemental information as provided by Gold Fields (balance sheet items) could then be used with the NPV to arrive at the Net Asset Value (“NAV”) for the Tarkwa Tax Entity.

The NPV has been derived using DCF techniques applied on a post-tax pre finance basis for the ring-fenced Tarkwa Tax Entity. These are based on the various LoM production plans, including the resulting TePs (Section 16), and are solely based on Mineral Reserves.

In respect of non-LoM Mineral Resources no valuation is presented and discussion is limited to technical disclosure in accordance with the requirements of the rules and companion policies of NI 43-101.

The post-tax pre-finance cash flow is developed on the basis of the commodity price and macro-economic projections as presented in Section 17.2. SRK has developed a FM which is based on: annual cash flow projections ending 31 December; and TePs stated in July 1, 2004 money terms. As the valuation date is July 1, 2004, the cash flow projection for the first period includes projections for the 6 months to December 2004.

Variances in commodity prices exist between those used to derive Mineral Reserves, the current spot market prices and that used for the financial valuation. The impacts on the individual Mineral Reserve statements are presented in the Mineral Reserve sensitivity tables as included in Section 11.10 of this ITR. Further, as the generation of LoM plans is constrained by the annual planning process SRK has based its review on the latest available information as presented by Gold Fields.

17.5 Post-Tax – Pre-Finance Cash Flows

Table 17.1 present the post-tax pre-finance cash flows for the Tarkwa Tax Entity. Note that this table is not representative of a financial statement as may be customary for determining the consolidated cash flow positions for a company. Further, no account is taken of movements in working capital at the corporate level, or deferrals of tax liabilities between accounting periods, as may be the case in the generation of such company level financial statements.

Table 17.1: Tarkwa: post-tax pre-finance cash flows

Financial Year Project Year	Units	Totals /Averages	2004 1	2005 2	2006 3	2007 4	2008 5	2009 6	2010 7	2011 8	2012 9	2013 10	2014 11	2015 12
Production														
Mining														
RoM Tonnage	(kt)	350,185	10,177	21,175	22,178	22,600	21,587	20,295	18,349	15,181	13,922	14,732	18,504	21,995
Head Grade	(g/t)	1.3	1.3	1.3	1.2	1.2	1.3	1.2	1.2	1.3	1.3	1.3	1.4	1.3
Contained Gold	(koz)	14,736	425	870	840	870	876	788	716	636	591	615	813	948
Processing														
Milled Tonnage	(kt)	351,513	9,688	19,816	20,256	20,284	20,284	20,256	19,735	16,582	13,929	13,910	13,910	13,929
Milled Grade	(g/t)	1.3	1.3	1.3	1.2	1.3	1.3	1.2	1.2	1.2	1.3	1.3	1.5	1.6
Metallurgical Recovery	(%)	77.3%	87.5%	84.9%	83.7%	82.3%	77.9%	77.5%	78.3%	77.0%	75.9%	76.4%	76.9%	75.8%
Recovered Gold	(koz)	11,442	365	717	674	680	662	610	581	510	449	455	525	545
Clean-up Gold	(koz)													
Saleable Metal	(koz)	11,442	365	717	674	680	662	610	581	510	449	455	525	545
Commodity Sales														
Gold	(koz)	11,442	365	717	674	680	662	610	581	510	449	455	525	545
Silver	(koz)													
Commodity Prices														
Gold Price	(USD/oz)		404	412	420	429	437	446	455	464	473	483	492	502
Silver Price	(USD/oz)		5.15	5.25	5.36	5.47	5.58	5.69	5.80	5.92	6.04	6.16	6.28	6.40
Macro Economics														
US PPI	(%)		1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
US CPI	(%)		1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Financial - Nominal														
Sales Revenue - Gold	(USDM)	5,667.7	147.4	295.6	283.3	291.4	289.4	272.3	264.3	236.8	212.5	219.8	258.8	273.6
Operating Expenditures														
Mining	(USDM)	(1,516.8)	(23.2)	(49.8)	(63.3)	(72.6)	(77.2)	(82.1)	(82.9)	(85.7)	(88.2)	(89.7)	(91.8)	(87.4)
Processing	(USDM)	(1,511.5)	(29.5)	(62.1)	(65.2)	(66.6)	(68.0)	(69.2)	(69.7)	(63.0)	(57.0)	(58.0)	(59.2)	(60.4)
Overheads	(USDM)	(666.3)	(15.7)	(32.7)	(33.4)	(34.1)	(31.6)	(31.9)	(31.8)	(29.0)	(26.5)	(27.0)	(28.1)	(28.7)
Realisation	(USDM)	—	—	—	—	—	—	—	—	—	—	—	—	—
By-Product Credits	(USDM)	—	—	—	—	—	—	—	—	—	—	—	—	—
Mineral Royalty	(USDM)	(170.0)	(4.4)	(8.9)	(8.5)	(8.7)	(8.7)	(8.2)	(7.9)	(7.1)	(6.4)	(6.6)	(7.8)	(8.2)
Environmental	(USDM)	(15.0)	(0.2)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)
Terminal Benefits	(USDM)	(10.9)	—	—	—	—	—	—	—	—	—	—	—	—
Net Change in Working Capital	(USDM)	0.9	(22.3)	(0.2)	0.9	(0.7)	0.2	1.3	0.6	2.1	1.9	(0.6)	(3.2)	(1.1)
Operating Profit	(USDM)	1,778.2	52.0	141.4	113.3	108.1	103.5	81.6	72.0	53.5	35.8	37.3	68.2	87.2
Tax Liability	(USDM)	(427.0)	—	-21.1	-31.8	-32.9	-31.9	-18.9	-14.3	-13.8	-9.2	-7.1	-16.8	-24.0
Capital Expenditure	(USDM)	(405.5)	(29.7)	(39.7)	(15.5)	(7.0)	(5.3)	(23.5)	(28.1)	(11.0)	(7.4)	(15.6)	(16.7)	(13.2)
Project	(USDM)	(207.7)	(29.6)	(39.4)	(15.1)	(6.6)	(4.5)	(19.2)	(17.4)	(2.4)	(2.5)	(9.3)	(8.0)	(0.3)
Sustaining	(USDM)	(197.8)	(0.2)	(0.3)	(0.4)	(0.4)	(0.9)	(4.3)	(10.7)	(8.6)	(4.9)	(6.3)	(8.7)	(13.0)
Final Net Free Cash	(USDM)	945.8	22.3	80.5	66.0	68.3	66.3	39.2	29.7	28.7	19.2	14.7	34.8	49.9
Cash Operating														
Costs	(USD/oz)	271	198	208	241	250	256	281	291	312	335	330	289	270
Total Cash Costs	(USD/oz)	271	198	208	241	250	256	281	291	312	335	330	289	270
Total Working Costs	(USD/oz)	273	199	208	241	251	257	282	292	313	336	331	290	271
Total Costs	(USD/oz)	302	340	262	262	261	264	315	333	328	347	361	320	292
Financial Year														
Project Year	Units	2016 13	2017 14	2018 15	2019 16	2020 17	2021 18	2022 19	2023 20	2024 21	2025 22	2026 23	2027 24	2028 25
Production														
Mining														
RoM Tonnage	(kt)	18,560	14,495	14,322	14,660	14,736	14,528	14,429	14,025	8,329	1,407			
Head Grade	(g/t)	1.3	1.4	1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.4			
Contained Gold	(koz)	794	644	631	676	680	633	623	623	377	65			
Processing														
Milled Tonnage	(kt)	13,929	13,910	13,910	13,929	13,929	13,910	13,910	13,929	13,929	11,422	6,567	3,878	1,778
Milled Grade	(g/t)	1.5	1.4	1.4	1.5	1.5	1.4	1.4	1.4	1.1	0.9	0.9	0.9	0.9
Metallurgical Recovery	(%)	75.6%	75.5%	73.7%	74.0%	74.0%	71.6%	71.4%	71.8%	73.1%	75.9%	83.4%	93.8%	93.8%
Recovered Gold	(koz)	505	476	459	488	490	443	436	446	374	240	151	110	50
Clean-up Gold	(koz)													
Saleable Metal	(koz)	505	476	459	488	490	443	436	446	374	240	151	110	50
Commodity Sales														
Gold	(koz)	505	476	459	488	490	443	436	446	374	240	151	110	50
Silver	(koz)													
Commodity Prices														
Gold Price	(USD/oz)	512	523	533	544	555	566	577	589	600	612	625	637	650
Silver Price	(USD/oz)	6.53	6.66	6.80	6.93	7.07	7.21	7.36	7.50	7.65	7.81	7.96	8.12	8.29
Macro Economics														
US PPI	(%)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
US CPI	(%)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Financial - Nominal														
Sales Revenue - Gold	(USDM)	258.6	248.9	244.6	265.4	271.7	250.8	251.8	262.4	224.3	146.9	94.5	69.9	32.7
Operating Expenditures														
	(USDM)	(174.4)	(171.7)	(165.4)	(174.3)	(175.3)	(172.0)	(184.0)	(184.9)	(152.0)	(100.8)	(66.1)	(47.9)	(29.6)

Mining	(USDM)	(77.1)	(72.7)	(64.7)	(68.5)	(68.7)	(66.8)	(74.9)	(72.6)	(46.2)	(10.5)	—	—	—
Processing	(USDM)	(61.6)	(62.8)	(64.0)	(65.4)	(66.7)	(68.0)	(69.3)	(70.8)	(74.4)	(74.0)	(54.4)	(35.3)	(16.5)
Overheads	(USDM)	(28.7)	(28.9)	(29.1)	(30.0)	(30.6)	(30.7)	(31.3)	(32.0)	(27.0)	(17.2)	(12.4)	(12.0)	(6.0)
Realisation	(USDM)	—	—	—	—	—	—	—	—	—	—	—	—	—
By-Product Credits	(USDM)	—	—	—	—	—	—	—	—	—	—	—	—	—
Mineral Royalty	(USDM)	(7.8)	(7.5)	(7.3)	(8.0)	(8.1)	(7.5)	(7.6)	(7.9)	(6.7)	(4.4)	(2.8)	(2.1)	(1.0)
Environmental	(USDM)	(0.6)	(0.6)	(0.6)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.8)	(0.8)	(0.4)
Terminal Benefits	(USDM)	—	—	—	—	—	—	—	—	—	—	—	—	(10.9)
Net Change in Working Capital	(USDM)	1.4	0.8	0.5	(1.7)	(0.4)	1.7	(0.1)	(0.8)	3.1	6.0	4.3	2.2	5.1
Operating Profit	(USDM)	84.2	77.3	79.3	91.1	96.4	78.8	67.9	77.6	72.4	46.1	28.4	21.9	3.0
Tax Liability	(USDM)	-20.5	-14.6	-17.6	-21.4	-24.0	-22.4	-17.0	-17.6	-19.2	-13.6	-9.2	-7.1	-1.0
Capital Expenditure	(USDM)	(21.1)	(32.4)	(25.0)	(25.2)	(22.6)	(9.8)	(15.6)	(23.3)	(13.3)	(4.4)	—	—	—
Project	(USDM)	(8.1)	(8.2)	—	(8.6)	(8.7)	—	(7.4)	(12.5)	—	—	—	—	—
Sustaining	(USDM)	(13.0)	(24.1)	(25.0)	(16.6)	(13.9)	(9.8)	(8.2)	(10.8)	(13.3)	(4.4)	—	—	—
Final Net Free Cash	(USDM)	42.6	30.3	36.6	44.5	49.8	46.6	35.3	36.6	39.9	28.2	19.2	14.8	2.1
Cash Operating Costs	(USD/oz)	271	276	270	259	256	276	291	279	275	289	295	283	288
Total Cash Costs	(USD/oz)	271	276	270	259	256	276	291	279	275	289	295	283	288
Total Working Costs	(USD/oz)	272	277	271	260	257	277	292	281	276	291	298	287	426
Total Costs	(USD/oz)	302	328	311	301	291	290	317	317	295	286	280	274	363

17.6 NPV Sensitivities

The following tables present the NPVs of the nominal cash flows of the asset as derived from the FM. In summary they include:

- The variation in NPV with discount factors;
- The variation in NPV based on single parameter sensitivities; and
- The variation in NPV based on twin (revenue and operating expenditure) sensitivities.

Table 17.2: Tarkwa: Variation of NPV with discount factors

Discount Factor (%)	NPV (USDM)
0.00%	945.8
5.00%	592.8
7.46%	492.4
10.00%	416.9
12.00%	371.3
14.85%	320.9
18.00%	279.2
20.00%	258.1
25.00%	217.4

Table 17.3: Tarkwa: variation of NPV – single parameter sensitivity

Sensitivity Range - Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range - Operating Expenditures	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range - Capital Expenditures	-30%	-20%	-10%	0%	10%	20%	30%

Currency	(USDM)	(USDM)	(USDM)	(USDM)	(USDM)	(USDM)	(USDM)
Variation in NPV @ 0% DCF							
Revenue	(221.2)	228.4	587.6	945.8	1,303.7	1,661.7	2,019.7
Operating Expenditures	1,657.5	1,420.3	1,183.0	945.8	708.4	470.1	231.7
Capital Expenditures	1,027.9	1,000.5	973.1	945.8	918.4	891.0	863.7
Variation in NPV @ 7.46% DCF							
Revenue	(80.2)	138.4	316.3	492.4	668.5	844.6	1,020.6
Operating Expenditures	833.7	719.9	606.2	492.4	378.6	264.5	147.2
Capital Expenditures	535.8	521.3	506.9	492.4	477.9	463.5	449.0

Table 17.4: Tarkwa: variation of NPV – twin parameter sensitivity

NPV (USDM)

Operating Expenditure Sensitivity	Revenue Sensitivity						
	-30%	-20%	-10%	0%	10%	20%	30%
-30%	305.4	481.5	657.6	833.7	1,009.7	1,185.7	1,361.6
-20%	191.3	367.8	543.8	719.9	896.0	1,072.1	1,247.9
-10%	71.7	253.9	430.1	606.2	782.2	958.3	1,134.3
0%	(80.2)	138.4	316.3	492.4	668.5	844.6	1,020.6
10%	(246.9)	(0.8)	201.8	378.6	554.7	730.8	906.9
20%	(415.8)	(154.6)	77.9	264.5	441.0	617.1	793.1
30%	(585.1)	(323.4)	(73.6)	147.2	326.9	503.3	679.4

18 CONCLUDING REMARKS

The views expressed in this ITR have been based on the fundamental assumption that the required management resources and pro-active management skills to access the adequate capital necessary to achieve the LoM plan projections for Tarkwa are sustained.

SRK has conducted a comprehensive review and assessment of all material issues likely to influence the future operations at Tarkwa. The LoM plan, as provided to and taken in good faith by SRK, has been reviewed in detail for appropriateness, reasonableness and viability, including the existence of and justification for departure from historical performance. Where material differences were found, these were discussed with GFGL and adjusted where considered appropriate. SRK consider that the resulting TePs and FM are based on sound reasoning, engineering judgement and technically achievable mine plans, within the context of the risks associated with the Ghanaian gold mining industry.

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APPENDIX A

GLOSSARY

GLOSSARY OF TERMS AND ABBREVIATIONS

A1	<i>Conglomerate reef at Tarkwa</i>
A3	<i>Conglomerate reef at Tarkwa</i>
AA	<i>Atomic Absorption</i>
AARL	<i>Anglo American Research Laboratories</i>
ABA	<i>Acid Base Accounting</i>
Abrasion Index	<i>Measure of how tough a rock type is with respect to wear and tear on grinding equipment.</i>
AFc	<i>Conglomerate reef at Tarkwa</i>
AGC	<i>Ashanti Goldfields Company Limited</i>
AGL	<i>Abosso Goldfields Limited</i>
AMD	<i>Acid Mine Drainage</i>
AMS	<i>African Mining Services Limited</i>
Analytical Variance / Precision	<i>An estimate of the error induced by the analytical procedures routinely used. A measure of the repeatability of assays.</i>
Ancillary equipment	<i>Service equipment not directly associated with primary process.</i>
AngloGold	<i>AngloGold Ashanti Limited</i>
ARD	<i>Acid rock drainage; the result of rainwater reacting with sulphides in broken rock i.e. waste dumps.</i>
Assay	<i>Measure valuable mineral content.</i>
Au	<i>Gold</i>
AVS	<i>Abontiakoon Vertical Shaft</i>
B2	<i>Conglomerate reef at Tarkwa</i>
BFS	<i>Bankable Feasibility Study</i>
BGL	<i>Bogoso Gold Limited</i>
°C	<i>Degrees Centigrade (temperature).</i>
°	<i>Degrees of angle from horizontal (i.e. pit slope angle)</i>
CDE	<i>Conglomerate reef at Tarkwa - Resource</i>
CIL	<i>Carbon in Leach gold processing and recovery technology</i>
Clay	<i>Material with a particle size of less than 2µm.</i>
CNwad	<i>Weak acid Dissociable Cyanide</i>
Companion Policy	<i>Companion Policy 43-101CP</i>
CPI	<i>Consumer Price Index</i>
CPR	<i>Competent Person's Report</i>
Cross-section	<i>A diagram or drawing that shows features transected by a vertical plane drawn at right angles to the longer axis of a geologic feature.</i>
Cut-off grade	<i>When determining economically viable Mineral Reserves, the lowest grade of mineralised material that qualifies as ore.</i>
Damang	<i>Damang Gold Mine</i>
DCF	<i>Discounted Cash Flow.</i>
DD (Diamond drilling)	<i>Rotary drilling using diamond-set or diamond-impregnated bits, to produce a solid continuous core of rock.</i>
Dip	<i>The angle at which layered rocks, foliation, a fault, or other planar structures, are inclined from the horizontal.</i>
DGM	<i>Damang Gold Mine</i>
DTM	<i>Digital Terrain Model</i>
EAP	<i>Emergency Action Plan</i>
EBITDA	<i>Earnings Before Interest, Tax, Depreciation and Amortisation</i>
EC	<i>Environmental Certificate</i>
EIA	<i>Environmental Impact Assessment.</i>
EIS	<i>Environmental Impact Statement</i>
ESIS	<i>Environmental and Social Impact Statement</i>
EMP	<i>Environmental Management Plan.</i>
EPA	<i>Environmental Protection Agency</i>

Feasibility Study	A definitive engineering study addressing the economic viability of bringing a deposit to the production stage; taking into consideration all associated costs, revenues and risks.
FM	Financial Model
Fold	A bend in strata or other planar structure.
Footwall	A geological or mining term meaning the rock below a fault, or underlying a natural feature, or the mining floor.
Form	Form 43-101F1
G	Conglomerate reef at Tarkwa
GAG	Ghanaian Australian Goldfields Limited
Galamsay	Informal miner or miners (Ghana)
G&A	General and Administration costs
GBX	Graphite Breccia
Gemcom	Mining software developer.
Geochemical prospecting	A prospecting technique which measures the content of certain metals in soils and rocks used to define anomalies for further testing.
Geophysical surveys	A survey method used primarily in the mining industry as an exploration tool, applying the methods of physics and engineering to the earth's surface.
GFGL	Gold Fields Ghana Limited
Gold Fields	Gold Fields Limited
Golden Star	Golden Star Resources Limited
Government	Government of Ghana
GP	Graphitic Phyllite
Grade	Quantity of metal per unit weight of host rock.
g/t	Grammes per tonne
ha	Hectare (unit of area equal to 10,000 m ²)
Hanging wall	A geological or mining term meaning the rock above a fault, or overlying a natural feature (as opposed to footwall).
HDPE	High-density Polyethylene
Host rock	The rock containing a mineral or an orebody.
IAMGold	IAMGold Corporation
ICRG	International Country Risk Grade
IDW	Inverse distance weighting.
IFC	International Finance Corporation
Igneous	A rock formed by the solidification of mineral-rich molten liquid which is intruded into bedrock or erupted from a volcano.
Indicated Mineral Resources	An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.
In-situ	In its natural position (Latin).
Instrument 43-101	Canadian National Instrument 43-101 for reporting Mineral Resources and Reserves.
IRR	Internal Rate of Return.
ITR	Independent Technical Report
JORC	Australian code for reporting Mineral Resources and Reserves.
KCA	Kappes, Cassidy & Associates Australia Pty Ltd.
kg/h	Kilogrammes per hour
kg/t	Kilogram per tonne
km	kilometre

koz	Thousand Troy ounces
Kriging	A method of block grade interpolation which takes into account the statistical and spatial characteristics of the mineralisation.
kt	Thousand metric tonnes
kV	kilovolts
kVA	kilovolt-amperes
Lakefield	Lakefield Research Africa
Lithology	The physical characteristics of rock.
LoM	Life of Mine. Often used to describe plans covering the life of the project.
M	metre
M	million
m RL	Metres Relative Level; level relative to a fixed datum
m ³ /hr	Cubic metres per hour.
m ³ /s	Cubic metres per second.
Ma	Million years
Measured Mineral Resources	A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.
Metamorphic	Term applied to pre-existing sedimentary and igneous rocks which have been altered in composition, texture, or internal structure by processes involving pressure, heat and/or the introduction of new chemical substances.
Micron (µm)	One thousandth of a millimetre.
Mineral	A natural, inorganic, homogeneous material that can be expressed by a chemical formula.
Mineralisation	The process by which minerals are introduced into a rock. More generally, a term applied to accumulations of economic or related minerals in quantities ranging from weakly anomalous to economically recoverable.
Mineralogy	The science of minerals.
Mineral Resource	A tonnage or volume of rock or mineralisation of intrinsic economic interest.
Mm	Millimetre .
Mm ³	Million cubic metres.
PER	Preliminary Environmental Report
Moz	Million troy ounces
m/s	Metres per second.
Mt	Million tonnes
Mtpa	Million tonnes per annum.
MVA	Million volt-amps
MW	Megawatts.
NAV	Net Asset Value
NGO	Non-Governmental Organisation
NI 43-101	National Instrument 43-101 - Standards of Disclosure for Mineral Projects
North Plant	Tarkwa heap leach plant
NPV	Net Present Value.
Open pit, open cut	Surface mining in which the ore is extracted from a pit or quarry. The geometry of the pit may vary with the characteristics of the ore body.
Ore	Mineral bearing rock that contains one or more minerals, at least one of which can be mined and treated profitably under current or immediately foreseeable economic conditions.
Orebody	A mostly solid and fairly continuous mass of mineralisation estimated to be

	<i>economically mineable.</i>
Ore grade	<i>The average weight of the valuable metal or mineral contained in a specific weight of ore i.e. grammes per tonne of ore.</i>
OSC	<i>Ontario Securities Commission.</i>
Oxide	<i>Gold bearing ore which results from the oxidation of near surface sulphide ore.</i>
Oz	<i>Troy ounce</i>
P Codes	<i>Porosity values</i>
Ph	<i>Measure of acidity / alkalinity</i>
PL	<i>Performance Laboratories Limited</i>
Pleistocene	<i>A sub-division of the Tertiary System which immediately followed the Pliocene. 1.8 million years before present to 10,000 years before present.</i>
Pliocene	<i>A sub-division of the Tertiary System, 5 million to 1.8 million years before present, which immediately precedes the Pleistocene.</i>
Plunge	<i>The angle from the horizontal of a linear geological feature on a plane.</i>
PQ	<i>Borehole of intermediate size.</i>
Pre-feasibility Study	<i>The initial stage of the feasibility study in which the accuracy of the factors involved such as costs and revenues is $\pm 25\%$.</i>
Probable Mineral Reserve	<i>A 'Probable Mineral Reserve' is the economically mineable part of an Indicated and in some circumstances a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.</i>
Proven Mineral Reserve	<i>A 'Proven Mineral Reserve' is the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.</i>
PSS	<i>Plant Sulphides</i>
Pyrite	<i>Common sulphide of iron.</i>
P80	<i>The sieve mesh size through which 80% of the particles in a particular particle distribution will pass; normally quoted as P80 at x microns.</i>
QP	<i>Qualified Person</i>
Quartz	<i>A mineral composed of silicon dioxide, SiO₂ (silica).</i>
RAB	<i>Rotary Air Blast drilling. Relatively cheap and quick exploration drilling method returning rock chips using high pressure air.</i>
RC	<i>Reverse Circulation drilling. A drilling method using a tricone bit, during which rock cuttings are pushed to the surface through an outer tube, by liquid and/or air pressure moving through an inner tube.</i>
RL	<i>Reference level (elevation)</i>
RoM	<i>Run of mine — usually refers to the tonnage and grade of ore delivered to the processing plant.</i>
Rock	<i>Mineral matter of various compositions.</i>
SACNASP	<i>South African Council for Natural & Scientific Professions</i>
SADC	<i>South African Development Country</i>
SAG	<i>Semi-autogeneous grinding</i>
Sampling and Analytical Variance/Precision	<i>An estimate of the total error induced by sampling, sample preparation and analysis .</i>
SAMREC	<i>South African code for reporting Mineral Resources and Reserves.</i>
SEC	<i>Securities Exchange Commission</i>
Sediment	<i>Particles transported by water, wind or ice.</i>
Sedimentary rock	<i>Rock formed at the earth's surface from solid particles, whether mineral or organic, which have been moved from their position of origin and re-deposited.</i>
SG	<i>Specific Gravity</i>
SGMC	<i>State Gold Mining Corporation, the official state-owned national mining company; by extension, sampling carried out by this institution.</i>

SGS	SGS Laboratory Services - Ghana
SK	Simple Kriging
SMU	Selecsitive Mining Unit
South Plant	Teberebie heap leach plant
SRK	Steffen, Robertson & Kirsten (UK) Ltd
SRK Consulting	The SRK Group of Companies, represented herein by SRK(UK) Limited, Cardiff, United Kingdom
SRK Group	SRK (Global) Limited
Strike	The direction or bearing of a bed or layer of rock in the horizontal plane.
Sub-parallel	Roughly in line with.
Sulphide	Metallic sulphur bearing mineral often associated with gold mineralisation. Sulphide is also used to differentiate from oxide rock or ore which is softer, less dense, nearer surface and generally responds better to cyanide leaching in the processing plant.
Syncline	A sequence of rocks flexed downwards into a valley shape with a core of younger rocks
Synform	Bent or folded downwards
t	Tonne (metric) equal to 1,000 kilograms
t/h	Metric tonnes per hour
t/m ³	tonnes per cubic metre.
Tailings	Fine ground wet waste material produced from ore after economically recoverable metals or minerals have been extracted.
TEM	Technical Economic Model
TeP	Technical Economic Parameters
TGL	Teberebie Goldfields Limited
Tarkwa	Tarkwa Gold Mine
tonnes	Metric tonne, equal to 1,000 kilograms.
Tpa	tonnes per annum.
tpd	tonnes per day.
tph	tonnes per hour.
tpm	tonnes per month.
Trans	Transition ore material
Triassic	A geological period extending from 250 to 204 million years which marks the beginning of the Mesozoic Era.
TSE	Toronto Stock Exchange.
TSF	Tailings Storage Facility
TWL	Transworld Laboratory Services - Ghana
US CPI	United States Consumer Price Index
USD	United States Dollars (currency).
UTM	Universal Transverse Mercator projection – grid co-ordinate system
Variogram/Semi-Variogram	A graphical representation of the rate of change of grade with distance which is used to define parameters for controlling sample layout and resource modelling.
VRA	Volta River Authority
VT	Vertical Thickness
WACC	Weighted Average Cost of Capital
Weathering	Near surface alteration and oxidation of minerals and rocks by exposure to the atmosphere or ground water.
Wireframe	A mesh of triangles used to make computerised geological models.
µm	Micron - one thousandth of a millimetre.

PROFESSIONAL REGISTRATIONS AND QUALIFICATIONS

<i>BSc</i>	<i>Bachelor of Science</i>
<i>BSc (Eng) Mining</i>	<i>Bachelor of Science (Engineer) Mining</i>
<i>CEng</i>	<i>Chartered Engineer.</i>
<i>CGeol</i>	<i>Chartered Geologist.</i>
<i>FGS</i>	<i>Fellow of the Geological Society.</i>
<i>FIMMM</i>	<i>Fellow of the Institute of Materials, Mining and Metallurgy.</i>
<i>MIMMM</i>	<i>Member of the Institute of Materials, Mining and Metallurgy.</i>
<i>MSAIMM</i>	<i>Member of the South African Institute of Mining and Metallurgy.</i>
<i>MSc</i>	<i>Master of Science.</i>
<i>PhD</i>	<i>Doctor of Philosophy.</i>
<i>Pr Eng</i>	<i>Professional Engineer (South Africa).</i>

APPENDIX B

REFERENCES

REFERENCES

Reference Number	Title	Author	Date
# 1	Gold Fields Ghana, Tarkwa Phase IV Bankable Feasibility Study	Lycopodium Pty. Ltd	December 2002
# 2	Tarkwa Gold Mine & Damang Mine Resources and Reserves	Gold Fields Ghana Limited	2002
# 3	Management Information Circular	Repadre Capital Corporation	December 6 th 2002
# 4	Tarkwa Phase IV Feasibility Study – Strategic Analysis Section – Strategic Cases 1 to 6, Main Report	SRK Consulting	December 2002
# 5	Annual Reports	Gold Fields Limited	
# 6	An Audit if the Mineral Resources and Mineral Reserves at Tarkwa Gold Mine	SRK Consulting	September 2004
# 7	Technical Report on the Tarkwa Gold Mine, Ghana	Gold Fields Ghana Limited and IAMGold Corporation	May 2003
# 8	Tarkwa Gold Mine Mineral Resources and Reserves, CPR	Gold Fields	2004
# 9			
# 10			
# 11			
# 12			
# 13			
# 14			

APPENDIX C
CERTIFICATES

CERTIFICATE OF QUALIFICATION

I **John Arthur** with a business address at Steffen, Robertson and Kirsten (UK) Limited, Windsor Court, 1-3 Windsor Place, Cardiff, CF10 3BX, hereby state that:

1. I am a Principal Consulting Mining Geologist with the firm Steffen, Robertson and Kirsten (UK) Limited (SRK).
2. I am a graduate of the University of Newcastle Upon Tyne, UK, with an honours degree in Geology gained in 1987.
3. I obtained an M.Sc in Mining Geology and Mineral Exploration from Leicester University, UK in 1989.
4. I obtained a PhD in Mineral Resource Evaluation from Cardiff University, UK in 1994.
5. I have practised my profession continuously for some 16 years since graduating, have variously managed, authored and co-authored over twenty mining feasibility studies, feasibility audits and due diligence review reports for a variety of mineral deposit types in many different countries and am a “qualified person” for the purpose of National Instrument 43-101.
6. I am a Chartered Engineer (UK), a member of the Institute of Materials, Minerals and Mining (UK), a Chartered Geologist and a Fellow of the Geological Society of London.
7. I am the QP with respect to the Mineral Resources in the report “An Independent Technical Report on the Tarkwa Gold Mine, Ghana”, which is based on a study of:
 - all available technical reports, geological and sampling data on the project provided to SRK;
 - first hand discussions with the appropriate project geologists and other employees currently working on the project;
 - a visit to site between August 2 and 5, 2004.
8. I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission or disclosure of which makes the technical report misleading.
9. I do not own or expect to receive any interest (direct, indirect or contingent) in the property described herein, nor in the securities of GFGl or Gold Fields and am independent of AGL and Gold Fields.
10. I have previously carried out consulting work for Gold Fields at Damang as an SRK employee, specifically reviewing the Mineral Resources.
11. The report has been prepared in compliance with National 43-101 and Form 43-101F1 and I have read this Instrument and Form.

September 2004

/s/ John Arthur

Dr John Arthur CGeol FGS, CEng MIMMM
Principal Mining Geologist SRK (UK) Ltd

CERTIFICATE OF QUALIFICATION

I **Neil Holloway** with a business address at Steffen, Robertson and Kirsten (UK) Limited, Windsor Court, 1-3 Windsor Place, Cardiff, CF10 3BX, hereby state that:

1. I am an Associate Principal Process Engineer with the firm Steffen, Robertson and Kirsten (UK) Limited (SRK).
2. I am a graduate of the University of Bristol, UK, with a joint honours degree in Geology and Chemistry gained in 1971.
3. I obtained an M.Sc in Surface Chemistry and Colloids from Bristol University, UK in 1972.
4. I obtained a PhD in Minerals Engineering from Birmingham University, UK in 1975.
5. I have practised my profession continuously for some 29 years since graduating, have variously managed, authored and co-authored over twenty mining feasibility studies, feasibility audits and due diligence review reports for a variety of mineral deposit types in many different countries and am a “qualified person” for the purpose of National Instrument 43-101.
6. I am a Chartered Engineer (UK) and a Fellow of the Institute of Materials, Minerals and Mining (UK).
7. I am the QP with respect to the Mineral Processing in the report “An Independent Technical Report on the Tarkwa Gold Mine, Ghana”, which is based on a study of:
 - all available technical reports and minerals/process engineering data on the project provided to SRK;
 - first hand discussions with the appropriate minerals/process engineers and other employees currently working on the project;
 - a visit to site between September 7 and 8, 2004.
8. I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission or disclosure of which makes the technical report misleading.
9. I do not own or expect to receive any interest (direct, indirect or contingent) in the property described herein, nor in the securities of GFGL or Gold Fields and am independent of GFGL and Gold Fields.
10. I have had no prior involvement with Tarkwa.
11. The report has been prepared in compliance with National 43-101 and Form 43-101F1 and I have read this Instrument and Form.

September 2004

/s/ Neil Holloway

Dr Neil Holloway, CEng FIMMM

Associate Principal Process Engineer SRK (UK) Ltd

CERTIFICATE OF QUALIFICATION

I **Ian Brackley** with a business address at Steffen, Robertson and Kirsten (UK) Limited, Windsor Court, 1-3 Windsor Place, Cardiff, CF10 3BX, hereby state that:

1. I am a Principal Engineer with the firm Steffen, Robertson and Kirsten (UK) Limited (SRK).
2. I am a graduate of the University of Northampton, UK, with an honours degree in Civil Engineering gained in 1967.
3. I obtained a Ph.D in Civil Mechanics from Natal University, South Africa in 1975.
4. I have practised my profession continuously for some 37 years since graduating, have variously contributed tailings and environmental sections of over twenty mining feasibility studies, feasibility audits and due diligence review reports for a variety of mineral deposit types in many different countries and am a “qualified person” for the purpose of National Instrument 43-101.
5. I am a Chartered Engineer (UK), a Fellow of the South African Institution of Mining & Metallurgy, a Member of the Institution of Civil Engineers, a Member of the Institute of Materials, Minerals and Mining (UK),
6. I am the QP with respect to the Environmental Management and Tailings Engineering in the report “An Independent Technical Report on the Tarkwa Gold Mine, Ghana”, which is based on a study of:
 - all available technical reports, geological and sampling data on the project provided to SRK;
 - first hand discussions with the appropriate project engineers and scientists and other employees currently working on the project;
 - a visit to site between September 7 and 8, 2004.
7. I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission or disclosure of which makes the technical report misleading.
8. I do not own or expect to receive any interest (direct, indirect or contingent) in the property described herein, nor in the securities of GFGL or Gold Fields and am independent of GFGL and Gold Fields.
9. I have had no prior involvement with Tarkwa.
10. The report has been prepared in compliance with National 43-101 and Form 43-101F1 and I have read this Instrument and Form.

September 2004

/s/ Ian Brackley

Dr Ian Brackley CEng FSAIMM

Director and Principal Engineer SRK (UK) Ltd

CERTIFICATE OF QUALIFICATION

I **Rick Skelton** with a business address at Steffen, Robertson and Kirsten (UK) Limited, Windsor Court, 1-3 Windsor Place, Cardiff, CF10 3BX, hereby state that:

1. I am a Principal Consulting Mining Engineer with the firm Steffen, Robertson and Kirsten (UK) Limited (SRK).
 2. I am a graduate of the Royal School of Mines, London, UK, with an honours degree in Mining gained in 1969
 3. I obtained an M.Sc in Mineral Production Management from the Royal School of Mines, London, UK, in 1974.
 4. I have practiced my profession continuously for some 35 years since graduating, have variously managed, authored and co-authored many mining feasibility studies, feasibility audits and due diligence review reports for a variety of mineral deposit types in many different countries and am a “qualified person” for the purpose of National Instrument 43-101.
 5. I am a Chartered Engineer (UK), a Member of the Institute of Materials, Minerals and Mining (UK), and a Member of the South African Institute of Mining and Metallurgy, Johannesburg, South Africa.
 6. I am the QP with overall responsibility for the technical report and specifically with respect to the Mineral Reserves and Mining Engineering in the report “An Independent Technical Report on the Tarkwa Gold Mine, Ghana”, which is based on a study of:
 - all available technical reports on the project provided to SRK;
 - first hand discussions by others with the appropriate project mining engineers and other employees currently working on the project;
 - a visit to site between August 2 and 5, 2004.
 7. I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission or disclosure of which makes the technical report misleading.
 8. I do not own or expect to receive any interest (direct, indirect or contingent) in the property described herein, nor in the securities of GFGL or Gold Fields and am independent of GFGL and Gold Fields.
 9. I have previously carried out consulting work for Gold Fields at Tarkwa as an SRK employee, specifically reviewing the Mineral Reserves in 2002 and assisting with the Expansion Feasibility Study in 2002/3.
 10. The report has been prepared in compliance with National 43-101 and Form 43-101F1 and I have read this Instrument and Form.
-

September 2004

/s/ Rick Skelton

Rick Skelton MSc, CEng MIMMM, MSAIMM
Principal Mining Engineer - SRK (UK) Ltd

APPENDIX D

ENVIRONMENT POLICY

Environmental Policy

The Management of Gold Fields Ghana Limited is committed to adherence to policies and responsible operating practices which promote the conservation or enhancement of the natural and social environments in which the company operates. We recognise that the sustainability of our operations in exploring, developing and exploiting mineral resources is reliant on sound environmental management. We acknowledge that the environment represents a strategic resource for both current and future generations and will therefore minimise to the maximum extent practical the impact that the company's operations have on the environment.

In furtherance of this policy, Gold Fields Ghana Limited has set the following specific objectives:

- 1) Comply with all applicable laws and regulations of the government of Ghana and maintain open and cooperative working relationships with relevant government agencies;
- 2) Apply internationally-recognised industry best management practices for environmental management and sustainable development;
- 3) Establish and maintain a clearly defined environmental management program which covers all relevant aspects of the company's operations and integrate environmental management into the company's day-to-day operational activities;
- 4) Train employees at all levels of the organisation to perform their job functions in compliance with sound environmental practices and procedures and require the highest level of commitment to the company's environmental objectives from company directors, managers and staff;
- 5) Provide managers and supervisors with the necessary resources and authority to carry out the environmental management programme;
- 6) Establish and maintain effective environmental monitoring systems, act promptly and responsibly to address any identified non-compliance, and take necessary steps to prevent reoccurrence;
- 7) Complete periodic reviews of the company's operations to monitor environmental performance and to continuously improve the effectiveness of the environmental management program with consideration of technical and scientific advances;
- 8) Minimise waste generation and maximize efficiency of resource use; and
- 9) Communicate and consult with interested and affected parties on the environmental aspects of company's operations.

The Management of Gold Fields Ghana Limited will actively participate in achieving these objectives for the benefit of the company, its employees, and the communities in which we operate.

R. Graeme
Managing Director

J. Barenberg
General Manager – Tarkwa Gold Mine

Exhibit 99.2

An Independent Technical Report on the Damang Gold Mine, Ghana

Report Prepared for

Gold Fields Limited and IAMGold Corporation

Effective Date: July 1, 2004
Issue Date: October 25, 2004

**Prepared under the Guidelines of National Instrument 43-101 and
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Issued: October 21, 2004

An Independent Technical Report on the Mining Assets of the Damang Gold Mine, Ghana

1 EXECUTIVE SUMMARY

Damang gold mine ("Damang") is operated by Abosso Gold Fields Limited ("AGL") and Gold Fields Limited ("Gold Fields") is the majority share holder, with 71.1% of the issued shares of AGL. The proposed transaction means the acquisition by IAMGold Corporation ("IAMGold") of the Acquired Interests from Gold Fields and its affiliates and the issue by IAMGold of the Consideration Shares to Gold Fields and its affiliates as consideration thereof, resulting in the acquisition by IAMGold of all of the interests of Gold Fields in certain of its subsidiaries which collectively hold all of the mining assets of Gold Fields located outside of Southern African Development Community ("SADC").

Damang is located in southwestern Ghana approximately 280km by road west of Accra, the capital, at a latitude 5°11'N and longitude 1°57'W. Damang is located 40 km north of the town of Tarkwa with good access roads and an established infrastructure. The mine is served by a main road connecting to the port of Takoradi, some 140km to the southeast on the Atlantic coast.

Damang operates under mining lease no. ML 1409/96 granted to AGL on April 19, 1995 for a period of 30 years. It was amended on 4th April 1996 to cover an area of 52.39km(2). AGL also holds a number of prospecting licences.

Significant underground mining at Damang ceased in 1956 with the closure of the Abosso Mine and in 1989 Ranger Exploration examined the feasibility of retreating tailings from the mine together with an open pit extension northwards towards Damang village. Exploration drilling commenced in 1993 and open pit operations began in 1997 utilising a Carbon-in-Leach ("CIL") plant and African Mining Services ("AMS") as the mining contractor and Gold Fields interest commenced in 2001.

Production during the financial year to 30 June 2004 totalled some 5.2 million tonnes ("Mt") processed ore and 303,300 ounces ("oz") gold; all from open pit operations. The ore is hosted within Tarkwaian sedimentary rocks and is in the form of both palaeoplacer and hydrothermal mineralization. The former comprise of Banket conglomerates and the latter dipping tabular quartz veins.

Steffen, Robertson and Kirsten (UK) Ltd.

Registered in England and Wales

Reg. No. 1575403

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Offices in:
Australia
North America
Southern Africa
South America
United Kingdom

Ore is processed in a conventional two-stage grinding circuit using semi-autogeneous grinding (“SAG”) and ball mill combination with gravity concentration followed by a CIL recovery process.

The Damang Mineral Resource and Mineral Reserve Statement as at June 30, 2004 is given in Table 1.1 below:

Table 1.1: Damang Mineral Resource and Mineral Reserve Statement June 30, 2004

	Mineral Reserves				Mineral Resources		
	Mt	g/t	Koz		Mt	g/t	Koz
Proved				Measured			
o/p	2.6	0.9	80		6.4	1.5	310
s/p	9.1	1.4	400		9.1	1.4	400
Total Proved	11.7	1.3	480	Total Measured	15.5	1.4	710
Probable				Indicated			
o/p	8.3	1.4	370		15.8	1.6	820
Total Probable	8.3	1.4	370	Total Indicated	15.8	1.6	820
Total Mineral Reserves	20.1	1.3	850	Total Measured & Indicated	31.3	1.5	1,530
				Inferred			
				o/p	3.8	2.5	300
				Total Inferred	3.8	2.5	300

The Mineral Resource estimate is derived from an open-pit optimization carried out using a gold price of USD 400 per ounce. After calculation of the pit shell the dilution is subtracted from the blocks and the Mineral Resource quoted is essentially the tonnage of the undiluted ore blocks which lie within the outline of the un-engineered pit shell.

The Mineral Reserve estimate is derived from an open-pit optimization carried out using a gold price of USD 350 per ounce. The Mineral Reserve is based on the CIL Plant and contractor mining. The current mine life on which the Mineral Reserves are based continues for four years until 2008.

Damang has been assessed and is operated in accordance with Ghanaian environmental requirements, administered by the Environmental Protection Agency (“EPS”) and holds the required current Environmental Permit and Environmental Certificate. Damang is compliant with its operating permit, has established a reclamation bond, and following a review by the Environmental Protection Agency (“EPA”) in 2001 was officially recognised as the best mine in Ghana in terms of environmental management and compliance.

2 INTRODUCTION AND TERMS OF REFERENCE

2.1 Terms of Reference

Steffen, Robertson and Kirsten (UK) Limited (“SRK”) is a subsidiary of the International group holding company, SRK Global Limited (the “SRK Group”). SRK has been commissioned by the directors of Gold Fields prepare an Independent Technical Report (“ITR”) on Damang in support of the proposed transaction between Gold Fields and IAMGold Corporation (“IAMGold”).

This ITR has been prepared in accordance with the rules and companion policies of the Ontario Securities Commission (“OSC”) enacted by Section 143 of the Securities Act, specifically:

- National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”);
- Form 43-101F1 (the “Form”); and
- Companion Policy 43-101CP (the “Companion Policy”).

In accordance with the applicable Rules and Companion Policies, this ITR has been prepared under the direction of the Qualified Persons (“QPs”) who assume overall professional responsibility for this ITR. The ITR however, is published by SRK, the commissioned entity, and accordingly SRK assumes responsibility for the views expressed herein. Consequently with respect to all references to QPs and SRK: ‘all references to SRK mean the QP and vice-versa’.

The ITR principally comprises a technical-economic appraisal of Damang and has been prepared in accordance with the rules and companion policies stated above, which cover the standards of disclosure for mineral projects under the OSC guidelines which came into effect on 1 February, 2001. It is the recognised format for reporting on the Toronto Stock Exchange.

2.2 Purpose of the ITR

Damang is operated by Abosso Goldfields Limited (“AGL”) and Gold Fields is the majority share holder, with 71.1% of the issued shares of AGL. The proposed transaction means the acquisition by IAMGold of the Acquired Interests from Gold Fields and its affiliates and the issue by IAMGold of the Consideration Shares to Gold Fields and its affiliates as consideration thereof, resulting in the acquisition by IAMGold of all of the interests of Gold Fields in certain of its subsidiaries which collectively hold all of the mining assets of Gold Fields located outside of Southern African Development Community (“SADC”). In this regard Gold Fields will transfer to IAMGold ownership of its interests in:

- Orogen Holding (BVI) Limited (“Orogen”): Orogen holds Gold Fields indirect interests of: 100% of St. Ives Gold Mine in Western Australia (“St. Ives”); 100% of Agnew Gold

Mine in Western Australia (Agnew); 80.7% of Cerro Corona development property in Peru (currently under option); 100% of Arctic Platinum Project in Finland; and a portfolio of other exploration properties and investments;

- Gold Fields Ghana Holdings Limited (“GF Ghana Holdings”): GF Ghana Holdings holds Gold Fields indirect interests of a 71.1% interest in and claim on loan account against AGL, which owns and operates Damang and a 71.1% interest in Gold Fields Ghana Limited (“GFGL”), which owns and operates the Tarkwa Gold Mine (“Tarkwa”) in Ghana; and
- Gold Fields Guernsey Limited, which include a portfolio of exploration properties and investments.

For the transfer of ownership Gold Fields will be issued with 351,690,218 IAMGold Shares in addition to a number of IAMGold Shares equivalent to the net cash contributions made by Gold Fields into the Acquired Companies between 24 June 2004 and the Completion Date.

SRK has been informed that Gold Fields and IAMGold have signed definitive agreements to implement the Transaction on 29 September 2004 subject to satisfaction of certain conditions precedent.

2.3 **Scope of Work**

The scope of work undertaken by SRK comprised a technical and economic review of Damang’s Life of Mine (“LoM”) Plan dated June 30, 2004 and covering the period 2005 – 2008. The review covered the following technical disciplines:

- Geology;
- Mineral Resource Estimation;
- Mineral Reserve Estimation;
- Planning and Production Scheduling;
- Mining Engineering and Open-Pit Design;
- Geotechnical Engineering;
- Mineral Processing and Metallurgy;
- Tailings Engineering and Waste Disposal;
- Environmental and Water Management;
- Capital Expenditure and Operating Costs; and
- Technical Economic Modelling.

2.4 **Sources of Information and Site Inspection**

The ITR has been prepared based on information provided to and taken in good faith by SRK by the management of Gold Fields and, specifically, Damang. SRK has not independently verified by means of re-calculation the underlying data, however SRK has:

- undertaken inspection visits to surface, processing facilities, surface structures and associated infrastructure at Damang during August and September 2004;

- held discussion and enquiry following access to key personnel based at the individual site operations and at head office;
- reviewed and, where considered appropriate by SRK, modified the Damang Mineral Resources and Mineral Reserve estimates dated June 30, 2004;
- reviewed the Damang LoM plan, supporting documentation and the associated technical-economic projections (“TePs”), including assumptions regarding future operating costs, capital expenditures and gold production; and where considered appropriate by SRK modified these; and
- examined historical information and results provided by AGL in support of, in particular, the forecasts contained in the LoM plan and two year budgets.

Key documentation provided to SRK in support of this ITR and as generated by Gold Fields is:

- the Competent Persons Report for Mineral Resources and Mineral Reserves, June 2004; and
- a Technical Report on Damang Gold Mine, Ghana, March 2002.

SRK has satisfied itself that such information is both appropriate and valid for valuation as reported herein. SRK considers that with respect to all material technical-economic matters it has undertaken all necessary investigations to ensure compliance, both in terms of level of investigation and level of disclosure. In doing so, SRK has not reproduced the information provided to it by Gold Fields without due consideration or appropriate modification.

Where fundamental base data has been provided (LoM plans, capital expenditures, operating budgets etc) for the purposes of review, SRK recognises the requirements of 43-101F1 Item 25 and accordingly states that SRK has performed all necessary validation and verification procedures deemed appropriate in order to place an appropriate level of reliance on such information.

In preparing this report Mr Rick Skelton a QP and Principal Mining Engineer visited Damang during August 2004. In addition site visits have been undertaken by other SRK team members, qualified in disciplines other than mining engineering, during the period from June 2002 to September 2004. SRK representatives have held discussions with Gold Fields personnel and examined the geology, mineral resources, laboratory facilities, exploration methodology and potential, processing facilities, mining operations, slope stability, groundwater issues, infrastructure, terrain, tailings facilities and environment.

2.5 **Qualifications of Consultant and Qualified Persons**

The SRK Group comprises 500 staff, offering expertise in a wide range of resource engineering disciplines. The SRK Group’s independence is ensured by the fact that it holds no equity in any project and that its ownership rests solely with its staff. This permits the SRK Group to provide its clients with conflict-free and objective recommendations on crucial judgment issues. The SRK Group has a demonstrated track record in undertaking

independent assessments of resources and reserves, project evaluations and audits, technical reports and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies and financial institutions worldwide. The SRK Group has also worked with a large number of major international mining companies and on their projects, providing mining industry consultancy service inputs.

This report has been prepared based on a technical and economic review by a team of consultants principally sourced from the SRK Group's office in the United Kingdom. These consultants are specialists in the fields of gold geology, mineral resource and mineral reserve estimation and classification; mine engineering and pit modelling, geotechnical engineering; gold processing, hydrogeology and hydrology, tailings management, infrastructure, environmental management and mineral economics.

Neither SRK nor any of its employees and associates employed in the preparation of this report has any beneficial interest in Gold Fields or its assets. SRK will be paid a fee for this work in accordance with normal professional consulting practice.

The individuals who have provided input to this ITR, who are listed below, have extensive experience in the mining industry and are members in good standing of appropriate professional institutions.

Mr Rick Skelton:	MSc, C.Eng, MSAIMM, MIMMM;
Mr Neil Holloway:	Ph.D, C.Eng, FIMMM;
Dr Ian Brackley:	Ph.D, C.Eng, FSAIMM, MIMMM;
Mr Keith Philpott:	MSc, BSc, C.Geol, Eur Geol, FGS;
Edgar Urbaez:	B.Eng, MSc;
Mr Lee Barnes:	MSc, C.Eng, MIMMM.

In compliance 43-101F1 Part 5 subsection 5.1 this ITR has been prepared by following Qualified Persons:

- the Qualified Person with overall responsibility for this independent technical report and the reported Mineral Reserve is Mr Rick Skelton who is an employee of SRK. Mr Skelton is a mining engineer with 35 years' experience in the mining industry and has supervised numerous due-diligence reviews and various technical studies on similar gold mining assets; and
- the Qualified Person with overall responsibility for the reported Mineral Resources is Mr Lee Barnes who is an employee of SRK. Mr Barnes is a mining geologist with over six years experience in the gold mining industry and has been responsible for the reporting of Mineral Resources on various gold mining properties, specifically specialising in resource estimation and classification.

SRK has previously carried out a number of consultancy commissions for Gold Fields at

Damang and these are listed in Appendix B to this report.

2.6 Monetary Rates and Units

All monetary units, unless otherwise stated, are quoted in US dollars ("USD").

All units conform to metric usage except where otherwise stated. Where gold weight is not expressed in metric units it is expressed in troy ounces ("oz") where one troy ounce equals 31.10348 grammes ("g").

2.7 Technical Reliance

SRK places reliance on Damang's QPs that all technical information provided to SRK as at July 1, 2004, is both valid and accurate for the purpose of compiling this ITR. The Damang Mineral Resource and Mineral Reserve estimates have been prepared under the direction of Mr Glen Cole MSc (Geology), MSc (Min Eng), B.Com, MSAIMM and MGSSA, Chief Geologist at Damang who is a full time employee of Gold Fields and has 16 years experience in the gold mining industry and is registered with the South African Council for Natural Scientific Professions ("SACNASP").

2.8 Legal Reliance

SRK has placed reliance on representatives of Gold Fields that the following legal aspects pertaining to Damang are correct as at 1 July 2004:

- that "a statement by the Directors of any legal proceedings that may have an influence on the rights to explore for minerals, or an appropriate negative statement" has been included in the body of the various circulars relating to the proposed transaction;
- that the legal ownership and of all mineral and surface rights has been verified; and
- that no significant legal issue exists which would affect the likely viability of a project and / or the estimation and classification of the Mineral Resources and Mineral Reserves as reported herein.

2.9 Accounting and Financial Reliance

In consideration of all financial aspects relating to the valuation of Damang, SRK has placed reliance of the Financial Officers of Damang that the following information is accurate as at July 1, 2004:

- unredeemed capital balances;
- assessed losses;
- opening balances for debtors, creditors and stores; and
- working capital and taxation logic.

In generating the valuation of Damang, SRK has relied upon the commodity price and macro economic forecasts as included in Section 17, which have been generated by NM Rothschild & Sons (New York) ("Rothschild"), Financial Advisors to Gold Fields.

2.10 Warranties and Limitations

SRK's opinion is effective July 1, 2004 and is based on information provided by Damang

and Gold Fields throughout the course of SRK's investigations, which in turn reflect various technical-economic conditions prevailing at the time of writing. These conditions can change significantly over relatively short periods of time and as such the information and opinions contained in this report may be subject to change.

The achievability of LoM plan, budgets and forecasts are neither warranted nor guaranteed by SRK. The forecasts as presented and discussed herein have been proposed by Damang's management and cannot be assured; they are necessarily based on economic assumptions, some of which are beyond the control of Damang. Future cash flows and profits derived from such forecasts are inherently uncertain and actual results may be significantly more or less favourable.

This report includes technical information, which requires subsequent calculations to derive subtotals, totals and weighted averages. Such calculations may involve a degree of rounding and consequently introduce an error. Where such errors occur, SRK does not consider them to be material.

2.11 **Disclaimers and Contingency Statements for US Investors**

The United States Securities and Exchange Commission (the "SEC") permits mining companies, in their filings with the SEC, to disclose only those mineral deposits that a company can economically and legally extract or produce from. Certain terms are used in this report, such as "resources", that the SEC guidelines strictly prohibit companies from including in filings.

Mineral Reserve estimates are based on many factors, including, in this case, data with respect to drilling and sampling. Mineral Reserves are derived from estimates of future technical factors, future production costs, future capital expenditure and future gold price. The Mineral Reserve estimates contained in this report should not be interpreted as assurances of the economic life of Damang or its future profitability. As Mineral Reserves are only estimates based on the factors and assumptions described herein, future Mineral Reserve estimates may need to be revised. For example, if production costs increase or product prices decrease, a portion of the current Mineral Resources, from which the Mineral Reserves are derived, may become uneconomical to recover and would therefore result in Mineral Reserve estimates with lower tonnages and contained gold.

The LoM plans, the TePs and the Financial Model ("FM") include forward-looking statements in compliance with the requirements of NI 43-101. These forward-looking statements are necessarily estimates and involve a number of risks and uncertainties that could cause actual results to differ materially.

3 PROPERTY DESCRIPTION AND LOCATION

3.1 Location and Access

Damang is located in southwestern Ghana approximately 280km by road west of Accra, the capital, at a latitude 5°11'N and longitude 1°57'W. Damang Gold Mine is located 40 km north of the town of Tarkwa with good access roads and an established infrastructure. The mine is served by a main road connecting to the port of Takoradi, some 140 km to the southeast on the Atlantic coast (Figures 3.1 and 6.1).

3.2 Mining Leases

Damang operates under mining lease no. ML 1409/96 granted to AGL on April 19, 1995 for a period of 30 years. It was amended on 4th April 1996 to cover an area of 52.39 km(2)(Figure 4.1). AGL also holds a number of prospecting licences as shown in Table 3.1.

Table 3.1: Prospecting Licenses

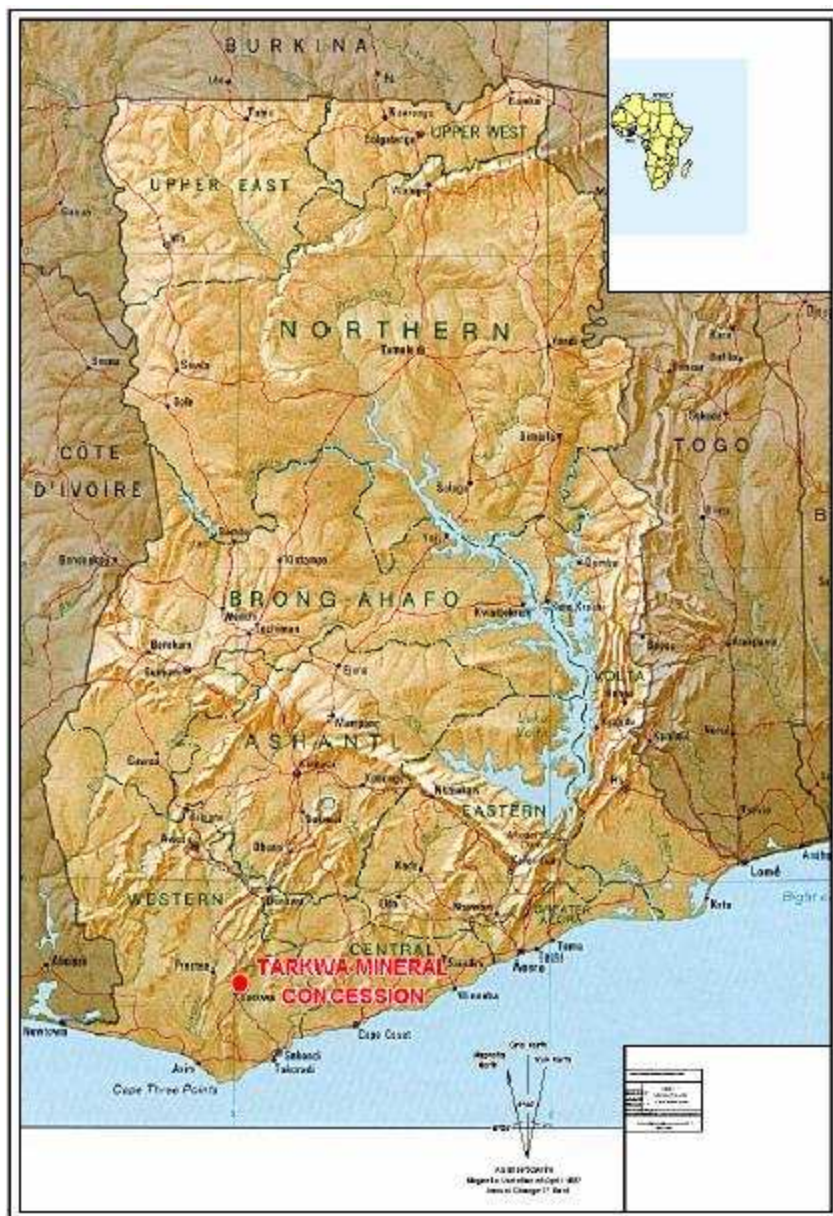
Name	License Number	Current Status	Date Granted	Expiry Date	Area (km(2))
Bonsa Forest / Western Areas	P/L 2/151	Application made for conversion to Mining Lease	November 21, 1994	April 7, 2004	27.85
Bonsa River FR	P/L 2/376	Current	February 24, 2003	February 23, 2005	27.85
Subiri	P/L	Application is with Minister	NYA	NYA	38.78
Huni Valley	P/L	Application Lodged July 29, 2004	NYA	NYA	104.4
Saponso	P/L 6/231	Current	September 25, 2001	February 18, 2006	28.05
Nyankumasi	P/L 6/26R	Renewed August, 2003	JV option commenced on January 25, 1999	July 2005.	19.4
Total					238.5

3.3 Information on Equity

AGL is the legal entity holding the Damang concession mining rights. Gold Fields is the operator of the mine and majority share holder with 71.1% of the issued shares of AGL. IAMGold, through its wholly owned subsidiary Repadre Capital Corporation, holds 18.9%, and the Ghanaian Government a 10% free carried interest, as required under the Mining Law of Ghana.

The Government of Ghana has a 10% non-participating interest in all exploration and mining ventures with the right to purchase an additional 20% equity interest in the mining venture at a fair market price.

Figure 3.1: Locality map



Royalties of 3% - 12% of mineral revenue are paid to the Government of Ghana. The current 3% royalty rate is based on a 30% operating ratio. Where the operating ratio is below 30% the rate is still 3%, but the unused margin can be carried forward to reduce the operating ratio in subsequent years. Where the operating ratio is over 30% but less than 70%, the rate of royalty is 3% plus 0.225% of every one percent by which the operating ratio exceeds 30%. Where the operating ratio is 70% or more, the rate is 12%. The formula for calculating the operating ratio is revenue versus operating costs and capital cost allowances (royalty payments, and taxes imposed on income are not allowable operating costs).

Companies may export gold to any foreign refiner upon approval of the Government. The Government has a pre-emptive right to purchase the gold production at fair market value, although this right has never been exercised. Offshore foreign currency retention accounts for the receipt of foreign currency, including the proceeds from gold production, are permitted.

3.4 **Environmental Liabilities**

Environmental issues and liabilities are discussed in Section 14.

4 ACCESSIBILITY , CLIMATE AND INFRASTRUCTURE

4.1 Topography , Climate and Vegetation

The Damang area is characterized by gently rolling hills incised by an extensive drainage network with low lying swamp areas. Maximum local topographic relief is approximately 80 m.

A tropical climate with average monthly temperatures between 21°C and 32°C is characterized by two distinct rainy seasons from March-July and September-November. Average rainfall near the site is some 2030 mm. Although there may be minor disruptions to operations during the wet season there is no long term constraint on production due to climate at particular times of the year.

Extensive subsistence farming occurs throughout the area with cocoa, plantain, pineapple, cassava, maize, yam and some oil palm and coffee being the principal crops.

Deforestation has degraded the natural vegetation in the area of the mine to secondary forest, scrub and cleared land. No primary forest occurs on the mine site.

4.2 Local Infrastructure and Economy

The village of Damang was relocated from the pit area and is now situated on the Damang-Tarkwa road some 1.5 km from the mine. Damang is connected to the national hydroelectric power grid, but has its own back-up power system with a peak capacity of 17.5 megawatts ("MW") and an operating capacity of 14.5 MW.

A main asphalt road connects Takoradi with Tarkwa and fuel requirements are sourced from the Shell Ghana bulk storage facility. Three 40,000 litre tanks are kept full on site at all times if possible as part of the backup power station.

Raw water for the plant is provided from the Damang diversion and bores. There is also potential to recover water from the Ayaasu River if required.

Domestic communications are provided by way of a microwave link and landline. International communications are provided by a direct satellite link and land lines.

[illegible]

5 HISTORY

5.1 Ownership and Operations

Small scale gold mining activities in the area date back to the late 19th Century, but the most significant operation on the Damang lease area comprised the now abandoned Abosso Mine which exploited Banket conglomerates to a depth of approximately 850 m. It operated from 1882 until 1956 with a recorded production of about 2.7 million ounces (“Moz”) of gold from ore with an average grade of 9.8 g/t. Other underground mines to the north, particularly Adjah Bippo and Cinnamon Bippo which produced significant quantities of gold between 1882 and 1918, were incorporated into the Abosso Mine holdings after 1920.

From 1989, Ranger Exploration, initially with other partners, firstly examined the feasibility of retreating tailings from the Abosso Mine and then the northeast extension of the Banket conglomerates towards Damang village. Here artisanal miners were exploiting alluvium shedding from two low ridges. Gold appeared to be associated with both Banket conglomerates and a flat lying quartz vein system.

Pitting and trenching carried out between 1990 and 1992 demonstrated near surface mineralization over a 3 km strike length and this was followed by drilling in 1993. By early 1996 a three million ounce resource had been estimated and a feasibility study demonstrated that open pit mining would be viable to a depth of about 200 m.

Operations commenced in August 1997, following the relocation of 3,000 local people and the diversion of streams and a railway line. Gold production started in November of the same year utilising a CIL plant with a throughput of 3.0 Mtpa. AMS acted as mining contractors to Ranger during this period.

In October 2001, Gold Fields and RIC signed an agreement to purchase Ranger’s 90% interest in Damang, and then in 2003 IAMGold merged with RIC giving IAMGold an 18.9% interest in Damang.

5.2 Historical Production

Production for the past seven years is as shown in Table 5.1 below:

Table 5.1: Historical Production of Damang

Financial Year (July to June)	Ore Processed (Mt)	Metal Production (oz Au)
2004	5.2	308.3
2003	4.9	299.4
2002	4.5	306.7
2001	4.5	322.4
2000	4.1	347.8
1999	3.7	269.7
1998	1.7	132.5

5.3 **Historical Exploration**

Historical exploration is outlined in Section 6.

5.4 **Historical Mineral Resource and Mineral Reserve Statements**

As an operating mine, the Mineral Resource and Mineral Reserve estimates at Damang are updated annually as at June 30. Reconciliations are carried out systematically at Damang between actual production and the Mineral Resource and Mineral Reserve estimates on a monthly and annual basis. These are described further in Section 10.

6 GEOLOGY

6.1 Regional Geology

The Damang orebodies are located within the Tarkwaian System which forms a significant portion of the stratigraphy of the Ashanti Belt in southwest Ghana. The Ashanti Belt is a north-easterly striking, broadly synclinal structure made up of Lower Proterozoic sediments and volcanics underlain by the metavolcanics and metasediments of the Birimian System. The contact between the Birimian and the Tarkwaian is commonly marked by zones of intense shearing and is host to a number of significant shear hosted gold deposits including Prestea, Bogoso and Obuasi.

The Tarkwaian unconformably overlies the Birimian and is characterized by lower intensity metamorphism and the predominance of coarse grained, immature sedimentary units which from oldest to youngest are:

- Kawere Series (250 – 700m) – poorly sorted, polymictic conglomerates and quartzites with no significant mineralization;
- Banket Series – well sorted conglomerates and quartzites with clasts generally considered to be Birimian in origin and containing significant gold mineralization, hosting the Damang orebody;
- Damang Phyllite Series (120 – 140 m) – fine grained chloritic siltstones, mudstones and schists with no significant mineralization; and
- Huni Series (1370 m) – fine grained massive quartzites with no significant mineralization.

6.2 Local Geology

Damang Mine contains mineralization hosted within Tarkwaian palaeoplacer deposits, present as individual tabular quartz pebble conglomerate units (reefs) interlaminated within quartzites and argillaceous sandstone units. Palaeoplacer mineralization has been traced from the Damang main pit (in the North) approximately 35 km to the Abosso Deeps area, in the southern part of the Damang Mineral Lease area. Abosso Deeps is situated on the western limb of the Damang Antiform and was a major producer of gold until the 1950s.

In addition to the syngenetic orebodies, epigenetic hydrothermal quartz lodes are also present within the Tarkwaian sedimentary host rocks; these lodes are accompanied by gold mineralization within the veins themselves, as well as within the quartz-sulphide-sericite alteration haloes around the individual veins. By and large, the veins occur as spaced sets of veins and higher-grade mineralization appears to be spatially associated with areas in which close-spaced vein sets are present, leading to development of pervasively altered rock between vein sets.

The Damang Extension Project (“DEP”) consists of four separate project areas, namely the Rex and Amoanda areas that host hydrothermal mineralization and the Tomento North and Tomento South areas that host Tarkwaian palaeoplacer mineralization present as quartz

pebble conglomerates. Rex is located to the east of the Chida South pit, south of Amoanda which is located south of the Tomento North and Tomento East project areas (Figure 4.1). Despite the apparent differences within the geological construction of the two mineralization styles (namely palaeoplacer and hydrothermal mineralization) the geological modelling and following geostatistical modelling follow very similar routes.

6.3 Structure

Damang is hosted within a north-north-westerly plunging antiform developed within Tarkwaian rocks and is located approximately 50 km northeast of Tarkwa. The antiformal closure plunges shallowly to the north, whereas the eastern and western limbs of the antiform dip steeply (40-50 degrees) to the east and west respectively. The main Damang Pit is located close to the closure of the antiform, whereas the Kwesie-Lima deposit is located within the eastern limb and the Damang Extension Project areas are all located within the western limb of the antiformal structure.

6.4 Deposit Types and Mineralization

6.4.1 Palaeoplacer Mineralization

The palaeoplacer mineralization present at Damang is similar, but not identical in character to the Tarkwaian mineralization present and exploited at Tarkwa. Mineralization at Tarkwa occurs within oligomictic, well sorted quartz-pebble conglomerates that macroscopically bear some resemblance to Witwatersrand conglomerates. Many of the conglomerates developed at Damang contain sub rounded to angular clasts and display poorer sorting compared to the conglomerates at Tarkwa. In contrast to other Precambrian quartz pebble conglomerates (such as Witwatersrand, Blind River and Jacobin), the Tarkwaian conglomerates contain volumetrically insignificant sulphides and the opaque mineralogy of these rocks is dominated by hematite and magnetite. Sulphides are typically restricted to selvages of exogenic quartz veins or dykes within the sequence. Gold is typically concentrated within the lower parts of the conglomerate units.

The Tarkwaian reef units also change character across the Damang anticline, such that the Western Limb and Eastern Limb of the Damang antiform display slightly different stratigraphies, both from east to west and also from south to north within the western limb of the Damang antiform. SRK saw evidence of significant correlation studies between the reef units present on the eastern and western limbs of the Damang antiform, as well as between the Damang and the Tarkwa areas. These, studies, completed by AGL geologists, followed detailed logging of drill holes within the project area.

The footwall sequence consists of a distinctive quartzite with well developed lamination and the presence of distinctive sedimentological structures. The first conglomerate reef (referred to as the Star) developed above this distinctive lithology, is characterized by the incidence of a big pebble oligomictic conglomerate unit that fines upwards to a quartzite unit, through a pebbly quartzitic sequence. A second polymictic conglomerate-quartzite cyclic unit characterizes the Malta Reef and a third cycle of oligomictic conglomerate-quartzite defines stratigraphies developed. For example, within the Malta Reef, the lowermost conglomerate

unit is overlain by pebbly quartzites and there are three individual cycles with conglomerates at the base within the Malta reef unit at Tomento East. At Tomento North, however, the upper two “cycles” of the Malta reef have coalesced to a single composite unit. There are also other differences with respect to the data available for modelling. The majority of the data at Tomento North is reverse circulation (“RC”) drill hole data, whilst at Tomento East there are a significant number of diamond drill hole data available for inclusion within the modelling process. Inevitably within the RC data, there is an element of “mixing” of different stratigraphic domains arising from the inability to precisely define stratigraphic contacts from drill cuttings as opposed to diamond cores.

The Damang palaeoplacers have been identified within the Tarkwa stratigraphy and represent the uppermost conglomerates at Tarkwa. The Afc, b (Main) and c (West) reefs at Tarkwa progressively onlap towards the north, such that the lowermost Star reef at Damang represents the composite assemblage at Tarkwa.

In the Kwesie-Lima area, on the eastern limb of the Damang Anticline, two reef zones are developed: the thinner, more channelized oligomictic Lima Reef and the overlying, thicker, more sheet-like, polymictic Kwesie Reef. The Lima Reef is thought to have been deposited in an incised fluvial channel system and therefore the “time unit” concept can be applied to it. However, the T1/T2 time units are rarely seen and the T3 is poorly developed indicating that the Lima area may have been an interchannel area because of footwall uplift to the south. The Kwesie Reef is thought to have accumulated in an “un-incised” sheet-flood dominated alluvial fan or apron (bajada). If it is an apron then other areas of potentially economic Kwesie Reef may be present elsewhere along strike (such as Subiri and the Bonsa Forest). The Lima Reef has reasonable gold values at Kwesie-Lima, but is diluted by a thick waste sandstone unit above it. The Kwesie Reef is subdivided into two sub-zones, a lower K1 subzone and an upper K2 subzone.

To date there is not enough information to correlate with certainty the Kwesie-Lima Reefs with the Chida-Tomento Reefs, although the Lima Reef may correlate with the Star, the K1 with the Malta and the K2 with the Gulder. A clast geochemistry study may confirm correlations. Figure 6.2 illustrates the proposed correlation of the Banket sequence between the east and west limbs of the Damang Anticline. This results from extensive regional sedimentological work conducted recently in an attempt to correlate (and interpret) the reef horizons across the entire Damang lease area.

6.4.2 Hydrothermal Mineralization

The hydrothermal mineralization consists of shallowly dipping tabular quartz veins. Sidewall photographs of the main Damang Pit (Huni Pit) clearly display arrays of predominantly shallowly dipping, narrow (<1 m thick) quartz vein sets, with a suggestion of the presence of more steeply inclined linking veins between the generally sub-parallel, shallowly inclined veins. Morphologically, the arrays resembled thrust fault arrays, with dominant sole and roof thrusts representing the shallowly inclined veins and steeper veins representing frontal and lateral ramps within the thrust system. Two alteration styles are recognised within the lithologies affected by the hydrothermal system. The earliest alteration

assemblage is rock. This hematite alteration is overprinted by quartz-sericite-sulphide (“QSS”) alteration spatially related to the quartz vein systems. This QSS alteration occurs as haloes around the quartz veins that may extend to approximately 1 m from the veins. Where the veins are close enough to each other, the alteration haloes may overlap, resulting in volumes of pervasively altered lithologies around densely spaced quartz veins. Gold mineralization is spatially associated with the quartz veins and associated alteration envelopes.

The geometry of the vein sets and the associated alteration haloes can be considered to define “pod-like” geometrics characterized by zones of enhanced quartz-vein and alteration coupled with enhanced gold grades. The geological modelling of the quartz vein “pods” has considered the spatial evaluation of several variables including:

- quartz vein densities by investigating the separation distance quartz veins and relating the separation distance to the grade of the intervening lithology;
- alteration assemblages and intensity of alteration, as well as correlation between gold grades and presence of alteration; and
- vein orientation, has been measured within diamond drill cores and these orientations have been used in section view to assist with the interpretation of the interpolation of veins between drill holes and consequently with the ultimate geometry of the mineralized pods.

The mineralized pods have been interpreted in cross-section views and these geometrics have been linked together to define three-dimensional entities representing individual pods, or volumes of enhanced vein density and alteration assemblages, coupled with enhanced gold grade. In the case of the Rex deposit, the drill hole data between the section lines is more dense than at Amoanda; these data confirm the continuity of mineralization the individual sections. Quartz vein pods at Rex consist predominantly of shallowly westerly dipping tabular zones. At Amoanda, a single pod with a more equant geometry dominates the total tonnage contained with the mineralized pods. However, the remaining pods have tabular, shallowly dipping forms.

Figure 6.1:-Regional geology of southwest Ghana

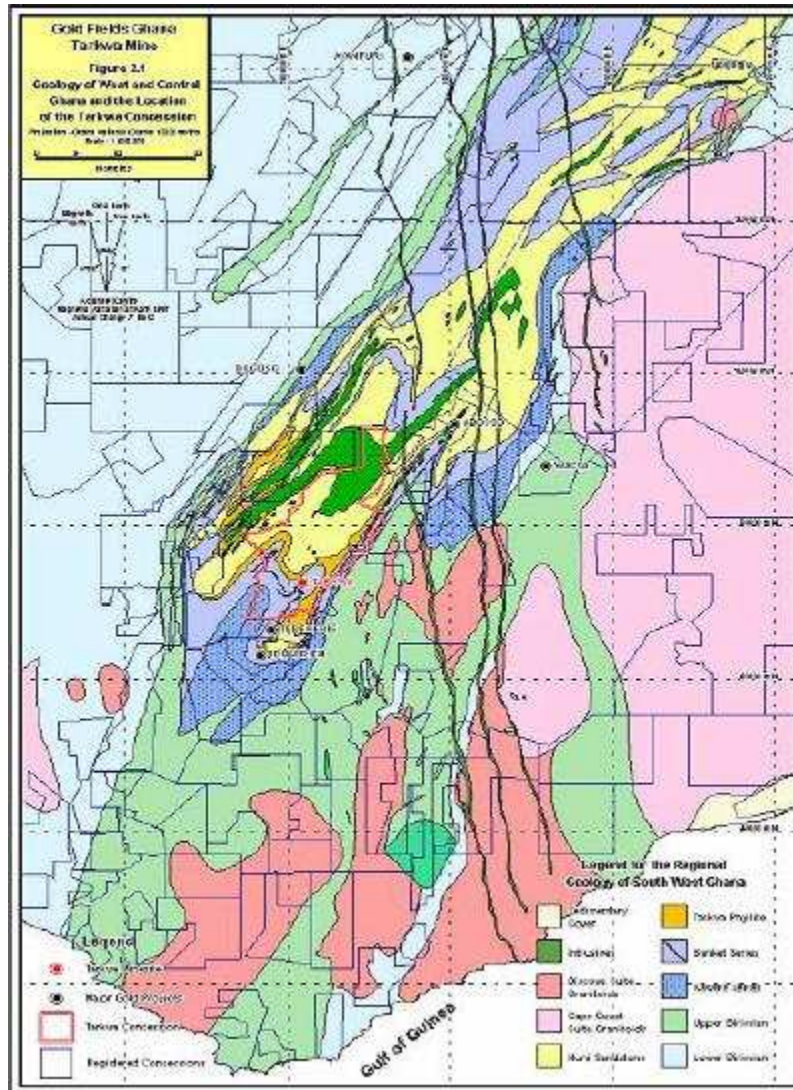
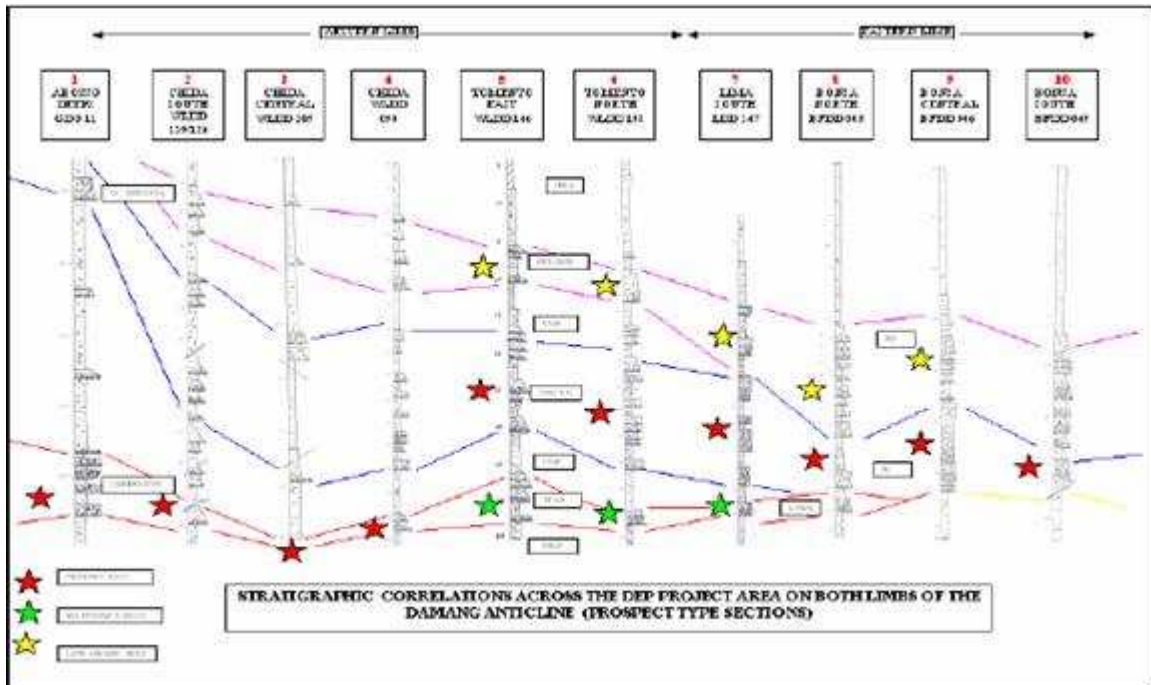


Figure 6.2: Schematic Proposed Correlation of the Banket sequence across the Damang Lease Area



7 EXPLORATION AND DRILLING

7.1 Exploration

7.1.1 Introduction

Pitting and trenching were carried out between 1990 and 1992 with drilling commencing in 1993. Exploration drilling has consisted primarily of RC with some diamond core drilling for density and metallurgical data. It is undertaken by contractors with AGL samplers assigned to collect information on penetration rates, sample recovery, the presence of water and any potentially contaminated samples. This information is recorded and utilized in resource modelling.

Diamond core drilling is carried out to develop a sound understanding of sedimentary structure and controls on mineralization, whilst RC drilling provides infill grade information once control is established.

The year to June 2004 has seen exploration and evaluation work directed toward establishing resources at known targets: Tomento North and Tomento East palaeoplacer prospects, and Amoanda and Rex hydrothermal deposits. Exploration has also been extended southward along the eastern limb of the Damang Anticline, primarily aimed at testing Banket Series rocks for both palaeoplacer and hydrothermal gold. Recent re-evaluation of soil geochemical data gathered by Ranger Minerals has highlighted several targets that remain to be tested.

With mining of the Damang Pit to current design due to be completed in October 2004 and the planned treatment of low-grade ore stockpiles scheduled for the remainder of mine life, additional impetus was employed to advance known targets such as Tomento, Amoanda and Rex. The Damang Extension Project ("DEP") team was instituted in December 2003 to assist with this work. Additional sources of oxide ore were particularly targeted as the bulk of remaining stocks of low-grade ore at Damang are fresh rock material.

7.1.2 Lima South

The Lima South Project is within the AGL Prospecting Lease (PL 2055/95), north of the boundary of the Bonsa River Forest Reserve. The project falls adjacent to the active mining area of the existing Damang mine south of the AGL Mining Lease. The project and the infrastructure required for the development of the mining area are situated some 1.5 km south of the STSF. Although the site is currently only linked by small access roads for exploration and service vehicles, the Lima South pit will be a southerly continuation of the active Lima pit.

Metallurgical test work on samples from 11 holes drilled in 2002/03 indicate that the conglomerates have a similar leach profile to that seen at Tarkwa, although the dissolutions are slightly lower than those at Tarkwa. Average porosity is 0.19% and recovery increases

with finer crushing. Recovery is slightly lower at intermediate and very fine crush sizes as compared to that of Tarkwa. AGL considers CIL as the most likely treatment option for Lima South oxide ore.

Application has been submitted to the Government in December 2003 for the conversion of Prospecting Lease to a Mining Lease. Approval of the conversion by the Ghana Minerals Commission awaits the grant of an environmental permit by the EPA. AGL does not know of any significant impediment to the grant of such permit.

7.1.3 **Bonsa / Bonsa North Prospect**

The Bonsa Prospect is located along the eastern limb of the Damang Anticline and incorporates a 10 km southerly extension of the Kwesie-Lima Banket Sequence. The majority of the area is within the Bonsa River Forest Reserve. Forestry permitting issues are ongoing with current three-monthly permit renewals. To date the following work has been undertaken:

- re-interpretation of aeromagnetic data indicating a 10 km north-south strike extent of Banket stratigraphy confirmed by soil geochemistry and drill results;
- establishment of baseline and 200 m spaced cross lines over the area;
- structural subdivision of the Prospecting Licence to Northern, Central and Southern areas;
- detailed mapping of 25 m spaced pits along the cross lines over the area;
- first phase diamond drilling on 200 m spaced lines incorporating 52 diamond drill holes for 4882 m to locate and test gold potential of the Banket Reefs;
- second-phase infill diamond drilling (15 holes for 1250 m) in the Northern area to close data line spacing to 100 m;
- levelling of soil geochemistry across the Bonsa Prospect identifying an additional three target areas with potential for hydrothermal mineralisation;
- infill soil geochemistry in each of the hydrothermal target areas to close regional soil geochemistry line spacing from 500 to 100 m lines (21.6 km line cutting for 1,464 soil samples).
- identification of 3 hydrothermal targets areas that warrant further follow up;
- survey works to delineate drillhole collar and soil sample locations; and
- completion of an extensive revegetation program involving re-establishment of 13,500 tree seedlings and ongoing revegetation maintenance programs.

7.1.4 **Hydrothermal Targets**

Three hydrothermal targets in the central and southern regions of the Bonsa Forest were identified from samples returning greater than 100 ppb gold in levelled soil geochemistry. Gold-bearing hydrothermal quartz-pyrite veins in two of these areas were previously intercepted in stratigraphic drill holes. A programme of infill soil geochemistry to close the regional line spacing from 500 to 100 m is complete and involved 21.6 line km for 1,464 samples. Infill soil geochemistry confirmed hydrothermal target areas, which warrant further investigation but are currently on hold due to ongoing forestry permitting issues.

7.1.5 Subiri

Approval of Subiri Prospecting Licence application is pending an agreement between AGL and Wexford Goldfields. Sign-off of this agreement has been delayed due to tenement boundary survey discrepancies and is currently being addressed by Wexford Goldfields via independent survey consultants. The area is considered prospective for both palaeoplacer and hydrothermal gold mineralisation.

7.1.6 Other Exploration Targets

Levelling of existing soil geochemical data from the Damang, Subiri and Bonsa River Forest tenements was completed during April 2004. The levelling procedure was necessary to establish consistent data thresholds to separate anomalous values from background levels such that new exploration target areas could be identified. The levelling procedure involved a statistical manipulation of the soil geochemical data to minimize the influence of the different datasets. Review of levelled soil geochemistry data has identified a number of new target areas as follows:

1. Subiri (palaeoplacer - previously identified)
2. Golf Course
3. Huni Valley
4. Rex North
5. Rex South
6. Bonsa Central (previously identified)

Exploration follow up work for each of these anomalous areas in the Damang lease area is planned and work has begun in the Rex South area with a programme of mapping and test pitting.

7.2 Drilling

Currently, a total of 3,112 exploration holes have been drilled of which 790 have been drilled by AGL. The AGL drilling has primarily been carried out using diamond coring methods; however, the total includes 471 RC holes. Total exploration drilling to date amounts to some 231,330 m.

The following list summarizes the data available for completion of the 2004 model:

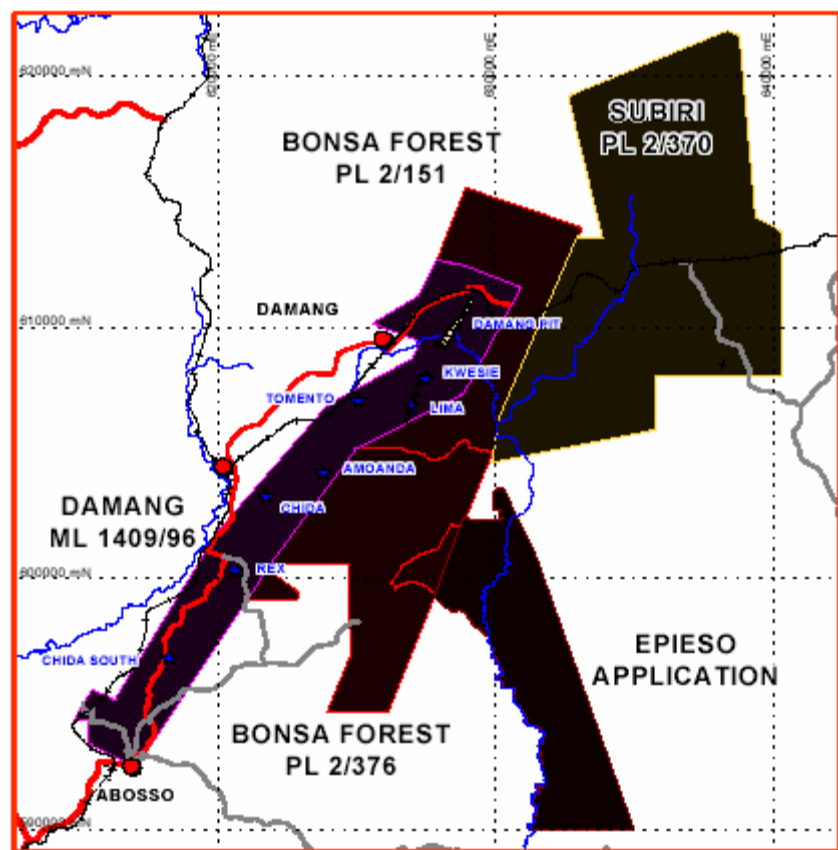
• Diamond Drilling:	1,360 holes	(142,638 m)
• Other Holes:	138 holes	(6,986 m)
• RC holes on a 40x40 m grid:	1,614 holes	(81,706 m)
• Grade control holes (RC):	79,465 holes	(953,580 m)

All grade control drill holes have also been captured in the *Acquire* geological database. The database captures the following:

- (1) The collar positions of all RC and diamond holes.
- (2) Down-the-hole survey data.
- (3) Lithological data.
- (4) Assay data.
- (5) The final stratigraphic zoning of all boreholes.

Mining software geological databases are used for final data storage and data manipulation and validation routines are carried out.

Figure 7.1: Damang Mining Lease, Prospecting Licenses and Applications



8 SAMPLING

8.1 Sampling Method and Approach

Initial exploration drilling is carried out using diamond coring with sampling at 1 m intervals from the hangingwall contact to the footwall. Samples are also taken in the footwall and hangingwall to test for low grade dilution.

Sampling during RC drilling and grade control is carried out on the basis of vertical 1 m composites with sampling starting at the hangingwall of the uppermost reef horizon and continuing below the footwall of the lowermost package. An initial split is carried out at the drill rig using a 3-tier riffle splitter and a 3.5 kg sample is bagged for analysis. Representative rock chips are collected during the drilling and logged on site by a geologist to establish the stratigraphic context of the sampling and to provide a geological description of each sample.

8.2 Sample Preparation, Analysis, Security and Data Verification

AGL has developed a stringent sample preparation and analysis regime along with a strict quality control program. All exploration drilling utilizes 50 g fire assay analysis unless otherwise prescribed. At times, bottle roll tests with catalyzed cyanide leach (800 g charge) is employed where closer spaced infill grade information is required. Samples are always under the supervision of AGL staff until submitted to the laboratory, and a system submission ensures the tracking progress in the system.

Prior to 2002 analytical services were provided by SGS Laboratories, Tarkwa; since 2002 by Transworld Laboratories in Tarkwa. Grade control drill samples are analyzed on site by Analabs West Africa Ltd.

The AGL Quality Control program consists of the following:

- field re-splits every 100th sample (a complete second sample is taken which provides information regarding fundamental sample error and repeatability of results);
- laboratory repeats every 25th sample (a second sample is taken after the first stage of comminution that indicates preparation errors);
- pulp repeats every 25th sample (Indicates analytical variance);
- blanks every 50th sample (indicates carry-over of gold between successive sample due to improper cleaning of laboratory equipment); and
- standards every 50th sample (low value, medium value and high value standards, are submitted (supplied by RockLab and Gannet) to ensure the calibration of analytical equipment is correct.

The SGS laboratory is ISO 9001 and 9002 compliant and is aiming for ISO 17025 compliance by the end of 2005. Transworld and Analabs have not yet achieved ISO compliance but are reported to be aiming to achieve this in the near future.

Periodically, sample pulps are submitted to alternate laboratories to assess the quality of analysis. The laboratories also participate in regular round robin analyses. AGL maintains an ongoing grade reconciliation program between current grade and tonnage models with actual tones mined and grades reported by the mining department.

The sampling and assay methodologies employed at Damang are standard within the mining industry for mineralization of the type associated with the Damang deposit and in SRK's opinion are carried out to a high standard and are adequate for the intended purposes. Damang carries out ongoing grade and tonnage reconciliation studies which are discussed in further detail in Section 10.5. Data are compared between the exploration drilling, grade control and belt sampling results. The underlying data supporting the resource estimate is considered by SRK to be generated and input in the corresponding resource models in satisfactory manner. Given the operating history of Damang and the ongoing reconciliation studies SRK considers the sampling and assay information to be reliable and has therefore not carried out any check sampling or assays. Reliance is therefore placed on the information provided by GFGL in this respect.

9 ADJACENT PROPERTIES

The mining leases held by AGL are adjacent to the mining lease held by GFGL approximately 35km to the south. Ownership of GFGL mirrors that of AGL, and AGL conducts operations at Tarkwa to the south of Damang.

Bogoso / Prestea Gold Mine (“Bogoso”) is an open pit mining operation owned and operated by Bogoso Gold Limited which is 90% owned by Golden Star Resources Limited (“Golden Star”) and 10% by the Government of Ghana, and lies south of Bogoso Township in the west of Ghana approximately 120km from the port of Takoradi.

Iduapriem Gold Mine (“Iduapriem”) lies 6 km south of Tarkwa and is an open pit mining operation owned and operated by AngloGold Ashanti Limited (“AngloGold”), with 10% held by the Government of Ghana.

Technical information on Bogoso and Iduapriem is available in public domain documents published by Golden Star and AngloGold respectively that are available on these companies’ websites.

Akoon Gold Mine is situated to the north of Tarkwa and was an underground operation from 1912 to 1999. Gold Coast Resources Inc. currently owns an option on this closed facility.

10 MINERAL RESOURCES

10.1 Introduction

The process of estimating the Mineral Resource at Damang involves the use of a number of factors based on historical results and planned dilution. Both exploration and grade control drill results are used for geological modelling and grade interpolation. Currently, Mineral Resources are classified according to the guidelines set out in the South African Code for Reporting Mineral Resources and Mineral Reserves (the “SAMREC Code”). SRK considers that the derivation of the Damang Mineral Resource and Mineral Reserve also conform to the definitions and guidelines prepared by the CIM Standing Committee on Mineral Resources and Mineral Reserves and approved by the CIM Council of the Canadian Institute of Mining, Metallurgy and Petroleum in August 2000 (the “CIM Standards”).

10.2 Damang Main Pit

Previously the IK7C block model, which was created in March 2001, was used for Mineral Resource reporting at the Damang Pit. In mid 2003, 16 additional diamond drillholes were completed and in November 2003 the IK7C model was updated over a 400 m strike length in the Juno 1 and Juno 2 areas. The methodology used for the resource estimation remained unchanged and the updated portion of the resource model was cut into the IK7C model to produce a new model (IK8). SRK has reviewed the updated model and the Hellman and Schofield Pty Ltd report and considers that its findings and comments on the IK7C model are still relevant to the updated model.

This model is unconstrained due to the complexity of the ore zones, which make wireframes difficult to construct although lithologies are modelled separately and grade estimated into these separately. Grade interpolation is by Multiple Indicator Kriging (“MIK”) into 20 (E-W) by 40 (N-S) by 3 m blocks. The median rather than the mean is used for the upper class indicator cut for blocks informed by less than 75% diamond drillhole data and cutting of outliers is carried out based on statistical analysis.

From previous analysis RC and diamond drillhole samples appear to be different statistical populations. Although good quality control procedures are in place, the RC samples exhibit very poor precision, however the influence of RC samples decreases with depth.

Due to the use of stockpiles and different grade and fresh / oxide ore types, accurate reconciliation is difficult at Damang. Also if grade control policy is changed slightly then this also impacts on the different ore type grades and tonnage. Reconciliation has shown in the past that the grade control model overestimates grade by approximately 5% compared to belt sampling. This may be due to dilution and losses, variable stockpile grades or biased sampling data. The resource model grade is generally slightly higher than that of the grade control model, however given that more tonnes are extracted than predicted from the resource model this is to be expected.

Tonnage factors of 0.7 for 1.1-1.8 g/t material and 0.5 for 0.5-1.1 g/t material were applied

to the IK7C Model based on reconciliation exercises. Recently a non-linear series of factors was derived that, when applied on a tonnage-weighted basis to the entire IK8 model closely approximate the 0.7 and 0.5 factors previously. Following the application of these factors tonnage reconciliation appears reasonable.

10.3 **Kwesie Lima**

In the Kwesie-Lima area two reef zones are developed: the thinner, more channelised oligomictic Lima Reef and the overlying, thicker, more sheet-like, polymictic Kwesie Reef. The Lima Reef has reasonable gold values, but is diluted by a thick waste sandstone unit above it. The Kwesie Reef is sub-divided into two sub zones, a lower K1 sub zone and an upper K2 sub zone.

Kwesie-Lima was initially drilled and trenched on 80 m spaced traverses in 1996-97 with further resource definition drilling at 20 mE by 40 mN spacing by a combination of DDH and RC drilling completed in 2002. Since then the area has been extended and has a total strike length of almost 3 km including Lima South, which is contiguous to the current Lima Pit. At Kwesie in the north, a drill spacing of 10 mE by 20 mN has been achieved and at Lima a drill spacing of 20 mE by 40 mN although this reduces to 100 mN along strike in the south.

A wireframe model incorporating the new area was developed in 2003 in which the three reefs were modelled in separate wireframes. Interpolation is by ordinary kriging into 10mE by 20 mN by 3 mRL blocks with interpolation constrained within the wireframes. There are no extreme outliers and therefore no cutting.

AGL reports that detailed mapping during mining has indicated that, in places, reef correlations in the model are incorrect, often because of fault displacements and associated intrusives. However, overall the model provides satisfactory predictions of ore volumes and grades.

10.4 **Tomento, Amoando and Rex**

SRK has reviewed the geological modelling practices of the DEP deposits and concurs (both in the palaeoplacer and hydrothermal mineralization) that the models have been developed in an attempt to mirror or abstract the geological reality by making use of several different lines of evidence or data. It must be recognized that the models have been developed in the presence of relatively sparse data (sparse with respect to the anticipated variogram ranges), that consists of a mixture of diamond drillhole and RC data. The amount and relative detail of geological data accessible from these two data sources differs. Additionally, some of the defined pods are quite small and contain comparatively few individual samples. Despite this limitation, the models appear to be based on conservative application of sensible principles. The estimation process makes use of Simple Kriging estimates ("SK"). Ordinary Kriging ("OK") is more widespread in general application than SK, however diagnostic data from the estimates clearly shows that under the estimation conditions prevailing in the Amoanda estimates, the OK estimates are of poor quality and retain some significant conditional

biases, which should be avoided wherever possible. SRK considers that the methods used by AFL in this case are reasonable and valid.

The individual variograms derived from each of the palaeoplacer reefs and the various pods defined within the hydrothermal mineralization are for the most part quite poorly structured and difficult to interpret. The use of template models derived from one of the better informed pods is definitely justified, but enforces the assumption that the variograms of the pods share a common general form. The overall weakness of the experimental variography would preclude, in SRK's opinion the classification of any of the Mineral Resources as Measured. The impact of the variogram on the determination of recoverable resources needs to be considered as a source of risk in this project. In all cases, additional variographic information has been brought into the variogram models from grade control data sources. In the case of the hydrothermal mineralization, a short-range structure has been included by analogy with the grade control data from the main Damang Pit. SRK recommends that one of the pods should be considered as a test case and the variogram model flexed within ranges and variance levels considered reasonable within the framework of the geological models, to develop estimates of the recoverable resources presented for a range of test cases against the base case. This test can illustrate the scale of potential variability that may be realized as a result of differences that may be present in the variograms when more complete data are available.

AGL has based its estimates of the global precision of the estimate of each pod on SK results. SRK notes that this method assumes that the mean grade used in the estimation is error free. This is not the case; some error is attached to the determination of the mean and this explains why, for a corresponding neighbourhood, the kriging error variance of an SK estimate is less than that of the OK estimate. SRK suggests that it may be more relevant to undertake OK with a global neighbourhood for the determination of the global error variance of each pod, and to use this error variance to determine the confidence intervals about the mean grades for each pod. However, the statistical basis for the classification aside, the Mineral Resource classification appears reasonable with the majority of the Mineral Resource classified as Indicated.

10.5 **Reconciliation Studies**

10.5.1 **Damang Pit**

Reconciliation of Grade Control to Mill Actual

Ore loss factors applied to the IK8 resource model, the grade dilution factor applied, post-optimization and design, are discussed in Section 10.2. Those factors have been derived empirically from reconciliations over the life of the Damang Pit against resource models of the day.

On-going reconciliations of Run-of-Mine ("RoM") tonnes and grades predicted by grade control ("GC predicted") to actual tonnes mined and grades realized have been carried out by AGL. RoM ore has been defined variously as +1.6 g/t, +1.8 g/t or +2.0 g/t ore at various

times throughout the mine life. At Damang, the term Mine Call Factor (“MCF”) is the ratio of actual grade to GC predicted grade.

The history of MCFs at Damang can be broken down into several periods:

- From November 1997 to April 1999, grade control consistently over-estimated actual grades by approximately 12%. Investigations revealed a possible bias between gold grades in grade control samples and assays in resource definition drilling. Retrospective analysis has revealed that sample bias may have been a component of the problem but that errors in locations of samples drilled from natural surface prior to commencement of mining, along with poor sub-sampling procedures during early grade control sampling campaigns, were probably the main problems.
- From April to November 1999, a system of factoring of assays was introduced in an attempt to ameliorate the effect of the perceived sample bias. This resulted in under-prediction of grades from June to November 1999. During that period mining progressed to levels below the depth of pre-mining grade control drilling and sample quality appears to have improved significantly.
- From December 1999 to October 2001, grade control predicted ore grades satisfactorily.
- After October 2001, the MCF was affected by reclamation of oxide stockpiles built prior to April 1999 and by the way Kwesie-Lima ore grades were predicted by using global average grades for each of the Banket reefs. In January 2003 Kwesie-Lima Mineral Resource grades were estimated using the local block grade estimates in the resource block model rather than a global average.

Reconciliation of Grade Control to Resource Models

Resource ore tonnages and grade are derived on a monthly basis by cutting progressive month-end survey surfaces through the resource model, that is “mining the model”. Mill actual grades for material deriving from Damang Pit were estimated by applying monthly MCFs to grades predicted by grade control. Again, extraneous influences on the MCF after October 2001 need to be borne in mind.

Comparisons to the resource model have shown reasonable reconciliation for RoM tonnage and grade over the life of the mine. A trend of grade control locating greater ore tonnages at higher grades in the latter half of calendar 2003 has since reversed and since January 2004 grade control has located lower ore tonnages and grades. This almost certainly reflects uncertainty in local estimates as the working area of the pit becomes smaller and progresses to depth in areas of incomplete resource drill coverage.

Resource models have shown a fairly consistent tendency to over-predict recoverable tonnages of 1.1-1.6 g/t material most of the life of the mine. It is this historical comparison that forms the basis for the ore loss factors applied to the IK7c and IK8 resource models. Since the tonnage factors were introduced in March 2001 the comparison has improved

significantly. The deterioration from about October 2003 is almost certainly caused by the same problems that affect RoM core comparisons; the increasing impact of uncertainty in local estimates as the pit working area decreases and advances into poorly drilled areas.

10.5.2 **Kwesie-Lima**

Reconciliations of actual grade to grades predicted by the resource model are not possible for ore from Kwesie and Lima pits; the ores are always processed after blending with ore from Damang pit.

Comparison of ore tonnages predicted by the 'Lima Wireframe Model' with tonnages mined over eighteen months to June 2004 show that the differences mainly relate to differences between predicted and actual locations and volumes of intrusive dolerite dykes. Total tonnage mined is 96.5 % of predicted tonnes. This is the basis for the ore loss factor applied to estimation of Mineral Resources and Mineral Reserves at Kwesie-Lima.

10.6 **Data Analysis**

All assay data is captured electronically and in hard copy format. Basic statistics are produced after completion of wireframe modelling to check the validity of samples which lie within the geological model as well as the stationarity of the domains. 1 m composites are produced from the hangingwall intersection with a minimum of 40 cm allowed at the base to allow for shorter composite lengths. Statistics are calculated for vertical thickness, grade and metal accumulation. SRK considers the approach taken by AGL to be appropriate, given the size of the database available.

10.7 **Mineral Resource Statement**

The Mineral Resource Statement in Table 10.1 represents the Mineral Resource at Damang estimated by AGL as at June 30, 2004. In SRK's opinion the tonnage and grade estimates and classification are appropriate according to the SAMREC Code and CIM Standards.

Dilution is applied to the blocks and a pit optimization is carried out using a USD 400 per ounce gold price. After calculation of the pit shell the dilution is subtracted from the blocks and the Mineral Resource quoted is essentially the tonnage of the undiluted ore blocks which lie within the outline of the un-engineered pit shell.

The Measured and Indicated Mineral Resources are quoted inclusive of those Mineral Resources modified to produce the Mineral Reserves.

SRK recommends that the use of a constrained resource model for the Damang Pit is investigated further prior to any decision regarding the proposed Damang cut back. Although the current Mineral Resource represents a reasonable global estimate there is a risk in using it for deepening studies.

Table 10.1: Damang Mineral Resource Statement, June 30, 2004

Mineral Resource Classification	Mt	g/t	Koz
Measured			
open-pit	6.4	1.5	310
surface stockpile	9.1	1.4	400
Measured sub-total	15.5	1.4	710
Indicated			
open-pit	15.8	1.6	820
Indicated sub-total	15.8	1.6	820
Total Measured and Indicated	31.3	1.5	1,530
	Mt	g/t	KOz
Inferred			
open-pit	3.8	2.5	300
Inferred Total	3.8	2.5	300

SRK considers the approach applied in the estimation of the Mineral Resources and Mineral Reserves for the DEP should be applied at Damang as a whole. SRK also considers that there is good potential for increasing the Mineral Resources and Mineral Reserves at Damang and AGL is currently conducting exploration and evaluation programmes to this end.

SRK has not recalculated the base information supporting the Mineral Resource estimates as derived from bore-hole and assay data, this given the extensive history of Damang and geological investigations undertaken by AGL and previous owners. However, SRK has undertaken sufficient checks through the course of its investigations to enable an appropriate level of reliance to be placed on such data, as provided.

11 MINING AND MINERAL RESERVES

11.1 Mining Method

Mining at Damang is carried out by conventional open pit methods using a contractor-fleet operated by AMS, a subsidiary of Henry Walker Eltin. AMS has held the earth-moving contract since the commencement of operations in August 1997.

Ore and waste is loaded using a standard truck-shovel operation with three hydraulic excavators in backhoe configuration (one Liebherr 994 and two Liebherr 984). The truck fleet consists of 12 rear-dump Caterpillar 777D and four rear-dump 773B with an average payload capacity of 90 t and 48 t respectively. Ancillary equipment includes bulldozers, loaders, graders, water trucks and service truck vehicles supporting the drill-and-blast and haulage operations through vehicle, road and bench maintenance, dust and erosion control. Consistent with the current production schedule, mining is carried out for 7 days per week using two shift panels. Each panel operates for approximately 10 hours in duration each shift.

In the Damang pit, fresh and transitional zone materials are drilled and blasted in 6 m lifts with excavation in 3 m flitches. To optimise ore fragmentation and blast control, blasting is carried out using either electronic or standard Nonel initiation systems. The majority of oxide material is excavated without blasting.

From the Lima and Kwesie pits, which are located approximately 3.5 km from the treatment plant, oxide and transitional ore is selectively mined to provide incremental feed to the mill. Blasting is performed using standard Nonel initiation systems on wide pattern configurations. Off-highway trucks haul ore to reclaim stockpiles near to the mining area. A fleet of tipper trucks operated by Engineers and Planners Ltd then reclaims the ore and transports it to the treatment plant.

Waste material is hauled to progressively rehabilitated waste dumps or in-pit dumps. AGL has an advanced reclamation plan whereby, as areas become inactive, they are immediately rehabilitated through contouring, replacement of topsoil, seeding, planting and fertilisation.

11.2 Grade Control Procedures

In the Damang pit, grade control sampling is by drilling of vertical RC holes to create sample coverage at 5 mE x 8 mN x 1.5 mRL spacing. The uppermost 1.5 m from each drill hole is not sampled and each hole is drilled 1.5 m below the base level of the bench for which ore outlines are required. Sample data are taken into the 'MP3TM' conditional simulation and optimization routine and maximum profit models generated at 1.1 and 1.8 g/t cut-off grades using 2mE x 5 mN x 3 mRL blocks. Ore categories recommended by MP3 TM are used as the basis for digitizing ore outlines for each 3 m flitch. Ore grades for each of the outlines are predicted by reference to the estimated block grades provided by MP3 TM.

In Kwesie and Lima pits, bulldozer rip lines are established on each 3 m floor at intervals of 10-15 m along strike, depending on the locations of faults. Footwall and hangingwall contacts of the Banket reefs are located by geological mapping and marked. Mining ore boundaries are then marked out on the pit floor and picked up by surveyors. Banket reef material is not routinely sampled. Ore grades are predicted by reference to block grades in the “Lima Wireframe Model” using the surveyed ore outlines. Check sampling of rip lines has been conducted in the past and found to generally support the resource block model grades.

11.3 Optimization and Pit Design

SRK worked with AGL on the DEP during the first half of 2004. SRK was provided with resource models that had been constructed by AGL for the Rex, Tomento and Amoanda deposits and SRK conducted the optimization study and derived the Mineral Reserve estimates for these three deposits. The Mineral Reserves for the Damang Pit, Kwesie-Lima deposits and the stockpiles have been derived by AGL.

In January 2004, a cut-back of the eastern and southern walls of the Juno 2 portion of the Damang pit was designed after in-house pit optimisation using the updated IK8 model. That design has been incorporated into the LoM Plan and the declared reserves include ore within the Juno 2 SE Cutback.

Based upon recent pit optimisations by SRK the current Damang pit design, including the Juno SE Cutback, is now recognised as not being optimal at a gold price of USD 350 per ounce. Nevertheless there are insufficient sample data in many locations to enable a confident update of the design of other portions of the Damang pit at this time. The 2004 declared Mineral Reserve is based upon the January 2004 update of the ultimate pit design that forms the basis for the current LoM Plan.

The Kwesie-Lima pit design and mining schedule used to define Mineral Reserves are those that underlie the January 2004 Damang LoM Plan. Pit designs and schedules for the Tomento North, Tomento East, Amoanda and Rex prospects derive from work by SRK using Whittle 4XTM and Gemcom software, a gold price of USD 350 per ounce.

11.4 Historical Production

Table 11.1 illustrates the historical production for the past three fiscal years (July to June) at Damang.

Table 11.1: Tarkwa Historical Production

Production History	Year ended June Units	2004	2003	2002
Production				
Ore Mined	(kt)	5,439	4,457	2,402
Head Grade	(g/t)	2.02	2.11	2.34
Waste Mined	(kt)	9,855	13,928	5,437
Strip Ratio	(koz)	1.8	3.1	2.3
Tonnes treated	(kt)	5,236	4,877	1,951
Yield	(g/t)	1.8	1.9	2.3
Gold Produced	(koz)	308	299	141

11.5 Stockpiles

The stockpiles as included in the Mineral Reserve comprise lower grade mineralisation that has been accumulated since the start of mining of the Damang Pit. The stockpile material comprises 45% of the total stated Mineral Reserve tonnage and contained metal. SRK notes that no modifying factors have been applied to the stockpile Mineral Resource to convert this to a Mineral Reserve, which it considers to be reasonable.

AGL has recently conducted preliminary test work including check surveying, an initial drilling programme and limited campaign mining / processing of material from a portion of the B3 stockpile. Whilst there are difficulties obtaining representative samples from RC drilling on stockpiles this exercise should continue to improve confidence in local estimates on the stockpiles.

11.6 Mineral Reserve Estimation

The Damang Pit Mineral Reserves are those that remain within the lower levels of the current 'final pit'. The DEP has identified the potential to develop an economic cutback to this 'final' pit and an in-fill drilling programme is in progress to further evaluate the Mineral Resources in this area. The Mineral Reserve for the Damang Pit includes the Juno 2 SE cutback, mining of which has been deferred until the evaluation of the Damang cutback has been completed. Although the Juno 2 SE Cutback design may be modified, SRK considers inclusion of this in the current Mineral Reserve to be appropriate. AGL has not included any other of the potential cutback to the Damang Pit in the current Mineral Reserve declaration. SRK has reviewed and is very familiar with the methodology used by AGL for the conversion of Mineral Resources to Mineral Reserves and generally supports the approach and methodology that has been used.

SRK considers that the Mineral Reserves for Kwesie-Lima may be slightly overstated, however overall the Mineral Reserves declared should be economically extractable. The impact of a reduction in the Mineral Reserve is also likely to reduce the waste mining requirements and thereby improve the economics and the projected cash flow. SRK also recommends that further work is carried out at Kwesie-Lima on the derivation of the Mineral Reserves so that the parameters used in the Mineral Reserve derivation are comparable to those used on the other deposits at Damang.

The Lima South deposit is within the AGL Prospecting Lease (PL 2055/95) north of the boundary of the Bonsa River Forest Reserve and an application was submitted in December 2003 for the conversion of the Prospecting Lease to a Mining Lease, which is subject to the granting of an environmental permit by the Environmental Protection Agency. SRK has been informed by AGL that it knows of no significant impediment to the grant of such permit and therefore concurs that the Lima South deposit can be declared as a Mineral Resource and Mineral Reserve as long as the position with the Mining Licence is also stated.

11.7 **Geotechnical Constraints**

AGL is committed to safe surface mining operation. In fulfilment of AGL's Environmental Impact Statement and other relevant mining legislation in Ghana, AGL has implemented geotechnical procedures and standards in support of the surface mining operations. The geotechnical program is managed by the Mining Department of AGL and supported by SRK. Geotechnical pit face mapping on accessible benches and geotechnical logging of drill cores are conducted according to standards for input into the Mining Rock Mass Classification scheme. Indicative Overall Slope Angles and Indicative Bench Stack Angles corresponding to a given rock mass rating value are inferred from standard design charts, for a required factor of safety.

Mapping of major structures and rock mass fabric are conducted on accessible benches in the pit for kinematic analysis using DIPS, a stereographic analysis tool developed by Rockscience Inc. The kinematic stable angles are compared to the empirically derived angles to arrive at the most acceptable design angles. A minimum factor of safety against failure of 1.25 is generally accepted.

Pit wall faces, upper slopes and accessible benches are regularly monitored to determine their rates of deformation. Where there is an indication of instability, survey prisms are installed and monitored with a total station. The rate of deformation is then calculated from the survey readings and appropriate operating procedures implemented.

Due to variations in the properties of the rock masses constituting the pit walls, as well as operational constraints, the overall slope angles actually achieved are less than the design angles in certain sections.

Routine review of slope angles is conducted internally by the mine and externally by SRK to update the pit designs as more geological and geotechnical information becomes available. Ground water levels are monitored from piezometers installed on the pit perimeter. Controlled blasting and surface water control form part of slope stabilization techniques employed on the mine.

AGL together with SRK has collected and analysed a considerable amount of data relevant to a consideration of optimising safe slope geometry. At the Kwesie-Lima Pits, for example, the footwall slope is generally fairly weathered and sheared and the dip will vary from 45-60°, according to strata dip. A recommendation for a 6 m wide spill berm constructed every

35 m of vertical slope height should permit safe excavation. The hangingwall slope will vary according to the thickness and disposition of each of the three reefs and the nature of the middling (sandstone or saprolitic intrusion). An overall slope angle of 30-35° in the upper slope and 42-46° in the lower slope has been recommended. Similarly, geotechnical assessments for the Rex and Tomento Pits indicate recommended overall slope angles of 30-62° dependent upon rock type. Mapping during 2004 of the Damang Pit east wall indicated a slope assessment from 55.5-59°, whereas actual slope angles (including ramps) are 47-50°. Therefore SRK considers the LoM Plan is achievable with the above assessments.

11.8 Mineral Reserve Statement

The Mineral Reserve Statement in table 11.2 represents the Mineral Reserve at Damang estimated by AGL as at June 30, 2004. In SRK's opinion the tonnage and grade estimates and classification are appropriate according to the SAMREC Code and CIM Standards.

Table 11.2: Damang Mineral Reserve Statement, June 30, 2004

	Mt	g/t	KOz
Proved			
open-pit	2.6	0.9	80
surface stockpile	9.1	1.4	400
Proved sub-total	11.7	1.3	480
Probable			
open-pit	8.3	1.4	370
Proved sub-total	8.3	1.4	370
Total Proved and Probable	20.1	1.3	850

The Mineral Reserve estimates are based on a gold price of USD 350 per ounce. The Proved Mineral Reserves are derived from Measured Mineral Resources and Probable Mineral Reserves from Indicated Mineral Resources.

SRK has reviewed the methodology used by AGL at Damang for the estimation of the 2004 Mineral Reserve. For the planning methodology applied by AGL, and for the operating cost assumptions, SRK considers that the derivation of the Mineral Reserve at Damang to be appropriate and conforms with the guidelines and definitions of the SAMREC Code and CIM Standards.

Table 11.3: Damang Mineral Reserve Sensitivities

Gold Price	(USD/oz)	300	325	350	375	400
Proved and Probable Reserve	(Mt)	16.8	18.8	20.2	21.2	22.1
Average Grade	(g/t)	1.3	1.3	1.3	1.3	1.3
Contained Gold	(Koz)	689	760	861	884	917

AGL has produced a series of Mineral Reserve sensitivities (Table 11.3) that provide an indicative estimate of the Mineral Reserves at a range of gold prices. These estimates are derived by factorising pit shells optimized at each gold price.

12 METALLURGY AND MINERAL PROCESSING

12.1 Introduction

The Damang milling circuit was commissioned in November 1997 at the design throughput of 3 Mtpa. A number of modifications and optimisations allowed an increase in the annual throughput to close to 5 Mtpa. The plant is a conventional two-stage grinding circuit using SAG and ball mill combination, with pebble crusher and gravity concentration, followed by a carbon-in-leach recovery process. The average throughput of the plant is currently 14,500 tpd with an average availability of 92%.

The plant is processing a blend of hard, un-weathered ore (phyllite, dolerite and sandstone) and of highly weathered oxides (laterite, saprolite). The current blend is varying between 60% and 75% fresh rock, depending on the ore grade, availability of the ore and state of the SAG liners.

Table 12.1: Fresh Ore Characteristics

Bulk Density	t/m ³	1.6 - 2.2
Specific Gravity	t/m ³	2.65
Unconfined Compressive Strength	Mpa	200
Bond Ball Mill Work Index	kWh/t	15.4
Bond Rod Mill Work Index	kWh/t	21.3
Crushing Work Index	kWh/t	50
Abrasion Test		0.65
JK Tech Parameter A		75
JK Tech Parameter B		0.37

12.2 Processing

12.2.1 Crushing

The crushing plant reduces the RoM ore from 80% passing 800 mm to about 80% passing 200 mm. The plant consists of a 2000 t/hr gyratory crusher (Krupp 1370 mm x 1880 mm or 54" x 75") driven by a 450 kW motor. The crusher is fed by a front-end loader or rear dump trucks. The feed is a combination of both fresh rocks and oxides and is fed in a ratio depending on the requirements downstream. The product from the crusher is fed into a surge hopper, which is on top of a variable speed apron feeder. The speed of the apron feeder is controlled by the surge hopper level and tends to speed up when the level is high and vice versa. Material from the apron feeder discharges onto conveyor CV1 which also discharges onto conveyor CV2. The ore is then discharged to the reclaim ore stockpile with a live capacity of about 10,000 t and total of 100,000 t.

12.2.2 Grinding and Classification

The purpose of the milling section is to produce blended leach feed with approximately 80% passing 106 mm. The section consists of a SAG mill (8 m x 5.1 m) with a power rating of 5.8 MW and a ball mill (6.1 m x 9 m) with a power rating of 5.8 MW. Ore to the milling circuit is drawn from the bottom of the stockpile onto conveyor CV3 via

two variable apron feeders. An emergency feeder that is fed with a front-end loader is also available to be used. Lime is added onto the conveyor and together with the ore is discharged into the SAG mill. Steel balls of 140 mm diameter are also charged into the mill to effect the size reduction. The discharge from the SAG mill, which is about 80% solids, goes through a sizing regime on the trommel (12 mm openings) and the dewatering screen. The undersize from the trommel and the dewatering screens are then pumped by 14/12 centrifugal Millmax pump to the ball mill impingement box, which together with cyclone underflow and the Falcon tails is presented as feed to the ball mill. The dewatering screen oversize material which is about 80% passing 60 mm is recycled by undergoing a further size reduction to 80% passing 12mm in the HP500SX Nordberg short head cone crusher. The pebble crusher product is returned to CV3 and fed to the SAG mill.

Cyanide is added at the feed of the ball mill to maximize the gold dissolution during the grinding and reduce the accumulation of free gold in this part of the circuit.

The discharge from the ball mill is pumped through a Tech Taylor valve by a 14/12 Millmax pump (600 kW) to a cluster of sixteen 375 mm Cavex cyclones. Between 8 and 10 cyclones are in open simultaneously with an operating pressure of 100-120 psi.

A fraction of the cyclone underflow is then introduced to the gravity section (approximately 50 tonnes per hour (“tph”)). The purpose of this section is to remove any free gold out of the circuit. The section consists of a vibratory screen, which is fitted with 5 mm-aperture screen cloth and two Falcon concentrators. The feed is introduced to the screen with the oversize reporting back to the ball mill and the undersize going to the Falcon distribution box. Dart plugs are used to distribute flow to one or both Falcon concentrators. The tails from the Falcon goes to the ball mill for further grinding. The Falcon concentrate is discharged in a hopper located in the gold room. The hopper content is processed daily on a Gemini table. The gravity circuit currently recovers approximately 20% of the gold.

12.2.3 Leaching and Adsorption

Gold is recovered by activated carbon. The cyclone overflow at a density of 45% solids is introduced onto the trash screen (0.8 mm apertures) and the undersize presented as leach feed. At this stage about 40% of the gold is dissolved. Cyanide at 250 ppm and oxygen is added to the CIL tank (15.25 m diameter by 17.48 m high). Hydrogen peroxide is dosed to tanks 1 and 2 to maintain dissolved oxygen at 14 ppm and 10 ppm respectively. There are six tanks that operate in series and the nominal capacity is 3000 m³ giving a retention time of approximately 3 hours per tank. The required cyanide concentration is always adjusted to ensure adequate gold extraction. The tanks are run at a pH of 9.8. Each tank is fitted with 2 cylindrical intertank screens (NKM type – 1 mm apertures) with mechanical wiper blades to keep carbon away from the screen surface and dual open impellers. Fresh carbon is introduced to tank six and is advanced to tank one in counter current flow to the pulp using a 30 kW submersible recessed impeller pump.

The slurry discharging from tank six is screened on a horizontal vibrating screen (tailings

screen) which is fitted with 1 mm aperture polyurethane mats. This screen recovers and returns to the CIL circuit any coarse carbon discharged accidentally.

The screen underflow reports to the thickener which is a 22 m diameter Superflo high rate type, and has an 11 kW motor for rake drive. The slurry entering the feed well is mixed with flocculent to aid the settling of the solids. A two-stage variable speed drive pump that is piped in series then pumps the underflow at a target density of 55% solids to the tails dams. Part of the thickener overflow is diverted to the plant while the other part is sent to the process water dam where it is mixed with the tails return water and pumped back to the plant.

12.2.4 Elution and Gold Recovery

Elution of the adsorbed gold is achieved by using a solution containing 2% cyanide and 3% caustic solution. The dissolved gold is then electroplated onto stainless cathodes.

The loaded carbon is recovered from tank 1 into the acid wash column. This is then acid washed using 3% strength hydrochloric acid followed by water flushing. The rinsed carbon is then transferred to the elution column where caustic/cyanide solution of 3% and 2% respectively is circulated through via the heat exchangers. Elution is carried out at 110 °C at an operating pressure of 350 Kpa in the column. Four Allglass electro-winning cells are provided for the electro-winning circuit where the pregnant electrolyte is introduced for gold deposition. Periodically, the gold loaded stainless steel cathodes are removed from the electro-winning cells and hosed down with high pressure water. This will remove the plated gold into a hopper where it is filtered and the sludge smelted after it has been dried in an oven.

The barren carbon is transferred to the adsorption circuit or to the carbon regeneration kiln where it is regenerated at 650 °C in a horizontal gas fired kiln. The regenerated carbon is collected in a quench tank and pumped back to the CIL circuit.

12.3 Historical Performance

Table 12.2 shows the historical performance of the CIL Plant at Damang for the past three years. During this time throughput has exceeded budget in two of the three years, costs have exceeded budget in the same two years, however unit costs (per tonne processed) have been under budget.

Table 12.2: Damang CIL Plant Historical Performance

FY End June	Throughput Budget (Mt)	Throughput Actual (Mt)	Costs Budget (USDm)	Costs Actual (USDm)	Costs Budget (USD/t)	Costs Actual (USD/t)
2002	4.6	4.5	25.96	25.16	5.62	5.63
2003	4.6	4.9	25.85	26.61	5.62	5.46
2004	4.6	5.2	26.68	27.93	5.80	5.33

In the LoM Plan the CIL Plant is projected to process up to 5.2 Mtpa, which is the tonnage achieved in 2004. The LoM Plan unit operating cost is based on the actual cost achieved in 2004.

A review of the performance of the CIL Plant over the past three years shows that, compared to budget, feed has been higher, grade has been marginally lower, recovery has been met and operating costs have been comparable. Overall, in SRK's opinion the basis of the LoM Plan is reasonable.

[illegible]

13 TAILINGS

13.1 Introduction

The tailings output of the Damang plant is 5 Mtpa and this is placed on the East Tailings Storage Facility (“ETSF”). A previous impoundment, the South Tailings Storage Facility (“STSF”) was decommissioned in early 2002 and is in the process of being vegetated and reclaimed. The ETSF was designed by Knight Piésold (Ghana) Limited (“Knight Piésold”), and the company is involved with the regular monitoring and inspection of the facility.

Both tailings facilities are located in areas with a number of natural hills and ridges, which have significantly reduced the earthworks required for construction. The facilities have been designed by specialist consultants to contain extreme rainfall events. The drying out of the deposited tailings is maximized by rotating the discharge point around the dam perimeters. This method of disposal allows the tailings to gain a higher density and strength and assists in minimizing seepage.

The ETSF containment is formed by substantial embankments of mine waste, and is effectively a co-disposal system for tailings and mine waste. The top surface area of the ETSF is 100 ha, and the maximum embankment height is approximately 25 m. The average dry density of the partially consolidated tailings on the impoundment is 1.37 t/m^3 . The present rate of rise is 3.8 m per annum.

13.2 Capacity

At current rates of production, the ETSF will be filled in the second half of 2005, and additional capacity will be needed. Knight Piésold is at present studying the options for raising the ETSF by 5, 12 or 18 m, and a decision will be taken in January or February 2005 on the long-term use of the ETSF or the development of a new impoundment elsewhere. The main limiting factors for substantial raising of the ETSF are the required large volumes of earthworks, and the proximity to the main pit on the west side. Although the site had a favourable initial topography, the impoundment is now at an elevation where an increase in height will require embankments to be raised around the entire perimeter.

The five metre raise to 983 m is to be constructed during 2004/5, providing additional capacity for approximately 15 months, to the latter part of 2006. The additional capacity provided by a new facility, or by a further raising of the ETSF, must be available in the second half of 2006. The initial capital cost of a new impoundment will be approximately USD3M and the additional cost of closure will be a further USD2M present day prices.

13.3 Tailings Water Quality

The tailings are not acid generators, and the tailings water does not contain high levels of metals. As a result, the limited seepage from the tailings impoundments is of a quality within acceptable limits. Water from the pool on the surface of the impoundment is returned to the plant as make-up water, and there is no discharge to the river. There is minor seepage at the downstream toe of the ETSF, but no acid generation, and metal concentrations and

cyanide concentrations are within regulatory and recommended international limits. Water from the STSF goes into two sedimentation ponds, and discharges from these ponds are within the standard for total suspended solids and cyanide.

13.4 **Embankment Constructi on**

The ETSF containment was constructed in three stages from 1999 to 2002, and was commissioned in December 2000. The fourth raise was completed between November 2002 and March 2003, to a crest elevation of 978 m. It was intended that a final raise would take place to 980 m between November 2003 and March 2004, but this was cancelled. As noted, a raise to 983 m is planned for 2004/5.

13.5 **Tailings Delivery and Deposition**

Waste material from the process is passed through a thickener to recover water and reagents before it is pumped to the ETSF. The tailing discharge from the thickener is approximately 55% solids by mass. The tailings pipes to each dam are single mild steel pipes, but are at present being replaced with 450 mm high-density polyethylene ("HDPE") pipes. Tailings are discharged from six spigots at 24m spacings, though variations are used at times for pool control. At the time of the inspection in September 2004, the pool was small, controlled by good beaches, in spite of the relatively high rate of rise.

13.6 **Return Water System**

There is a barge-mounted pump and two other land-mounted return water pumps, one of which is for back-up. The tailings return water lines are 335 mm HDPE pipes, each laid above the ground along the side of the light vehicle access roads between the tailings dams and the process plant.

13.7 **Free Boa rd**

The designs require that a minimum freeboard of 1 m be maintained at all times during the operational life of the mine in order to provide sufficient storage to contain a 1 in 100 year rainfall event over a 72 hour period.

13.8 **Operating Manua l**

An operating manual was issued in January 2004 by Knight Piésold ("East Tailings Storage Facility Operations Manual").

13.9 **Monitoring and Auditin g**

Information from monitoring of the ETSF is sent to Knight Piésold and the Ministry of Mines monthly for review, and a Knight Piésold engineer carries out a quarterly inspection. The Ministry of Mines inspects the facility at approximate annual intervals. Piezometers in the embankment are monitored for stability assessment.

13.10 **Rehabilitation and closu re**

There is a detailed rehabilitation programme for the STSF, and the work has been successful, with the establishment of large numbers of oil palm seedlings and leguminous trees. The outer slopes of the north arm and the east arm of the ETSF have been regraded, topsoiled and vegetated. The rehabilitation programme continues.

14 ENVIRONMENT AND WATER MANAGEMENT

14.1 Environmental policy

The management of AGL is committed to adherence to policies and responsible operating practices which promote the conservation or enhancement of the natural and social environments in which the company operates. The Environmental Policy is included as Appendix D.

14.2 Environmental Assessment and Permitting

The mine remains in compliance with its operating permit and has formally established a reclamation bond. In a review by the EPA of Ghana in 2001, Damang was officially recognised as the best mine in the country in terms of environmental management and compliance.

14.2.1 Environmental Certificate

Damang has been assessed and is operated in accordance with Ghanaian environmental requirements, administered by the EPA, and holds the required current Environmental Permit and Environmental Certificate.

The EPA also requires the following for the duration of the operations:

- monthly monitoring returns;
- an annual environmental report; and
- an update of the Environmental Management Plan (“EMP”) at intervals of three years.(The next is required in 2005)

The EPA may suspend or revoke an Environmental Permit or Environmental Certificate if it is considered necessary.

14.2.2 New Submissions

A draft Environmental Impact Assessment (“EIA”) report has been submitted for the proposed Amoanda pit, and the response of the EPA is awaited. The Amoanda EIS includes a provisional Environmental Management Plan, Closure and Reclamation plans. The conclusion of the EIA is that all potential negative impacts will be reduced to low significance after the implementation of the proposed mitigation measures. Resettlement will be required. In 2002, AGL formalised its policies on the resettlement of people and compensation for crops.

Further EIAs must be prepared and submitted for future proposed pits in due course.

14.3 Environmental Management

Environmental management at Damang is conducted within the framework of an ISO14001 certified Environmental Management System. An EMP has been approved for the period July 2002 to June 2005, when an updated plan must be submitted.

The Environmental Manager and the Local Affairs Manager report directly to the General Manager. There is a Sustainable Development Manager with an office in Accra, responsible for both Damang and Tarkwa Mines. Particular attention is being paid to the involvement of Non-Governmental Organisations (“NGOs”) and other third parties in sustainable development activities.

There is a large team involved with reclamation and revegetation, recruited from the local population and trained and supervised by the Environmental Department. The members of the Environmental Department are also responsible for the environmental monitoring programme.

14.4 Existing Environment

The environmental baseline data for the pre-mine environment are included in the 1991 Abosso Project Environmental Impact Statement, and the 1996 Updated Baseline Report and Addendum.

Damang is in the rain forest belt of south-western Ghana. There are areas near the mining area that are composed of secondary forest at various stages of development, but the area has been extensively disturbed by subsistence agriculture, by timber felling and by artisanal mining. The Bonsa River Forestry Reserve, adjacent to the Mining Lease Area, has been degraded in the past and is no longer primary forest.

As with the flora, the fauna has been extensively disturbed. Hunting and the destruction of habitats has reduced the numbers of larger mammals to very low levels. The 1996 update of the environmental baseline report noted 138 bird species, of which 27 are rare or uncommon, though two thirds of these were identified in the adjacent Forestry Reserve.

The AGL concessions lie within the Bonsa and Huni sub-basins of the Ankobra main drainage basin. At the mine site the general flow of the rivers is from the west to the east towards the Bonsa River. The main rivers in the area are the Tamang, Beni and Ayaasu and their tributaries. As part of the mine development programme, the rivers crossing the mine site were re-routed to the north and south of the main pit.

Groundwater resides in the weathered bedrock, which feeds the linked fractures in the lower fresh rock. This fractured zone is the source of water for the mine and several villages. The Tarkwaian Formation is one of the important water-bearing formations in Ghana, and test yields exceeded 10 m³/h in boreholes at depths ranging from 37-85 m. In the vicinity of the mine, the water use is from shallow wells to 10 m depth, and from surface water.

The predominant land-use in the area is for the production of cocoa, with a lesser quantity of mixed farming. The pressure on land is increasing as the population grows.

14.5 Socio-Economic

14.5.1 Resettlement

The development of Damang resulted in the resettlement of the communities of Damang (1998), Suromani (1998) and Kyekyewere (2000). Abosso followed best international practice in the negotiations with the local community and the authorities. The new village locations were chosen by the people. The compensation package was agreed with the affected villagers, and approved by the Land Valuation Board.

The proposed Amoanda pit will involve the relocation of existing residents, and best practice will be followed in the consultations, negotiations, agreements and subsequent implementation.

The company maintains a positive and healthy relationship with nearby communities through a formal dialogue medium called the Damang Mine Community Consultative Committee.

14.5.2 Community Involvement

AGL maintains, and is expanding, sustainable development programmes for the improvement of community infrastructure, sustainable livelihoods and stakeholder engagement. The Gold Fields Trust Fund, established to provide funding for local community and national assistance projects in Ghana, is used for community development projects. This fund is maintained by donations by Gold Fields of 0.5% of pre-tax profits from Ghanaian mines and USD1.00 for each ounce of gold produced by those mines.

SGS Environmental (2001) was commissioned to evaluate the socio-economic effects of the mine on the surrounding communities. The study revealed that there has been a significant improvement in living conditions in Damang town and the nearby villages of Kyekyewere, Koduakrom and Nyamebekyere as a result of the establishment of the mine and the associated socio-economic programmes. Damang has benefited most substantially, with brick houses replacing mud houses, increased employment, borehole water supply replacing stream supply, sanitation systems, increased schools, the introduction of electricity, improved roads and the establishment of the Huni Valley clinic.

14.6 Acid Mine Drainage

Following concerns at other mines in the Tarkwa Region, AGL initiated a program to continuously assess the potential to generate acidic drainage at the mine site. The initial program sampling was carried out over the range of ore and waste rock types and on the tailings. The analysis of the samples was carried out by SGS Environmental Laboratories of Accra Ghana and the final assessment of the data by the Mine Drainage Assessment Group ("MDAG") of Vancouver Canada.

89 samples were tested, and sulphide values were found to be very low, ranging from zero to 0.76%, with most values less than 0.4%. Most samples had high Neutralisation Potentials, implying that they could neutralise significant acidity. 97% of samples were acid

neutralising, and only two siltstone ore samples were considered likely to be acid-generating at some time. Tests of ore and waste rock from all mine pits are collected on a quarterly basis and subjected to Acid Base Accounting (“ABA”) testing. Result to date show no indication of the potential for Acid Rock Drainage (“ARD”) generation from either the tailings or the mine wastes.

At the present stage of the operating life of the mine, environmental monitoring shows that there has been no acid-generation from the mines, the ore, the waste rock, or the tailings, and no special measures have been necessary.

14.7 **New Developments**

New environmental permitting is required for the proposed Amoanda pit and future pits, and the preparation and submission of applications is in progress. As the Amoanda pit will require the relocation of existing residents, public consultation and participation forms an important part of the permitting process.

14.8 **Tailings Storage Facility**

The current active tailings facility, the ETSF (see also Section 13) occupies an area of approximately 120ha. The boundary of the slurry impoundment is formed by substantial embankments of mine waste, with engineered inner slopes. The rate of rise of the tailings within the impoundment is 3.8 m per annum, and the present capacity is sufficient until the second half of 2005. A lift of 5 m will be constructed during the dry season (December 2004 to March 2005), which will provide an extra 15 months. Knight Piésold is investigating the possibility of further raises, or of an entirely new impoundment.

The facility, with its bulky containment, is inherently stable, and is monitored regularly. The minor seepage from the toe is within the limits for discharge to the natural stream. As noted in Section 14.6, there is a very low potential for acid drainage, and measured cyanide contents of seepage water are always below discharge limits.

There is an operating manual for the tailings impoundment, and there are quarterly inspections by a tailings engineer from Knight Piésold.

14.9 **Rehabilitation & Decommissioning**

14.9.1 **Rehabilitation**

The mine has an active, well-managed rehabilitation plan for the mine and has a programme of continuous rehabilitation for areas no longer required for the operation of the project. To date, approximately 200 ha of land is under rehabilitation and the programme for the rehabilitation of the south tailings storage facility was initiated in 2001. Primary Completion has been approved by the EPA on 90 ha (Section 14.9.3).

At present, an updated detailed rehabilitation programme for the LoM is in preparation. It is realised that changes in the mine plan will necessitate changes in the rehabilitation plan.

Rehabilitation of disturbed land is undertaken as soon as it is no longer required for mining or associated activities. The reclamation of disturbed areas, including borrow-pits, areas cleared for construction, open-pits, waste dumps and roads is accomplished by re-contouring of disturbed areas, establishment of storm-water controls to minimise erosion, back-filling of open-pit areas where practicable, placement of topsoil and planting of indigenous grasses and trees.

The progress of re-vegetation is monitored to ensure that the re-establishment of productive natural communities is achieved, and erosion is minimised. Demonstration plots of food crops and common commercial species are established within areas of restorable lands.

In terms of the Reclamation Security Agreement with the EPA, an update of the Costed Reclamation Plan is submitted every two years, and this includes a Completion Progress Report, describing work performed in relation to tracts of “disturbed land” and the level of reclamation. When the Completion Progress Report is approved by the EPA, the value of completed reclamation works is used to adjust the basis for the Reclamation Bond (Section 14.9.3).

14.9.2 **Decommissioning**

The mining lease documents list various specific responsibilities which AGL must discharge at the termination of the lease. These include:

- leave the mining area and surface additions in good condition with respect to the ecology, conservation, reclamation, environment etc., and take all reasonable measures to leave the surface of the area in useable condition; and
- transfer to the Government of Ghana all immovable assets and those movable assets which have been fully depreciated for tax purposes.

The objectives for the reclamation of the Damang mine site are compatible with Ghana’s Mining and Environmental Guidelines and have been established as the following:

- provide a final land-use that considers the needs of local stakeholders;
- provide a site that is both chemically and physically stable;
- leave disturbed areas in a safe condition;
- minimize the long-term environmental liabilities associated with the closure of the site;
- restore as much of the Mining Area to pre-existing land use capability as is practicable; and
- reclaimed areas are to meet the needs of contributing to the long-term sustainability of the local economy.

14.9.3 **Reclamation bond**

The system of bonding used by the EPA involves an assessment of the cost to rehabilitate the land which remains disturbed at the time of the review, and subtracting from it the cost for areas already rehabilitated to an accepted standard. There are three levels of accepted

completion and associated reduced bonding costs:

Primary completion	reduced to 30%
Completion	20%
Final completion	0% (bond no longer required for this area)

For the purpose of the reclamation bonding agreement with the EPA, the costs of complete mine rehabilitation were estimated at USD6.2 M. The 2002 adjusted cost estimate, taking into account the cost estimate for the Kwesie-Lima Mine Expansion and the reduction in reclamation liability, is USD5.5M. Primary completion of USD787,687 was accepted. The amount of the security of the 2 year review period is the lesser of the initial security of USD2.2M and the adjusted cost estimate. Thus the initial security was USD2.2 M composed of an irrevocable letter of credit for USD2.0 M and a cash deposit of USD2.0 M in a joint account with the EPA.

The EPA requires the Costed Reclamation Plan to be updated at two year intervals.

15 HUMAN RESOURCES AND SAFETY

Damang is adequately resourced with the appropriate levels of technically qualified and experienced personnel in production and related support functions. The total number employed as at June 30, 2004 was 500, which is planned to rise to 925 in 2005.

The mine is the major employer in the area. (The population of Damang Township is approximately 3,000.) AGL aims to, wherever practicable, employ local people and contractors as well as to maintain a motivated and fairly-compensated workforce.

AGL has established a policy of hiring locally to the extent possible. As well local contractors are used wherever practicable and are required to utilize personnel recruited from local communities. Workers from the local communities are employed for casual jobs such as rehabilitation works.

A community consultation process has been established through the Damang Mine Community Consultative Committee ("DMCCC") to ensure that the concerns of local opinion leaders are fully appreciated. The DMCCC made the recommendation that quotas for various villages were not required and that hiring should be based on the requirements of AGL and the skills available. Hiring and recruiting processes are discussed at the bi-monthly meetings of the DMCCC.

AGL also has a policy of employee development and training. The stability of the workforce over the past year indicates that AGL has created an appropriate environment for employee development. Employee turnover was 2.9% during fiscal year 2003. Resignations generally come from officials who leave to take up further study. Training of the employees include job-specific training as well as more site-wide programmes (e.g. fire-fighting).

A Health & Safety policy is documented with a Health & Safety Manager reporting to the General Manager and the latter, together with the Mining Manager and Metallurgical Manager being responsible for various areas of activity. A total of eleven managers report to the General Manager.

There have been no fatalities at the mine over the past three years.

16 TECHNICAL ECONOMIC INPUT PARAMETERS

16.1 Introduction

The following section includes discussion and comment on the technical-economic aspects of the LoM plan associated with the Damang Tax Entity. Specifically, comment is included on the basis of projections, production schedules, operating costs and capital expenditures. These have been compiled into detailed TePs on an annual basis to derive the revenue and cost inputs necessary to generate the FMs. Key aspects associated with the generation of the TePs and their derivations are discussed.

16.2 Basis of the Technical-Economic Input Parameters

The valuation of the Damang Tax Entity as presented in Section 17, has, inter alia, been based on the LoM plan and the resulting production profile and associated revenue stream from gold sales, operating costs and capital expenditure profiles as provided to SRK by AGL, and reviewed and adjusted by SRK where deemed appropriate. The generation of a LoM plan requires substantial technical input and detailed analysis and is critically dependent upon assumptions of the long-term commodity prices and the respective impact on cut-off grades, potential expansion and/or reduction in the Mineral Resource and Mineral Reserve and the return on capital expenditure programmes.

The basis of forward projections of operating costs for mature mining operations are generally based on historical performance, with certain modifications for inflation, projected improvements in productivity and other cost-reduction initiatives.

Unless otherwise stated, operating expenditures comprise:

- **Cash Cost Components** : namely direct mining costs, direct processing costs, direct general and administration costs, consulting fees, management fees, transportation, and realisation charges.
- The incremental components, including royalties but excluding taxes paid, required to yield **Total Cash Costs** . Royalties in this regard include the amount of 3% paid on gross revenue to the Government of Ghana and is payable for all gold sold.
- The incremental components, including terminal separation liabilities, reclamation and **mine** closure costs (the net difference between the total environmental liability and the current bond amount) but excluding non-cash items such as depreciation and amortisation. Incrementally these cash expenditures summate to yield **Total Working Costs** .
- **Total Costs** : the summation of total working costs, net movement in working capital and capital expenditure.

In addition to long-term capital projects, the LoM capital expenditure programmes generally include significant detail based on approved expenditure programmes (typically two-years). Where warranted, SRK has made provision over and above these expenditures, specifically, for example, where no detail is available beyond this two-year period to cater for normal on-

going capital expenditure requirements.

Environmental provisions have been included in the operating costs as they are confirmed as necessary contributions to the fund ongoing environmental cost and closure provisions. Notwithstanding this approach the most likely scenario will result in expenditures from such provisions being expended on commencement of the closure programme. SRK considers that there are potential opportunities to realise salvage value on closure, although owing to the indeterminate nature of estimating such values these have been excluded from the LoM projections included herein.

16.3 Technical-Economic Parameters

The TePs include:

- commodity sales profiles derived from all ore sources;
- total working cost profiles as previously defined; and
- capital expenditure Profiles.

All expenditures are based in calendar years and stated in July 1, 2004 money terms.

16.4 Special Factors and Operational Risks

SRK has included its view on the achievement of the LoM plans and the appropriateness of the Mineral Reserve statements when presenting the data in Sections 10, 11, 12 13 and 14. At the time of writing, SRK considers these projections to be both technically and economically achievable.

In all likelihood many of the identified risks and/or opportunities will have an impact on the cash flows as presented in Section 17, some positive and some negative. The impact of one or a combination of risks and opportunities occurring cannot be specifically quantified to present a meaningful assessment. SRK has, however, provided sensitivity tables for single and multi parameters. The sensitivity range covers the anticipated range of accuracy in respect of commodity prices, operating expenditures and capital expenditure projections. These sensitivities are necessarily simplistic and are based on the current Mineral Reserve. Actual movements in respect of commodity prices, operating expenditures and capital expenditure would result in different cut-off grades, Mineral Reserve estimates and LoM Plans and therefore these sensitivities should be viewed as indicative.

16.5 General Risks and Opportunities

Damang operations are subject to certain inherent risks, which apply to some degree to all participants of the Ghanaian gold mining industry. These include:

- **Commodity Price Fluctuations** : These may be influenced inter alia, by demand for gold in industry and jewellery, actual or expected sales by central banks, sales by gold producers in forward transactions and production and cost levels for gold in major producing countries. In the period between January 1, 2002 and June 30, 2004 the gold price in USD terms has ranged between USD 307 per ounce and USD 415 per ounce. As at June 30, 2004 the USD gold price was USD 397 per ounce;

- ***Inflation Rate Fluctuations:*** Specifically the United States Consumer Price Index;
- ***Country Risk :*** Specific country risk including political and economic stability in the longer term as indicated by the International CountryRisk Grade (“ICRG”);
- ***Legislative Risk :*** Specifically changes to future legislation (tenure, mining activity, labour, health and safety and environmental) within Ghana;
- ***Environmental Liability Risk :*** The inability of Damang to fund the balance of its environmental liabilities from estimated operating cash flows, should operations cease prior to the stated LoM period. This would result in an outstanding liability since the estimated rehabilitation expenditure exceeds the amounts available in the respective rehabilitation trust funds as at June 30, 2004. As at July 1, 2004 the total outstanding liability remaining to be funded is estimated at USD5.3M; and
- ***Mining Risks :*** Specifically Mineral Reserve estimate risks, uninsured risks, industrial accidents, labour disputes, unanticipated ground water conditions, human resource management, and safety performance.

In contrast, whilst certain of the above also reflect opportunities, SRK recognises that as of yet, an un-quantified opportunity is the beneficial application of new technology and also discovery of additional Mineral Resources.

In addition to those stated above, the individual operations are subject to certain specific risks and opportunities, which independently may not be classified to have material impact, but in combination may do so.

17 ASSET VALUATION

17.1 Introduction

The following section presents discussion and comment on the valuation of the Damang Tax Entity. Specifically, comment is included on the methodology used to generate the FM including basis of valuation, valuation techniques and valuation results.

In generating post-tax pre-finance cash flows for the purpose of valuation, SRK has relied upon Gold Fields for certain inputs to the FMs. Further, in reproducing the results of the FM in this ITR, SRK provides assurances to the Directors of Gold Fields, that the technical-economic inputs including operating costs, capital expenditure and saleable product profiles of the Damang Tax Entity, as provided to and reviewed by SRK, are accurately incorporated into the FM.

17.2 Basis of Valuation

In generating the FM and deriving the valuations, SRK has:

- incorporated an annual United States customer price index ("US CPI") of 2% per annum as provided by Rothschild;
- incorporated a real terms gold price of USD400 per ounce as provided by Rothschild;
- assumed a nominal discount factor of 7.46% for all assets to establish a base case. (Note that this does not necessarily reflect the nominal Weighted Average Cost of Capital ("WACC") assuming Gold Fields' expected average tax rate; country inflation rate and debt/capital ratio);
- relied upon Gold Fields for all accounting inputs as required for the generation of the FM;
- relied upon Gold Fields that for the purpose of valuation the assumption that 100% of the sales revenue as derived from the quantum of gold production sold and the forecast USD gold price is available to the Damang Tax Entity;
- reported a Discounted Cash Flow ("DCF") valuation, dated July 1, 2004, which includes Mineral Reserves only;
- performed sensitivity analyses to ascertain the impact of discount factors, commodity prices, total working costs and capital expenditures;
- assigned no salvage value for plant and equipment on cessation of operations;
- valued the Damang Tax Entity on a stand alone basis only; and
- not included hedging or forward sale components in the valuation.

17.3 Limitations and Reliance on Information

The cash flows reported for the Damang Tax Entity are contingent upon the current and anticipated performance of mine management, as well as the expected achievement of the operating parameters as provided to and reviewed by SRK and set out in this ITR.

The cash flow projections and valuation is based upon the anticipated operating performance as well as information provided to SRK by Gold Fields at the date hereof. It should be

understood that unforeseen developments might affect SRK's opinion, or the reasonableness of any assumptions or basis used.

The LoM plans and the FM include forward-looking statements that are not historical facts. These forward-looking statements are necessarily estimates and involve a number of risks and uncertainties that could cause actual results to differ materially. Notwithstanding this, SRK considers that at the time of compilation, the Mineral Reserves and associated depletion resulting in cash flow projections are appropriate and technically and economically achievable.

17.4 Valuation Methodology

The valuation methodology for the Damang Tax Entity is based on the Net Present Value ("NPV") of the ring-fenced mining asset. Supplemental information as provided by Gold Fields (balance sheet items) could then be used with the NPV to arrive at the Net Asset Value ("NAV") for the Damang Tax Entity.

The NPV has been derived using DCF techniques applied on a post-tax pre finance basis for the ring-fenced Damang Tax Entity. These are based on the various LoM production plans, including the resulting TePs (Section 16), and are solely based on Mineral Reserves.

In respect of non-LoM Mineral Resources no valuation is presented and discussion is limited to technical disclosure in accordance with the requirements of the rules and companion policies of NI 43-101.

The post-tax pre-finance cash flow is developed on the basis of the commodity price and macro-economic projections as presented in Table 17.1. SRK has developed a FM which is based on: annual cash flow projections ending December 31; and TePs stated in July 1, 2004 money terms. As the valuation date is July 1, 2004, the cash flow projection for the first period includes projections for the 6 months to December 2004.

Variances in commodity prices exist between those used to derive Mineral Reserves, the current spot market prices and that used for the financial valuation. The impacts on the individual Mineral Reserve statements are presented in the Mineral Reserve sensitivity tables as included in Section 11 of this ITR. Further, as the generation of LoM plans is constrained by the annual planning process SRK has based its review on the latest available information as presented by Gold Fields.

17.5 Post-Tax – Pre-Finance Cash Flows

Table 17.1 presents the post-tax pre-finance cash flows for the Damang Tax Entity. Note that this table is not representative of a financial statement as may be customary for determining the consolidated cash flow positions for a company. Further, no account is taken of movements in working capital at the corporate level, or deferrals of tax liabilities between accounting periods, as may be the case in the generation of such company level financial statements.

Table 17.1: Damang post-tax pre-finance cash flows

Financial Year Project Year	Units	Totals /Averages	2004 1	2005 2	2006 3	2007 4	2008 5	2009 6	2010 7
Production									
Mining									
RoM Tonnage	(kt)	10,819	1,368	4,679	3,771	1,002			
Head Grade	(g/t)	1.4	1.2	1.5	1.4	1.0			
Contained Gold	(koz)	475	53	219	169	33			
Processing									
Milled Tonnage	(kt)	20,080	2,603	5,206	5,206	5,206	1,859		
Milled Grade	(g/t)	1.3	1.5	1.6	1.4	1.2	0.4		
Metallurgical Recovery	(%)	89.9%	90.5%	89.1%	89.1%	90.7%	94.4%		
Recovered Gold	(koz)	769	116	236	208	184	25		
Clean-up Gold	(koz)								
Saleable Metal	(koz)	769	116	236	208	184	25		
Commodity Sales									
Gold	(koz)	769	116	236	208	184	25		
Silver	(koz)								
Commodity Prices									
Gold Price	(US\$/oz)		404	412	420	429	437		
Silver Price	(US\$/oz)								
Macro Economics									
US PPI	(%)		1.0%	2.0%	2.0%	2.0%	2.0%		
US CPI	(%)		1.0%	2.0%	2.0%	2.0%	2.0%		
Financial - Nominal									
Sales Revenue - Gold	(US\$m)	321.3	47.0	97.2	87.3	78.8	10.8	—	—
Operating Expenditures	(US\$m)	(251.0)	(35.8)	(74.6)	(71.4)	(53.9)	(15.3)	—	—
Mining	(US\$m)	(72.7)	(10.6)	(26.0)	(23.9)	(9.9)	(2.3)	—	—
Processing	(US\$m)	(144.0)	(18.1)	(38.6)	(39.7)	(36.7)	(10.9)	—	—
Overheads	(US\$m)	(16.2)	(2.4)	(4.9)	(4.3)	(4.1)	(0.5)	—	—
Realisation	(US\$m)	(1.0)	(0.1)	(0.3)	(0.3)	(0.2)	(0.0)	—	—
By-Product Credits	(US\$m)	—	—	—	—	—	—	—	—
Mineral Royalty	(US\$m)	(9.6)	(1.4)	(2.9)	(2.6)	(2.4)	(0.3)	—	—
Environmental	(US\$m)	(5.6)	(0.7)	(1.4)	(1.4)	(1.5)	(0.5)	—	—
Terminal Benefits	(US\$m)	(7.3)	—	—	—	—	(7.3)	—	—
Net Change in Working Capital	(US\$m)	5.6	(2.5)	(0.4)	0.8	0.9	6.7	—	—
Operating Profit	(US\$m)	70.3	11.2	22.7	15.9	25.0	(4.5)	—	—
Tax Liability	(US\$m)	(19.5)		-6.2	-5.2	-8.1			
Capital Expenditure	(US\$m)	(8.7)	(8.7)	—	—	—	—	—	—
Project	(US\$m)	(8.7)	(8.7)	—	—	—	—	—	—
Sustaining	(US\$m)	—	—	—	—	—	—	—	—
Final Net Free Cash	(US\$m)	42.1	2.5	16.5	10.7	16.8	(4.5)	—	—
Reporting Statistics - Real									
Cash Operating Costs	(US\$/oz)	303	278	299	324	270	524		

Total Cash Costs	(US\$/oz)	303	278	299	324	270	524
Total Working Costs	(US\$/oz)	319	284	305	331	278	815
Total Costs	(US\$/oz)	323	378	307	327	273	565



17.6 NPV Sensitivities

The following tables present the NPVs of the nominal cash flows of Damang as derived from the FM. In summary they include:

- the variation in NPV with discount factors;
- the variation in NPV based on single parameter sensitivities; and
- the variation in NPV based on twin (revenue and operating expenditure) sensitivities.

Table 17.2: Damang variation of NPV with discount factors

Discount Factor (%)	NPV (USDM)
0.00%	42.1
5.00%	37.9
7.46%	36.1
10.00%	34.3
12.00%	33.0
14.85%	31.3
18.00%	29.6
20.00%	28.6
25.00%	26.3

Table 17.3: Damang variation of NPV - single parameter sensitivity

Sensitivity Range – Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range – Operating Expenditures	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range – Capital Expenditures	-30%	-20%	-10%	0%	10%	20%	30%
Currency	(USDM)	(USDM)	(USDM)	(USDM)	(USDM)	(USDM)	(USDM)
Variation in NPV @ 0% DCF							
Revenue	(26.9)	1.3	21.7	42.1	62.5	83.0	103.2
Operating Expenditures	89.9	74.4	58.3	42.1	26.0	9.8	(7.1)
Capital Expenditures	43.9	43.3	42.7	42.1	41.5	40.9	40.4
Variation in NPV @ 7.46% DCF							
Revenue	(22.9)	1.1	18.7	36.1	53.4	70.7	87.8
Operating Expenditures	76.5	63.3	49.7	36.1	22.4	8.7	(6.0)
Capital Expenditures	37.8	37.2	36.6	36.1	35.5	34.9	34.3

Table 17.4: Damang variation of NPV – twin parameter sensitivity

NPV (USDM)

Operating Expenditure Sensitivity	Revenue Sensitivity						
	-30%	-20%	-10%	0%	10%	20%	30%
-30%	25.0	42.4	59.6	76.5	93.4	110.3	127.1
-20%	11.4	28.7	46.0	63.3	80.3	97.2	114.0
-10%	(3.3)	15.0	32.4	49.7	67.0	84.0	100.9
0%	(22.9)	1.1	18.7	36.1	53.4	70.7	87.8
10%	(42.7)	(17.3)	5.0	22.4	39.7	57.1	74.3
20%	(62.7)	(37.0)	(11.6)	8.7	26.1	43.4	60.7
30%	(82.6)	(56.8)	(31.3)	(6.0)	12.4	29.8	47.1

CONCLUDING REMARKS

The views expressed in this ITR have been based on the fundamental assumption that the required management resources and pro-active management skills to access the adequate capital necessary to achieve the LoM plan projections for Damang are sustained.

SRK has conducted a comprehensive review and assessment of all material issues likely to influence the future operations at Damang. The LoM plan, as provided to and taken in good faith by SRK, has been reviewed in detail for appropriateness, reasonableness and viability, including the existence of and justification for departure from historical performance. Where material differences were found, these were discussed with AGL and adjusted where considered appropriate. SRK considers that the resulting TePs and FM are based on sound reasoning, engineering judgement and technically achievable mine plans, within the context of the risks associated with the Ghanaian gold mining industry.

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APPENDIX A

GLOSSARY

GLOSSARY OF TERMS AND ABBREVIATIONS

A1	Conglomerate reef
A3	Conglomerate reef
AA	Atomic Absorption
AARL	Anglo American Research Laboratories
ABA	Acid Base Accounting
Abrasion Index	Measure of how tough a rock type is with respect to wear and tear on grinding equipment.
AFc	Conglomerate reef
AGC	Ashanti Goldfields Company Limited
AGL	Abosso Goldfields Limited
AMD	Acid Mine Drainage
AMS	African Mining Services Limited
Analytical Variance / Precision	An estimate of the error induced by the analytical procedures routinely used. A measure of the repeatability of assays.
Ancillary equipment	Service equipment not directly associated with primary process.
AngloGold	AngloGold Ashanti Limited
ARD	Acid rock drainage; the result of rainwater reacting with sulphides in broken rock i.e. waste dumps.
Assay	Measure valuable mineral content.
Au	Gold
AVS	Abontiakoon Vertical Shaft
B2	Conglomerate reef
BFS	Bankable Feasibility Study
BGL	Bogoso Gold Limited
°C	Degrees Centigrade (temperature).
°	Degrees of angle from horizontal (i.e. pit slope angle)
CDE	Conglomerate reef
CIL	Carbon in Leach gold processing and recovery technology
Clay	Material with a particle size of less than 2µm.
CNwad	Weak acid Dissociable Cyanide
Companion Policy	Companion Policy 43-101CP
CPI	Consumer Price Index
CPR	Competent Person's Report
Cross-section	A diagram or drawing that shows features transected by a vertical plane drawn at right angles to the longer axis of a geologic feature.
Cut-off grade	When determining economically viable Mineral Reserves, the lowest grade of mineralised material that qualifies as ore.
Damang	Damang Gold Mine
DCF	Discounted Cash Flow.
DD (Diamond drilling)	Rotary drilling using diamond-set or diamond-impregnated bits, to produce a solid continuous core of rock.
Dip	The angle at which layered rocks, foliation, a fault, or other planar structures, are inclined from the horizontal.
DGM	Damang Gold Mine
DTM	Digital Terrain Model
EAP	Emergency Action Plan
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation
EC	Environmental Certificate
EIA	Environmental Impact Assessment.
EIS	Environmental Impact Statement
ESIS	Environmental and Social Impact Statement
EMP	Environmental Management Plan.

EPA	Environmental Protection Agency
ETSF	East Tailings Storage Facility
Feasibility Study	A definitive engineering study addressing the economic viability of bringing a deposit to the production stage; taking into consideration all associated costs, revenues and risks.
FM	Ffinancial Model
Fold	A bend in strata or other planar structure.
Footwall	A geological or mining term meaning the rock below a fault, or underlying a natural feature, or the mining floor.
Form	Form43-101F1
G	Conglomerate reef
GAG	Ghanaian Australian Goldfields Limited
Galamsay	Informal miner or miners (Ghana)
G&A	General and Administration costs
GBX	Graphite Breccia
Gemcom	Mining software developer.
Geochemical prospecting	A prospecting technique which measures the content of certain metals in soils and rocks used to define anomalies for further testing.
Geophysical surveys	A survey method used primarily in the mining industry as an exploration tool, applying the methods of physics and engineering to the earth's surface.
GFGL	Gold Fields Ghana Limited
Gold Fields	Gold Fields Limited
Golden Star	Golden Star Resources Limited
Government	Government of Ghana
GP	Graphitic Phyllite
Grade	Quantity of metal per unit weight of host rock.
g/t	Grammes per tonne
Ha	Hectare (unit of area equal to10,000m ²)
Hanging wall	A geological or mining term meaning the rock above a fault, or overlying a natural feature (as opposed to footwall).
HDPE	High-density Polyethylene
Host rock	The rock containing a mineral or an orebody.
IAMGold	IAMGold Corporation
ICRG	International Country Risk Grade
IDW	Inverse distance weighting.
IFC	International Finance Corporation
Igneous	A rock formed by the solidification of mineral-rich molten liquid which is intruded into bedrock or erupted from a volcano.
Indicated Mineral Resources	An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.
In-situ	In its natural position (Latin).
Instrument43-101	Canadian National Instrument 43-101 for reporting Mineral Resources and Reserves.
IRR	Internal Rate of Return.
ITR	Independent Technical Report
JORC	Australian code for reporting Mineral Resources and Reserves.

KCA	Kappes, Cassidy & Associates Australia Pty Ltd.
kg/h	Kilogrammes per hour
kg/t	Kilogram per tonne
km	Kilometre
koz	Thousand Troy ounces
Kriging	A method of block grade interpolation which takes into account the statistical and spatial characteristics of the mineralisation.
kt	Thousand metric tonnes
kV	Kilovolts
kVA	kilovolt-amperes
Lakefield	Lakefield Research Africa
Lithology	The physical characteristics of rock.
LoM	Life of Mine. Often used to describe plans covering the life of the project.
M	Metre
M	Million
m RL	Metres Relative Level; level relative to a fixed datum
M ³ /hr	Cubic metres per hour.
M ³ /s	Cubic metres per second.
Ma	Million years
Measured Mineral Resources	A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.
Metamorphic	Term applied to pre-existing sedimentary and igneous rocks which have been altered in composition, texture, or internal structure by processes involving pressure, heat and/or the introduction of new chemical substances.
Micron (µm)	One thousandth of a millimetre.
Mineral	A natural, inorganic, homogeneous material that can be expressed by a chemical Formula.
Mineralisation	The process by which minerals are introduced into a rock. More generally, a term applied to accumulations of economic or related minerals in quantities ranging from weakly anomalous to economically recoverable.
Mineralogy	The science of minerals.
Mineral Resource	A tonnage or volume of rock or mineralisation of intrinsic economic interest.
Mm	Millimetre.
Mm ³	Million cubic metres.
PER	Preliminary Environmental Report
Moz	Million troy ounces
m/s	Metres per second.
Mt	Million tonnes
Mtpa	Million tonnes per annum.
MVA	Million volt-amps
MW	Megawatts.
NAV	Net Asset Value
NGO	Non-Governmental Organisation
NI 43-101	National Instrument 43-101– Standards of Disclosure for Mineral Projects
NPV	Net Present Value.
Open pit, open cut	Surface mining in which the ore is extracted from a pit or quarry. The geometry

Ore	of the pit may vary with the characteristics of the ore body. Mineral bearing rock that contains one or more minerals, at least one of which can be mined and treated profitably under current or immediately foreseeable economic conditions.
Orebody	A mostly solid and fairly continuous mass of mineralisation estimated to be economically mineable.
Ore grade	The average weight of the valuable metal or mineral contained in a specific weight of ore i.e. grammes per tonne of ore.
OSC	Ontario Securities Commission.
Oxide	Gold bearing ore which results from the oxidation of near surface sulphide ore.
Oz	Troy ounce
P Codes	Porosity values
Ph	Measure of acidity/alkalinity
PL	Performance Laboratories Limited
Pleistocene	A sub-division of the Tertiary System which immediately followed the Pliocene. 1.8 million years before present to 10,000 years before present.
Pliocene	A sub-division of the Tertiary System, 5 million to 1.8 million years before present, which immediately precedes the Pleistocene.
Plunge	The angle from the horizontal of a linear geological feature on a plane.
PQ	Borehole of intermediate size.
Pre-feasibility Study	The initial stage of the feasibility study in which the accuracy of the factors involved such as costs and revenues is $\pm 25\%$.
Probable Mineral Reserve	A 'Probable Mineral Reserve' is the economically mineable part of an Indicated and in some circumstances a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.
Proven Mineral Reserve	A 'Proven Mineral Reserve' is the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.
PSS	Plant Sulphides
Pyrite	Common sulphide of iron.
P80	The sieve mesh size through which 80% of the particles in a particular particle distribution will pass; normally quoted as P80 at x microns.
QP	Qualified Person
Quartz	A mineral composed of silicon dioxide, SiO_2 (silica).
RAB	Rotary Air Blast drilling. Relatively cheap and quick exploration drilling method returning rock chips using high pressure air.
RC	Reverse Circulation drilling. A drilling method using a tricone bit, during which rock cuttings are pushed to the surface through an outer tube, by liquid and/or air pressure moving through an inner tube.
RL	Reference level (elevation)
RoM	Run of mine-usually refers to the tonnage and grade of ore delivered to the processing plant.
Rock	Mineral matter of various compositions.
SACNASP	South African Council for Natural & Scientific Professions
SADC	South African Development Country
SAG	Semi-autogeneous grinding
Sampling and Analytical Variance/Precision	An estimate of the total error induced by sampling, sample preparation and analysis.
SAMREC	South African code for reporting Mineral Resources and Reserves.
SEC	Securities Exchange Commission

Sediment	Particles transported by water, wind or ice.
Sedimentary rock	Rock formed at the earth's surface from solid particles, whether mineral or organic, which have been moved from their position of origin and re-deposited.
SG	Specific Gravity
SGMC	State Gold Mining Corporation, the official state-owned national mining company; by extension, sampling carried out by this institution.
SGS	SGS Laboratory Services - Ghana
SK	Simple Kriging
SMU	Selective Mining Unit
South Plant	Teberebie heap leach plant
SRK	Steffen, Robertson & Kirsten (UK) Ltd
SRK Consulting	The SRK Group of Companies, represented herein by SRK(UK) Limited, Cardiff, United Kingdom
SRK Group	SRK(Global)Limited
STSF	South Tailings Storage Facility
Strike	The direction or bearing of a bed or layer of rock in the horizontal plane.
Sub-parallel	Roughly in line with.
Sulphide	Metallic sulphur bearing mineral often associated with gold mineralisation. Sulphide is also used to differentiate from oxide rock or ore which is softer, less dense, nearer surface and generally responds better to cyanide leaching in the processing plant.
Syncline	A sequence of rocks flexed downwards into a valley shape with a core of younger rocks
Synform	Bent or folded downwards
t	Tonne (metric) equal to 1,000 kilograms
t/h	Metric tonnes per hour
t/m ³	tonnes per cubic metre.
Tailings	Fine ground wet waste material produced from ore after economically recoverable metals or minerals have been extracted.
TEM	Technical Economic Model
TeP	Technical Economic Parameters
TGL	Teberebie Goldfields Limited
tonnes	Metric tonne, equal to 1,000 kilograms.
tpa	tonnes per annum.
tpd	tonnes per day.
tph	tonnes per hour.
tpm	tonnes per month.
Trans	Transition ore material
Triassic	A geological period extending from 250 to 204 million years which marks the beginning of the Mesozoic Era.
TSE	Toronto Stock Exchange.
TSF	Tailings Storage Facility
TWL	Transworld Laboratory Services - Ghana
US CPI	United States Consumer Price Index
USD	United States Dollars (currency).
UTM	Universal Transverse Mercator projection – grid co-ordinate system
Variogram/Semi-Variogram	A graphical representation of the rate of change of grade with distance which is used to define parameters for controlling sample layout and resource modelling.
VRA	Volta River Authority
VT	Vertical Thickness
WACC	Weighted Average Cost of Capital
Weathering	Near surface alteration and oxidation of minerals and rocks by exposure to the atmosphere or ground water.
Wireframe	A mesh of triangles used to make computerised geological models.

μm Micron - one thousandth of a millimetre.

PROFESSIONAL REGISTRATIONS AND QUALIFICATIONS

BSc	Bachelor of Science
BSc (Eng) Mining	Bachelor of Science (Engineer) Mining
CEng	Chartered Engineer.
CGeol	Chartered Geologist.
FGS	Fellow of the Geological Society.
FIMMM	Fellow of the Institute of Materials, Mining and Metallurgy.
MIMMM	Member of the Institute of Materials, Mining and Metallurgy.
MSAIMM	Member of the South African Institute of Mining and Metallurgy.
MSc	Master of Science.
PhD	Doctor of Philosophy.
Pr Eng	Professional Engineer (South Africa).

APPENDIX B

REFERENCES

REFERENCES

Reference Number	Title	Author	Date
# 1	Gold Fields Ghana, Damang Phase IV Bankable Feasibility Study	Lycopodium Pty. Ltd	December 2002
# 2	Damang Gold Mine & Damang Mine Resources and Reserves	Gold Fields Ghana Limited	2002
# 3	Management Information Circular	Repadre Capital Corporation	December 6 th 2002
# 4	Damang Phase IV Feasibility Study – Strategic Analysis Section – Strategic Cases 1 to 6, Main Report	Steffen, Robertson and Kirsten *SRK) Consulting	December 2002
# 5	Annual Reports	Gold Fields Limited	
# 6	An Audit if the Mineral Resources and mineral Reserves at Gold Fields, Damang Gold Mine	SRK Consulting	September 2004
# 7	Technical Report on the Damang Gold Mine, Ghana	Gold Fields Ghana Limited and IAMGold Corporation	May 2003
# 8	Damang Gold Mine Mineral Resources and Reserves, CPR	Gold Fields	2004
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APPENDIX C
CERTIFICATES

CERTIFICATE OF QUALIFICATION

I **Lee Barnes** with a business address at Steffen, Robertson and Kirsten (UK) Limited, Windsor Court, 1-3 Windsor Place, Cardiff, CF10 3BX, hereby state that:

1. I am a Senior Mining Geologist with the firm Steffen, Robertson and Kirsten (UK) Limited (SRK).
2. I am a graduate of the University of Leeds, UK, with an honours degree in Mineral Engineering gained in 1993.
3. I obtained an M.Sc in Mineral Resources Cardiff University, UK in 1997.
5. I have practised my profession continuously for some 6 years since gaining my MSc, have variously managed, authored and co-authored over fifteen mineral resource studies, feasibility audits and due diligence review reports for a variety of mineral deposit types in many different countries and am a “qualified person” for the purpose of National Instrument 43-101.
6. I am a Chartered Engineer (UK) and a member of the Institute of Materials, Minerals and Mining (UK).
7. I am a qualified person responsible for the geology and Mineral Resource estimation sections of the report “An Independent Technical Report on the Damang Gold Mine, Ghana”, which is based on a study of: -
 - all available technical reports, geological and sampling data on the project provided to SRK;
 - first hand discussions with the appropriate project geologists and other employees currently working on the project;
 - a visit to site for two days during June 2002.
8. I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission or disclosure of which makes the technical report misleading.
9. I do not own or expect to receive any interest (direct, indirect or contingent) in the property described herein, nor in the securities of AGL or Gold Fields and am independent of AGL and Gold Fields.
10. I have had no prior involvement with Damang.
11. The report has been prepared in compliance with National 43-101 and Form 43-101F1 and I have read this Instrument and Form.

October 2004

/s/ Lee Barnes

Mr Lee Barnes MSc, CEng MIMMM
Senior Mining Geologist SRK (UK) Ltd

I **Neil Holloway** with a business address at Steffen, Robertson and Kirsten (UK) Limited, Windsor Court, 1-3 Windsor Place, Cardiff, CF10 3BX, hereby state that:

1. I am an Associate Principal Process Engineer with the firm Steffen, Robertson and Kirsten (UK) Limited (SRK).
2. I am a graduate of the University of Bristol, UK, with a joint honours degree in Geology and Chemistry gained in 1971.
3. I obtained an M.Sc in Surface Chemistry and Colloids from Bristol University, UK in 1972.
4. I obtained a PhD in Minerals Engineering from Birmingham University, UK in 1975.
5. I have practised my profession continuously for some 29 years since graduating, have variously managed, authored and co-authored over twenty mining feasibility studies, feasibility audits and due diligence review reports for a variety of mineral deposit types in many different countries and am a “qualified person” for the purpose of National Instrument 43-101.
6. I am a Chartered Engineer (UK) and a Fellow of the Institute of Materials, Minerals and Mining (UK).
7. I am the QP with respect to the Mineral Processing in the report “An Independent Technical Report on the Damang Gold Mine, Ghana”, which is based on a study of: -
 - all available technical reports and minerals/process engineering data on the project provided to SRK;
 - first hand discussions with the appropriate minerals/process engineers and other employees currently working on the project;
 - a visit to site on September 9, 2004.
8. I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission or disclosure of which makes the technical report misleading.
9. I do not own or expect to receive any interest (direct, indirect or contingent) in the property described herein, nor in the securities of GFGL or Gold Fields and am independent of AGL and Gold Fields.
10. I have had no prior involvement with Damang.
11. The report has been prepared in compliance with National 43-101 and Form 43-101F1 and I have read this Instrument and Form.

September 2004

/s/ Neil Holloway

Dr Neil Holloway, CEng FIMMM

Associate Principal Process Engineer SRK (UK) Ltd

I **Ian Brackley** with a business address at Steffen, Robertson and Kirsten (UK) Limited, Windsor Court, 1-3 Windsor Place, Cardiff, CF10 3BX, hereby state that:

1. I am a Principal Engineer with the firm Steffen, Robertson and Kirsten (UK) Limited (SRK).
2. I am a graduate of the University of Northampton, UK, with an honours degree in Civil Engineering gained in 1967.
3. I obtained a Ph.D in Civil Mechanics from Natal University, South Africa in 1975.
4. I have practised my profession continuously for some 37 years since graduating, have variously contributed tailings and environmental sections of over twenty mining feasibility studies, feasibility audits and due diligence review reports for a variety of mineral deposit types in many different countries and am a “qualified person” for the purpose of National Instrument 43-101.
5. I am a Chartered Engineer (UK), a Fellow of the South African Institution of Mining & Metallurgy, a Member of the Institution of Civil Engineers, a Member of the Institute of Materials, Minerals and Mining (UK),
6. I am the QP with respect to the Environmental Management and Tailings Engineering in the report “An Independent Technical Report on the Damang Gold Mine, Ghana”, which is based on a study of: -
 - all available technical reports, geological and sampling data on the project provided to SRK;
 - first hand discussions with the appropriate project engineers and scientists and other employees currently working on the project;
 - a visit to site on September 9, 2004.
7. I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission or disclosure of which makes the technical report misleading.
8. I do not own or expect to receive any interest (direct, indirect or contingent) in the property described herein, nor in the securities of GFGL or Gold Fields and am independent of AGL and Gold Fields.
9. I have had no prior involvement with Damang.
10. The report has been prepared in compliance with National 43-101 and Form 43-101F1 and I have read this Instrument and Form.

September 2004

/s/ Ian Brackley

Dr Ian Brackley

Director and Principal Engineer SRK (UK) Ltd

I **Rick Skelton** with a business address at Steffen, Robertson and Kirsten (UK) Limited, Windsor Court, 1-3 Windsor Place, Cardiff, CF10 3BX, hereby state that:

1. I am a Principal Consulting Mining Engineer with the firm Steffen, Robertson and Kirsten (UK) Limited (SRK).
2. I am a graduate of the Royal School of Mines, London, UK, with an honours degree in Mining gained in 1969
3. I obtained an M.Sc in Mineral Production Management from the Royal School of Mines, London, UK, in 1974.
4. I have practiced my profession continuously for some 35 years since graduating, have variously managed, authored and co-authored many mining feasibility studies, feasibility audits and due diligence review reports for a variety of mineral deposit types in many different countries and am a “qualified person” for the purpose of National Instrument 43-101.
5. I am a Chartered Engineer (UK), a Member of the Institute of Materials, Minerals and Mining (UK), and a Member of the South African Institute of Mining and Metallurgy, Johannesburg, South Africa.
6. I am the QP with overall responsibility for the technical report and specifically with respect to the Mineral Reserves and Mining Engineering in the report “An Independent Technical Report on the Damang Gold Mine, Ghana”, which is based on a study of: -
 - all available technical reports on the project provided to SRK;
 - first hand discussions by others with the appropriate project mining engineers and other employees currently working on the project;
 - a visit to site on August 5 and 6, 2004.
7. I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report, the omission or disclosure of which makes the technical report misleading.
8. I do not own or expect to receive any interest (direct, indirect or contingent) in the property described herein, nor in the securities of GFGL or Gold Fields and am independent of AGL and Gold Fields.
9. I have previously carried out consulting work for Gold Fields at Damang as an SRK employee, specifically reviewing the Mineral Reserves in 2002 and assisting with the Damang Extension Project in 2004.
10. The report has been prepared in compliance with National 43-101 and Form 43-101F1 and I have read this Instrument and Form.

September 2004

/s/ Rick Skelton

Rick Skelton MSc, CEng MIMMM, MSAIMM
Principal Mining Engineer - SRK (UK) Ltd

APPENDIX D
ENVIRONMENTAL POLICY

Environmental Policy

Abosso Goldfields Limited will operate its open-pit gold mine and ore-processing plant in a responsible manner that is aligned with the evolving priorities of our stakeholders. Our actions will reflect the broad spectrum of values that we share with our stakeholders and will promote our ongoing efforts to protect our employees, stakeholders, customers and the natural environment.

Abosso's commitment to best-practice environmental stewardship will be achieved by the following actions:

- Incorporate environmental controls for the prevention of pollution and use best management practices in all project stages from project design through to operations and closure.
- Regularly assess environmental conditions through all project stages, from project design through mine closure, thereby identifying all issues of environmental concern and establishing objectives and strategies for their management.
- Establish credible monitoring and verification programs to measure environmental effects and ensure compliance with legal requirements and with our environmental policy, and communicate the results in an effective manner.
- Implement management systems to ensure that there is a continuous improvement in environmental performance through the use of the Plan-Do-Check-Act model.
- Provide for the effective involvement of communities in decisions that affect them by: treating them as equals; respecting their cultures, customs and values; and considering their needs, concerns and aspirations in making our decisions.
- Provide training and resources to develop employees and build competencies related to their environmental and social responsibilities so ensuring that all employees are equipped to accept responsibility for the environment in which we operate.



Brendan Walker
Vice President
Ghana Operations

/s/ Alan Thompson
Alan Thompson
General Manager
Damang Gold Mine
January 2004

Exhibit 99.3

AN INDEPENDENT TECHNICAL REPORT ON ST IVES GOLD MINE, WESTERN AUSTRALIA

Effective Date of the Technical Report
01 July 2004

Prepared for:

**GOLD FIELDS LIMITED
and
IAMGOLD CORPORATION**

Prepared by:

**Steffen, Robertson and Kirsten
(Australasia) (Proprietary) Limited,
Level 9, 1 York Street
Sydney
NSW 2000
Australia .**

**Qualified Persons GFL
Overall Responsibility – James Johnson**

**Qualified Persons SRK
Overall Responsibility – Mike Warren**

Estimation of Mineral Resources – Louis Voortman, AusIMM
Estimation of Mineral Reserves – James Johnson, AIG

Reported Mineral Resources – Phil Jankowski, AusIMM
Reported Mineral Reserves – Mike Warren, AusIMM

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**AN INDEPENDENT TECHNICAL REPORT ON ST IVES GOLD MINE,
WESTERN AUSTRALIA**

Our Ref: **43-101.GFL.St Ives.JSE2vFin.021104.doc**

1 SUMMARY

In compliance with Form 43-101F1 Technical Report Item 1, this Section provides an executive summary of the:

- physical property descriptions;
- Mineral Resource and Mineral Reserve Statements;
- property valuation; and
- SRK's conclusion and recommendations.

1.1 Property Location , Overview and Ownership

As described in detail in **Section 4** of this ITR the main offices of St Ives are located in Kambalda East situated near the town of Kambalda in Western Australia, approximately 630km (by road) east of Perth. Located at approximately latitude 31°12'S and longitude 121°40'E in the Norseman-Wiluna Greenstone Belt, the nearest major settlement is the town of Kalgoorlie situated 80km north. The site extends over 60km and covers an area of approximately 114,859Ha.

Gold production from the St Ives area commenced in 1980, and has produced 60.6Mt at 3.6g/t yielding 7.1Mozs from 33 open-cut and 14 underground mining operations.

During calendar year 2004, St Ives produces from 3 open-pit and 5 underground mining operations in conjunction with the St Ives mill/CIP processing plant (3.1Mtpa capacity) and a heap leach processing plant (2.0Mtpa capacity). In addition some 650kt of ore was processed via a toll treatment arrangement at a neighbouring gold facility. A new processing facility, the new Lefroy Mill, with an operating capacity of 5Mtpa is currently under construction, and will be commissioned in early 2005. St Ives is budgeted to produce over 600koz of gold in 2005.

The St Ives operations are conducted within mining tenements owned by St Ives comprises 315 Mining Leases/Titles (77,692Ha), 10 Exploration Licences (19,057Ha), 4 Prospecting Licences (171Ha) and 17 Miscellaneous Licences (17,939Ha). St Ives has legal entitlement to all its stated Mining Tenements with appropriately granted licences and leases. With timeously presented NoIs, renewal applications and continued financial commitment, there are no material issues identified in relation to the tenements that would negatively impact on the projected depletion of the current Mineral Reserves. All rentals and expenditure commitments have been met and appropriate provision for future commitments are

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included in the forward cash flow projections.

All minerals extracted from the St Ives' tenements are subject to a State Royalty of 2.5% of received revenue, payable before any other deductions. St Ives accounts this front-end royalty in both its cut-off grade estimates and financial provisions.

Other than the State Royalty and pursuant to the agreement with WMC for the purchase of St. Ives, Gold Fields agreed to pay WMC a royalty based on future gold production at St. Ives according to the following criteria:

- 4% of the net smelter return of the gold production of St. Ives for each quarter to the extent that cumulative production of gold from November 30, 2001, exceeds 3.3 million ounces, subject to the spot price of gold exceeding AU\$400 per ounce; and
- 10% of the difference between the spot gold price and AU\$600 per ounce of gold in respect of all gold produced from St. Ives each quarter after November 30, 2001, subject to the spot price of gold exceeding AU\$600 per ounce.

Both of these commitments have been provisioned in the projected cash flows underlying valuation as reported herein and are included in the line item termed "mineral royalty".

The following table summarises the Key Performance Indicators for St Ives since Gold Fields acquired the asset in December 2001. The table reports in calendar years from January 2002.

MINING		Units	2002 12mth Act	2003 12mth Act	2004(1) 6mth Act
Total Mining (2)					
	Ore Tonnes Hoist	(kt)	4,145	5,515	2,811
	Head Grade Hoist	(g/t)	4.0	3.3	3.2
	Contained Gold	(koz)	535	577	285
PROCESSING					
Total Processing(3)					
	Tonnes Processed	(kt)	5,533	6,291	3,211
	Head Grade	(g/t)	3.4	2.9	3.0
	Gold to Process	(koz)	610	587	307
	Gold Recovered	(%)	89.0%	90.4%	89.6%
	Gold Produced	(koz)	543	530	275
LABOUR					
	TEC	(No.)	815	896	910
	Terminations/Resignations	(No.)	42	53	45
	Annualised Turnover (permanent)	(%)	21%	24%	20%
FINANCIAL					
	Closing Exchange Rate	(AUD:USD)	0.54	0.66	0.74
	Gold Price Received (spot)	(USD/oz)	311	366	400
	Revenue	(USDk)	167,216	193,758	110,456
	Royalty	(USDk)	4,148	4,820	2,662
	Direct Operating Costs	(USDk)	83,007	110,944	79,771
	Unit Operating Costs	(USD/t)	15.00	17.64	24.84
		(USD/oz)	153	210	290
	Total Capital	(USDk)	35,642	59,874	89,309

(1) six-months actual results to June 2004.

(2) Sourced from 5 underground operations and 6 open-pit operation.

(3) Processing includes material from stockpiles. Total processing is the combine through using a combination of CIL and Heap Leach processing.

1.2 Accessibility , Climate, Local Resources, Infrastructure and Physiography

As described in detail in **Section 5** of this ITR the climatic conditions do not materially impact on the normal operations of the site. Temperatures range between 10°C and 45°C over the year, and rainfall averages approximately 218mm, mainly received between the late summer months and middle winter.

The landform in the region is flat to gently undulating with minor drainage channels feeding into a chain of salt-lakes. Vegetation in the area is sparse and consists of eucalyptus, mulga, halophytic shrubs with a few grasses.

The site is accessed by public tarred roads which are generally well maintained by State road services and as such no material access issues for services and supplies are apparent.

Power is supplied via a long-term (to 2011) “take-or-pay” contract with WMC. There is more than adequate off-take in this agreement and as such the power is currently costing more than industry average. The situation will however ease once the new plant is in production and the off-take will increase to a point that the unit rates will be more competitive.

Currently St Ives employs approximately 900 people and is adequately resourced. The labour force is located either in the Township of Kambalda or in the Town of Kalgoorlie.

The nearest populated settlement is Kalgoorlie which is a medium sized town with a population of approximately 30,000, of which approximately one third are employed in the mining industry. Kalgoorlie is described as a thriving town and has all the normal facilities associated with a well established (over 100 years) community including schools and medical services.

1.3 Property History

As described in detail in **Section 6** of this ITR, Gold Fields purchased the St Ives Gold operation as part of their acquisition of WMC Resource Ltd’s gold assets in December 2001. WMC commenced gold production from the Hunt mine in 1980 and from the Victory-Defiance mine complex in 1981. Gold has since been produced from 33 open-cut and 14 underground operations. Ore treated over the life of the project to the end of May 2004 totals 60.6Mt at 3.6g/t containing 7.0Moz of gold.

Gold was discovered at Kambalda (the “Red Hill Camp”) in 1897 with small-scale intermittent workings and prospecting continuing until 1967 when WMC discovered and exploited the iron-nickel sulphides. WMC worked these deposits until 1996 producing approximately 34Mt of nickel concentrate containing 3.1% nickel. Following the hike in the gold price during the 1970s reevaluation of the old gold prospects in the Kambalda area occurred, and gold exploration significantly increased in the early 1980’s.

The current processing facility was commissioned in 1988 and gold ore production has steadily increased between 1988 and 1993 where it remained at approximately 3Mtpa through to 2004.

1.4 Geological Setting, Deposit types and Mineralisation

As described in detail in **Section 7** of this ITR, St Ives is situated in the Norseman-Wiluna Greenstone, which is part of the Yilgarn Craton, a 2.6Ga granite-greenstone terrain in Western Australia. The Norseman-Wiluna Belt is highly mineralised, particularly in gold and nickel. The gross structure is markedly linear with NNW-trending strike-slip faults and other tectonic lineaments traceable for hundreds of kilometres, which disrupt the greenstone into fault-bound domains. There was a complex and long-lasting series of structural deformations during and after the metamorphism, during which the majority of the economic gold deposits were formed. The resulting strain is in linear shear zones

characterised by penetrative planar and linear fabrics and higher metamorphic facies, which are thought to control the location of the majority of economic gold deposits in the belt.

St Ives lies within the Kambalda Domain, a subset of the Norseman-Wiluna Belt. The Kambalda Domain is bound by the NNW trending Boulder-Lefroy ("BF") Fault and Zuleika Shear. The region has undergone four compressional events predated by early extension and has been metamorphosed to upper greenschist or lower amphibolite facies.

The main structural feature of the St Ives area is the gently south plunging Kambalda Anticline, which extends 35km from the south end of the Kambalda Dome to the Junction Mine. The majority of known ore bodies are proximal to the trace of the anticlinal axis. The second order structure known as the Playa Shear splays off the BF Shear Zone, and strikes through the St Ives field for a distance in excess of 10km. Most of the St Ives ore bodies are associated with third order splays off the Playa Shear. Mineralisation typically occurs where these structures intersect favourable rock units, with chemical or rheological contrasts being the most important local controls on mineralisation. The interaction between structures and rock-types has produced a large number of individual deposits, with at least 80 having been mined in the St Ives area.

Many of the gold deposits are hosted by faults and shear zones that are spatially and kinematically related to the Playa Fault. In contrast, ore-hosting structures in deposits such as Revenge, North Orchin, Argo and much of the Victory area are predominantly N-S striking, moderately to gently east-dipping or west-dipping reverse faults and shear zones with maximum displacements of a few tens of metres. Strike lengths of ore-hosting structures are seldom more than about 1 km. The orientations of stretching lineations, curvature of shear zone foliations, associated gently-dipping extension veins, and stratigraphic separations, all indicate a reverse slip sense for most D3 ore-hosting structures, especially in the Argo/Victory/Revenge area. The geometries of faults and associated extension veins indicate formation in a stress regime in which the far-field maximum principal stress was approximately east-west and horizontal.

The stratigraphic succession in the Kambalda Domain comprises Kalgoorlie Group volcanic rocks and the Black Flag Group felsic volcanic and sedimentary rocks overlain by the post-tectonic Merougl Beds unit.

The most common host rocks of gold mineralisation are dolerites such as the Defiance and Junction Dolerites. Granophyric dolerite and Kapai Slate tend to host the highest grade mineralisation. The Paringa Basalt and Kambalda Komatiite host deposits in discrete shear structures that are moderate in both tonnage and grade. Generally low to moderate grade, high tonnage mineralisation is commonly developed in porphyries, which are found in almost all deposits.

The Kambalda Domain is structurally complex. Multiple phases of deformation occurred during and after regional metamorphism. The domain is crossed by a network of variably striking and dipping first, second, third and fourth-order shears, faults and thrusts that control the location of the gold mineralisation. In many deposits, ductile shearing was punctuated by repeated brittle slip events, which produced breccias and shear veins, especially in jogs and dilatant bends in shear zones.

Hydrothermal alteration and spatially related gold mineralisation was synchronous with deformation along the ore-hosting network of shear zones. The alteration is concentrated in 10cm - 300m wide halos around shear zones, mesoscopic fractures, and veinlets, and is texturally destructive. Gold is invariably associated with well formed pyrite euhedra or, as at Junction, granular pyrrhotite.

There are four main styles of gold mineralisation at St Ives. The individual deposits may contain more

than one of these styles, depending on the local structural and lithological conditions:

- **Lode mineralisation:** Lode mineralisation typically consists of a 0.5cm to 50.0cm wide cataclasite core surrounded by 0.1cm to 3.0m of foliated cataclasite;
- **Quartz vein stockworks:** The quartz vein stockworks are irregular bodies of closely spaced and regularly oriented quartz veins;
- **Composite style:** This style is composed of variably developed quartz vein stockwork mineralisation localised in and around lode shear zones, particularly foliated shear zones; and
- **Supergene:** Broad zones of flat lying gold mineralisation in deeply weathered Archaean and overlying Tertiary rocks.

1.5 Significant Exploration

As described in detail in **Section 8** of this ITR St Ives' exploration strategy is focused on the St Ives Central Corridor, historically the most prospective domain. High priority targets in the Central Corridor are explored concurrently with reconnaissance exploration in other prospective corridors such as the Condenser Corridor which hosts the Argo deposit. This approach is designed to expand reserves while defining potential in adjacent corridors for longer term project sustainability.

Targets are designated as being at one of six stages or milestones. Milestone one is when a target is generated and the lease acquired and Milestone six reflects Ore Reserve. Milestones One to Three represent potential, whereas Milestones Four to Six represent the reported Resources and Reserves.

Targets are ranked by a combination of a geological and economic score, with the highest scoring targets being given priority in exploration. This process of target generation and exploration has historically yielded quality projects that add reserves and extend the life of mine.

The Central Corridor comprises the Greater Victory Area ("GVA"), Neptune Area, Greater Revenge Area ("GRA"), Greater Intrepide Area ("GIA"), and the Kambalda Dome.

The two historically most prospective areas are the GVA and the GRA. Both of these areas contain deposits hosted by mafic and sedimentary rocks. The GRA has been intensively explored over the past two years to provide feed for the new Lefroy Mill. This exploration has added significantly to the resource base and generated potential for both near-mine extensions and new targets. The exploration concentrated on the open pit potential, and the underground potential is yet to be fully evaluated.

The Neptune Area contains the same host rocks, gold-bearing conduits (the Playa Fault system), and structural settings as the adjacent GVA and GRA, but is comparatively under explored. A diamond drilling program in 2002 defined the structural and stratigraphic framework and intersected some gold occurrences. Since this time the exploration focus has been on the GRA, and the majority of targets generated by the 2002 drilling are yet to be tested.

The GIA is immediately to the north of the GRA and contains the Playa Fault, but contains less of the mafic stratigraphy, and the significant mineralisation is hosted by felsic porphyries. There has been much less exploration work completed in the GIA than the GRA. Current work includes collating and interpreting recent diamond drilling and geophysical data to provide a lithological and structural framework to put into context gold anomalies identified by aircore drilling.

The Condenser Corridor is 7km to the south of the GVA and hosts the Argo deposit in the differentiated Condenser Dolerite. Argo has a characteristic magnetic signature, and eight further targets were generated by identifying similar signatures in the corridor. A diamond drill core program

in 2002 identified four of these as having the strongest gold anomalies and most favourable alteration styles. These four targets are currently being systematically tested. The remaining targets will be tested afterwards.

The Kambalda Dome is immediately to the north of the GIA, and contains the historic Kambalda nickel mines. There are also intersections of primary gold mineralisation in the underground nickel mines and extensive gold soil anomalies. During 2002, several targets were generated from a review of historic nickel exploration data. Future activities will include further re-logging and sampling of nickel exploration holes to a grid spacing of 60m x 60m in areas of anomalous bedrock results and 120m x 120m grid spacing on the western flanks of the dome.

Exploration Summary: SRK concur with the management at St Ives that there is considerable potential within the current tenement holdings to add significantly to current Mineral Resource and Mineral Reserves through a combination of extensional and greenfields exploration. St Ives has a recent success history of new discoveries, despite exploration being complicated by the Tertiary and Quaternary sedimentary cover. SRK can see no reason why, in the short-term, the depleted Mineral Resources are cannot be replaced by successful exploration campaigns. St Ives has committed adequate expenditure to support the ongoing replenishment strategy.

1.6 Drilling , Sampling, Preparation, Analysis and Verification

As described in detail in **Section 9** of this ITR, drilling, sampling, sample preparation at St Ives can be summarised as follows.

Drilling : Reverse Circulation percussion RC and HQ or NQ diamond core are the dominant drilling techniques used for resource definition. Underground resources are defined with a combination of HQ and NQ surface diamond drilling, LTK48 underground diamond drilling and, to a lesser extent, RC drilling. The lithology, alteration, and structural characteristics of core and percussion chips are logged to the level of detail required for resource modelling. Diamond core is photographed and geotechnically logged.

RC drill-holes sampled over one metre intervals potentially produce 37kg of sample. RC percussion samples are riffle split to a 2kg to 4kg assay sub sample. Occasionally wet samples are returned, especially in the Lake Lefroy basin at drilling rod changes. Wet samples are routinely grab-sampled and recorded in the database. Alternative drillhole sampling methods have been recently trialled. A resource estimate using wet samples has the potential to underestimate the grade.

A drill rig sampling audit has been designed and is to become a routine tool to monitor sampling quality on all drill rigs.

Sampling: At the underground operations, 1m face chip samples of at least 3kg are taken from each ore development round (average of every 3.5m along strike). Each face is inspected and mapped by the geologist or geological assistant. Duplicate samples and blanks are routinely used to ensure sample quality. In the open pits, face samples are taken as required at some deposits in conjunction with floor, and face mapping. These samples are used to provide additional grade information to determine the relationship between gold distribution and rock-types, but are not used in resource estimates. Sludge samples are not used for resource estimation due to poor recoveries, high grade bias and significant grade smearing. A local exception is the Leviathan East Repulse deposit that otherwise lacked sufficient data to delineate the ore zones;

Sample Preparation: Drill core is cut to geological intervals between 0.3m and 1m. For operational infill drilling full core is assayed to maximize sample size. RC samples for exploration and grade

control are split in two-tiered riffle splitters on the drill rigs to sub samples between 2kg and 4kg. The majority of samples are assayed at the onsite Silver Lake Laboratory. The samples are bulk-pulverised in an LM5 pulveriser with a maximum capacity of between 3kg and 3.5kg. Larger samples are split in half or crushed and split at the lab. A portion of the pulp rejects is retained for future analysis.

Blanks and site duplicates are inserted at an average frequency of 1 in 20 samples. Low-grade, medium-grade and high-grade standard samples are inserted at relevant locations within intersections at a nominal frequency of 1 in 40. In the open-pits, duplicate field samples are taken on a campaign basis with one internal standard submitted per shift.

Samples are generally submitted for fire assay analysis, with screen fire assay and Leachwell techniques used as required for certain orebodies. The Silver Lake Laboratory has industry standard internal quality assurance and quality control ("QA/QC") measures in place. In addition to internal QA/QC, Silver Lake participates in international round robin laboratory bench marking.

Location of data points: All resource definition stage drill designs are set-out by the Survey Department. After drilling, collars are surveyed and complete multi-shot down-hole surveys are conducted. On deep holes drilled in highly magnetic dolerite, down-hole gyroscopic surveys are frequently used. All survey data is stored in the database.

Data density and distribution: Data density is variable across the St Ives deposits. Indicated Resources are drilled to at least 20m by 40m; Inferred Resources may be drilled from 40m by 40m to 100m by 100m depending on geological complexity and mining history. Measured Resources must be within mining areas and contain RC grade control or underground face samples. RC grade control drilling is optimized for individual deposits with the drillhole spacing averaging 10m by 5m.

Database integrity: The exploration diamond and RC drilling data is stored in an MS SQL Server database, with a customisable MS Access interface to provide transparent access for validation and extraction.

Summary: Sampling and assaying of resource and grade control holes at St Ives is performed at a relatively high standard compared to the general mining industry. St Ives has policies and procedures in place to achieve industry best practice standards in this discipline area. In SRK's opinion the sampling and assaying at St Ives is adequate for the intended purposes and there is a low probability of a material shortcoming as a result. In this regard, the underlying data supporting the resource estimate is considered by SRK to be generated and inputted into the corresponding resource models in satisfactory manner.

1.7 Mineral Resource and Mineral Reserve Statement

As described in detail in **Section 10** of this ITR the Mineral Resources and Mineral Reserves have been generated under the auspices of the reporting code prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia ("JORC"), herein referred to as ("the JORC Code"). The JORC code is effective as September 1999, however is currently under revision.

Mineral Resource estimates are based on interpretations of rock-types and mineralisation. Controls on mineralisation are generally well understood given the lengthy production history at St Ives. Wireframes of regolith zones and mineral zones, and digital surfaces describing topography, base of oxidation, etc, are used to domain and constrain grade interpolation when relevant.

In active open pit and underground resources, surveys of exposed geological features are incorporated

into models. All models are constrained by geological boundaries or, when relevant, by previous open pit surfaces or underground development wireframes. Internal sub-domains are defined where geological understanding is sufficient.

Due to the geological complexity of the mineralised system, local differences may occur between the location and tonnage of the ore predicted in the resource estimate and the actual material defined by grade control that may lead to short term variability in the ore delivered to the mill from individual deposits.

All resources actively mined at St Ives are estimated by Ordinary Kriging or advanced non-linear estimation techniques such as Uniform Conditioning, Conditional Simulation and Indirect Log-normal change of support. Model block sizes are selected on the basis of deposit geology, drillhole spacing and sampling density and kriging estimation quality. Where sample spacing permits, the planned mining method is included as a factor in model block size selection. Recent resource models have used kriging neighbourhood testing to improve the quality of estimates.

Tonnage Factors : Densities are generally consistent within lithologies and ore types. Density measurements are taken regularly from open pits, both in-situ and from stockpiles. As mining in each pit occurs through the weathering profile, density is highly variable. Samples are generally taken every 20 vertical metres at a grid appropriate to each orebody ensuring representation of all geological units. For fresh rock the density of dry samples is determined at the onsite Core Farm by the water displacement method.

A centralized database captures and stores all moisture and density data. Tonnages for all resource models, production tracking and reconciliation are calculated on dry bulk density. This data is also used to determine wet and dry tonnages of all production, cartage and milling transactions.

Classification : Resource categories are based on geological complexity, grade variance, drillhole intersection spacing, mining development and geostatistical measures of the estimation quality. In general and in terms of data density, Inferred Resources are generally drilled to a spacing of 100m by 100m on continuous structures or 40m by 40m on more complex or poorly understood structures. Indicated Resources are drilled to 80m by 80m in mined structures and at least 40m by 40m in unmined structures. Measured Resources are drilled to at least 20m by 20m and are fully developed along strike or grade control drilled in open pits.

Reconciliation : The two main geological reconciliation measures are the comparisons between the Resource and Grade Control and the Reserve and Actual Break. The first comparison measures the appropriateness of the sum of resource definition sample density, assay type and modelling procedures; the second indicates the appropriateness of the reserve factors applied to the resource models.

Production during 2004 was sourced from 16 individual resources. This included more than 20 differing material combinations, based on grade cut-offs and weathering state. This material was treated at the St Ives 3.1Mtpa Plant, the St Ives Heap Leach, and by toll treatment at the Jubilee and Hannans South plants. Due to blending to maintain head grade and throughput at the St Ives 3.1Mtpa Plant, reconciliation to actual mill production of individual mines is not realistic.

In general, open pit grade control sampling shows higher short range variability than the wider spaced resource data. As a result of this, the degree of selectivity predicted by the resource model is higher than that achievable in mining. In addition, drilling defines major structures but often the minor and splay structures (usually lower grade) are not adequately defined. The reconciliation of the resource to grade control therefore shows more tonnes at lower grade for a similar metal content which is not

necessarily a function of dilution.

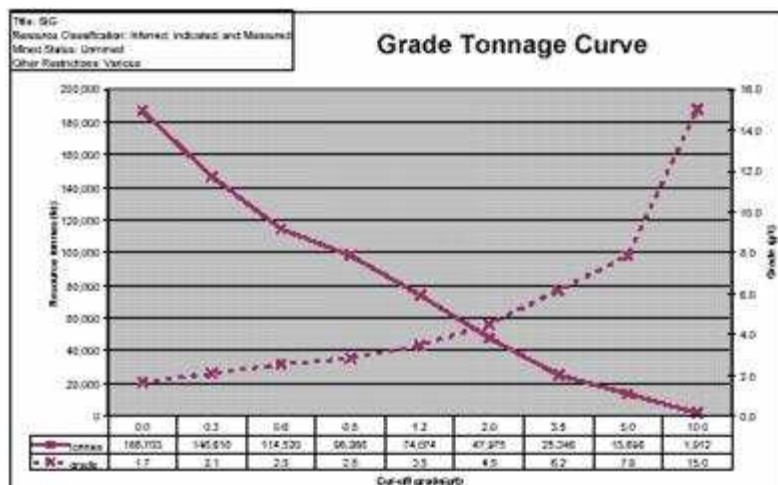
The following table summarises St Ives's June 2004 Mineral Resource and Mineral Reserve estimates. The estimates have been generated by GFL, however audited and modified, where deemed necessary, by SRK.

Reserve Classification	(kt)	(g/t)	(kg)	(koz)
Proved				
UG - PAI(3)	787	5.8	4,536	146
UG - UPBI(4)				
OP - PWDP(1)	999	1.8	1,781	57
OP - UPODP(2)				
SS - P(5)	7,444	1.1	8,236	265
SS - UP(6)				
Subtotal	9,230	1.6	14,552	468
Probable				
UG - PAI	10,621	5.1	54,345	1,747
UG - UPBI				
OP - PWDP	9,588	2.6	24,640	792
OP - UPODP				
Subtotal	20,208	3.9	78,985	2,539
TOTAL P + P	29,439	3.2	93,537	3,007

Resource Classification	(kt)	(g/t)	(kg)	(koz)
Measured				
UG - PAI	716	6.6	4,731	152
UG - UPBI	85	3.3	280	9
OP - PWDP	973	2.1	2,018	65
OP - UPODP	267	1.6	420	14
SS - P	7,444	1.1	8,236	265
SS - UP				
Subtotal	9,486	1.7	15,684	504
Indicated				
UG - PAI	10,036	6.0	60,041	1,930
UG - UPBI	2,245	4.6	10,334	332
OP - PWDP	8,609	3.0	25,806	830
OP - UPODP	38,771	1.2	44,928	1,444
Subtotal	59,661	2.4	141,110	4,537
TOTAL M + I	69,148	2.3	156,793	5,041
Inferred				
UG - PAI	2,864	6.1	17,529	564
UG - UPBI	7,190	5.4	38,825	1,248
OP - PWDP	687	2.5	1,729	56
OP - UPODP	17,434	1.4	24,317	782
Total Inferred	28,175	2.9	82,401	2,649

- (1) PWDP = Planned Within Design Pit – Mineral Resources and Mineral Reserves contained within a fully engineered open pit designed from the final “optimised” Whittle pit.
- (2) UPODP = Unplanned Outside of Design Pit – Mineral Resources identified in the zone between the design pit surface and the Whittle Pit Shell containing the total resource inventory above a potentially economic cut-off grade.
- (3) PAI = Planned Above Infrastructure – Mineral Resources and Mineral Reserves accessible from existing infrastructure where no further material capital development is required to access any resource block
- (4) UPBI = Unplanned Below Infrastructure – Mineral Resources accessible only with significant additional capital development
- (5) P = Planned
- (6) UP = Unplanned

The following figure highlights the grade-tonnage relationship for the total resources, including Measured, Indicated and Inferred.



The following table highlights the Mineral Reserves sensitivity to gold price variation.

	Units	-10%	-5%	0	5%	10%
Gold Price	(AUD/oz)	522	551	580	609	638
Ore	(kt)	27,239	28,970	29,439	31,342	31,585
Grade	(g/t)	3.2	3.2	3.2	3.2	3.2
Contained Gold	(koz)	2,819	2,982	3,007	3,158	3,193

SRK consider that no material shortcomings exist in the underlying resource models in terms of the appropriateness of drilling density, sampling, assaying, geological interpretation, estimation techniques and classification.

Further analysis is, however, required to better understand the material variance between the resource model estimate and the grade-control model predictions (and actual production) for the open-pit operations. During 2004, approximately 40% more tonnes were produced from the open-pits than were estimated in the underlying open-pit resource models, although the predicted metal content was within 5%. This difference is not necessarily due to unplanned dilution, as grade control drilling shows the mineralisation to be more complex and discontinuous than suggested by the wider spaced resource definition drilling, on which the resource estimate is based. Often short range splays from the primary mineralised structures occur that are not identified until grade control drilling is undertaken. This greater complexity, identified as a result of the close-spaced drilling data, translates to a reduced selectivity than that predicted in the underlying resource model.

This issue cannot be addressed by simply applying global correction factors, as the grade and tonnage differences are relative to average mineralisation grade and associated cut-off grade, both of which vary from deposit to deposit. Increased geological knowledge and mapping may improve the reconciliation, but individual pits are relatively short-lived and the revision of the resource models to reflect actual

production would be neither warranted nor beneficial to aid production in the short-term.

The pit estimates are still correctly classified as Indicated Resources, however this classification is unlikely to be improved upon because of this issue. SRK do however believe that the projections of grade in the Mineral Reserves for the open-pits may as a result be optimistic.

These same issues are not encountered in the underground operations, where reconciliations between the resource model and production are within acceptable error limits for the stated resource classification. The better reconciliation history is due to the fact that underground operations focus on the primary structure, in general disregarding small-scale mineralised splays as mineable propositions.

The primary risk is therefore anticipated grade-tonnage profile projected in the Mineral Reserves derived from the open-pit operations. Due to the number of contributing sources (six existing pits and 11 future projects) and the complicated nature of reconciliation, SRK has not made any global adjustments to the open-pit Mineral Reserves, but highlights this risk as potentially having an adverse impact on cash flows. In terms of materiality, the open-pits contribute approximately 30% of the contained gold in the Mineral Reserves.

1.8 Mineral Processing and Metallurgical Test work and Tailings Deposition

As described in detail in **Section 11** of this ITR, the gold plant currently in operation at St Ives is the St Ives 3.1Mtpa Plant. The plant was commissioned in May 1988 with a design rate of 3Mtpa; however the circuit was unable to sustain this throughput. Following subsequent improvements to the overall circuit between 1993 and 2003, the plant now operates at its design capacity of 3.1Mtpa.

The St Ives 3.1Mtpa Plant is expected to close in February 2005, following the commissioning of the new Lefroy gold plant, commencing during December 2004. On closure it is anticipated that the plant will be thoroughly cleaned and dismantled to recover any gold entrained prior to being offered for sale.

Recovery is directly related to the feed mix and head grade, however during the first six-months of 2004 the recovery averaged 93.8% for a feed throughput of 1.5Mt at an average grade of 4.3g/t. The unit cost of this plant during this period averaged USD10.68/t.

Heap Leach Facility : Heap leaching was introduced at St Ives during 2000 with the first gold recovered in December of that year. The HL Facility comprises three-stage crushing, conveying and stacking of ore onto prepared ore pads. The crushed ore is stacked in cells 300m long, 64m wide and 10m high. The capacity of the crusher system is 2Mtpa at P₈₀ passing 10mm; however when operating at P₈₀ passing 15mm, the systems capacity is projected to increase to 2.6Mtpa, and this is the current target for 2005.

The pads are of conventional construction, with an HDPE impervious liner overlain by geotextile and a cushion layer followed by a drainage layer and the stacked ore. The liner is placed onto the subsoil which is saprolitic.

The average recovery for the HL Facility during the first six-months of 2004 was 60.3% for a feed throughput of 1.0Mt at an average grade of 1.0g/t. The unit operating costs for the HL Facility during this period averaged USD3.88/t.

Toll Treatment : Between 1996 and 2004 ore has also been transported to several mills for toll treatment. The major recipient of St Ives ore has been the New Celebration Mill located some 20km from the St Ives 3.1Mtpa Plant; however campaigns of toll treatment have also been completed at the Hannans South and Jubilee facilities. During F2004 some 1.2Mt were toll treated primarily at New Celebration Plant. Toll treatment charges ranged between USD9.8/t and USD11.9/t.

With the commencement of the new Lefroy gold plant at St Ives there is no further requirement for toll treatment, irrespective of the fact that the toll plants are no longer available (or economic). The new plant therefore offers a significant saving in unit processing cost compared to the high cost of this short-term toll treatment arrangement and the relatively high cost of the existing plant at St Ives.

Lefroy 4.5Mtpa Gold Plant : Construction of the new facilities at St Ives commenced November 2003 and it is anticipated that commissioning of the plant will progress to steady state operations from February 2005.

The new facility is located approximately 9km to the NW of the existing plant and is adjacent to the heap leach facility. This site location offers the potential to lower the mine haulage costs and it is hoped that 50% of the ore to the mill will be direct tipped into the primary crusher, thereby reducing the current rehandling costs.

The metallurgical process routes selected for the new facility reflect the existing St Ives 3.1Mtpa Plant, incorporating knowledge gained with respect to ore mineralogy and the improvements in the equipment and technology made since the existing plant was commissioned in 1988. Tailings from the CIP section will be thickened in a 40m high-rate thickener prior to being pumped to impoundment in the newly commissioned tailings facility TSF 3.

The plant capacity is driven by the availability and capability of the installed 36' by 18' SAG mill to process the ore with variable hardness and characteristics. The installed power of 13MW is considered by SRK to be adequate for the designed grind P80 of 125 μ m and the availability projections of the variable speed drive should allow flexibility in the plant throughput adequate to maintain the design production levels on an average basis.

Plant recovery for the gravity circuit is designed at 30% which is higher than the recovery achieved by the current plant.

Overall plant recovery as used for design purposes is estimated to be 94% overall with leach recovery at 91.4% the balance recovered from the gravity circuit. With the knowledge gained from treating the anticipated cocktail of ores in the existing St Ives 3.1Mtpa Gold Plant these recoveries are considered conservative and a gold recovery of 96% is projected for the future years. However, with a throughput rate of 5Mtpa resulting in a grind that is relatively coarse, the projected 96% is considered by SRK to be optimistic and as such a recovery of between 94% and 95% (head grade dependent) is probably more realistic and has been used for the valuation and cash flow projections.

Once at steady-state throughput the estimated unit cost is USD6.03/t which equates to a significant 45% reduction in unit processing cost compared to the current combined St Ives 3.1Mtpa plant and the toll treatment, this saving in addition to an increased throughput of 16%.

1.9 Mining

As described in detail in Section 13 of this ITR the mine life is based on the ore reserves existing as at June 30, 2004, the St. Ives Gold Mine is expected to continue in operation until the end of 2013. Gold Fields is engaged in underground mining and in both open pit and production stockpile surface mining at the St. Ives Gold Mine, and is thus subject to underground and surface mining risks. Seismicity at the Junction mine is the primary safety risk, which is addressed through the use of backfilling and by mining different parts of the orebody in controlled steps to improve stability, which is called stope sequencing. The safety record at the St. Ives Gold Mine during fiscal 2004, in terms of lost time injury frequency rate, was better than the Australian industry average for the same period. No fatalities were recorded in fiscal 2002, 2003 or 2004.

The St. Ives Gold Mine sources production from a variety of underground and surface operations, and has a heap leach operation which treats low and marginal grade ore. The principal production sources in fiscal 2004 included the Junction underground mine, the Argo open pit mine and the Minotaur and Agamemnon open pit mines within the Greater Revenge Area.

Gold Fields expects the principal production sources in fiscal 2005 to include the Argo, East Repulse, Sirius and Junction underground mines, and the Agamemnon, Bahama, Mars, Pluton and West Revenge open pit mines within the Greater Revenge Area. As many of the operations at the St. Ives Gold Mine involve mining deposits on or under Lake Lefroy (which is a shallow salt lake), extracting ore requires construction of berms and other earthworks to prevent water intrusion. Open pit operations use 180 to 250 tonne excavators loading 150 tonne trucks. Waste dumps are formed adjacent to the pits. The underground operations at St Ives are operated by the local contract mining company GBF, which provides the mobile mining equipment and the light vehicles for their own demand. St Ives as the mine owner provides fixed installations (services and communication, mine drainage, fans, paste fill batch plant, etc.) The open-pits are managed by St Ives staff; however all of the operational functions are outsourced to selected contractors. The current mining contractor is Leighton Contractors ("Leighton").

Junction Underground Mine : The Junction mine currently uses a combination of open stoping and bench and fill mining methods, with the mix depending on development and production needs. Backfilling, using slurry consisting of tailings and cement, specifically designed dynamic ground support system, as well as stope sequencing, are used to address seismicity issues. Access to the orebody is through a decline tunnel, which accommodates workers, materials and equipment. The maximum depth at present is approximately 700 metres. Gold Fields currently plans to reduce reliance on the Junction mine as a source of high-grade ores.

Argo Open Pit and Underground Mine : The Argo mine has had an open pit operation since 1994. After a dormant period, WMC began open pit mining there again in 2000. Gold Fields has ceased production in the open pit by the end of 2003 at a final depth of 130 metres. Development of the Argo underground mine commenced in fiscal 2003 in line with Gold Fields' strategy to reduce reliance on the Junction mine as a source of high-grade ore and some 300,000 tonnes of ore was mined during fiscal 2004.

Greater Revenge Area : Mining at the GRA commenced in 1989. Mining operations at the GRA during fiscal 2004 consisted of the Agamemnon, Minotaur and Mars open pit mines, which are located under Lake Lefroy. The mines apply typical open pit and lake sediment mining methods.

Leviathan Complex : The Sirius underground operation, the first of three underground operations scheduled within the Leviathan complex, commenced operations during fiscal 2003 and the two primary stopes in this complex have been substantially depleted. The East Repulse complex is currently being stoped, while development towards the Conqueror complex is ongoing. In addition, Gold Fields is continuing to explore opportunities for further extensions of mining operations within the Leviathan complex.

During fiscal 2003, the mining strategy underwent changes at the St. Ives Gold Mine as higher tonnage volumes were required from surface sources to offset mining problems in the Junction underground mine and the Minotaur open pit mine. One of the year's main challenges was the ongoing seismicity at Junction underground mine which affected mining sequences and required a revised configuration and support plan.

1.10 Environmental

As described in detail in **Section 14** of this ITR the environmental policies and management are deemed by SRK to be adequate and effective, however high-turnover in staff has created certain gaps in the continued level of required conformance, specifically relating to effective tracking of legislative requirements.

St Ives operates on tenements that must be worked in compliance with key Western Australian (Commonwealth) and State environmental legislation. This legislation governs the approvals to operate and to continue to operate. St Ives has all the key environmental approvals in place to operate, however management must now ensure that for continued environmental risk mitigation and future approvals and renewals, they materially comply with the conditions stipulated.

For the approvals, St Ives lodged bonds to cover the environmental commitments assessed at the time of application. These liability assessments are required to be updated at set periods. The current assessment, which has not been submitted for approval, estimates the liability to be in the order of USD15.1m which is USD6.3m more than the bond value of USD8.8m. This additional liability estimate has been incorporated into the cash flows based on equal annual increments over the depletion period.

SRK has identified non-compliances, issues and associated risks, which cannot be realistically quantified. In each case, SRK has drawn attention to it in reporting without including a specific provision in the financial modelling. For example, potential future requirements for water treatment during continued operations or following decommissioning is the single most material risk and the most technically and economically difficult to estimate. Whilst water treatment at St Ives is not currently needed, the potential for future requirements will be dependent upon:

- Execution of both recently passed legislation and more stringent future legislation which imposes more costly water management requirements;
- Discharge criteria demanding potable water standards as opposed to more lenient general standards; and
- Tacit acceptance by various organisations of the concept of desalination and its increasing cost effectiveness as technology improves.

1.11 Human Resources

As described in detail in **Section 15** of this ITR, St Ives is currently adequately staffed with the appropriate combination of technical and administrative staff, with the exception of one or two positions vacant due to recent resignations.

All employment contracts for Gold Fields staff at St Ives are negotiated in line with Australian Workplace Agreements (“AWA”) or Common Law Contracts, negating the need for union involvement.

One significant change anticipated in the next 12 months that may materially affect employment conditions is that the WA State Government has proposed to establish a new State-wide code of practice to set limits on working hours. If approved, the new code will come into effect in July 2005, and will result in major shift restructuring at Agnew operations.

Staff attrition is an industry-wide issue in Australia; the following tables give the historical statistics on staff termination, and historical productivity statistics at St Ives since Gold Fields acquired the assets in

2001. The tables report in calendar years from January 2002.

Employment Status		2002	2003	2004(1)
	TEC (No.)	815	896	910
	Terminations/Resignations (No.)	42	53	45
	Annualised Turnover (permanent) (%)	21%	24%	20%

(1) six-months actual results to June 2004.

Employment Status		2002	2003	2004(1)
	Total Ore Tonnes Mined (kt)	4,145	5,515	2,811
	Total Contained Sold (oz)	543	530	275
	TEC (No.)	815	896	910
	Mining Productivity (t/TEC/mth)	424	513	515
	Gold Productivity (oz/TEC/mth)	55	49	50

(1) six-months actual results to June 2004.

The statistics show that despite a high turn-over in employees, the productivity levels, in terms of tonnage mined terms, appear to be increasing with a marked 23% improvement in the current year to that achieved in 2002.

1.12 Health and Safety

As described in detail in **Section 16** of this ITR health and safety is a primary component of operations at St Ives. Health and Safety in Australia is governed by various regulatory bodies and mining and labour legislation. In particular, the mining industry is governed by the Mines Safety and Inspection Acts 1994 and the Mine Safety and Inspection Regulation 1995. In compliance with these Acts and Regulations St Ives' management has developed, and made available to all its employees, a site specific safety policy and manual.

The current safety statistics for St Ives are summarised in the following table.

	Units	2002	2003	2004(1)
Hours worked		179,325	193,898	165,560
Fatalities	(No.)	0	0	0
L.T.I	(No.)	2	2	0
M.T.I	(No.)	1	1	4
(LTI –MTI) Frequency Rate(2)	(i/mmhrs)	18	16	27

(1) Calendar years.

(2) mmhrs – million man hours based on total hours worked by Gold Fields' staff and all contractors Calendar Years.

St Ives' safety performance improved dramatically over the period 1996 to 2001. Since Gold Fields took over the operation in 2001, St Ives performance has fluctuated around a SIFR of 16-24 per million man hours. For 2004, the SIFR benchmark was 24 per million man hours. As a recent commitment to Occupational Health and Safety, Gold Fields Australia has recently committed to target 0 SIFR per annum.

Operations at St Ives will continue to be exposed to commonplace mining hazards such as water, dust, fire, falls of ground ("FoG"), explosions, occupational hygiene issues and materials handling and transportation. SRK do however consider that St Ives by way of its policies and management strategies operate to international best practice in terms of occupational health and safety.

1.13 Asset Valuation

As described in detail in **Section 17** to **Section 20** inclusive of this ITR, the valuation of St Ives has been based on the following key facts and assumptions:

- Only the Mineral Reserves have been valued based on the LoM plan and resulting production profile and associated revenue stream from gold sales;
- All associated cost and capital required to implement the plan have been included and in money terms 01 July 2004;
- Where existing operations continue into the LoM plan, cost and productivity projections have been assessed against historical performance, future projects have been based on pre/feasibility studies and costs have been compared with similar deposits previously depleted within the same complex of similar operations worked elsewhere;
- All environmental and termination provisions have been included in the working costs projections;

The following table summarises the TEPs deemed by SRK to be technically and economically achievable as at 01 July 2004. The TEPs include commodity sales profiles derived from all ore sources; the total working-cost profiles; and capital expenditure profiles.

YE Dec	Tonnage (Kt)	Gold Grade (g/t)	Gold (Koz)	Total Working Costs (USDk)	Net Change in Working Capital (USDk)	Capital Expenditure (USDk)	Total Expenditures (USDk)
2004(1)	2,900	2.7	247	-78,263	13,069	-68,406	-133,600
2005	7,578	2.5	620	-164,622	-8,110	-30,425	-203,157
2006	7,394	2.5	588	-146,353	-511	-36,762	-183,626
2007	5,181	2.5	423	-100,933	-4,523	-18,703	-124,159
2008	2,436	3.8	294	-72,832	-2,021	-13,840	-88,693
2009	1,410	5.0	227	-54,749	-1,555	-9,915	-66,219
2010	1,333	4.8	205	-52,300	-322	-7,136	-59,757
2011	939	4.6	138	-37,012	-1,532	-731	-39,276
2012	267	3.9	33	-9,947	-2,632	0	-12,579
LoM Total	29,439	2.9	2,776	-717,010	-8,138	-185,917	-911,065

Real Money terms as at 01 July 2004

The following figures graphically represent the projected LoM milling profile and gold production profile respectively.

Certain technical and economic risks have been identified with regard to the achievability of the LoM projections as presented. These are identified as general risks, many of which are beyond the control of the management of St Ives, and site specific risks some of which may be managed.

The most material general risks are associated with commodity price and exchange rate fluctuations which can materially impact on the technical-economic generation and profitable depletion of Mineral Resources and Mineral Reserves. The commodity price and exchange rate fluctuations can offer equal opportunity, however the Mineral Resources and Mineral Reserves have already been generated at a higher gold price than the current spot price therefore upside potential has a lesser impact.

The most material operational risks are summarised as follows:

- **Open-pits** : Reconciliation and grade control results demonstrate the biggest area of risk in the open-pits at St Ives. Historically the planned grade has been less than called for in the budgets and SBPs. The nature of mineralisation at St Ives is such that high grade variability would be

expected, however over longer periods of production this variability should even out as the knowledge of the deposits increases and estimates are improved. At St Ives, however the production periods from any one pit is relatively short and as such the poor reconciliation may well continue with a decrease in grade and increase in tonnes resulting. The contained gold ounces will, however likely to be within estimation acceptance limits in terms of quantum; and

- **St Ives Complex** : The project economics on a complex level are materially influenced by the forecast operating costs and throughput rate (11% above the design capacity) of the Lefroy Gold Plant. The success of achieving the 30% reduction in unit rate will be reliant on the sustainability of throughput beyond the first few years of operation as the current Mineral Reserves from the open-pits are depleted. St Ives is actively exploring from additional surface source and has already identified a substantial low-grade resource in the Leviathan deposit which requires further technical-economic studies to assess future viability potential. The throughput of the plant is reliant on a slightly coarser grind than that of the feasibility study not impacting on the recovery. There is a low risk that this will not be achieved, however the cash flows has assumed a slightly lower recovery to account for this risk.

Operational Specific Opportunities:

- **Exploration** : There is considerable potential within the current tenement holdings to add significantly to current Mineral Resource and Mineral Reserves through a combination of extensional and greenfields exploration. St Ives has a recent success history of new discoveries, despite exploration being complicated by the Tertiary and Quaternary sedimentary cover. SRK can see no reason why in the short-term the depleted Mineral Resources are not replaced by successful exploration campaigns. St Ives has committed adequate expenditure to support the ongoing replenishment strategy.

This aspect is by far the single biggest opportunity at St Ives and Gold Fields has a firm exploration expenditure commitment to fund current and future exploration plans.

- **Mineral Resources** : St Ives currently has Inferred Mineral Resources which are being investigated further at various levels of technical-economic studies in order to test viability and prior to funding further work sufficient to increase to Indicated Resources and into Probable Reserves. No value has been assigned to these Resources and this offers a significant potential in addition to the continued exploration. The asset valuation has been based on macro economic assumptions provided to SRK by Gold Fields as summarised in the following table.

Parameter	(Units)	2004	2005	2006	2007	2008	2009
Gold Price(1)							
Real-terms	(USD/oz)	400	400	400	400	400	400
Nominal Terms	(USD/oz)	404	412	420	429	437	446
Inflation(2)							
US CPI	(%)	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%
AUS CPI	(%)	1.50%	3.00%	3.00%	3.00%	3.00%	3.00%
Exchange Rates(3)							
Real-terms	(AUD:USD)	1.43	1.43	1.43	1.43	1.43	1.43
Nominal-Terms	(AUD:USD)	1.44	1.45	1.47	1.48	1.49	1.51

(1) Assumed to be the average price achieved over the period.

(2) Assumed to be the average inflation over the period

(3) Assumed to be the average exchange rate over the period - (based on CPI)

The key financial assumptions have also been relied upon to estimate working capital and tax

components of the cash flow projection, these are summarised in the following table.

Input	Units	Amount
Assessed Losses	(USDk)	8,658
Tax Rate	(%)	30%
Debtors	(USDk)	18,664
Creditors	(USDk)	-22,151
Stores	(USDk)	-3,115
Debtors	(days)	7
Creditors	(days)	30
Royalties	(days)	7
Stores	(days)	90

The cash flows reported for the St Ives Tax Entity are contingent upon the current and anticipated performance of mine management, as well as the expected achievement of the operating parameters as provided to and reviewed by SRK and set out in this ITR.

The LoM plans and the Financial Model include forward-looking statements that are not historical facts. These forward-looking statements are necessarily estimates and involve a number of risks and uncertainties that could cause actual results to differ materially. Notwithstanding the aforementioned comments, SRK considers that at the time of compilation, the Mineral Reserves and associated depletion resulting in cash flow projections are appropriate and technically and economically achievable, however it must be noted that SRK does consider that a certain amount of upside potential is already built into the projections that fundamentally rely on the existing management performance to implement and sustain recent initiatives to ensure that the projected cash flows are realised within the anticipated timeframe.

The following table presents the post-tax pre-finance ring-fenced cash flows in calendar years and in nominal terms for the Agnew Tax Entity.

Financial Year Project Year	Units	Totals /Averages	2004 1	2005 2	2006 3	2007 4	2008 5	2009 6	2010 7	2011 8	2012 9
Production											
Mining											
RoM Tonnage	(kt)	21,994	2,651	5,861	5,325	2,511	1,697	1,410	1,333	939	267
Head Grade	(g/t)	3.9	3.5	3.2	3.4	4.3	5.2	5.2	5.0	4.8	4.1
Contained Gold	(koz)	2,743	296	604	585	344	284	236	214	145	35
Processing											
Milled Tonnage	(kt)	29,439	2,900	7,578	7,394	5,181	2,436	1,410	1,333	939	267
Milled Grade	(g/t)	3.2	3.0	2.8	2.7	2.8	4.0	5.2	5.0	4.8	4.1
Milled Gold	(koz)	3,007	277	685	646	459	310	236	214	145	35
Metallurgical Recovery	(%)	92.3%	89.3%	90.6%	91.0%	92.2%	94.7%	95.9%	95.8%	95.7%	95.3%
Recovered Gold	(koz)	2,776	247	620	588	423	294	227	205	138	33
Clean-up Gold	(koz)										
Saleable Metal	(koz)	2,776	247	620	588	423	294	227	205	138	33
Commodity Sales											
Gold	(koz)	2,776	247	620	588	423	294	227	205	138	33
Silver	(koz)										
Commodity Prices											
Gold Price	(USD/oz)		404	412	420	429	437	446	455	464	473
	(AUD/oz))		580	598	616	634	653	673	693	714	735
Macro Economics											
AUS PPI	(%)		1.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
AUS CPI	(%)		1.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
US PPI	(%)		1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
US CPI	(%)		1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
	(USD:AUSD)		1.44	1.45	1.47	1.48	1.49	1.51	1.52	1.54	1.55
Financial - Nominal											
Sales Revenue - Gold	(USDm)	1,169.2	99.4	256.9	245.9	178.7	125.4	97.8	89.3	60.9	14.9
Operating Expenditures	(USDm)	(764.3)	(28.5)	(152.0)	(163.9)	(122.7)	(92.2)	(71.0)	(67.6)	(50.1)	(16.3)
Mining	(USDm)	(494.5)	(49.5)	(101.6)	(97.6)	(57.4)	(55.1)	(47.2)	(45.2)	(32.3)	(8.6)
Processing	(USDm)	(197.5)	(21.0)	(54.8)	(42.5)	(34.1)	(16.5)	(9.8)	(9.7)	(7.0)	(2.0)
Overheads	(USDm)	(78.0)	(7.5)	(15.9)	(16.1)	(16.0)	(8.1)	(4.9)	(5.0)	(3.5)	(1.0)
Other Revenue	(USDm)	74.9	39.5	35.3	—	—	—	—	—	—	—
Mineral Royalty	(USDm)	(50.2)	(2.5)	(6.4)	(6.2)	(7.4)	(8.6)	(6.9)	(6.5)	(4.5)	(1.1)
Environmental	(USDm)	(6.8)	(0.6)	(1.5)	(1.4)	(1.0)	(0.7)	(0.6)	(0.5)	(0.4)	(0.1)
Terminal Benefits	(USDm)	(4.8)	—	—	—	(2.4)	(1.0)	—	(0.4)	(0.7)	(0.3)
Net Change in Working Capital	(USDm)	(7.3)	13.0	(7.1)	(0.1)	(4.5)	(2.0)	(1.6)	(0.2)	(1.7)	(3.2)
Operating Profit	(USDm)	404.9	70.9	105.0	82.0	56.0	33.2	26.7	21.7	10.8	(1.4)
Tax Liability	(USDm)	(12.7)	—	-6.2	-1.6	-4.8	—	—	—	—	—
Capital Expenditure	(USDm)	(195.1)	(68.1)	(31.8)	(39.2)	(20.3)	(15.4)	(11.2)	(8.2)	(0.9)	—
Project	(USDm)	(195.1)	(68.1)	(31.8)	(39.2)	(20.3)	(15.4)	(11.2)	(8.2)	(0.9)	—
Sustaining	(USDm)	—	—	—	—	—	—	—	—	—	—
Final Net Free Cash	(USDm)	197.2	2.8	66.9	41.2	30.8	17.9	15.5	13.5	9.9	(1.4)
Reporting Statistics - Real											
Cash Operating Costs	(USD/oz)	269	166	231	276	271	301	304	324	342	381
Total Cash Costs	(USD/oz)	269	166	231	276	271	301	304	324	342	381
Total Working Costs	(USD/oz)	273	168	234	279	280	307	306	328	350	393
Total Costs	(USD/oz)	346	391	296	346	338	366	363	370	368	487

The following tables present the NPV and variations with discount factors and sensitivity factors on revenue, working costs and capital.

Discount Factor (%)	NPV (USDm)
0.00%	197.2
5.00%	160.2
7.46%	151.9
10.00%	144.1
12.00%	138.6
14.85%	131.3
18.00%	124.2
20.00%	120.1
25.00%	110.9

Sensitivity Range - Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range - Operating Expenditures	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range - Capital Expenditures	-30%	-20%	-10%	0%	10%	20%	30%
Currency	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)
Variation in NPV @ 0% DCF							
Revenue	(152.4)	(37.2)	78.0	197.2	265.1	346.1	427.2
Operating Expenditures	353.2	296.8	240.0	197.2	113.2	33.1	(46.9)
Capital Expenditures	231.2	214.3	197.4	197.2	163.0	145.7	128.5
Variation in NPV @ 7.46% DCF							
Revenue	(129.1)	(31.5)	66.0	151.9	223.0	291.5	360.1
Operating Expenditures	296.2	249.0	201.4	151.9	96.2	28.9	(38.5)
Capital Expenditures	197.7	182.5	167.3	151.9	136.4	120.9	105.3
NPV (USDm)	Revenue Sensitivity						
Operating Expenditure Sensitivity							
	-30%	-20%	-10%	0%	10%	20%	30%
-30%	73.0	157.6	227.7	296.2	364.7	433.0	501.2
-20%	5.6	102.7	179.9	249.0	317.5	385.9	454.2
-10%	(61.8)	35.8	128.2	201.4	270.3	338.8	407.2
0%	(129.1)	(31.5)	66.0	151.9	223.0	291.5	360.1
10%	(196.5)	(98.9)	(1.3)	96.2	174.5	244.3	312.8
20%	(263.9)	(166.3)	(68.7)	28.9	122.5	196.4	265.6
30%	(331.2)	(233.6)	(136.1)	(38.5)	59.1	146.1	217.9

1.14 Qualified Persons' ("QPs") Conclusions

The views expressed in this ITR have been based on the fundamental assumption that the required management resources and pro-active management skills to access the adequate capital necessary to achieve the LoM plan projections for the Mining Assets are sustained.

SRK has conducted a comprehensive review and assessment of all material issues likely to influence the future operations at St Ives. The LoM plan, as provided to and taken in good faith by SRK, has been reviewed in detail for appropriateness, reasonableness and viability, including the existence of and justification for departure from historical performance. Where material differences were found, these were discussed with St Ives and adjusted where considered appropriate. SRK consider that the resulting Technical Economic Parameters ("TEPs") and Financial Model ("FM") are based on sound reasoning, engineering judgement and technically achievable mine plans, within the context of the risks associated with the Australian gold mining industry.

2 INTRODUCTION

In compliance with Form 43-101F1 Technical Report Item 4, this Section provides an introduction to the Independent Technical Report (“ITR”) in terms of:

- who the ITR is prepared for;
- the purpose for which the ITR was prepared;
- the source of information and data contained in the ITR and/or used for its preparation; and
- extent of field involvement.

2.1 Independent Technical Report

Steffen, Robertson and Kirsten (Australasia) (Pty) Limited (“SRK”) is a subsidiary of the International group holding company, SRK Global Limited (the “SRK Group”). SRK has been commissioned by the directors of Gold Fields Limited (“Gold Fields”) and IAMgold Corporation (“IAMgold”) to prepare an ITR on St Ives Gold Mine, Western Australia (“St Ives”) in support of the proposed transaction between Gold Fields and IAMgold.

This ITR has been prepared in accordance with the following:

- The Listing Requirements of the TSX; and
- The Rules and Companion Policies of the Ontario Securities Commission (“OSC”) enacted by Section 143 of the Securities Act, specifically:
 - National Instrument 43-101 Standards of Disclosure for Mineral Projects (“National Instrument 43-101”),
 - Form 43-101F1 (the “Form”),
 - Companion Policy 43-101 CP (the “Companion Policy”).

In accordance with the applicable Rules and Companion Policies, this ITR has been prepared under the direction of the Qualified Persons (“QPs”) who assume overall professional responsibility for this ITR. The ITR however, is published by SRK, the commissioned entity, and accordingly SRK assumes responsibility for the views expressed herein. Consequently with respect to all references to QPs and SRK: ‘all references to SRK mean the QP and vice-versa’.

The ITR principally comprises a technical-economic appraisal of the St Ives Gold Mine and has been prepared in accordance with the Rules and Companion Policies stated above.

2.2 Purpose of the ITR

The proposed transaction means the acquisition by IAMGold of the Acquired Interests from Gold Fields and its affiliates and the issue by IAMGold of the Consideration Shares to Gold Fields and its affiliates as consideration thereof, resulting in the acquisition by IAMGold of all of the interests of Gold Fields in certain of its subsidiaries which collectively hold all of the mining assets of Gold Fields located outside of Southern African Development Community (“SADC”).

In this regard Gold Fields will transfer to IAMgold ownership of its interests in:

- Orogen Holding (BVI) Limited (“Orogen”): Orogen holds Gold Fields indirect interests of:
 - 100% of St Ives Gold Mine in Western Australia (“St Ives”),

- 100% of Agnew Gold Mine in Western Australia (“Agnew”),
- 80.7% of Cerro Corona development property in Peru (currently under option),
- 100% of Arctic Platinum Project in Finland,
- a portfolio of other exploration properties and investments;
- Gold Fields Ghana Holdings Limited (“GF Ghana Holdings”): GF Ghana Holdings holds Gold Fields indirect interests of:
 - 71.1% interest in and claim on loan account against Gold Fields Ghana Limited, which owns and operates the Tarkwa Gold Mine in Ghana,
 - 71.1% interest in Abosso Goldfields Limited, which owns and operates the Demang Gold Mine in Ghana; and
- Gold Fields Guernsey Limited, which include a portfolio of exploration properties and investments.

For the transfer of ownership Gold Fields will be issued with 351,690,218 IAMgold Shares in addition to a number of IAMgold Shares equivalent to the net cash contributions made by Gold Fields into the Acquired Companies between 24 June 2004 and the Completion Date.

SRK has been informed that Gold Fields and IAMgold have signed definitive agreements to implement the Transaction on September 29, 2004 subject to satisfaction of certain conditions precedent.

This ITR principally comprises a technical-economic appraisal of St Ives and has been prepared in compliance with the Securities Act – National Instrument 43-101 Standards of Disclosure of Mineral Projects, Form 43-101F1, Technical Report, and Companion Policy 43-101CP. Specifically Part 4 Obligation to File a Technical Report (Section 4.2, Subsection (1)3) in support of the Joint Information Circular to be sent to the IAMgold and Shareholders.

2.3 Sources of Information

The ITR has been prepared based on information provided by the management of Gold Fields and specifically St Ives and taken in good faith by SRK. SRK has not independently verified by means of re-calculation of the underlying data; however SRK has:

- undertaken inspection visits to surface and underground operations, processing facilities, surface structures and associated infrastructure at St Ives during August and September 2004;
- held discussion and enquiry following access to key personnel based at the individual site operations and at head office;
- reviewed and, where considered appropriate by SRK, modified St Ives’ estimates and their classification of Mineral Resources and Mineral Reserves;
- reviewed St Ives’ plans and supporting documentation and, where considered appropriate by SRK, modified St Ives’ LoM plans and the associated Technical-economic Projections (“TePs”), including assumptions regarding future operating costs, capital expenditures and gold production; and
- examined historical information and results made available by St Ives in respect of the individual operations in support of, in particular, the forecasts contained in the LoM plans and one-year budgets.

Key documentation provided to SRK in support of this ITR and as generated by St Ives is:

- Competent Persons Report for Mineral Resources and Ore Reserves, June 2004 prepare by St Ives Gold Mining Company Pty Limited (“St Ives CPR”); and
- Strategic Business Plan commencing July 2005, depleting the Mineral Reserves as declared in the St Ives CPR;
- Actual results for the periods: January 2002 to August 2004.
- Projected performance for the periods:
 - July 2004 to June 2005 - in the form of a revised budget forecast on a monthly basis finalised in August 2004,
 - Strategic Business Plan (“SBP”) in the form of an annual cash flow model depleting the Mineral Reserves and including depletion, where deemed appropriate by the management of St Ives, of Mineral Resources not yet modified to Mineral Reserves due to ongoing but incomplete technical studies.

SRK has therefore satisfied itself that such information is both appropriate and valid for valuation as reported herein. SRK considers that with respect to all material technical-economic matters it has undertaken all necessary investigations to ensure compliance, both in terms of level of investigation and level of disclosure.

In doing so SRK has not reproduced the information provided to it by St Ives without due consideration or appropriate modification. Notwithstanding this comment, SRK has not recalculated the base information supporting the Mineral Resource estimates as derived from bore-hole and assay data, this given the generally extensive history of St Ives and geological investigations undertaken by St Ives and previous owners, however has undertaken sufficient checks through the course of its investigations to enable an appropriate level of reliance to be placed on such data, as provided.

Where fundamental base data has been provided (LoM plans, capital expenditures, operating budgets etc) for the purposes of review, SRK recognise the requirements of 43-101F1 Item 25 and accordingly state that SRK has performed all necessary validation and verification procedures deemed appropriate in order to place an appropriate level of reliance on such information.

2.4 Effective Date

The effective date (the “Effective Date”) of this ITR is deemed to be 01 July 2004, and is co-incident with the Valuation Date and cash flow projections as incorporated herein. The valuation of St Ives (the “Valuation”) is dependent upon the following:

- Technical information as generated by St Ives in accordance with their annual planning process defined as the Base Information Date (“BID”), which in the case of St Ives is 01 July 2004; and
- Adjustments to all technical information to reflect depletion, historical performance and any additional material information provided from the BID to the Effective Date.

3 RELIANCE ON OTHER EXPERTS

In compliance with Form 43-101F1 Technical Report Item 5, this Section provides details on the reliance that SRK has placed on other experts, specifically in the discipline areas of:

- Technical Reliance;
- Legal Reliance; and
- Financial and Accountancy Reliance.

3.1 Technical Reliance

SRK places reliance on St Ives' Qualified Persons that all technical information provided to SRK as at 01 July 2004, is both valid and accurate for the purpose of compiling this ITR. The information with respect to Mineral Resources and Ore Reserves as stated by St Ives has been prepared under the direction of each individual as named in Table 3.1

Table 3.1 St Ives: Qualified Persons in terms of Technical Reliance

Name	Discipline	Qualification	Relevant Experience	Professional Membership
St Ives				
James Johnson	Reserve Estimation	BSc. Hons, PhD Geology	6 years in Archaean Gold Mining	AIG(1)
Louis Voortman	Resource Estimation	MSc (Geology)	15 years in Archaean Gold Mining	AusIMM(2)
SRK				
Phil Jankowski	Resource Estimation	BSc (geology), MSc (deposit evaluation)	16 years in the Gold Mining Industry	AusIMM
Mike Warren	Reserve Estimation	BSc (Mining), MBA	30 years in the Mining Industry	AusIMM

- (1) Australian Institute of Geoscientists.
 (2) Australian Institute of Mining and Metallurgy

3.2 Legal Reliance

In consideration of all legal aspects relating to the declaration of the Mineral Resources, Mineral Reserves and valuation of Agnew, SRK has placed reliance on representatives employed by Gold Fields that the following legal aspects/statements are correct as at 1 July 2004.

- a statement by the Directors of Gold Fields “ *that any legal proceedings that may have an influence on the rights to explore for to continue to exploit minerals...* ” or an appropriate negative statement, has been included in the body of the various circulars relating to the Transaction;
- that the legal ownership and entitlement of all mineral and surface rights has been verified; and
- that no significant legal issues exists which would affect the likely viability of a project and /or the estimation and classification of the Mineral Reserve and Mineral Resources as reported herein.

3.3 Accounting and Financial Reliance

3.3.1 Accounting Reliance

In consideration of all financial aspects relating to the valuation of St Ives, SRK has placed reliance of the Financial Officer (“FO”) of St Ives that the following information is accurate as at 01 July 2004:

- assessed losses;
- opening balances for debtors, creditors and stores; and
- working capital and taxation logic.

The information with respect to the above accounting disclaimer has been prepared under the direction of the FO of St Ives whom provided the data contained in Table 3.2.

Table 3.2 Accounting Inputs as at 30 June 2004

Input	Units	Amount
Unredeemed Capital	(USDk)	0
Assessed Losses	(USDk)	8,658
Tax Rate	(%)	30%
Debtors	(USDk)	18,664
Creditors	(USDk)	-22,151
Stores	(USDk)	-3,115
Debtors	(days)	7
Creditors	(days)	30
Royalties	(days)	7
Stores	(days)	90

3.3.2 Financial Reliance

In generating the valuation of St Ives, SRK has relied upon the commodity price and macro economic forecasts as included in Table 3.3, which have been generated by NM Rothschild's (Washington), Financial Advisors to Gold Fields.

Taking cognisance of the volatile nature of both the gold price (USD/oz) and the exchange rate between the USD and both the ZAR and AUD, SRK has run sensitivities on revenue ranging between -30% and + 30% to these macro-economic projections as discussed in the risks and opportunities in Section 17 of this ITR:

Table 3.3 St Ives: Macro-Economic Inputs

Parameter	(Units)	2004	2005	2006	2007	2008	2009
Gold Price(1)							
Real-terms	(USD/oz)	400	400	400	400	400	400
Nominal Terms	(USD/oz)	404	412	420	429	437	446
Inflation(2)							
US CPI	(%)	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%
AUS CPI	(%)	1.50%	3.00%	3.00%	3.00%	3.00%	3.00%
Exchange Rates(3)							
Real-terms	(AUD:USD)	1.43	1.43	1.43	1.43	1.43	1.43
Nominal-Terms	(AUD:USD)	1.44	1.45	1.47	1.48	1.49	1.51

(1) Assumed to be the average price achieved over the period.

(2) Assumed to be the average inflation over the period

(3) Assumed to be the average exchange rate over the period – (based on CPI)

3.4 Warranties and Limitations

SRK's opinion is effective 01 July 2004 and is based on information provided by Gold Fields and specifically the management of St Ives throughout the course of SRK's investigations, which in turn reflect various technical-economic conditions prevailing at the time of writing. These conditions can change significantly over relatively short periods of time and as such the information and opinions contained in this report may be subject to change.

In this ITR, SRK provides assurances to the directors of Gold Fields that the TePs, including production profiles, operating expenditures and capital expenditures, as provided to SRK by St Ives and

reviewed and, where deemed appropriate to do so, modified by SRK, are reasonable, given the information currently available.

The achievability of LoM plans, budgets and forecasts are neither warranted nor guaranteed by SRK. The forecasts as presented and discussed herein have been proposed by St Ives' management and cannot be assured; they are necessarily based on economic assumptions, many of which are beyond management control. Future cash flows and profits derived from such forecasts are inherently uncertain and actual results may be significantly more or less favourable.

This report includes technical information, which requires subsequent calculations to derive subtotals, totals and weighted averages. Such calculations may involve a degree of rounding and consequently introduce an error. Where such errors occur, SRK does not consider them to be material.

3.5 Disclaimers and Cautionary Statements for US Investors

The United States Securities and Exchange Commission (the "SEC") permits mining companies, in their filings with the SEC, to disclose only those mineral deposits that a company can economically and legally extract or produce from. Certain terms are used in this report, such as "resources", that the SEC guidelines strictly prohibit companies from including in filings.

Ore Reserve estimates are based on many factors, including, in this case, data with respect to drilling and sampling. Ore Reserves are derived from estimates of future technical factors, future production costs, future capital expenditure, future product prices and the exchange rate between the Australian Dollar ("AUD") and the United States Dollar ("USD") and the South African Rand ("ZAR"). The Ore Reserve estimates contained in this report should not be interpreted as assurances of the economic life of the Mining Assets or the future profitability of operations. As Ore Reserves are only estimates based on the factors and assumptions described herein, future Ore Reserve estimates may need to be revised. For example, if production costs increase or product prices decrease, a portion of the current Mineral Resources, from which the Ore Reserves are derived, may become uneconomical to recover and would therefore result in lower estimated Ore Reserves.

The LoM plans, the TEPs and the Financial Model ("FM") include forward-looking statements in compliance with the requirements of National Instrument 43-101. These forward-looking statements are necessarily estimates and involve a number of risks and uncertainties that could cause actual results to differ materially.

3.6 Qualifications of Authors

The SRK Group comprises 500 staff, offering expertise in a wide range of resource engineering disciplines. The SRK Group's independence is ensured by the fact that it holds no equity in any project. This permits the SRK Group to provide its clients with conflict-free and objective recommendations on crucial judgment issues. The SRK Group has a demonstrated track record in undertaking independent assessments of resources and reserves, project evaluations and audits, ITRs and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies and financial institutions worldwide. The SRK Group has also worked with a large number of major international mining companies and their projects, providing mining industry consultancy service inputs. SRK also has specific experience in commissions of this nature.

This ITR has been prepared based on a technical and economic review by a team of 7 consultants sourced from the SRK Group's offices in Australia over a two-month period. These consultants are specialists in the fields of geology, resource and reserve estimation and classification, underground and open pit mining, rock engineering, metallurgical processing, hydrogeology and hydrology, tailings

management, infrastructure, environmental management and mineral economics.

Neither SRK nor any of its employees and associates employed in the preparation of this report has any significant beneficial interest in St Ives or in the assets of Gold Fields. SRK will be paid a fee for this work in accordance with normal professional consulting practice.

The individuals who have provided input to this ITR, who are listed below, have extensive experience in the mining industry and are members in good standing of appropriate professional institutions.

- Edward Clerk: Environmental – B.Sc (Hons) (environmental science);
- Keith Leather: Metallurgy and Tailings – B.Eng (metallurgy) and Fellow AusIMM, Member IMM;
- Jonathan Suthers: Valuation – B.Eng (Hons) (mining);
- Michael Warren: Surface Mining and Mineral Reserves – B.Sc (mining), MBA and Member AusIMM;
- Philip Jankowski: Geology and Mineral Resources – B.Sc (geology) M.Sc (Ore deposit geology and evaluation) and Member AusIMM;
- Sally Griffin: Technical-economic Projections – B.Sc (Geology), MCom (finance) and a graduate member of the AusIMM;
- Thomas Schrimpf: Underground Mining and Mineral Reserves – Dipl.Ing and Member AusIMM;

In compliance with 43-101F1 Part 5 subsection 5.1 this ITR has been prepared by and /or under the supervision of the following Qualified Persons:

- the Qualified Person with **overall responsibility** for the compilation of this ITR is **Mr. Michael Warren**, B.Sc(Mining), MBA and Member AusIMM who is an employee of SRK. Mr. Warren is a mining engineer with 25 years' experience in the mining industry and has supervised numerous due-diligence reviews and various technical studies on similar gold mining assets during the past five-years. In compliance with the 43-101F1 requirements, Mr. Warren also assumes responsibility for the reporting of Mineral Reserves as included in this ITR; and
- the Qualified Person with responsibility for reported Mineral Resources is **Mr. Philip Jankowski**, B.Sc (geology) M.Sc (Ore deposit geology and evaluation) and Member AusIMM who is an employee of SRK. Mr. Jankowski is a mining geologist with 16 years experience in the mining industry and has been responsible for the reporting of Mineral Resources on various gold mining properties, specifically specialising in resource estimation, mine geology and grade control.

4 PROPERTY DESCRIPTIONS AND LOCATION

In compliance with Form 43-101F1 Technical Report Item 6, this section provides detail in terms of:

- the location of the property;
- the size of the property and a current surface plan;
- the tenement details and associated rights to exploit minerals;
- the legal status of the tenements and rights including the ownership and any applicable royalties; and
- the environmental permitting and associated binding commitments.

4.1 Location

The main St Ives site office is located in Kambalda East situated near the town of Kambalda in Western Australia, approximately 630km (by road) east of Perth. Located at approximately latitude 31°12' S and longitude 121°40' E in the Norseman-Wiluna Greenstone Belt, the nearest major settlement is the town of Kalgoorlie situated 80km north. Figure 4.1 shows the geographic location of the St Ives in Western Australia.

Figure 4.1 St Ives: Geographic Location in Western Australia

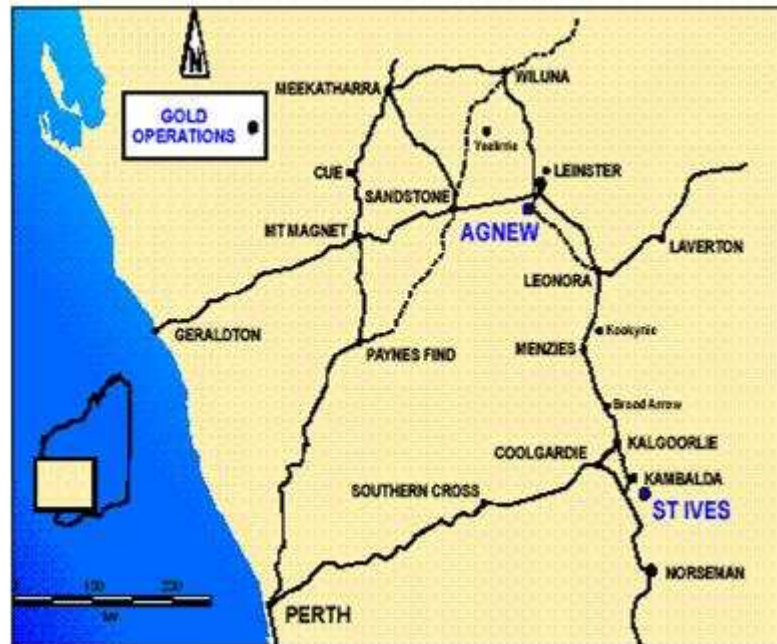


Figure 4.2 shows the geographic location of the St Ives operations south of the main offices in East Kambalda.

Figure 4.2 St Ives: Site Location



The site extends over 60km and covers a tenement area of approximately 114,859ha. Figure 4.3 shows the extent of the property boundaries and the current and historical working areas and current infrastructure within the property boundary.

4.2 Overview

Gold production from the St Ives area commenced in 1980, and has produced 60.6Mt at 3.6g/t yielding 7.1Mozs from 33 open-cut and 14 underground mining operations. A further three projects, while not being actively mined, provide heap leach processing feed from low-grade stockpiles.

During 2004, St Ives produces from 4 open-cut and 5 underground mining operations in conjunction with the St Ives mill/CIP processing plant and a heap leach processing plant of 3.1Mtpa and 2.0Mtpa capacity, respectively. In addition some 0.6Mt of ore were processed via a toll treatment arrangement at a neighbouring gold facility. A new processing facility, the new Lefroy Mill, with a designed operating capacity of 4.5Mtpa is currently under construction, and will be commissioned in early 2005. St Ives is budgeted to produce 522koz of gold in 2004.

Mineral Resources and Ore Reserves reported at St Ives were generally reported from evaluations under a standard set of cost assumptions, and at a gold price of AUD650/oz and AUD580/oz, respectively. Mineral Resources for selected projects were reported under strategic cost assumptions, and a further minority were reported above cut-offs without the benefit of evaluations.

Table 4.1 summarises the operational Key Performance Indicators since St Ives was acquired and operated by Gold Fields in December 2001. The table reports in calendar years from January 2002.

Table 4.1 St Ives: Key Performance Indicators

MINING	Units	2002 12mth Act	2003 12mth Act	2004(1) 6mth Act
Total Mining				
Ore Tonnes Hoist	(kt)	4,145	5,515	2,811
Head Grade Hoist	(g/t)	4.0	3.3	3.2
Contained Gold	(koz)	535	577	285
Underground(2)				
Ore Tonnes Hoist	(kt)	495	952	970
Head Grade Hoist	(g/t)	8.6	6.4	5.4
Contained Gold	(koz)	137	195	170
Waste Development	(m)	4,491	10,282	5,430
Ore Development	(m)	0	4,073	2,867
Open Pit(3)				
Ore Tonnes Mined	(kt)	3,650	4,563	1,840
Head Grade Mined	(g/t)	3.4	2.6	2.0
Contained Gold	(koz)	398	381	116
Waste BCM Mined	(bcmk)	8,817	8,397	4,429
Ore BCM Mined	(bcmk)	1,468	1,874	697
Strip Ratio	(bcmw:bcmo)	6.0	4.5	6.4
PROCESSING				
Total Processing(4)				
Tonnes Processed	(kt)	5,533	6,291	3,211
Head Grade	(g/t)	3.4	2.9	3.0
Gold to Process	(koz)	610	587	307
Gold Recovered	(koz)	543	530	275
Recovery	(%)	89.0%	90.4%	89.6%
Gold Sold	(koz)	542	528	275
LABOUR				
Permanents	(No.)	202	219	227
Temporary / short term	(No.)	42	65	34
Contractors	(No.)	571	612	650
TEC	(No.)	815	896	910
Terminations/Resignations	(No.)	42	53	45
Annualised Turnover (permanent)	(%)	21%	24%	20%
FINANCIAL				
	(AUD:USD)	0.54	0.66	0.74

MINING	Units	2002 12mth Act	2003 12mth Act	2004(1) 6mth Act
Gold Price Received (spot)	(USD/oz)	308	367	401
Gold Price Received (spot)	(AUD/oz)	568	557	545
Revenue	(USDk)	167,216	193,758	110,456
Royalty	(USDk)	4,148	4,820	2,662
Direct Mining Costs	(USDk)	39,473	65,698	44,943
Surface Cartage Costs	(USDk)	4378	9033	5986
Direct Processing Costs	(USDk)	32,078	43,514	28,503
Direct G&A onsite Costs	(USDk)	2,579	-13,059	-2,708
Direct G&A offside Costs	(USDk)	4,498	5,758	3,046
Direct Operating Costs	(USDk)	83,007	110,944	79,771
Unit Operating Costs	(USD/t)	15.00	17.64	24.84
	(USD/oz)	153	210	290
Total Capital	(USDk)	35,642	59,874	89,309

- (1) Actual results to August 2004 and forecast results to December 2004.
- (2) Sourced from 5 underground operations.
- (3) Sourced from 6 open-pit operations.
- (4) Processing includes material from stockpiles. Total processing is the combine through using a combination of CIL and Heap Leach processing.

4.3 Tenements and Rights

In Australia, with few exceptions, all onshore mineral rights are reserved to the government of the relevant state or territory. Exploration for and mining of minerals is regulated by the mining legislation of that state or territory and controlled by the relevant state or territory department. Where native title has not been extinguished, native title legislation may apply to the grant of tenure and some subsequent administrative processes. Heritage legislation may operate to preclude or regulate the disturbance of a particular area. In most Australian states, if the holder of an exploration license establishes indications of an economic mineral deposit and expends a minimum level of investment, it may apply for a mining lease which gives the holder exclusive mining rights with respect to all minerals on the property. It is possible for one person to own the surface of the property and for another to own the mineral rights. The maximum initial term of a mining lease is 21 years and the holder has the right to renew the lease for a further period of 21 years. Subsequent renewals are subject to the minister's discretion and the lease can only be assigned with the consent of the relevant minister. Royalties are payable as specified in the relevant legislation in each state or territory. A general-purpose lease may also be granted for one or more of a number of permitted purposes. These purposes include erecting, placing and operating machinery in connection with mining operations, depositing or treating minerals or tailings and using the land for any other specified purpose directly connected with mining operations.

Table 4.2 list the current tenement holding for St Ives, Figure 4.3 shows the geographic location and extent of the granted tenements listed in Table 4.2.

Table 4.2 St Ives: Tenement Holdings

Summary	No. of Licences	Status	Rent (AUD/annum)	Commitment (AUD)	Ownership	Interest	Area (Ha)	Classification
Exploration Licence								
SIGM	8	Granted	4,461	213,333	SIGM	100%	12,057	OR (1)
SIGM	2	Granted	2,475	100,000	SIGM	100%	7,000	Y (2)
Subtotal	10		6,936	313,333			19,057	
Exploration Licence								
Subtotal	0		0	0			0	
Miscellaneous Licence								
SIGM	13	Granted	5,590	0	SIGM	100%	479	W (3)
SIGM	3	Granted	5,475	0	SIGM	100%	14,245	N/A (4)
Subtotal	16		11,066	0			14,724	
Miscellaneous Licence								
SIGM	1	Application	0	0	SIGM	100%	3,215	W
SIGM	0	Application	0	0	SIGM	100%	0	N/A
Subtotal	1		0	0			3,215	
Mining Title								
SIGM	33	Granted	57,884	449,200	SIGM	100%	4,402	OR
Subtotal	33		57,884	449,200			4,402	
Mining Title								
SIGM	24	Applications	0	0	SIGM	100%	13,906	OR
SIGM	13	Applications	0	0	SIGM	100%	6,660	Y
Subtotal	37		0	0			20,566	
Mining Lease								
SIGM	232	Granted	574,272	4,487,300	SIGM	100%	43,781	OR
SIGM	13	Granted	117,129	903,900	SIGM	100%	8,943	Y
Subtotal	245		691,401	5,391,200			52,725	
Mining Lease								
Subtotal	0		0	0			0	
Prospecting Licence								
SIGM	2	Granted	286	6,400	SIGM	100%	153	OR
SIGM	2	Granted	37	4,000	SIGM	100%	18	Y
Subtotal	4		324	10,400			171	
Prospecting Licence								
Subtotal	0		0	0			0	
Total	346		767,610	6,164,133			114,859	

- (1) OR = Nickel Option Tenement: WMC reserves the right in respect to any Nickel Option Tenement to either exercise a right of pre-emption to benefit from the treatment or sale of any form of nickel ore won from any Nickel Option Tenement OR to charge a royalty on nickel won from a Nickel Option Tenement.
- (2) Y = All commodity rights owned by St Ives: Tenement purchased outright from WMC.
- (3) W = Miscellaneous Licence.
- (4) N/A = no extraordinary conditions.

4.3.1 Licences for Mining Tenements

The St Ives properties are situated on Crown Land which requires that a mining title be obtained from the Department of Industry and Resources before any mining operations may be undertaken. The mining tenements applicable to St Ives under the Mining Act 1976 are:

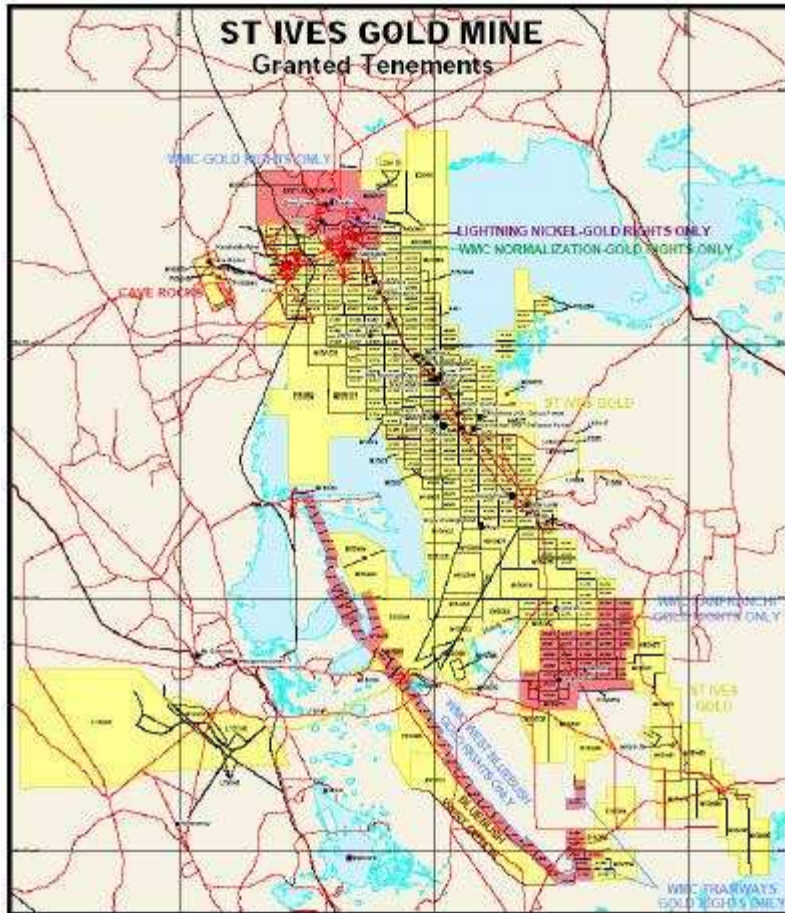
- **Prospecting Licence ("PL") (Sections 40-56)** : Maximum area is 200Ha; which must be marked out and an application fee and rental is payable. There are no limits to the number of licences a person or company can hold, but security or bond is required in respect of each licence. The term for a licence is 4 years. Without prior approval the extraction is limited to 500 tonnes of material from the ground;
- **Exploration Licence ("EL") (Sections 57-69)** : On 28 June 1991 a graticular boundary (block) system was introduced for exploration licences. The minimum size of the licence is one block and

the maximum is seventy blocks. Agnew has ELs ranging between 3 and 17 blocks. The exploration is not marked out, however an application fee and rental is payable. The term is five-years (negotiable) and a disturbance bond is retainable. Without prior approval the extraction is limited to 1,000 tonnes of material from the ground;

- **Mining Lease (“ML”)/Mining Licence (“M”) (Sections 71-85)** : The maximum area for a ML/M is 1,000ha and the area must be marked out. Application fees and rental are payable, with no limits on the number of leases held. A term of 21-years is awarded and can be extended. The lessee of a mining lease may work the mine and land, carry out mining operations in, on or under the land, subject to conditions of title;
- **Miscellaneous Licences (“L”) (Sections 91-94)** : No Maximum area, however licence area must be marked out. The licence is for purposes such as roads, pipelines etc. An application fee and rental is applicable, with no limitation on number held. The term is five-years. This licence type can be applied over and co-exist with other licences; and
- **General Purpose Lease (“GPL”) (Sections 86-90)** : A maximum area of 10ha and must be marked out and are limited to a depth of excavations, which unless specified defaults at 15m. A GPL is for purposes such as operating machinery, disposing of tailings etc. There is no limit on the number of licences granted and the term is for 21-years with an applicable fee and rental.

St Ives use the MGA Z51 (GDA94) standard WA grid system to set-out all property boundaries and when generating and presenting working plans. SRK considers this system to be appropriate.

Figure 4.3 St Ives: Granted Tenements



4.3.2 Tenement Status

The legal entitlement, tenement type, commitment summaries, grant and renewal dates, rentals and Shire awards are all freely available to the general public on a comprehensive government web site. The tenements can be grouped together as a package, and the current mining expenditure can be apportioned to the package, as opposed to the individual lease boundaries, this allows for the financial commitments to be easily honoured on a package basis.

St Ives holds some 346 individual licences that have an expiration date ranging between 2005 and 2021; therefore GFL has an in-house tenement management team to ensure that no potential oversights

with the timing of payments, commitments and renewals occur.

As part of the Grant conditions any material changes to the operation, from that submitted at the time of application, has to be re-approved following receipt of a notice of intent (“NoI”) supported by an appropriate level of technical documentation describing the new use of the collective Mining Licence.

A list of the NoIs that have recently been submitted are provided in Table 14.2 in Section 14.

SRK has been informed by and relied upon St Ives’ legal council, as referenced in Section 3.2, that St Ives has legal entitlement to all its stated Mining Tenements with appropriately granted licences and leases. SRK therefore consider that with timeously presented NoIs, renewal applications and continued financial commitment, there are no material issues identified that relate to tenements that would negatively impact on the projected depletion of the current Mineral Reserves and SBP. In addition SRK has been informed that all rentals and expenditure commitments have been met and that appropriate provision for future commitments are included in the forward projects and presented cash flows in Section 19.

4.4 Property Related Encumbrances

All mineral extracted from the St Ives tenements are subject to a State Royalty of 2.5% of received revenue, payable before any other deductions. St Ives accounts for this front-end royalty in both its cut-off grade estimates and financial provisions.

Aside from this State Royalty, and pursuant to the agreement with WMC for the purchase of St. Ives, Gold Fields agreed to pay WMC a royalty based on future gold production at St. Ives according to the following criteria..

- 4% of the net smelter return of the gold production of St. Ives for each quarter to the extent that cumulative production of gold from November 30, 2001, exceeds 3.3 million ounces, subject to the spot price of gold exceeding AU\$400 per ounce; and
- 10% of the difference between the spot gold price and AU\$600 per ounce of gold in respect of all gold produced from St. Ives each quarter after November 30, 2001, subject to the spot price of gold exceeding AU\$600 per ounce.

4.5 Environmental Bonds

As part of the environmental approval process and prior to the granting of licences and permits, an bond amount has to be lodged. The amount reflects the estimated closure liability at the time the approvals are assessed and based on the mining or exploration plan forming part of the application. St Ives has to date lodged some USD8.8m associated with the granted licences summarised in Table 4.2.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

In compliance with Form 43-101F1 Technical Report Item 7, this section provides detail in terms of:

- Topography, elevation and vegetation;
- Access to the property;
- The proximity of the property to a populated centre, and the nature of transport;
- Climate and length of the operating season;
- The surface area available for waste dumps, processing facilities and tailings disposal; and
- Availability of power, water and mining personnel.

5.1 Climate and Accessibility

St Ives lies in an arid region of Western Australia and the weather patterns are determined by synoptic conditions. In the summer, the anticyclones are positioned well south of the area causing predominantly easterly winds with warm to hot conditions prevailing. When a trough forms as the anticyclone moves eastwards, wind directions change and the high and middle level cloud associated with the trough can cause occasional thunderstorms. A few rain bearing cyclonic depressions come from the northwest during the late summer causing widespread rain and occasional flooding. The winter pattern is characterised by the anticyclones being centred further north and the wind direction changes to north to north-westerly. Although frontal activity from southern depressions rarely reach this far north there is some interaction with middle level cloud from the north west resulting in winter rains.

The average rainfall for the area is 218mm and is received in the late summer to middle winter with the driest period of the year being from September to December.

The temperatures in the area show marked fluctuations between the seasons and day and night. Due to the low humidity and absence of cloud cover there is little to restrict incoming and outgoing radiation hence the diurnal fluctuations. Summer temperatures reach as high as 45 degrees centigrade but are usually 35°C to 40°C and in the winter months frosts are experienced on some mornings but on average the temperature is in the range of 10°C to 15°C degrees.

Monthly figures show that in the summer months evaporation can be as high as 550mm and winter months fall to around 120mm.

There is rarely an occasion when site access is unavailable due to climatic conditions or operations suspended due to adverse weather conditions.

5.2 Landform

St Ives is approximately 290m above seal level and the landform in the region is flat to gently undulating consisting of rounded stable crests and rocky outcrops with stripped slopes and shallow valleys draining to stony plains.

Occasional breakaway scarps up to 20m high with scree slopes occur as a result of differential stripping of the regolith. Minor drainage channels flow into a chain of salt lakes, which appear to represent ancient river systems. These systems ultimately drain either towards the Nullarbor Plain in the east or the Indian Ocean in the west.

The St Ives region, along with much of the Yilgarn Craton, is covered by a deeply weathered lateritic

horizon which has been partly eroded and buried by materials of diverse origins. Plains are generally dominated by sediments of various ages (Permian to Recent) which have been derived locally or distally, with thicknesses varying up to tens of metres. Some of the earlier sediments have undergone further weathering and ferruginisation and may resemble the underlying residual regolith. The extent of weathering varies from approximately 20m over felsic bedrock to a maximum of 60m to 70m over mafic and ultramafic bedrock.

5.3 Vegetation

Vegetation in the area is sparse and consists of eucalyptus, mulga, halophytic shrubs with few grasses and annual forbs.

5.4 Access Infrastructure, Primary Services and Locality to Settlements

The site is accessed by public tarred roads which are generally well maintained by State road services and as such no material access issue for services and supplies are apparent.

Power is supplied via a long-term (to 2011) “take-or-pay” contract with WMC. There is more than adequate off-take in this agreement and as such the power is currently costing more than industry average. The situation will however ease once the new plant is in production and the off-take will increase to a point that the unit rates will be more competitive.

Currently approximately 932 people are employed at the St. Ives mine, and these people reside either in the Township of Kambalda or in the Town of Kalgoorlie. The nearest significantly populated settlement is Kalgoorlie (Figure 4.1) which is a medium sized town with a population of approximately 30,000, of which approximately a third are employed in the mining industry. Kalgoorlie is serviced by an airport with regular scheduled flights between Kalgoorlie and Perth. Kalgoorlie is described as a thriving town and has all the normal facilities associated with a well established (over 100 years) community including schools and medical services.

6 HISTORY

In compliance with Form 43-101F1 Technical Report Item 6, this Section provides detail in terms of:

- the prior ownership of the property and any relevant ownership changes;
- the type, amount, quality and results of explorations and/or development work undertaken by the current and previous owners;
- the historical Mineral Resources and Mineral Reserve Estimates in accordance with 2.4 of the Instrument; and
- historical production estimates.

6.1 History of Ownership

GFL purchased the St Ives Gold operation as part of their acquisition of WMC Resource Ltd gold assets in December 2001. WMC commenced gold production from the Hunt mine in 1980 and from the Victory-Defiance mine complex in 1981. Gold has been produced from 33 open-cut and 14 underground operations. Ore treated over the life of the project to the end of May 2004 totals 60.6Mt at 3.6g/t containing 7.1Moz of gold.

6.2 Exploration and Summary of Historical Development

Gold was discovered at Kambalda (the “Red Hill Camp”) in 1897 and between 1897 and 1907 the gold workings of the area supported a small township. Other gold-bearing locations, such as Victory, were discovered at this time. An estimated total production of 31koz is recorded from this period, mostly from the Red Hill group of mines. Thereafter, the area attracted only intermittent attention from prospectors until 1919, when the Ives Reward mine was discovered at St Ives producing approximately 10koz. Another small town was constructed, but soon abandoned when the mine closed in about 1926.

Gold prospecting activity continued until iron-nickel sulphides were discovered in 1966 near the old Red Hill mine. The ground was acquired by WMC and several anomalies and gossans were identified at the basal contact of the ultramafic unit (Lunnon Basalt). A mining and milling operation was developed rapidly and a major new industry had been established. Total historical production for the greater Kambalda nickel mining district from 1967 to 1996 is approximately 34Mt at 3.1% nickel for more than 1 Mt of nickel metal in concentrate.

Free gold and specimen stone were occasionally encountered during nickel mining operations from 1966 onward, although gold was not seriously explored for until the increase in the price of gold in the late 1970s provided impetus for re-evaluation of the old gold prospects in the Kambalda area. It was soon recognised that significant gold mineralisation remained, particularly in the Victory area, and exploration effort substantially increased in the early 1980s. Gold production recommenced in 1981 and has since expanded to current levels.

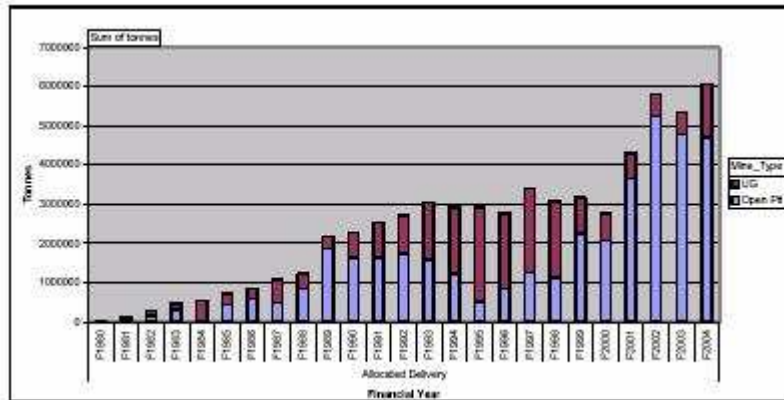
6.3 Production History

Renewed gold exploration led to the definition of a gold lode beneath the Hunt nickel shoot in 1980 and the discovery of the Victory-Defiance complex (Leviathan Area) in 1981. This was followed by discovery of the Orchin, Orion, Revenge and Junction gold deposits by mid-1985. The original WMC 0.5Mtpa treatment plant (later expanded to 1.2Mtpa) was located at the Kambalda Nickel Concentrator site. This was replaced in 1988 by the current 3.1Mtpa facility located 25km south of Kambalda at St Ives. Gold ores have historically been non-refractory and treatment is via a conventional Carbon-in-Leach plant. A 2Mtpa heap leach facility was commissioned in January 2001.

Total gold production (actual plant delivered) from the Kambalda-St Ives area through May 23, 2004 totals 60.6Mt at 3.6g/t for 7.1Moz. The large underground mines (Victory, Junction, and Revenge) have historically been the dominant feed source.

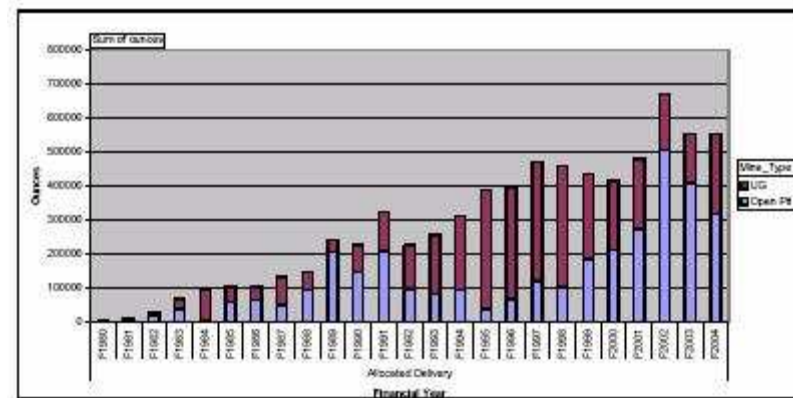
Figure 6.1 and Figure 6.2 show the historical production as delivered through the mills for the ore tonnes and contained metal respectively.

Figure 6.1 St Ives: Historical(1) Ore Tonnes Delivered to Plant



- (1) The data in this table has not been verified and is collated from historical records, the majority of which were not produced by GFL

Figure 6.2 St Ives: Historical(1) Contained Gold Delivered to Plant



- (1) The data in this table has not been verified and is collated from historical records, the majority of which were not produced by GFL

7 GEOLOGICAL SETTING , DEPOSIT TYPES AND MINERALISATION

In compliance with Form 43-101F1 Technical Report Item 9, Item 10 and Item 11, this section provides detail in terms of:

- Concise descriptions of the regional, local and property/deposit geological settings;
- Mineral deposit types being mined, investigated and explored and relationship between the geological models and the influence on exploration and investigation programmes; and
- Mineralised zones encountered on the properties, the surrounding rock-types and relevant geological controls, detailing length, width, depth and continuity, together with a description of the types, character and distribution of mineralisation.

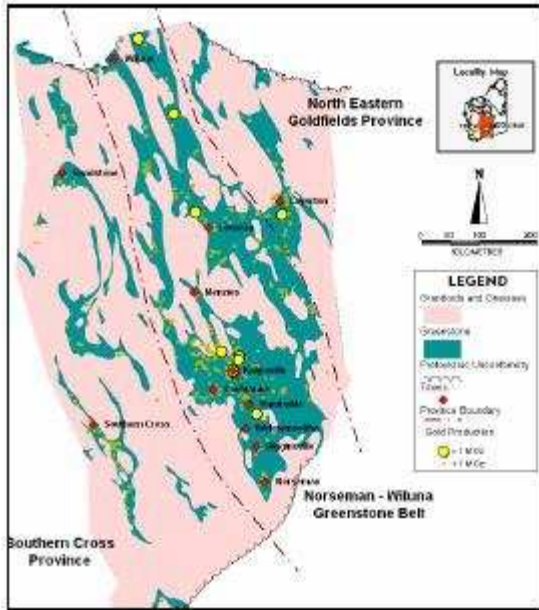
7.1 Regional Geology

The Achaean Norseman-Wiluna Greenstone Belt is a part of the Yilgarn Craton, a 2.6Ga granite-greenstone terrain in Western Australia (Figure 7.1). In comparison to other greenstone belts in the Yilgarn Craton, the Norseman-Wiluna Belt is highly mineralised, particularly in gold and nickel. The rock-types in the belt comprise abundant tholeiitic and komatiitic volcanic rocks, chert, sulphidic and albitic sedimentary rocks, and a chain of discrete felsic volcanic centres. There is relatively little Banded Iron Formation compared with the other greenstone belts of the Yilgarn Craton. The gross structure is markedly linear with NNW-trending strike-slip faults and other tectonic lineaments traceable for hundreds of kilometres which disrupt the greenstone into fault-bound domains. The generalised stratigraphic sequence comprises three mafic-ultramafic units, two felsic volcanic units, and an uppermost epiclastic sequence. It is unclear whether sequences can be correlated between domains, especially as the volcanic-sedimentary sequences are inherently complex and unlikely to be laterally continuous. The nature of the basement on which the greenstone sequence was deposited remains unknown, as does the nature of the basal part of the succession. The oldest rocks appear to be greywackes, shales, tuffs and basalts occurring 130km to the south of St Ives, but all the exposed contacts with adjacent banded gneisses and domal granites are tectonic. The original thickness of the greenstone sequence is uncertain as no complete section is preserved, and the extensive faulting and thrusting has possibly repeated or deleted parts of the sequence.

There was a complex and long-lasting series of structural deformations during and after the metamorphism, during which the majority of the economic gold deposits were formed. Metamorphism has affected all rock-types and ranges from low temperature prehnite-pumpellyite facies to high temperature and pressure amphibolite and granulite facies. Throughout the belt, most of the rocks are low strain and as original igneous textures and structures are well preserved, original rock names are used to describe the geology. Strain is focused in linear shear zones characterised by penetrative planar and linear fabrics and higher metamorphic facies, which are thought to control the location of the majority of economic gold deposits in the belt.

Much of the Yilgarn Craton is deeply weathered and partially covered by Tertiary and Quaternary regolith. Pre-Tertiary lateritic horizons are variably exposed, stripped or buried by later deposits that have in turn been lateritised. The depth of weathering is strongly controlled by original rock-types, with mafic rocks generally being more susceptible to weathering than felsic rocks.

Figure 7.1 St Ives: Simplified geology of the Norseman-Wiluna greenstone belt



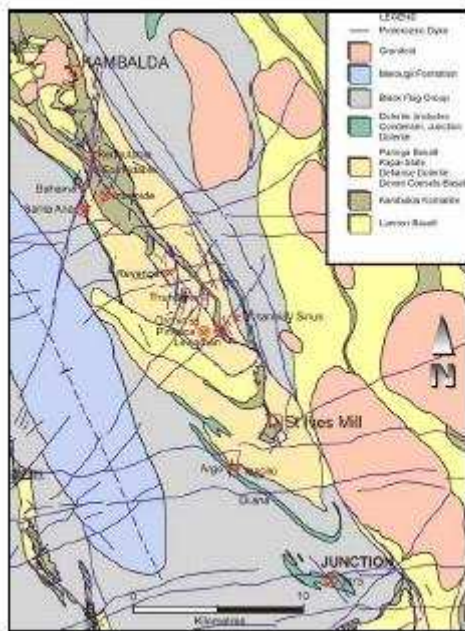
7.2 Local Geological Setting

7.2.1 Kambalda Domain Geology

The St Ives mine camp forms part of the Kambalda Domain, a subset of the Norseman-Wiluna Belt. The Kambalda Domain is bound by the NNW trending Boulder-Lefroy Shear Zone (“BLSZ”) Fault and Zuleika Shear (Figure 7.2). The region has undergone four compressional events predated by early extension and has been metamorphosed to upper greenschist or lower amphibolite facies.

The main structural feature of the St Ives area is the gently south plunging Kambalda Anticline, which extends 35km from the south end of the Kambalda Dome to Junction Mine. The majority of known ore bodies are proximal to the trace of the anticlinal axis. The BLSZ parallels the axial trace and lies 3 km to 5 km to the east. The second order structure known as the Playa Shear splays off the BF Shear Zone, and strikes through the St Ives field for a distance in excess of 10km. Most of the St Ives ore bodies are associated with third order splays off the Playa Shear. Mineralisation typically occurs where these structures intersect favourable rock units, with chemical or rheological contrasts being the most important local controls on mineralisation. The interaction between structures and rock-types has produced a large number of individual deposits, with at least 80 having been mined in the St Ives area.

Figure 7.2 St Ives: Geology of the Kambalda area



7.2.2 Stratigraphy

The stratigraphic succession in the Kambalda Domain comprises Kalgoorlie Group volcanic rocks and the Black Flag Group felsic volcanic and sedimentary rocks overlain by the post-tectonic Merougil Beds unit (Table 7.1; Figure 7.3).

Table 7.1 St Ives: Stratigraphy of the Kambalda Domain (1)

Group	Formation	Member	Thickness (m)	Description	Deposits
Merougil Beds				Cross bedded sandstones with monomictic to polymictic conglomerate lenses	
Black Flag Group	Morgan Island Epiclastics		500	Argillite, wacke, minor rudite	
	Newtown Felsic Volcanics		1000	Felsic and intermediate intrusives, volcanic conglomerate, breccia and tuff	Intrepide, Flames, Agamemnon, Minotaur, Mars, Belleisle, Temeraire, Santa Ana, Bahama
		Condenser, Junction Dolerites	4 - 500	Intrusive tholeiitic differentiated gabbro	Junction, Argo, Diana, Cave Rocks
Kalgoorlie Group	Paringa Basalt		500 — 1000	Siliceous high-Mg basalt, minor interflow sediments	Defiance, Sirius, Apollo, Santa Ana, Bahama

	Defiance Dolerite (DFD)	300	Differentiated dolerite — sill or extrusive?	Defiance, Revenge (N01, N22), Thunderer, Orchin, North Orchin, Conqueror, Pluton (Zone 1 DFD)
Kapai Slate (KSL)		1 — 40	Carbonaceous and sulphide argillite, minor chert – considered a banded iron	Victory, North Orchin, Clifton, Blue Lode, Delta South Delta, East Repulse, North Revenge Kapai (NRK), West Revenge/Pluton, Neptune
Devon Consols Basalt (DCB)	Victory Dolerite	60 — 100	High-Mg pillowed, variolitic basalt. Thin differentiated dolerite towards base, not regionally extensive	Revenge (W45), Agamemnon, Minotaur, Mars, Britannia

Group	Formation	Member	Thickness (m)	Description	Deposits
	Kambalda Komatiite	Tripod Hill Komatiite (THK)	20 — 1000	Thin komatiite flows, 1-10m	Redoubtable, Formidable, Belleisle, Victory-Repulse, Flames (Leviathan), West Idough, Red Hill, Agamemnon, Minotaur, Mars
		Silver Lake Peridotite	50 — 200	Thick komatiite flows, high- Mg cumulate zones (50- 200m). Localised Ni sulphide accumulations at basal contact and rarely hanging wall flow contacts. Irregular interflow sediments — carbonaceous and cherty, 1-10m	
	Lunnon Basalt		>2000	Pillowed to massive tholeiitic basalt	Hunt, Western Flanks

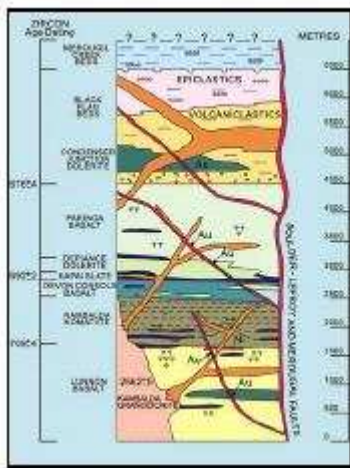
(1) Table supplied by St Ives Gold Mining Company.

The regional succession is intruded by at least four distinct episodes of igneous intrusion:

- Early fine grained thin mafic to intermediate sills and dykes;
- Large (up to 300m thick) sub concordant lamprophyric xenolith-bearing sills and felsic differentiates. These units commonly intrude the Kambalda Komatiite and the Kapai Slate, and occur as sills or dykes at the Paringa Basalt-Black Flag Beds contact in the Lake Lefroy area;
- At least two generations of felsic intrusions including the Kambalda Granodiorite and felsic dykes that were intruded slightly before and during the main gold mineralisation; and
- Regionally extensive Proterozoic dolerite dykes which crosscut all the mineralised sequences.

The most common host rocks of gold mineralisation are dolerites such as the Defiance and Junction Dolerites, particularly those that are granophyric and magnetite bearing and the Kapai Slate, which is commonly magnetite bearing, and felsic porphyries of various types. Granophyric dolerite and Kapai Slate tend to host the highest grade mineralisation. The Paringa Basalt and Kambalda Komatiite host deposits in discrete shear structures that are moderate in both tonnage and grade. Generally low to moderate grade, high tonnage mineralisation is commonly developed in porphyries, which are found in almost all deposits.

Figure 7.3 St Ives: Schematic stratigraphic column for the Kambalda domain showing the more important sites for mineralisation



7.2.3 Structure

The Kambalda Domain is structurally complex. Multiple phases of deformation occurred during and after regional metamorphism. A summary of the recognised structural events is presented in Table 7.2. The domain is crossed by a network of variably striking and dipping first, second, third and fourth-order shears, faults and thrusts that control the location of the gold mineralisation, the majority of which was deposited during the third deformational event (D3), which was a period of ESE-WNW shortening that occurred about 2640Ma. In many deposits, ductile shearing was punctuated by repeated brittle slip events, which produced breccias and shear veins, especially in jogs and dilatant bends in shear zones.

Table 7.2 St Ives: Summary of deformational events at St Ives

Def. Episode	Deformation	Metamorphism
D1	Thrusting Reclined to recumbent folding (F1)	
D2	Open to tight gently plunging upright folding (F2) Axial planar cleavage development (S2)	
D3	Open to tight gently plunging upright folding (F3) Axial planar cleavage development (S3) Major NNW and N trending anastomosing shear zones, such as the Boulder Lefroy and Zuleika shear zones Most gold ore bodies associated with late stage D3 shears and fractures, representing third or fourth order splays off major shear zones	Peak (upper greenschist to lower amphibolite) metamorphism in dynamic domain
D4	Localised open, upright gently plunging folding (F4) Development of crenulation cleavage in foliated rocks (S4) Development of mineral lineation near granitoid contacts (L4) Major NNE trending faults, 50-200m dextral movement	Minor retrogressive metamorphism, possibly associated with diapiric uplift
Post D4	Development of major NNW shear zones East-west extensional faulting	Localised retrogressive alteration in shear zones

The D2 Kambalda-St Ives Antiform is transected by the NNW striking Playa Shear Zone, a D3 structure which is a second order fault splay off the regionally extensive BLSZ. The total displacement on the Playa Fault is poorly constrained but may be up to several kilometres. Many of the gold deposits are hosted by faults and shear zones that are spatially and kinematically related to the Playa Fault. These deposits occur in low displacement brittle–ductile shear zones which are interpreted as splays and linked fault/shear networks in a 2-km wide zone west of the Playa Fault. In contrast, ore-hosting structures in deposits such as Revenge, North Orchin, Argo and much of the Victory area are predominantly N–S striking, moderately to gently east-dipping or west-dipping reverse faults and shear zones with maximum displacements of a few tens of metres. Strike lengths of ore-hosting structures are seldom more than about 1 km. The orientations of stretching lineations, curvature of shear zone foliations, associated gently-dipping extension veins, and stratigraphic separations, all indicate a reverse slip sense for most D3 ore-hosting structures, especially in the Argo/Victory/Revenge area. The geometries of faults and associated extension veins indicate formation in a stress regime in which the far-field maximum principal stress was approximately east—west and horizontal.

7.2.4 Alteration

Hydrothermal alteration and spatially related gold mineralisation was synchronous with deformation along the ore-hosting network of shear zones. The alteration is concentrated in 10cm - 300m wide halos around shear zones, mesoscopic fractures, and veinlets, and is texturally destructive. Two alteration zones are recognised: an outer Biotite Zone and an inner Albite Zone. The Biotite Zone is dark brown to black, and consists of biotite, albite, quartz, calcite/dolomite, magnetite, pyrite and muscovite alteration. The biotite is interpreted to have replaced chlorite by the addition of K_2O and subtraction of MgO , CaO , and FeO . The Albite Zone is pale brown colour and contains an albite, ankerite/quartz and pyrite assemblage with minor chlorite, biotite, muscovite and calcite. SiO_2 , CaO , K_2O , and Al_2O_3 values are low and Na_2O and Au values high compared to the outer alteration zones. Gold is invariably associated with well formed pyrite euhedra or, as at Junction, granular pyrrhotite.

7.2.5 Mineralisation

There are four main styles of gold mineralisation at St Ives. The individual deposits may contain more than one of these styles, depending on the local structural and lithological conditions:

- **Lode mineralisation** : Lode mineralisation typically consists of a 0.5cm to 50cm wide cataclasite core surrounded by 0.1cm to 3.0m of foliated cataclasite, with an outer broad zone of shear zone-parallel foliation developed in and flanking parts of the extensive shear zones. The “a” lodes have auriferous and pyritic or pyrrhotitic hydrothermal alteration envelopes.
- **Quartz vein stockworks** : The quartz vein stockworks are irregular bodies of closely spaced and regularly oriented quartz veins with variably developed auriferous and pyritic hydrothermal alteration envelopes.
- **Composite style** : This style is composed of variably developed quartz vein stockwork mineralisation localised in and around lode shear zones, particularly foliated shear zones.
- **Supergene** : Broad zones of flat lying gold mineralisation in deeply weathered Archaean and overlying Tertiary rocks. The majority of these are interpreted to have been formed by supergene remobilization of gold from the primary lode deposits; some may represent Tertiary placers in palaeochannels.

7.2.6 Tertiary and Quaternary Geology

Physiographically, the St Ives area is dominated by the Quaternary Lake Lefroy. Lake Lefroy is an extensive salt playa with a surface area of more than 550km² formed in a regional topographic depression. The lake represents the current semi-arid surface expression of the complex Jurassic to Cainozoic Lefroy palaeodrainage system. This drainage was incised into the Archaean bedrock in the Jurassic, and carried coarse sand and gravel eastwards into the Eucla Basin. After two marine incursions in the Middle and Late Eocene, the drainage progressively filled with up to 100m of sediments during the current arid period which commenced in the Oligocene. Active surface drainage in the Lake Lefroy drainage now occurs only in exceptional rainfall events.

7.3 Deposit Geological Setting

7.3.1 Argo and Apollo

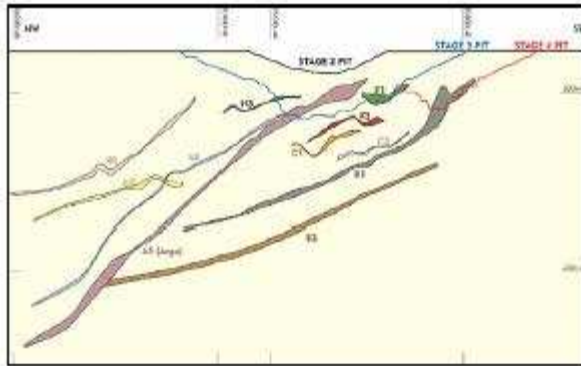
The Argo and Apollo resources are located 25km southwest of Kambalda Township on the western limb of the Kambalda-St Ives Antiform. The Argo deposit has been mined as five open pit stages between 1994 and 2004 with underground development starting during 2002. The current development is designed to exploit the numerous mineralised structures down to approximately 400mRL.

The resources are hosted by a large, structurally complex mineralised shear system in the Condenser Dolerite, a 500m thick sub-vertical to southwest dipping differentiated sill. The differentiated granophyric zone (Zone 3) of the dolerite is the preferential for mineralisation due to rheological contrasts with other lithologies, its brittle nature and iron-rich chemistry. Most economic mineralisation is contained in the Argo Main Shear (A1), a 900m north striking, moderately west-dipping shear zone between 4m and 40m thick (Figure 7.4). A1 is a reverse dip-slip shear with a late sinistral strike-slip component. Gold mineralisation is confined to the shear zone where it forms mylonite veins, or breccia lodes. The variable geometry of the A1 influences grade distribution, mineralisation style and thickness. In areas where it flattens, dilational jogs up to 60m in width are created, characterised by brittle failure with the formation of dilational vein sets, breccia zones and pervasive silica alteration. Steepening of the shear is characterised by ductile shear failure with the development of a mylonitic fabric and minor extensional veins.

The A1 shear is accompanied by a complex suite of mineralised linking structures. These include large, sub-parallel structures such as the H1 hangingwall shear, and lesser shallower dipping structures as found in the footwall positions (F2, C1, C2, and C3). The sub-horizontal structures generally are associated with dilational vein sets, while steeper structures have a dominant (reverse fault) mylonitic component. The sub-parallel B1 and B2 (Apollo) shear bounds the eastern margin of the Argo system. Due to limited drilling information, little is known about zones of mineralisation beyond the H1 structure to the west and the B2 and C structures to the east.

The system is cross-cut by two east trending, sub-vertical Proterozoic dolerite dykes and is overlain by a sequence of Tertiary sediments up to 60m thick. Palaeoplacer mineralisation is associated with the basal quartz lag of the cover sequence.

Figure 7.4 St Ives: Schematic cross-section through the Argo/Apollo Structures



7.3.2 Bahama

The Bahama deposit is approximately 700m north of the Santa Ana open pit on Lake Lefroy. The mineralised structure is sub-parallel to the north striking, moderately east dipping Santa Ana Shear, and is accompanied by a 5m to 20m thick sub-horizontal supergene mineralisation in the regolith. There is little or no gold in the overlying 12m of Tertiary lake sediments.

The mineralised shear is at the contact of a trondhjemite to the west and Paringa Basalt and Condenser Dolerite to the east. A complex of lamprophyric intrusions occur to the southeast. The lamprophyric intrusions and the trondhjemite host broad, low-grade mineralisation, with higher grades focused in localised structures.

7.3.3 Cave Rocks

The Cave Rocks deposit is located 8.5km to the west of the township of Kambalda West. Open pit mining in 1986 and 1987 produced a total of 149kt at 3.6g/t compared with the ore reserve of 163kt at 5.4g/t.

Mineralisation at Cave Rocks is hosted by two structures, known as East Lode and West Lode, which are both 5 — 15m thick hosted NNW striking structures within a tabular amphibolite unit. Black argillaceous sedimentary horizons are intercalated in the amphibolite sequence with the largest referred to as the Central Slate Belt. The Central Slate Belt separates the West and East Lodes. The West Lode is a weakly foliated equigranular rock consisting of albite, cummingtonite, hornblende/pargasite, biotite, quartz, chlorite, carbonate, pyrrhotite and arsenopyrite. Sulphide content can be very high, and high grade gold mineralisation is often associated with high arsenopyrite content. The East Lode system is more diffuse than West Lode and contains significantly more quartz veins. The alteration assemblage is also less intense than in the West Lode. There are small supergene resources on the southern margin of the West Lode and southern part of the East Lode. The previously mined Cave Rocks resource focused on supergene mineralisation on the northern section of the West Lode.

7.3.4 Diana

The Diana project is located 28km southeast of the Kambalda Township on the western limb of the St Ives Anticline. The deposit is blind, and was discovered by aircore drill testing of a geophysical anomaly in Archaean rocks covered by 75m of Tertiary sediments and sands. The Diana Shear is gently to moderately dipping at least 200m towards the north. Economic gold mineralisation occurs where the Diana Shear intersects the Condenser Dolerite. The mineralised zone varies from 2m to 30m thick and is characterised in the south by massive bucky quartz, and in the north by quartz veins with varying amounts of sulphides hosted by a fine-grained, weakly to strongly foliated, altered dolerite with chlorite, biotite and albite.

7.3.5 Greater Revenge Area

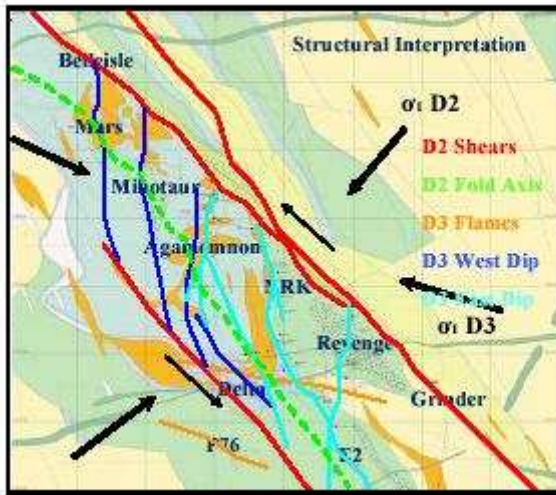
The Greater Revenge Area (“GRA”) includes the Agamemnon, Belleisle, Delta, Grinder, Mars, Minotaur, N03, North Revenge Kapai, P76, Revenge (N01, N02, N22, S30, S32, W66, X01), West Revenge and W Series (W44, W45, W46, W48) gold deposits. The deposits are located in a structurally complex corridor between the northwest striking Playa/Belleisle and Delta Shear Systems. Gold mineralisation is associated with northwest striking shear zones (e.g. Belleisle, Delta, West Revenge), north-northwest striking shear zones (e.g., Mars, Minotaur), and variably north-northeast to north-northwest striking shear zones (e.g. No.1, Agamemnon). These shear zones dip shallowly to steeply east and west. Mineralisation also occurs in shallow to moderately dipping north-northwest domal shear zones (e.g. W66, Mars-Minotaur link).

Rock units in the GRA comprise the Tripod Hill Komatiite, Victory Dolerite, Devon Consols Basalt, Kapai Slate, Defiance Dolerites and the Paringa basalt. The distribution of the units is controlled by the northwest striking Delta Island Anticline and the Playa/Belleisle Shear System and the sequence is intruded by abundant intermediate and felsic dykes and sills.

Mineralisation is hosted in all stratigraphic units with the highest grade mineralisation hosted within the Victory Dolerite, Devon Consols Basalt, Kapai Slate and Defiance Dolerite (particularly Zone 4, e.g. N01). The interaction of the shear zones with local lithologies and structural features such as the crest of the Delta Island Anticline, and rheological contrast control the economic gold mineralisation (Figure 7.5).

The Archaean rocks are intruded by Proterozoic mafic dykes and mineralisation is offset by small scale D4 faults with throws of less than 10m. Most deposits have a significant supergene expression extending in some cases over 100m from the primary structure. Palaeochannel mineralisation also occurs in sands and gravel at the base of the overlying Tertiary sediments.

Figure 7.5 St Ives: Interpretative geological map of the Greater Revenge Area showing major deposits and structural controls



- **Agamemnon** : Primary mineralisation at Agamemnon occurs within partially weathered Devon Consols Basalt and felsic to intermediate intrusive units with minor Kapai Slate and Paringa Basalt. The moderately east-dipping and shallowly north plunging contact between a felsic intrusion to the west and ultramafic sequence to the east is the primary control on mineralisation at South Agamemnon. The shear system is a continuation of the Delta mineralisation to the southwest.

A Tertiary palaeochannel deposit between 8 and 25m deep overlies the oxidised Archaean stratigraphy. Supergene mineralisation extends from weathered Archaean rocks into the overlying cover sequence, particularly in deeper parts of the channel where sulphidic to lignitic or sandy sediments are preserved. Agamemnon is unusual at St Ives in that approximately one third of the mineralisation is hosted within the Tertiary cover sediments. The gold in these sediments may have been dispersed upwards from the Archaean by supergene processes or may represent a palaeoplacer.

- **Belleisle** : The Belleisle Shear Zone is a northwest striking sinistral-reverse shear zone that dips 65° to the southwest which extends 3km along strike. The southeasterly extension intersects the Agamemnon mineralisation. The Belleisle Shear Zone has thrust Tripod Hill Komatiite on top of shallow west dipping Tripod Hill Komatiite, Devon Consols Basalt, Kapai Slate, Paringa Basalt and Defiance Dolerite. A cross-cutting suite of felsic to intermediate intrusive dykes predates mineralisation and the end of deformation in the shear zone. The shear zone is up to 80m thick, has a central low grade zone up to 40m thick, and consists of a variably sheared to mylonitised ultramafic-felsic intrusive complex with an alteration assemblage comprising combinations of chlorite, biotite, pyrite, albite, fuchsite-sericite and intense silicification in the higher grade zones.

The mineralisation plunges shallowly to moderately to the northwest. The Archaean lithologies are overlain by up to 90m of Tertiary lacustrine sediments.

- **Delta** : The Delta mineralisation is controlled by the north-northwest striking Delta Shear Zone on the hinge of the Delta Island Anticline. The Delta Shear Zone thrusts the Devon Consols Basalt over the Kapaï Slate with tens of metres of displacement. The shear is open down-dip and along strike in both directions. To the north, a major splay of the Delta Shear Zone may be the southerly continuation of the Agamemnon Main Shear. Primary mineralisation is complex with one hanging wall and at least two footwall structures identified. All lithologies host mineralisation, however is especially evident at contacts between the Kapaï Slate and intrusive or mafic rocks.

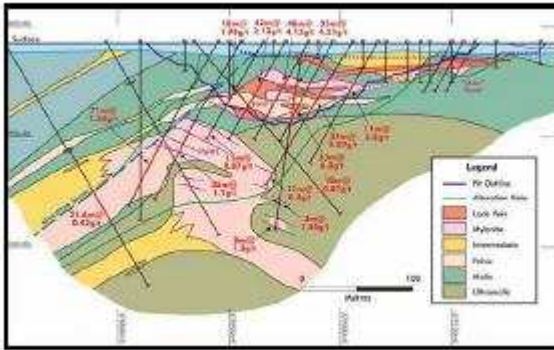
The weathering profile has a maximum thickness of 30m, deepening over the Delta Shear. The Archaean is unconformably overlain by 0 to 25m of Tertiary sediments. Significant supergene mineralisation occurs in the Archaean regolith, particularly enriched in grade and thickness overlying the mineralised bedrock structures.

- **Mars** : Mineralisation at Mars is associated with two main shear systems. The 'HG' system is a moderate to shallow dipping series of stacked shears with a complex quartz vein and alteration array plunging to the southeast. The 'MG' system is a shallowly east-dipping, north-northwest striking series of stacked quartz veins and shears with short dip extent. The HG system contains the majority of the metal and forms the deeper part of the system. The dominant control on primary mineralisation is a combination of a jog in the north-northwest striking, moderately west dipping Mars Shear Zone, the crest of the Delta Island Anticline and series of intermediate sills that intruded sub-parallel to the stratigraphy.

The well developed weathering profile at Mars is overlain by 15m to 40m of Tertiary sediments, which deepen toward the northwest. Supergene mineralisation occurs in a thin continuous sub-horizontal layer at the top of the Archaean regolith horizon extending upwards into the Tertiary sediments.

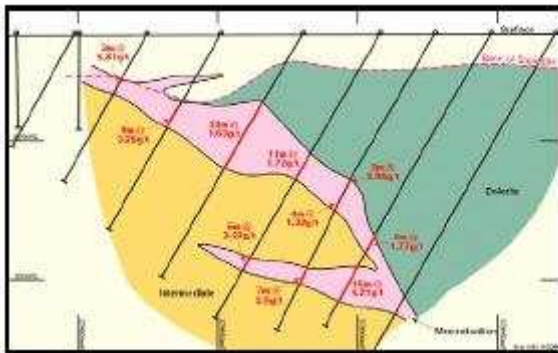
- **Minotaur** : The Delta Island Anticline is the main structure controlling the Minotaur mineralisation. To the north of the pit, the Minotaur and Belleisle shear zones are the dominant controls on mineralisation. The two shears dip steeply to the west and a series of five stacked, flat-lying linking structures host the mineralisation. Within the pit proximal to the crest of the anticline, the Minotaur shear flattens and a significant dilational jog (the FW1 structure) occurs (Figure 7.6). Most of the mineralisation at Minotaur is within the FW1 structure. The mineralised envelope is up to 50m thick, greater than 100m wide and consists predominantly of quartz-carbonate-pyrite-biotite alteration. The footwall structures below dip gently to east. South of the pit on the western limb of the anticline, mineralisation dips to the west. A high-grade ore shoot (>4.5g/t) occurs at the intersection of Footwall#3 (FW3) structure and the Minotaur shear. The FW3 is interpreted to continue south until it intersects the Agamemnon Shear to the east of the pit.

Figure 7.6 St Ives: Minotaur deposit section 538 600mN



- **North Revenge Kapaï (NRK), West Revenge and Pluton (NO3) :**
 - The North Revenge Kapaï (“NRK”) deposit is 200m north of the Revenge Pit. Mineralisation is quartz-sulphide lode hosted by a shear zone in the Defiance Dolerite, Kapaï Slate and an intermediate intrusive (Figure 7.7). The shear zone is steeply dipping at depth. As the structure nears the surface it is deflected along the contact of an intermediate intrusive to a shallower dip, creating a dilational zone that is the major mineralising site. Rafts of Kapaï Slate in the shear have relatively high gold grades due to their higher iron content, which was a chemical control on gold precipitation. Significant supergene enrichment of the grade is apparent in the weathered portion of the mineralised shear.

Figure 7.7 St Ives: North Revenge Kapaï cross-section 653 7752mN



- The West Revenge resource is located 400m to the west of Revenge Pit on the eastern limb of the Delta Island Anticline within the Kapaï Slate and Zone1 of the Defiance Dolerite. Crosscutting felsic to intermediate sills and dykes predate mineralisation. The three east-dipping

quartz vein- breccia lode structures at West Revenge form part of a larger series of east-dipping structures between the Revenge N01 structure in the east and the W44 structure in the west. This series of structures are splays off the domal W66 thrust surface at depth. Alteration assemblages associated with mineralisation are biotite-albite-sulphide within the structure and proximal to associated extensional quartz veining. Supergene mineralisation occurs in a thin continuous sub-horizontal layer at the top of the Archaean regolith horizon extending upwards into Tertiary sediment, predominantly controlled by the oxidation of the Kapai Slate at its intersection with the base of the Tertiary sediments.

- *The Pluton resource also occurs on the western side of the southern end of the Revenge Pit on the eastern limb of the Delta Island Anticline, within the Defiance Dolerite. The lithologies and mineralisation are similar to West Revenge, and Pluton is part of the larger series of east-dipping structures.*

7.3.6 Swiftsure

The Swiftsure deposit is located 1.4km due north of the Mars pit and 2.4km east southeast of the Intrepid pit on Lake Lefroy. Economic gold mineralisation is mostly hosted by oxidised Devon Consuls Basalt, Kapai Slate and Defiance Dolerite on the eastern flank of the Kambalda Antiform under 45m of unconsolidated Tertiary lake sediments, although there is some gold mineralisation in a supergene blanket in the lake sediments. In fresh rock, there appears to be a flat-lying, shallow, southeast-plunging structure that provides the primary control for mineralisation

7.3.7 Grinder

Grinder is located 700m ESE of the centre of the Revenge pit, immediately west of the Playa fault zone. The Grinder deposit is a 400m long, northwest striking structure dipping 30° to 60° to the east. One 500m strike length footwall structure and one 100m strike length hangingwall structure have been interpreted. The structures were modelled to a maximum depth of just over 100m below surface. Mineralisation is dominated by quartz-chlorite-albite-pyrite vein systems within a variety of rock-types. Shallow west-dipping linking structures have been intersected but not modelled. These flat-lying linking structures have potential for additional resources.

7.3.8 Junction

The Junction deposit is hosted within a medium-to-coarse-grained differentiated tholeiitic sill, the Junction Dolerite. This unit is regarded as a stratigraphic equivalent of the Condenser Dolerite in the Kambalda Domain and the Golden Mile Dolerite at Kalgoorlie. There are four differentiated horizons in the Junction Dolerite, one of which (Zone 3) is the host to gold mineralisation in the Junction deposit.

The Junction orebody comprises multiple, mineralised shear zones extending over a 2km strike length and to a depth in excess of 800m. Economic gold mineralisation is restricted to the N25 and N75 surfaces in Zone 3 of the Junction Dolerite, and is well confined within the shear zone boundaries (Figure 7.8). The main shear zone (the N25 surface) strikes approximately 330° and has dips from a relatively shallow 35° to 40° in the upper levels of the mine to 50° to 70° with increasing depth. Apparent ore width decreases from 5-15m to an average 6m as the dip steepens and the shear becomes more tightly constrained in the host rocks. The intersection of the shear zone and Zone 3 plunges north and controls the mineralisation.

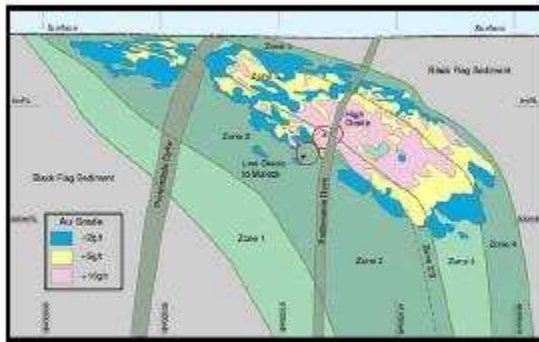
The N25 mineralisation consists of regular to chaotic brittle-ductile quartz extension veining and multiple oblique striking internal quartz vein/breccia structures. Associated biotite-chlorite-albite-

carbonate-pyrite/pyrrhotite alteration occurs within the shear zone. Pyrite is the dominant sulphide associated with gold in the upper levels of the resource above about 0mRL. Below this level, pyrrhotite becomes dominant and is associated with the highest grade portion of the resource.

Numerous footwall and hangingwall shear zones splay off the N25 surface. In general, these subsidiary shears are narrower with variable and often discontinuous mineralisation.

The N75 surface is parallel to the N25 surface and is located about 300m into the hangingwall. The N75 surface is treated as a separate resource.

Figure 7.8 St Ives: Longitudinal section through the N25 orebody at Junction



7.3.9 Leviathan Area

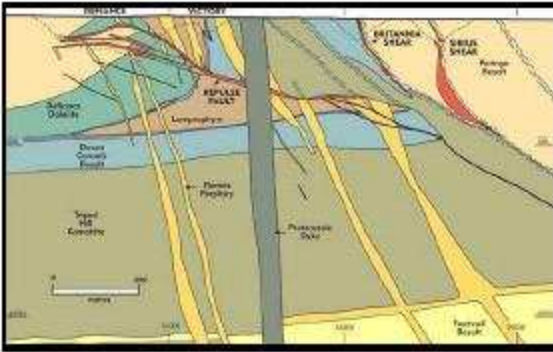
The Leviathan area includes the Victory, Defiance, Sirius, Britannia, East Repulse and Conqueror gold deposits (Figure 7.9). The Leviathan Area is structurally complex. The rocks are folded into an open south-plunging anticline, which is segmented and offset by the many faults in the area. These faults strike northwest, north-northwest and north and dip variably. Individual deposits are located on intersections of faults and in deflections of faults. The major host rocks are the Kapai Slate and Defiance Dolerite, both of which occur widely in the subsurface as a consequence of the shallow dips in the area. Abundant intermediate and felsic intrusives throughout the area also host significant low-grade mineralisation.

Gold mineralisation occurs in three main forms: quartz veinlet arrays in the Kapai Slate and quartz-albite intrusive; quartz breccia lodes; and alteration zones in faults adjacent to quartz-breccia lodes. Alteration associated with the Victory mineralisation extends up to 3m from veins and breccias. The alteration mineralogy is controlled by the lithology of the primary host rocks:

- **Defiance Dolerite** : Inner zone of albite-dolomite-pyrite; outer zone of biotite chlorite, Kapai Slate: Inner zone of albite-chlorite-magnetite + pyrite; outer zone of magnetite-albite-biotite;
- **Kapai Slate** : Inner zone of albite-dolomite-pyrite; outer zone of biotite chlorite; and.
- **Paringa Basalt** : Inner zone of albite-dolomite-pyrite; outer zone of biotite-chlorite. Gold grade is ubiquitously correlated with the pyrite content of the alteration assemblage.

Gold grade is ubiquitously correlated with the pyrite content of the alteration assemblage.

Figure 7.9 St Ives: Schematic geological section through the Defiance and Sirius orebodies



7.3.10 Defiance

The Defiance orebody historically provided the majority of ore mined from the Defiance Pit and the Victory Underground. Mineralisation is controlled by low-angle thrusts striking generally northeast and dipping generally southeast from 15° to 30° (Figure 7.9). The lodes vary from 5m to 30m thick, and are sub-parallel to shear zone boundaries. Lodes are a combination of ultra-mylonite zones, dolerite or basalt clast breccias with quartz matrices and quartz vein arrays associated with biotite-pyrite alteration.

7.3.11 Sirius

The Sirius gold deposit is located about 1km northeast of the Leviathan open pit. The mineralisation is controlled by the north-northwest-striking, east-dipping reverse Sirius Shear Zone that forms an envelope of foliation and associated weak biotite-chlorite alteration 50m to 100m thick in the Paringa Basalt and associated narrow interflow sediments.

Within 100m of the surface higher-grade gold mineralisation is associated with discrete shearing and steeply-dipping quartz veining and associated biotite-albite-carbonate quartz-pyrite alteration. In plan the veins are typically sigmoidal and en-echelon trending north-northeast.

Deeper mineralisation generally forms broader, less discrete and lower-grade ore zones. The host rock typically has extensive biotite and pyrite alteration. Underground development mapping has documented numerous quartz vein orientations within ore zones.

7.3.12 East Repulse

The geology in the East Repulse area is strongly controlled by the Repulse Fault (U32 Surface), a mineralised structure dipping 10° to the east. The hangingwall lithology is the Tripod Hill Komatiite. This rock-type is talc-magnesite-carbonate-rich with numerous foliation and shear discontinuities. Footwall lithologies comprise Devon Consols Basalt in the east, magnetite-chert rich Kapai Slate in the central areas and Zone 1 of the Defiance Dolerite to the west. The U32 shear is higher grade and thicker where swarms of subvertical felsic porphyries intersect the footwall contact of the shear and are

incorporated into the shear zone. High-grade gold mineralisation is often noted at the contact between these felsic porphyries and adjacent rock-types and can be visually determined by the presence of intense pyrite alteration. The footwall sediments occur as discrete, sub-horizontal to 45° east dipping rafts in the shear complex with thrust repetition of stratigraphy controlling thick high-grade intersections on the order of 50m at around 10g/t. These intersections are found in extensional quartz vein arrays containing massive pyrite ± pyrrhotite selvages. Free gold occurs within and on the margins of quartz veins.

7.3.13 Conqueror

The Conqueror deposit is part of the Inferred Leviathan resource. The mineralised zone comprises several stacked lodes similar to those mined in the Defiance open pit, dipping 20° to the southwest. The lodes are up to 100m wide from west to east and are of variable thickness. The mineralisation is controlled by the intersection of a low-angle shear zone with the southwest striking Defiance Dolerite. The shears flatten in the dolerite creating localised dilation horizons. The economic mineralisation occurs within an alteration envelope, which varies in thickness from 10m in Paringa Basalt and Devon Consols Basalt to 100m in the Defiance Dolerite.

7.3.14 North Orchin

The North Orchin open cut mine was completed in March 2002 and produced a total of 252,000ozs. Gold mineralisation at North Orchin is hosted by a north-trending shear zone (A2 Shear Zone) largely within the Defiance Dolerite. The A2 Shear Zone is a “pinch and swell” structure that strikes north to northeast and dips 55° to the east. Reverse slip on this structure has vertically displaced the stratigraphy by 40m. A component of sinistral strike slip is also noted. South-plunging dilation jogs in the North Orchin Shear form sites for high-grade gold mineralisation in the flatter portions of the shear. Steep-dipping sections of the shear zone have low to marginal gold grades.

7.3.15 Thunderer

At Thunderer, primary gold mineralisation is controlled by a series of narrow north striking and moderately east-dipping shear structures. Gold mineralisation is stronger where the structures coincide with the differentiated horizon of the Defiance Dolerite (Zone 4), but mineralisation occurs in the Paringa Basalt, Kapai Slate and Devon Consols Basalt as well. The primary mineralisation at Thunderer may be an extension of the northerly trending A2 Shear which hosts the North Orchin deposit.

The Archaean rocks are overlain by up to 50m of unconsolidated to partially consolidated Tertiary fluvial and lacustrine sediments. The majority of mineralisation occupies a secondary supergene position in the Archaean oxidised as large pods in deep weathering of primary structures, or at the base of the Tertiary sediments. There may be an alluvial control to this second form of gold occurrence.

7.3.16 N31 Open Pit

The N31 deposit is located within the Victory-Defiance complex. High-grade mineralisation in the N31 open pit area is controlled by the interaction of two southerly plunging shallow east-dipping shear zones (the upper N30 and the lower N31) with sub-vertical felsic porphyry intrusives. The system is in the footwall of the mineralised Repulse Shear Zone (a regionally extensive shear zone). Other host rocks at N31 are Devon Consols Basalt, Kapai Slate and Defiance Dolerite. The mineralised structures are overlain by patchy localised supergene enrichment zones. The resource is open to the south.

7.3.17 West Intrepide

The West Intrepide deposit is located on Lake Lefroy 600m southwest of the Intrepide pit. Mineralisation strikes northwest for 540m and dips 45° to the west, and is largely controlled by the intersection of the pyrite-rich Kapai Slate with the mineralised shear. The Kapai Slate is in part tectonically thickened by intermediate and felsic sills. Mineralisation remains open to the north towards the Santa Ana and Bahama deposits but is closed to the south. The Tertiary lacustrine sediments in this area are 15m thick and the Archaean is weathered to a depth of 40m.

7.3.18 Neptune Project

The area from the South Delta and Revenge Open Pits to the south edge of Lake Lefroy is known as the Greater Neptune Area and includes the Redback and Neptune projects. The area is covered with Tertiary lake sediments of Lake Lefroy and aeolian dunes at the south edge of the lake. The lake-sediment cover is less than 10m thick in the southern areas of the lake and deepens toward the north and west. The stratigraphy is similar to the stratigraphy of both the Revenge and Victory complexes and includes potentially favourable hosts for gold mineralisation in the Defiance Dolerite and Kapai Slate. Several suites of felsic and intermediate intrusive rocks also occur within the stratigraphy. The shear zones at Neptune are discrete structures that strike north-northwest and dip moderately east with a strong lithological control on their position.

Mineralised structures intersected by drilling at Neptune have similar characteristics to structures at Revenge. Three drill-holes at Neptune intersected a west dipping structure (E1), which was mineralised in all three holes and is characterised by a generally barren bucky quartz core with a mineralised halo of albite-biotite-pyrite alteration. Drilling also intersected good mineralisation in an albite-biotite-pyrite mylonite with a quartz core vein in the main (E2) shear. High grade shoots in the E2 shear are interpreted to plunge at 15° towards 120°, consistent with shoots observed at West Revenge. Several of the Revenge structures, including the Delta Shear and the N01, if extrapolated to the south, intersect in the northern part of the Neptune-Redback area. These structures, however, are not well understood in this area.

Anomalous gold has also been intersected in Tertiary sediments, residual oxide and in saprolite with many anomalous intersections occurring at end of hole. An extensive flat lying supergene blanket overlies the shear zones and follows their strike.

8 EXPLORATION

In compliance with Form 43-101F1 Technical Report Item 12, this section provides detail in terms of:

- nature and extent of all relevant exploration work and who has undertaken the work;
- results of surveys and investigations and the procedures undertaken;
- interpretation of exploration information; and
- who has/is undertaking the exploration work.

8.1 Introduction

The St Ives exploration strategy is focused on the St Ives Central Corridor, historically the most prospective domain (Figure 8.1). High priority targets in the Central Corridor are explored concurrently with reconnaissance exploration in other prospective corridors such as the Condenser Corridor which hosts the Argo deposit. This approach is designed to expand reserves while defining potential in adjacent corridors for longer term project sustainability.

Targets are designated as being at one of six stages or milestones. Milestone One is when a target is generated and the lease acquired; Milestone Three is when a bedrock drill target has been identified; Milestone Four is an Inferred Resource and Milestone Six an Ore Reserve. Milestones One to Three represent future potential, whereas Milestones Four to Six represent the reported Resources and Reserves.

Targets are ranked by a combination of a geological and economic score, with the highest scoring targets being given priority in exploration. The geological merit is scored against numerous conceptual and empirical parameters. The economic potential of each target is assessed by assuming a tonnage and grade from an analogous deposit and applying a set of mining parameters.

This process of target generation and exploration has historically yielded quality projects that add reserves and extend the life of mine.

8.2 Central Corridor

The Central Corridor comprises the Greater Victory Area (“GVA”), Neptune Area, Greater Revenge Area (“GRA”), Greater Intrepide Area (“GIA”), and the Kambalda Dome.

The two historically most prospective areas are the GVA and the GRA. Both of these areas contain deposits hosted by mafic and sedimentary rocks. The GRA has been intensively explored over the past two years to provide feed for the new Lefroy Mill. This exploration added significantly to the resource base and generated potential for both near-mine extensions and new targets. The exploration concentrated on the open pit potential, and the underground potential is yet to be fully evaluated. The GVA contains the historic Victory and Britannia/Sirius mines which produced 2.2Moz, now included in the Leviathan group. Exploration in the GVA is aimed at repeating the exploration success achieved in the GRA over the past two years.

The Neptune Area contains the same host rocks, gold-bearing conduits (the Playa Fault system), and structural settings as the adjacent GVA and GRA, but is comparatively under explored. A diamond drilling program in 2002 defined the structural and stratigraphic framework and intersected some gold occurrences. Since this time the exploration focus has been on the GRA, and the majority of targets generated by the 2002 drilling are yet to be tested.

The Greater Intrepide Area (“GIA”) is to the north of the GRA and contains the Playa Fault, but

contains less of the mafic stratigraphy, and the significant mineralisation is hosted by felsic porphyries. There has been much less exploration work in the GIA than the GRA. Current work includes collating and interpreting recent diamond drilling and geophysical data to provide a lithological and structural framework to put into context gold anomalies identified by aircore drilling.

The Kambalda Dome is to the northwest of GIA, and contains the historic Kambalda nickel mines. There are also intersections of primary gold mineralisation in the underground nickel mines and extensive gold soil anomalies. During 2002, several targets were generated from a review of historic nickel exploration data. Future activities will include further re-logging and sampling of nickel exploration holes to a grid spacing of 60m x 60m in areas of anomalous bedrock results and 120m x 120m grid spacing on the western flanks of the dome.

8.3 Condenser Corridor

The Condenser Corridor is 7km to the south of the GVA and hosts the Argo deposit in the differentiated Condenser Dolerite. Argo has a characteristic magnetic signature, and eight further targets were generated by identifying similar signatures in the corridor. A diamond drill core program in 2002 identified four of these as having the strongest gold anomalies and most favourable alteration styles. These four targets are currently being systematically tested. The remaining targets will be tested afterwards.

Similar differentiated dolerites found throughout the St Ives field are also prospective. The multi-million ounce Junction orebody was hosted by such dolerites, which have an untested strike length of more than 30km.

8.4 Foster Corridor

The host rocks for mineralisation in the Central Corridor outcrop in the Foster Corridor adjacent to the southeast dipping Foster Thrust. Both nickel and gold mining has occurred within this corridor with small open pit gold mines operating during the early 1990's and numerous shafts and workings from the early part of the 20th century. The Foster Corridor is under explored relative to the Central Corridor with work limited largely to regolith aircore drilling.

8.5 Cave Rocks

Cave Rocks occurs within a north-northwest trending belt of mafic and ultramafic rocks. The structure of the area is dominated by the Zuleika Shear zone, a major northwest-trending regional shear that is an important structural control to mineralisation at a number of gold deposits in the Eastern goldfields.

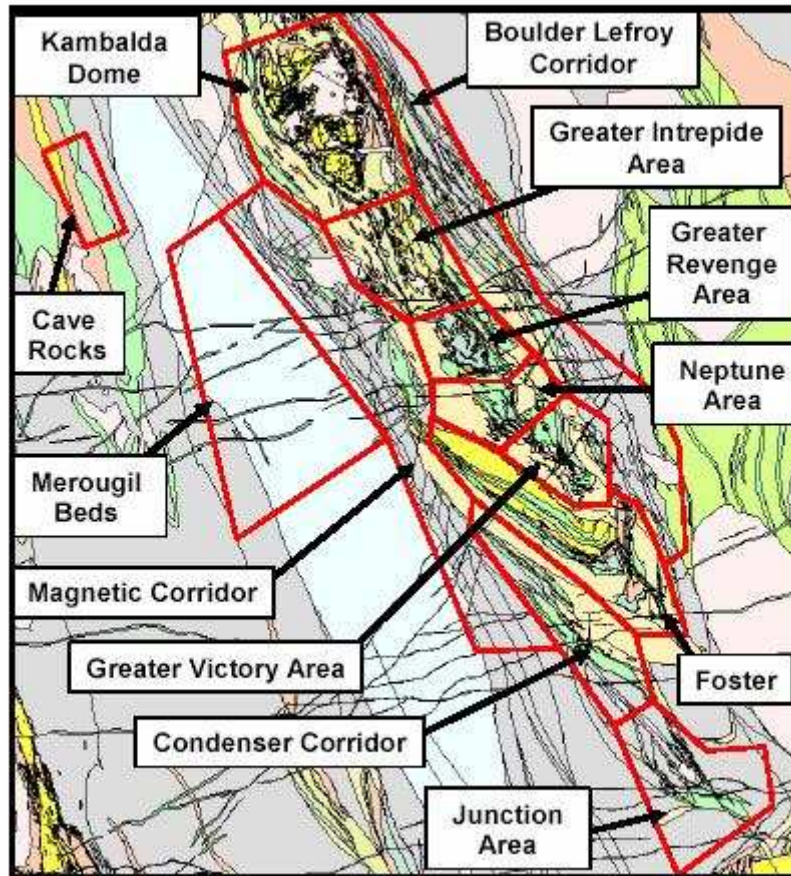
The West Lode at Cave Rocks was mined in a small open pit during the 1980s. The underground potential has been recently investigated and a reserve estimated. Recent exploration demonstrated that although mineralised structures continue to surface, the economic zones are largely blind, increasing the potential for further economic underground mineralisation where the structure has previously been prospected at the surface.

8.6 Boulder Lefroy Corridor, Magnetic Corridor, and Merougil Beds

The Boulder Lefroy Corridor and the Magnetic Corridor flank the Central Corridor are dominated by more felsic rocks and are not known to host large gold deposits; however they are both conceptually prospective and anomalous in gold. A reconnaissance aircore program in the Boulder-Lefroy Corridor in 2003 provided broad empirical coverage over the lake component of the corridor. A soil sampling and drilling compilation of the land component is planned.

The Magnetic Corridor is dominated by the Black Flag Beds and the Merougil beds. Aircore gold anomalism has previously been found in the Lut prospect, at the Sandalwood, and the Merougils areas. Shallow bedrock gold intersections at Lut require deeper bedrock follow up tests. Broad scale data gathering (dominantly aircore drilling) is continuing to define and extend gold anomalies.

Figure 8.1 St Ives: Geological map of the Kambalda domain showing exploration areas



8.7 Exploration Summary

SRK concur with the management at St Ives that there is considerable potential within the current tenement holdings to add significantly to current Mineral Resource and Mineral Reserves through a combination of extensional and greenfields exploration. St Ives has a recent success history of new discoveries, despite exploration being complicated by the Tertiary and Quaternary sedimentary cover.

SRK can see no reason why in the short-term the depleted Mineral Resources are not replaced by successful exploration campaigns. St Ives has committed adequate expenditure to support the ongoing replenishment strategy.

9 DRILLING, SAMPLING, PREPARATION, ANALYSIS AND VERIFICATION

In compliance with Form 43-101F1 Technical Report Item 13, Item 14, Item 15 and Item 16, this section provides detail in terms of:

- **Drilling:** including extent and procedures and interpretation, relationships between sample length and true thickness of mineralisation and orientation of mineralisation;
- **Sampling Methods and Approach:** describing sampling methods, numbers, type, nature, spacing and density of samples. Sampling recovery and impacts thereof is discussed, together with the representativeness of samples and any bias that may occur. The influence of rock-types, geological controls, mineralisation widths on the sampling interval and spacing; and
- **Sample Preparation Procedures:** process involved, analytical procedures, laboratories utilised and standards and certifications. In addition quality assurance and quality control (“QA/QC”) measures and check sampling procedures are discussed; and
- **Statements of opinion** as to the adequacy of the drilling, sampling and analytical procedures at the operations and verification of the results and limitations thereof.

9.1 Drilling

Reverse Circulation percussion RC and HQ or NQ diamond core are the dominant drilling techniques used for resource definition. Other drilling techniques such as aircore are used in target definition drilling and are infrequently included in resource estimations, mainly in Tertiary sediments and unconsolidated sands where RC and diamond drilling have poor recovery. During production, open-pit resources are further defined using closely spaced RC grade control drilling.

Underground resources are defined with a combination of HQ and NQ surface diamond drilling, LTK48 underground diamond drilling and, to a lesser extent, RC drilling.

The lithology, alteration, and structural characteristics of core and percussion chips are logged to the level of detail required for resource modelling using the standard St Ives geological legend. Diamond core is photographed and geotechnically logged.

Diamond drilling recovery is assumed as 100% sample recovery unless recorded otherwise. No recovery information is available for pre-1995 drilling.

RC drill-holes with a 5½-inch diameter sampled over one metre intervals potentially produce 37kg of sample. A previous QA/QC study of RC grade control rigs used at St Ives returned an average sample recovery of 80%. Analysis of drill sample recovery is ongoing. RC percussion samples are riffle split to a 2-4kg assay sub sample. Occasionally wet samples are returned, especially in the Lake Lefroy basin at drilling rod changes. Wet samples are routinely grab-sampled and recorded in the database. Alternative drillhole sampling methods have been recently trialled. A comparison between wet and dry sampling at the Bahama prospect showed that dry sampled, infill RC percussion samples had an overall higher assay grade than wet samples. A resource estimate using wet samples has the potential to underestimate the grade.

A drill rig sampling audit has been designed and is to become a routine tool to monitor sampling quality on all drill rigs.

9.2 Sampling

9.2.1 Face Sampling

At the underground operations, 1m face chip samples of at least 3kg are taken from each ore development round (average of every 3.5m along strike). Each face is inspected and mapped by the geologist or geological assistant. Mapping includes structural, lithological, and alteration descriptions. Duplicate samples and blanks are routinely used to ensure sample quality.

In the open pits, face samples are taken as required at some deposits in conjunction with floor, batter and face mapping. These samples are used to provide additional grade information to determine the relationship between gold distribution and rock-types, but are not used in resource estimates.

9.2.2 Sludge drilling

Sludge samples are not used for resource estimation due to poor recoveries, high grade bias and significant grade smearing. A local exception is the Leviathan East Repulse deposit that otherwise lacked sufficient data to delineate the ore zones. Limited sludge drillhole data was used in two mined out areas, which contain a remnant resource of approximately 6koz. Sludge hole logging is routinely used to for geological interpretation.

9.2.3 Sub-sampling and sample preparation

Drill core is cut to geological intervals between 0.3m and 1m, as specified by the logging geologist. For operational infill drilling full core is assayed to maximize sample size. RC samples for exploration and grade control are split in two-tiered riffle splitters on the drill rigs to 2 - 4 kg sub samples. The majority of samples are assayed at the onsite Silver Lake Laboratory, with overflow exploration samples submitted to commercial laboratories. The samples are bulk-pulverised in an LM5 pulveriser with a maximum capacity of between 3kg and 3.5kg. Larger samples are split in half or crushed and split at the lab. A portion of the pulp rejects is retained for future analysis.

9.3 Sampling and assay techniques

9.3.1 Quality management measures

During the past year, an updated quality management program for the drilling, sampling, surveying, transport, laboratory analysis and storage of drillhole samples has been developed. Protocols are in place at St Ives for the submission of quality control samples including standards, blanks, site duplicates and check assays. Blanks and site duplicates are inserted at an average frequency of 1 in 20 samples. Low-grade, medium-grade and high-grade standard samples are inserted at relevant locations within intersections at a nominal frequency of 1 in 40. All sampling and quality management is under supervision of the geologist responsible for the drilling program and the geologist may supplement the QA/QC sampling as required. In the open pits, duplicate field samples are taken on a campaign basis with one internal standard submitted per shift. During the course of the 2004 reporting period, 367,253 samples were submitted for analysis from which 614,696 assays were received. This included 90,353 laboratory repeats, 6,896 site duplicates, 1,581 site duplicate repeats, 4,407 laboratory checks, 5,583 laboratory check repeats, 152 laboratory checks second splits, 166 laboratory check second split repeats, 35 external laboratory checks with 34 repeats, 13,900 blanks, 3537 blank repeats, 416 external geochemical standards, 27 standard repeats and 621 internal laboratory standards with 1 repeat. Computer software integrated into the St Ives database has been introduced to analyse standards

variations between laboratories, review blanks and outliers beyond control limits, plot original assays against duplicates and compare different assaying techniques.

Samples are generally submitted for fire assay analysis, with screen fire assay and Leachwell techniques used as required for certain orebodies. The Silver Lake Laboratory has industry standard internal QA/QC measures in place. In addition to internal QA/QC, Silver Lake participates in international round robin laboratory bench marking.

9.3.2 Location of data points

All resource definition stage drill designs are set-out by the Survey Department. After drilling, collars are surveyed and complete multi-shot down-hole surveys are conducted. On deep holes drilled in highly magnetic dolerite, down-hole gyroscopic surveys are frequently used. All survey data is stored in the database. Codes are stored that indicate the status of collar and down-hole surveys.

9.3.3 Data density and distribution

Data density is variable across the St Ives deposits. Resource classification is partly based on data density. In general, open pit and underground Indicated Resources are drilled to at least 20m by 40m; Inferred Resources may be drilled from 40m by 40m to 100m by 100m depending on geological complexity and mining history. Measured Resources must be within mining areas and contain RC grade control or underground face samples. RC grade control drilling is optimized for individual deposits with the drillhole spacing averaging 10m by 5m.

9.3.4 Database integrity

The exploration diamond and RC drilling data is stored in an MS SQL Server database, with a customisable MS Access interface to provide transparent access for validation and extraction. Geological logging data is captured digitally by geologists into logging software with stringent validation rules and uploaded into the database by the geologists themselves where another validation cycle is completed. Other information is loaded by a dedicated Database Administrator. The majority of other data entry is loaded from original source digital data files, whilst some information is manually entered. During uploading, the Database Administrator performs basic validation checks. The SQL Server database is configured for optimal validation through constraints, library tables, triggers and stored procedures. Data that fails these rules on import is rejected or stored in buffer tables until it is corrected. Open pit RC grade control and underground face sample data are stored in databases with the same structure and internal validation as the exploration database. Where possible, data entry is via digital files or automated to reduce duplicate handling and error. All diamond core data from the mines is stored in the exploration database which undergoes the same processes and checks as the exploration data. All data within the database is also validated via an ongoing cleansing. Automated jobs are configured within the database to nightly check the validity of the data according to a large set of business rules. Any errors found are written to a validation table within the database which is then used to define and repair errors.

9.4 Deposit specific information

Deposit specific drilling and sampling information is presented in Table 9.1 and Table 9.2 respectively

Table 9.1 St Ives: Deposit Specific Drilling Information

Resource	Drilling Techniques(1)	Logging	Sample Recovery	Other Sample Techniques
Agamemnon	5% aircore, 85% RC percussion, 10% diamond	Logging using standard SIG core and percussion logging sheets and standard SIG legend.	Diamond: 100%, RC: oxide 90%, fresh: 95%, and Aircore: 90 to 95%	N/A
Argo/Apollo	UG: Majority of the drilling is NQ core with a drill spacing of 40m x 40m. This spacing will be reduced to a minimum of 20m x 20m before underground development with LTK60 core. OP: Dominant drilling is RC grade control on 8m x 5m spacing, with 20m x 20m exploration RC and NQ diamond drilling.	Diamond logging uses standard SIG core logging sheets and standard SIG legend. All grade control drilling is logged, using the SIG legend.	100% sample recovery assumed for RC and diamond, unless core loss is recorded for the latter.	Face and grab sampling is utilised as required. Grab samples are regularly submitted to the lab for measurement of moisture content and to the Core Farm for dry density measurements (via water displacement method).
Bahama	95% RC percussion, (5%) NQ and HQ diamond core.	Logging using standard SIG core logging sheets and standard SIG legend.	100% recovery with dry RC percussion drilling. Loss of fines with wet samples.	All samples recovered dry were split. Wet samples were reported.
Belleisle	85% surface NQ core, 13% RC percussion (5 ½" hammer), 2% surface aircore.	Logging using standard SIG core and percussion logging sheets and modified SIG legend (to capture diversity in deformation and alteration). 65% of NQ core oriented and logged structurally	93% of NQ core geotechnically logged and photographed with core recovery and RQD recorded.	N/A
Diana	15% Aircore ,9% diamond ,76% percussion and RC	Logging using standard SIG core and percussion logging sheets and standard SIG legend	No information collected on RC and core recovery.	N/A
Cave Rocks	RC percussion; NQ core.	Logging using standard SIG core logging sheets and standard SIG legend.	100% recovery with RC percussion and diamond drilling.	N/A
Grinder	Aircore, RC percussion; minor NQ core.	Logging using standard SIG core logging sheets and standard SIG legend.	100% recovery with dry RC percussion drilling. Loss of fines with wet RC samples.	N/A
Junction	>95% underground LTK48 core, <5% surface NQ core	Logging using standard SIG core logging sheets and standard SIG legend. Most diamond core is geotechnically	100% sample recovery assumed unless core loss is recorded.	All ore development rounds (i.e. each 3.5m on 20 – 25m sublevels) are chip-sampled across the lode. Sludge drilling for hangingwall and footwall definition, assays not

		logged.		used in resource.
Leviathan	Large amount of historical drillhole data including RC (near surface), NQ and HQ surface diamond, and underground LTK48 diamond.	Logging using standard SIG core logging sheets and standard SIG legend.	100% sample recovery assumed unless core loss is recorded.	Face sample data is used for the Britannia resources.
Leviathan UG - Conqueror	Large amount of historical drillhole data including RC (near surface), NQ and HQ surface diamond, and underground LTK48 diamond.	Logging using standard SIG core logging sheets and standard SIG legend.	100% sample recovery assumed unless core loss is recorded.	Face sample data is used
Leviathan UG – East Repulse	Large amount of historical drillhole data including RC (near surface), NQ and HQ surface diamond, and underground LTK48 diamond.	Logging using standard SIG core logging sheets and standard SIG legend.	100% sample recovery is assumed unless core loss is recorded.	Face sample and sludge data is used due to lack of better quality data. Sludge data will be removed from estimation once diamond data is available.
Mars	5% aircore, 85% RC percussion, 10% diamond	Logging using standard SIG core and percussion logging sheets and standard SIG legend.	Diamond: 100%, RC: oxide 90%, fresh: 95%, and Aircore: 90 to 95%	N/A
Minotaur	5% aircore, 85% RC percussion, 10% diamond	Logging using standard SIG core and percussion logging sheets and standard SIG legend.	Diamond: 100%, RC: oxide 90%, fresh: 95%, and Aircore: 90 to 95%	N/A
NRK/West Revenge	5% aircore, 85% RC percussion, 10% diamond	Logging using standard SIG core and percussion logging sheets and standard SIG legend.	Diamond: 100%, RC: oxide 90%, fresh: 95%, and Aircore: 90 to 95%	N/A
N31 Open Pit	Exploration and grade control RC drilling	Logging using standard SIG core and percussion logging sheets and standard SIG legend.	100% sample recovery is assumed	N/A
North Orchin	Combination of RC drilling 125mm diameter (in pit grade control) and surface diamond NQ core.	Logging using standard SIG core logging sheets and standard SIG legend. Selected diamond core is geotechnically logged.	100% sample recovery is assumed for all diamond holes unless core loss is recorded. Recovery for the RC rigs is varied on average from 80 92%.	Geological controlled pit face and floor sampling that is accurately surveyed.
Swiftsure	Aircore, RC percussion; minor NQ core.	Logging using standard SIG core logging sheets and standard SIG legend.	100% recovery with dry RC percussion drilling. Loss of fines with wet RC samples	N/A
Thunderer	RC percussion and NQ core	Logging using standard SIG core logging sheets and standard SIG legend.	100% recovery with dry RC percussion drilling. Loss of fines with wet samples.	N/A
West Intrepid	RC percussion.	Logging using standard	100% recovery with dry	N/A

SIG core logging sheets
and standard SIG
legend.

RC percussion drilling.
Loss of fines with wet
samples.

(1) May not be used in estimation.

Table 9.2 St Ives: Deposit Specific Sampling Information

Resource	Sample Preparation(1)	Assay Techniques	QAQC Measures	Sample Survey
Agamemnon	Core halved. Aircore and RC samples are split (where possible) and collected in calico bags. Laboratory preparation is as described in the text.	Fire Assay, 40g charge, bulk pulverised (LM5).	Regular duplicates and blanks .Alternative assay methods (Leachwell and screen fire). Internal laboratory procedures.	Drillhole collars set out and surveyed after drilling. All holes have multi-shot or single shot downhole surveys.
Argo/Apollo	UG: The core is half cut prior to submission to analytical laboratories OP: RC grade control samples are collected from the cyclone through a 1:8 riffle splitter, and are submitted to the site laboratory.	UG:Fire Assay 40g charge taken from the LM5 pulverisers OP: Fire Assay 40g charge taken from the LM5 pulverisers. Screen assay for palaeochannel samples with coarse gold.	UG: Ongoing analytical study to validate routine fire assay technique includes submission of duplicate core samples for Screen Fire assay and LeachWell. Duplicate face samples are routinely submitted OP: Field duplicates and sample. weighing are completed as required for RC grade control samples. Samples are submitted with one standard per shift. The QAQC system is currently under review.	All drillhole collars are set out and picked up by survey. UG: Some historic holes picked are not used in structural interpretation. All diamond holes are multi-shot downhole surveyed. Surface holes are gyroscopic surveyed while UG drill-holes use electronic multi-shoot (FLexIt) survey. OP: Due to the short length of RC grade control holes (typically 10-30m) downhole surveys are not employed.
Bahama	Dry RC percussion samples were 1/8 riffle split. When dry samples could not be recovered, wet grab samples were documented. NQ core cut in half prior to laboratory submission. HQ core in regolith bulk sampled.	Fire Assay, 40g charge, bulk pulverised (LM5).	Drill rig sampling regularly supervised and audited by geologist. Regular duplicates are collected during drilling and blanks are inserted prior to delivery to the lab. Alternative assay methods (leach well and screen fire). Internal laboratory procedures	Drillhole collars are set out by geologist or survey, and picked up after drilling by survey. Diamond holes are multi-shot downhole surveyed.
Belleisle	80% of NQ core whole-core sampled, 20% half cut prior to submission to analytical laboratories. 65% of RC samples dry sampled, 1:8 riffle split in 1m intervals. 35% of RC samples grab sampled wet from sample bucket under cyclone. Aircore samples grab sampled wet from sample bucket under cyclone in 2m intervals.	Fire Assay 40g charge).	Standard internal laboratory measures. SIG standard QAQC procedures carried out on 35% of NQ core and 100% of RC percussion 60% of NQ core reassayed (repeat. assays) using 500g Leachwell techniques at an external laboratory.	All drillhole collars set out and 97% picked up after drilling by survey. All holes are multi-shot downhole surveyed.

Diana	Core halved. 1m RC samples are split (where possible) and collected in calico bags. Laboratory preparation is as described in the text. Core from 3 diamond drillholes was orientated with BOH line.	Fire Assay 40g charge	Internal laboratory procedures.	All drillhole collars are picked up after drilling by survey; 75% of the drillholes were drilled vertically on 20m drill sections at a nominal 30m spacing along sections; 33 (10%) of the total of 337drillholes completed were downhole surveyed and showed little deviation.
Cave Rocks	Core halved.	Fire Assay 40g charge Screen Fire Assays 200g charge in ore zones.	Routine split duplicate and blank with most recent drilling. Internal laboratory procedures. Some analysis of assays replicated with Screen Fire.	All drillhole collars are set out and picked up after drilling by survey. All holes are single-shot downhole surveyed during drilling, and multi-shot survey performed at end of hole.
Grinder	80% of NQ core whole-core sampled, 20% half core . 65% of RC samples dry sampled, 1:8 riffle split in 1m intervals. 35% of RC samples grab sampled wet from sample bucket under cyclone. Aircore samples grab sampled wet from sample bucket under cyclone in 2m intervals.	Fire Assay, 40g charge	Internal laboratory procedures. SIG standard QAQC procedures carried out on 35% of NQ core and 100% of RC percussion. 60% of NQ core reassayed (repeat assays) using 500g Leachwell techniques at an external laboratory.	All drillhole collars set out and 97% picked up after drilling by survey. All holes are multi-shot downhole surveyed.
Junction	Core halved. Laboratory preparation is as described in the text.	Fire Assay 40g	Internal laboratory procedures. Some analysis of replicated, alternative assay methods (leach well), and alternative laboratories has been performed.	Drillhole collars set out and surveyed after drilling. All holes have multi-shot downhole surveys.
Leviathan	Core halved. Laboratory preparation is as described in the text. Some older percussion samples may not have been riffle split.	Fire Assay	Routine split duplicate and blank from drill site every 50m with most recent drilling.	Drillhole collars set out and surveyed after drilling. All holes have multi-shot downhole surveys.
Mars	Core halved. Aircore and RC samples split where possible into calico bags. Laboratory preparation is as described in the text.	Fire Assay 40g charge	Regular duplicates are collected during drilling and blanks are inserted prior to delivery to the lab. Alternative assay methods (leach well and screen fire). Internal laboratory procedures.	All drillhole collars are set out and picked up after drilling by survey. All holes are multi-shot or single shot downhole surveyed.
Minotaur	Core halved. Aircore and RC samples split where possible into calico bags.	Fire Assay 40g charge	Regular duplicates are collected during drilling and blanks are inserted prior to delivery to the	All drillhole collars are set out and picked up after drilling by survey. All holes are multi-shot or single shot downhole surveyed.

	Laboratory preparation is as described in the text.		lab. Alternative assay methods (leach well and screen fire). Internal laboratory procedures.	
NRK/West Revenge	Core halved. Aircore and RC samples split where possible into calico bags. Laboratory preparation is as described in the text.	Fire Assay 40g charge	Regular duplicates are collected during drilling and blanks are inserted prior to delivery to the lab. Alternative assay methods (leach well and screen fire). Internal laboratory procedures.	All drillhole collars are set out and picked up after drilling by survey. All holes are multi-shot or single shot downhole surveyed.
N31 Open Pit	1m RC samples are split (where possible) and collected in calico bags. Laboratory preparation is as described in the text.	Fire Assay 40g charge	Internal laboratory procedures.	All drillhole collars are picked up after drilling by survey.

Resource	Sample Preparation(1)	Assay Techniques	QAQC Measures	Sample Survey
Orchin	Core halved. Average RC samples 3kg.	Fire Assay 40g charge	Internal laboratory procedures. Blanks. Twinning or re-assaying of selected drillholes	All RC and diamond drillhole collars are set out and picked up after drilling by survey. All diamond holes are multi-shot downhole surveyed.
Swiftsure	All core is half cut prior to submission to analytical laboratories. Aircore and RC samples are split (where possible) and collected in calico bags. Laboratory preparation is as described in the text.	Fire Assay 40g charge	Alternative assay methods (leach well and screen fire). Standard internal laboratory measures. Regular duplicates are collected during drilling and blanks are inserted prior to delivery to the lab. Alternative assay methods (leach well and screen fire). Internal laboratory procedures.	All drillhole collars are set out and picked up after drilling by survey. All holes are multi-shot or single shot downhole surveyed.
Thunderer	Most recent dry RC percussion samples are split. Previous drilling is suspected to have been drilled wet (not split).	Fire Assay, 40g charge, Some test samples screen fire assay and LeachWell assay.	Routine split duplicate and blank from drill site every 50m with most recent drilling. Limited metallurgical test work.	All drillhole collars are set out and picked up after drilling by survey. All holes are single-shot downhole surveyed at end of hole.
West Intrepid	Dry RC percussion samples were 1/8 riffle split. When dry samples could not be recovered, wet grab samples were documented.	Fire Assay, 40g charge	Drill rig sampling regularly supervised and audited by geologist. Duplicates blanks Alternative assay methods (leach well and screen fire). Internal laboratory procedures.	Drillhole collars are set out by geologist or survey, and picked up after drilling by survey.
Agamemnon	Core halved. Aircore and RC samples are split (where possible) and collected in calico bags. Laboratory preparation is as described in the text.	Fire Assay, 40g charge, bulk pulverised (LM5).	Regular duplicates and blanks .Alternative assay methods (LeachWell and screen fire). Internal laboratory procedures.	Drillhole collars set out and surveyed after drilling. All holes have multi-shot or single shot downhole surveys.
Argo/Apollo	UG: The core is half cut prior to submission to analytical laboratories OP: RC grade control samples are collected from the cyclone through a 1:8 riffle splitter, and are submitted to the site laboratory.	UG:Fire Assay 40g charge taken from the LM5 pulverisers OP: Fire Assay 40g charge taken from the LM5 pulverisers. Screen assay for palaeochannel samples with coarse gold.	UG: Ongoing analytical study to validate routine fire assay technique includes submission of duplicate core samples for Screen Fire assay and LeachWell. Duplicate face samples are routinely submitted OP: Field duplicates and sample. weighing are completed as required for RC grade control samples. Samples are submitted with one standard per	All drillhole collars are set out and picked up by survey. UG: Some historic holes npicked are not used in structural interpretation. All diamond holes are multi-shot downhole surveyed. Surface holes are gyroscopic surveyed while UG drill-holes use electronic multi-shoot (FLexIt) survey. OP: Due to the short length of RC grade control holes (typically 10-30m) downhole surveys are not employed.

(1) May not be used in estimation

9.5 SRK Comments

Sampling and assaying of resource and grade control holes at St Ives is performed at a relatively high standard compared to the general mining industry. St Ives has policies and procedures in place to achieve industry best practice standards in this discipline area. In SRK's opinion the sampling and assaying at St Ives is adequate for the intended purposes and there is a low probability of a material shortcoming as a result. In this regard the underlying data supporting the resource estimate is considered by SRK to be generated and input in the corresponding resource models in a satisfactory manner.

10 MINERAL RESOURCE ESTIMATES

In compliance with Form 43-101F1 Technical Report Item 19, this section provides detail in terms of the key assumptions, parameters and methods used to estimate the Mineral Resources together with statements of opinion as to the adequacy of the drilling, sampling and analytical procedures at the operations and verification of the results and limitations thereof.

The extent to which the Mineral Resources may be materially affected by mining, metallurgical, infrastructure and other relevant on mine factors is covered in Section 11 to Section 13, inclusive of this ITR. The extent to which the Mineral Resources may be materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues are covered in Sections 14 to Section 19, inclusive of this ITR.

The Mineral Resources and Mineral Reserves have been generated under the auspices of the reporting code prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia ("JORC"), herein referred to as ("the JORC Code"). The JORC code is effective as at September 1999 however is currently under revision with a new release anticipated in 2005.

10.1 Geological Modelling

Resource estimates are based on interpretations of rock-types and mineralisation. Controls on mineralisation are generally well understood given the lengthy production history at St Ives. Wireframes of regolith zones and mineral zones, and digital surfaces describing topography, base of oxidation, etc, are used to domain and constrain grade interpolation when relevant. In active open pit and underground resources, surveys of exposed geological features are incorporated into models. All models are constrained by geological boundaries or, when relevant, by previous open pit surfaces or underground development wireframes. Internal sub-domains are defined where geological understanding is sufficient.

Due to the geological complexity of the mineralised system, local differences may occur between the location and tonnage of the ore predicted in the resource estimate and the actual material defined by grade control that may lead to short term variability in the ore delivered to the mill from individual deposits.

10.2 Estimation and modelling techniques

All resources actively mined at St Ives are estimated by Ordinary Kriging or advanced non-linear estimation techniques such as Uniform Conditioning, Conditional Simulation and Indirect Log-normal change of support. Prior to December 1999, inverse distance estimation was commonly used, but the more appropriate techniques listed above have been recently introduced. Model block sizes are selected on the basis of deposit geology, drillhole spacing and sampling density and kriging estimation quality. Where sample spacing permits, the planned mining method is included as a factor in model block size selection. Recent resource models have used kriging neighbourhood testing to improve the quality of estimates. Deposit specific information is presented in Tables 10.1 and 10.2.

Table 10.1 St Ives: Deposit Specific Estimation Information

Resource	Search Neighbourhood	Block Sizes	Domains	Estimator
Agamemnon(1)	Based on drill spacing. Orientation based on variogram model and lode orientation.	Based on lode dimensions and sample spacing. Palaeo-channel, Supergene and Fresh: 20x20x5	Domained by geology and by grade continuity.	Ordinary Kriging. Variogram model interpreted based on Gaussian transform as well as raw directional variogram. KE and Z/Z* optimised.
Argo/Apollo	Variable dimensions and orientations based on geological understanding of shoot controls, drill densities and variogram modelling. Main ore surfaces are tested by monitoring regression, negative weights, kriging efficiencies and weight of the mean. Octant search ellipses used.	Block sizes variable by orebody surface, variability of mineralisation and drill densities. Block sizes for the main ore surfaces have been tested for conditional bias and smoothing. Parent cell estimation with multiple cell splitting. Conditional Co-simulation utilises point simulation on a 2.5m x 2.5m mesh. This is averaged into a 10m x 15m SMU block size.	Contains numerous ore surfaces within fresh rock, supergene and palaeo-channel domains. The domains are determined from geological interpretations utilising all available information, and validated with geostatistical analysis.	3D Ordinary Kriging, 2D Ordinary Kriging of accumulation and thickness, 2D conditional co-simulation of thickness and accumulation. Estimation method selected on drill densities, mineralisation style and mining methods, results validated with open pit grade control data.
Bahama	Based on drill spacing and variography.	20×20×2.5 Panels, with 5×5×2.5 SMU for recoverable resource estimates	Domained by lode	Ordinary Kriging of panels. Recoverable reserves estimated by Uniform Conditioning and Log Correction Methods.
Belleisle	Orientation based on shear zone and interpreted internal shoot controls. Dimensions based on drill spacing and variograms.	20×20×10m for underground specific model.	Constrained to low-grade zones (shear envelope) and high-grade zones (HG1 & 2) as defined by geology. Open pit model dominated by regolith.	Ordinary Kriging
Diana	Based on drill spacing. Orientation based on variogram model and lode orientation.	Based on lode dimensions and sample spacing, 30x20x5m	Domained by lode.	Ordinary Kriging
Cave Rocks	Based on drill spacing. Orientation based on variogram model and lode orientation. Extensive neighbourhood testing performed.	10×10m in long section and 5m across lodes. Based on orebody geometry, mining method, and sample density.	Domained by individual lodes, incorporating minor regolith supergene mineralisation. Splays dominated separately.	Ordinary Kriging
Grinder	Optimised on variogram model and sample density.	20×20×2.5m blocks, permitting 3 splits.	Domained by separate lode structures and by regolith.	Ordinary Kriging
Junction	Orientation based on geological understanding of mineralisation controls.	10×10m along strike and down dip, 5m across lode. Parent cell estimation with	Domains based on individual lodes. Sub-domains within lodes based on dolerite zones	Ordinary Kriging

	Dimensions based on sample density.	multiple cell-splitting. Dimensions based on expected mining method, sample spacing, and lode dimensions.	and other lithological units.	
Leviathan	Based on lode dimensions , orientation and sample spacing. Extensive neighbourhood testing performed on Flames, Nautilus, Britannia Footwall, Sirius resources.	Variable according to orebody. Defiance has 10×10×2.5m parent cells, Flames has 20×20×10m parent cells, and others have variable cell sizes up to 40×40×10m	Multiple domains within each orebody. Mostly based on lithology or major structures.	Ordinary Kriging
Leviathan UG - Sirius	Based on lode dimensions and orientation as well as sample spacing.	20x20x5m parent cells.	Domained by individual lodes, geology and a background domain.	Directional variogram models generated on individual domains.
Leviathan UG - Conqueror	Based on lode dimensions, orientation and sample spacing. Extensive neighbourhood testing performed and optimisation of search strategy.	10x20x10m parent cells in well drilled area; 40x40x10m in areas of broader spaced drilling	Two ore domains.	Ordinary Kriging
Leviathan UG – East Repulse	Based on lode dimensions and orientation as well as sample spacing. Extensive neighbourhood testing performed.	10x10x5m parent cells based on SMU dimensions.	Domained by individual lodes, geology and a background domain.	Directional variogram models generated on individual domains.
Mars	Based on drill spacing and variogram model. Orientation based on variogram model and lode orientation.	Based on sample spacing and flitch height. 20×20×2.5m.	Domained by lode and by regolith.	Ordinary Kriging.
Minotaur	Based on drill spacing and variogram model. Orientation based on variogram model and lode orientation. Extensive neighbourhood testing performed.	Based on lode dimensions and sample spacing. 10×10×5m. 10×10×2.5m in supergene.	Domained by lode and by regolith.	Ordinary Kriging
NRK/West Revenge	Based on drill spacing and variogram model. Orientation based on variogram model and lode orientation.	NRK - Based on lode dimensions and sample spacing. 10×10×5m. 10×10×2.5m in supergene. West Revenge – Based on sample spacing and flitch height. 20×20×2.5m.	Domained by lode and by regolith.	Ordinary Kriging. West Revenge - KE and Z/Z* optimised.

N31 Open Pit	Based on drill spacing. Orientation based on variogram model and lode orientation.	Based on lode dimensions and sample spacing, 20x20x2.5m	Domained by lode; new wireframes based on 20m spaced sections.	Ordinary Kriging
North Orchin	Tested by monitoring regression, negative weights, and weight of the mean. Variable according to sample density. Orientation based on geology and variogram.	20x20.5m parent cells.	Domained by geology and by grade continuity.	Ordinary Kriging
Thunderer	Orientation based on lode geometry. Dimensions based on sample spacing and variography.	10x20x2.5m	Domained by lode and by regolith.	Ordinary Kriging.
Swiftsure	Optimised on variogram model and sample density.	20x20x2.5m blocks, permitting 3 splits.	Domained by regolith.	Ordinary Kriging
West Intrepide	Based on variogram model and sample density.	10x10x5m blocks in the Indicated, 20x20x5m blocks in Inferred.	Domained by lode and by regolith.	Ordinary Kriging.

(1) i ncluding Agamemnon East and West.

Table 10.2 St Ives: Deposit Specific Estimation Information

Resource	Sample Types Used in Estimation	Composite Length	Top-cuts
Agamemnon(1)	Mostly RC percussion with some NQ diamond. Includes RC grade control.	2.5m; adjusted to include full ore interval.	Variable per lode. Top-cuts based on statistical analysis by domain. Top-cuts tested against basic statistics, histogram and high grade sample locations.
Argo/Apollo	The sample types are variable depending on location and orebody. Dominant sample types for underground include NQ or HQ diamond. The majority of the open pit data is RC, with lesser NQ diamond core and aircore. Geostatistical analysis of sample types to check for compatibility.	Variable and are based on length of sample size, lode dimensions, mineralisation style, and mining selectivity. Ore surfaces within the open pits are generally composited to 2m. The 2D estimations and simulations composites grade across the entire lode.	Top-cuts vary based on statistical analysis for each geological domain. Analysis includes evaluation of histograms, statistics, and high-grade sample locations/ support.
Bahama	RC percussion, NQ core.	2m for underground specific model; adjusted to include full ore interval	Variable by lode 10-55g/t
Belleisle	NQ surface diamond core, RC percussion, and minor aircore.	2m; adjusted to include full ore interval	No top-cuts applied.
Diana	All available diamond, RC and percussion drillholes.	2.5m; adjusted to include full ore interval	2g/t for Black Flag supergene, 6g/t for Condenser Dolerite supergene, 7g/t for low-grade Main Shear sub-domain and 16g/t Au for high-grade Main Shear sub-domain.
Cave Rocks	Combined RC percussion and surface NQ/HQ diamond.	1m composites; adjusted to include full ore interval	Based on statistical analysis by domain (132 g/t Domain 121).
Grinder	Mostly RC percussion with some NQ/HQ surface diamond.	2.5m	Variable by domain. Top-cuts based on statistical analysis by domain. Tested top-cuts against basic statistics, histogram, and high grade sample locations.
Junction	Dominantly LTK48 underground core. Some NQ and HQ drilled from surface. RC restricted to upper mined portions of N25. N75 has 50% RC intersections.	1m except for N25 orebody (2m). Based on lode dimensions and primary sample size.	Top-cuts based on statistical analysis by domain. Tested top-cuts against basic statistics, histogram, and high grade sample locations.
Leviathan	NQ and HQ surface diamond, RC percussion, and underground diamond	Variable according to orebody. Based on sample size, lode dimensions, and expected mining method.	Variable according to domain. Top-cuts based on statistical analysis by domain. Tested top-cuts against basic statistics, histogram, and high grade sample locations.
Leviathan UG - Sirius	NQ and HQ surface diamond, RC percussion, and underground diamond	2.5m composites, adjusted to include full ore interval (MODE*=1).	No top-cuts were applied. Each domain was thoroughly reviewed using individual histograms.
Leviathan UG – Conqueror	NQ and HQ surface diamond, RC percussion, and	5m composites to reflect SMU dimension in vertical ;	Based on details statistical analysis, histogram and support: 32g/t for 33

	underground diamond	adjusted to include full ore interval (MODE*=1).	surface, none for 32 surface
Leviathan UG – East Repulse	NQ and HQ surface diamond, RC percussion, and underground diamond.	2.5m composites in new area; 2.0m composites in old area, adjusted to include full ore interval).	KSL – 90g/t, U32 – 41g/t, FI0-25, Background – 20g/t – based on individual histograms
Mars	Mostly RC percussion with some NQ diamond.	2.5m; adjusted to include full ore interval	Supergene 100g/t. Lower Supergene 50g/t Fresh HG – 50g/t Fresh MG – 50g/t
Minotaur	Mostly RC, NQ diamond core, RC grade control.	2m; adjusted to include full ore interval.	80, 60, and 30g/t in fresh by lode, 100g/t in supergene. Top-cuts based on statistical analysis by domain. Tested top-cuts against basic statistics, histogram, and high grade sample locations.
NRK/West Revenge/Pluton	Mostly RC, NQ diamond core, RC grade control.	NRK – 2.5m bench composites. West Revenge – 2.5m; adjusted to include full ore interval.	NRK - Variable by lode - 100g/t for main lode. West Revenge – Supergene 65g/t, Fresh 60g/t.
NRK/West Revenge	Mostly RC percussion with some NQ diamond. Includes RC grade control.	NRK - 2m downhole. West Revenge – 2.5m; adjusted to include full ore interval.	NRK - Variable by lode - 100g/t for main lode. West Revenge – Supergene 65g/t, Fresh 60g/t.
N31 Open Pit	All available exploration and grade control RC drillholes.	2.5m; adjusted to include full ore interval	No top cuts applied
North Orchin	Dominantly NQ or HQ diamond for outside the open pit limits. Combined diamond, RC, minor air core and blasthole (including grade control) for open pit portion.	2.5m	Top-cuts based on statistical analysis by domain. Tested top-cuts against basic statistics, histogram, and high grade sample locations. 150g/t top-cut applied for A2.
Thunderer	Mostly RC percussion with some NQ/HQ surface diamond.	2m.	Variable by domain. Top-cuts based on statistical analysis by domain. Tested top-cuts against basic statistics, histogram, and high grade sample locations.
Swiftsure	Mostly RC percussion with some NQ/HQ surface diamond.	2m	Variable by domain. Top-cuts based on statistical analysis by domain. Tested top-cuts against basic statistics, histogram, and high grade sample locations.
West Intrepid	RC Percussion.	2m composites.	No top cuts applied

(1) including Agamemnon East and West.

10.3 Tonnage Factors

Samples are taken regularly by mine geologists to measure densities. On new projects, values from core samples or known densities from similar lithologies may be used. Densities are generally consistent within lithologies and ore types. Density measurements are taken regularly from open pits, both in-situ and from stockpiles. As mining in each pit occurs through the weathering profile, density is highly variable. Samples are generally taken every 20 vertical metres at a grid appropriate to each orebody ensuring representation of all geological units. The density of dry samples is determined at the onsite

Core Farm by the water displacement method. This process is appropriate for fresh rock through to competent saprolite rock. For oxide and Tertiary sediments, water displacement generally leads to an excessive value. Nuclear moisture density testing of in-situ sediments was compared with water displacement testing of wet samples. The average water displacement estimate of 1.8g/cm^3 was significantly higher than the true value of 1.6g/cm^3 , which is used in all current resource estimates. Testing is ongoing using waxing methods and pulp measurements of the sediment and oxide to validate the values currently obtained.

Additionally, ten to twenty samples, used for estimating moisture, are collected every month from active stockpiles and oven dried at the Silver Lake Laboratory to measure moisture content.

A centralized database captures and stores all moisture and density data. Tonnages for all resource models, production tracking and reconciliation are calculated on dry bulk density. This data is also used to determine wet and dry tonnages of all production, cartage and milling transactions. Deposit specific information is presented in Table 10.3.

Table 10.3 St Ives: Deposit Specific Density Data

Resource	Sample Types Used in Estimation
Agamemnon(1)	Mostly RC percussion with some NQ diamond. Includes RC grade control.
Argo/Apollo	The sample types are variable depending on location and orebody. Dominant sample types for underground include NQ or HQ diamond. The majority of the open pit data is RC, with lesser NQ diamond core and aircore. Geostatistical analysis of sample types to check for compatibility.
Bahama	RC percussion, NQ core.
Belleisle	NQ surface diamond core, RC percussion, and minor aircore.
Diana	All available diamond, RC and percussion drillholes.
Cave Rocks	Combined RC percussion and surface NQ/HQ diamond.
Grinder	Mostly RC percussion with some NQ/HQ surface diamond.
Junction	Dominantly LTK48 underground core. Some NQ and HQ drilled from surface. RC restricted to upper mined portions of N25. N75 has 50% RC intersections.
Leviathan	NQ and HQ surface diamond, RC percussion, and underground diamond
Leviathan UG - Sirius	NQ and HQ surface diamond, RC percussion, and underground diamond
Leviathan UG – Conqueror	NQ and HQ surface diamond, RC percussion, and underground diamond
Leviathan UG – East Repulse	NQ and HQ surface diamond, RC percussion, and underground diamond.
Mars	Mostly RC percussion with some NQ diamond.
Minotaur	Mostly RC, NQ diamond core, RC grade control.
NRK/West Revenge/Pluton	Mostly RC, NQ diamond core, RC grade control.
NRK/West Revenge	Mostly RC percussion with some NQ diamond. Includes RC grade control.
N31 Open Pit	All available exploration and grade control RC drillholes.
North Orchin	Dominantly NQ or HQ diamond for outside the open pit limits. Combined diamond, RC, minor air core and blasthole (including grade control) for open pit portion.
Thunderer	Mostly RC percussion with some NQ/HQ surface diamond.
Swiftsure	Mostly RC percussion with some NQ/HQ surface diamond.
West Intrepide	RC Percussion.

(1) including Agamemnon East and West.

10.4 Classification

Resource categories are based on geological complexity, grade variance, drillhole intersection spacing, mining development and geostatistical measures of the estimation quality. Different criteria are applied to individual deposits, but in general Inferred Resource is generally drilled to a spacing of 100m by 100m on continuous structures or 40m by 40m on more complex or poorly understood

structures. Indicated Resources are drilled to 80m by 80m in mined structures and at least 40m by 40m in unmined structures. Measured Resources are drilled to at least 20m by 20m and are fully developed along strike or grade control drilled in open pits. The full list of criteria is presented in Table 10.4.

Table 10.4 St Ives: Deposit specific classification criteria

Resource	Inferred	Indicated	Measured
Agamemnon(1)	Proximal to Indicated Resource, drill spacing generally 40×40m, but at least 80×80m.	Drill spacing at least 20×20m or 20×40m.	Proximal to mining and grade control drilling.
Argo/Apollo	Proximal to Indicated Resource, drill spacing is 80×80m; for discontinuous minor lodes drill spacing is 40×40m.	Determined from estimation quality, estimation, drill spacing, mining selectivity and geological controls. On major lodes drill spacing at least 40×40m.	In RC grade controlled areas. Fully developed along strike with associated face sampling. Drill spacing is in the order of 20m x 20m.
Bahama	Better than 80×80m	Drill spacing at least 20×20m.	No Measured Resource.
Belleisle	Better than 80×80m	Generally 20×40m	No Measured Resource.
Diana	Poorly informed inventory proximal to Indicated resource, drill spacing at least 40×30m.	Moderately informed resource due to short variogram ranges, with drillhole spacing down to a nominal 20x20m spacing.	No Measured Resource.
Cave Rocks	Better than 80×80m.	Determined by estimation quality, drill spacing and geological controls. Drill spacing is at least 40m×40m at depth, 40m x 20m near surface.	No Measured Resource.
Grinder	Better than 40×40m.	Generally 20m x 40m, critical areas infilled to 20m x 20m RC percussion.	No Measured Resource.
Junction	Down dip of Indicated Resource, drill spacing at least 100×100m.	Immediately down dip of Measured Resource or drill spacing at least 40×40m, generally 20×20m.	Fully developed along strike with associated face sampling. Drill spacing at least 20×20m.
Leviathan	Either does not meet Indicated criteria or areas with inaccurate voids survey	Drill spacing at least 20×20m or proximal to developed areas. Meets estimation quality criteria defined by search neighbourhood testing.	Only in RC grade controlled areas.
Leviathan UG – Sirius	Proximal to Indicated Resource, drill spacing generally 80×80m.	Determined by estimation quality, drill spacing and geological controls. Drillhole spacing is commonly 20x20m, up to 40×40m.	No Measured Resource
Leviathan UG — Conqueror	High geological confidence, varying drill spacing generally better than 80×80m.	Determined by estimation quality, drill spacing and geological controls. Drill spacing is generally at least 40×40m.	No Measured Resource.
Leviathan UG — East Repulse	Proximal to Indicated Resource, drill spacing generally 60×60m to 80x80m.	Determined by estimation quality, drill spacing and geological controls. Drillhole spacing is commonly 20x20m, up to 40×40m.	No Measured Resource.
Mars	Proximal to Indicated Resource, drill spacing generally 40×40m, but at least 80×80m.	Drill spacing at least 20x40m.	Proximal to mining and grade control drilling.
Minotaur	Proximal to Indicated Resource, drill spacing generally 40×40m, but at least 80×80m.	Drill spacing at least 20×20m.	Proximal to mining and grade control drilling.
NRK/West Revenge	Proximal to Indicated Resource, drill spacing generally 40×40m, but at least 80×80m.	Drill spacing at least 20x40m.	Proximal to mining and grade control drilling.
N31 Open Pit	Poorly informed inventory proximal to Indicated resource, drill spacing at least 20x40m.	Drillhole spacing on nominal 20x20m grid with local grade control infill drilling to 10x10m spacing.	No Measured Resource.
North Orchin	80×80m spaced drilling or better proximal to Indicated Resource.	At least 40×40m spaced drilling	Proximal to mining and grade control drilling on 5×10m spacing.
Swiftsure	Drill spacing 40m x 40m	Drill spacing 20m x 20m	No Measured Resource
Thunderer	Proximal to Indicated Resource, drill spacing generally 40×40m, but at least 80×80m.	Drill spacing at least 20×20m in supergene and shallow oxide.	No Measured Resource.
West Intrepide	Drill spacing at least 40×20m	On West Intrepide structure and supergene 40×20m spaced drilling or better.	No Measured Resource

(1) including Agamemnon East and West.

10.5 Reconciliation

The two main geological reconciliation measures are the comparisons between the Resource and Grade Control and the Reserve and Actual Break. The first comparison measures the appropriateness of the sum of resource definition sample density, assay type and modelling procedures; the second indicates the appropriateness of the reserve factors applied to the resource models.

Production during F2004 was sourced from 16 individual resources. This included more than 20 differing material combinations, based on grade cut-offs and weathering state. This material was treated at the St Ives 3.1Mtpa Plant, the St Ives Heap Leach, and by toll treatment at the Jubilee and Hannans South plants. Due to blending to maintain head grade and throughput at the St Ives 3.1Mtpa Plant, reconciliation to actual mill production of individual mines is not practical.

Reconciliation results are summarised in Table 10.5 and compare Mineral Resources, Mineral Reserves and Grade Control. For reconciliation purposes these terms are defined as:

- **Resource** : This is the tonnes and grade as estimated from the resource models and used in to generate the reserve. For open pits, the numbers are produced from a model with blocks

regularized to reflect the bench-height and mining method; for underground, the surveyed voids are used as a 'cookie cutter', with allowances made for the variation of lode locations between model and actual mined;

- **Reserve** : This is the tonnes and grade as estimated from the resource models with dilution and ore loss factors applied. Note that dilution and ore loss factors are not applied to open pit Heap Leach material;
- **Grade Control Design** : This is the tonnes and grade from the grade control models with planned dilution and ore loss factors applied. The grade control models are constructed in the same way as the resource models, but with a much greater density of data. This figure is the best estimate of the available ore pre-mining; and
- **Actual Break** : This is considered the best estimate of the tonnes actually mined, based on truck counts and minehead stockpile changes. The grade is from the grade control models factored to reflect the current mine call factors.
- **Final Production** : This is the tonnes and grade actually processed. The metal is calculated from the produced metal and estimated gold in tails; the tonnes are calculated from mill weightometer measurements and surveyed ROM stockpile changes.

The comparison between Reserve and Grade Control Design is a measure of the appropriateness of the sum of resource definition drillhole density, sampling, resource estimation and reserve planning. The comparison between Grade Control Design and Actual Break is a measure of the efficiency of the open pit and underground mining processes; and the comparison of the Reserve to Final Production is a measure of the operation's overall ability to predict production.

In F2004, reconciliation between Resource Models and Grade Control was much better in the underground operations than the open pits.

Table 10.5 St Ives: Reconciliation of Resource Model to Grade Control

Source	Tonnes (kt)	Grade (g/t)	Metal (koz)
Open-Pit Total			
Resource	2,913	3.3	310
Reserve	2,763	3.1	280
Grade Control Design	3,737	2.5	302
Actual Break	4,066	2.3	296
Underground			
Resource	1,486	6.2	295
Reserve	1,517	5.9	289
Grade Control Design	1,493	5.8	279
Actual Break	1,690	5.3	288
All Sources			
Resource	4,400	4.3	606
Reserve	4,280	4.1	569
Grade Control Design	5,231	3.5	581
Actual Break	5,756	3.2	585
Actual Production	5,444	3.3	577

The reconciliation results therefore indicate an estimation error between the reserve (modified resource) to the grade control design of a positive 22% in the ore tonnes and only a 2% positive in the contained metal, thus resulting in a grade reduction of approximately 17%.

The variance between the Actual production and the grade control design model indicates a further estimation error of a positive 4% in the ore tonnes and a negative 1% in the contained metal, further reducing the grade by 4.5%.

The resultant reconciliation therefore between the estimated tonnage and grade contained in the underlying resource model and the tonnage and grade delivered to the plant is a positive 24% in the ore tonnes and a negative 23% in the grade for approximately a 5% loss in the metal.

In comparison the Mineral Resource and Mineral Reserve statements summarises in Table 10.7, the conversion ratio for the open-pit and underground material indicates only an 8% increase in tonnage and 15% reduction in grade between the resource and reserve.

In general, open pit grade control sampling has higher short range variability than the wider spaced resource data. As a result of this, the degree of selectivity predicted by the resource model is higher than that achievable in mining. In addition, drilling defines major structures but often the minor and splay structures (usually lower grade) are unable to be adequately defined by practical resource definition drill spacing.

Where systematic problems in reconciliation between Resource Model and Grade Control Model are identified, the Resource Models are revised to incorporate new knowledge (grade control information and in pit observations) in an effort to improve reconciliations.

10.6 Mineral Resource and Mineral Reserve Estimates

In terms of the reported Mineral Resources and Mineral Reserves estimates, the following should be noted:

- Effective as of 30 June 2004;
- details of the key assumptions, parameters and methods used to estimate the Mineral Resources have been provided in Section 7 to Section 10 of this ITR and for Mineral Reserves in Section 11; and
- a general discussion of the extent to which the estimates of Mineral Resources and Mineral Reserves may be materially affected by any known environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues is discussed in Section 19 of this ITR.

Table 10.7 summarises St Ives's June 2004 Mineral Resource and Mineral Reserve estimates. The estimates have been generated by GFL, however audited and where deemed necessary modified by SRK.

Table 10.7 St Ives: Mineral Resource and Mineral Reserve Estimates June 2004

Reserve Classification	(kt)	(g/t)	(kg)	(koz)	Resource Classification	(kt)	(g/t)	(kg)	(koz)
Proved					Measured				
UG - PAI(3)	787	5.8	4,536	146	UG - PAI	716	6.6	4,731	152
UG - UPBI(4)					UG - UPBI	85	3.3	280	9
OP - PWDP(1)	999	1.8	1,781	57	OP - PWDP	973	2.1	2,018	65
OP - UPODP(2)					OP - UPODP	267	1.6	420	14
SS - P(5)	7,444	1.1	8,236	265	SS - P	7,444	1.1	8,236	265
SS - UP(6)					SS - UP				
Subtotal	9,230	1.6	14,552	468	Subtotal	9,486	1.7	15,684	504
Probable					Indicated				
UG - PAI	10,621	5.1	54,345	1,747	UG - PAI	10,036	6.0	60,041	1,930
UG - UPBI					UG - UPBI	2,245	4.6	10,334	332
OP - PWDP	9,588	2.6	24,640	792	OP - PWDP	8,609	3.0	25,806	830
OP - UPODP					OP - UPODP	38,771	1.2	44,928	1,444
Subtotal	20,208	3.9	78,985	2,539	Subtotal	59,661	2.4	141,110	4,537
TOTAL P + P	29,439	3.2	93,537	3,007	TOTAL M + I	69,148	2.3	156,793	5,041
					Inferred				
					UG - PAI	2,864	6.1	17,529	564
					UG - UPBI	7,190	5.4	38,825	1,248
					OP - PWDP	687	2.5	1,729	56
					OP - UPODP	17,434	1.4	24,317	782
					Total Inferred	28,175	2.9	82,401	2,649

- (1) PWDP = Planned Within Design Pit – Mineral Resources and Mineral Reserves contained within a fully engineered open pit designed from the final “optimised” Whittle pit.
- (2) UPODP = Unplanned Outside of Design Pit – Mineral Resources identified in the zone between the design pit surface and the Whittle Pit Shell containing the total resource inventory above a potentially economic cut-off grade.
- (3) PAI = Planned Above Infrastructure – Mineral Resources and Mineral Reserves accessible from existing infrastructure where no further material capital development is required to access any resource block
- (4) UPBI = Unplanned Below Infrastructure – Mineral Resources accessible only with significant additional capital development
- (5) P = Planned
- (6) UP = Unplanned

The Mineral Resources included in Table 10.5 that have not been modified to Mineral Reserves are either not currently economic or are the subject of ongoing technical studies to investigate their viability; no value has been ascribed to these resources in the valuations reported in Section 19.

Figure 10.1 highlights the Grade tonnage relationship for the total resources, including Measured, Indicated and Inferred.

Figure 10.1 St Ives: Grade Tonnage Curve for the Total Mineral Resource Inventory

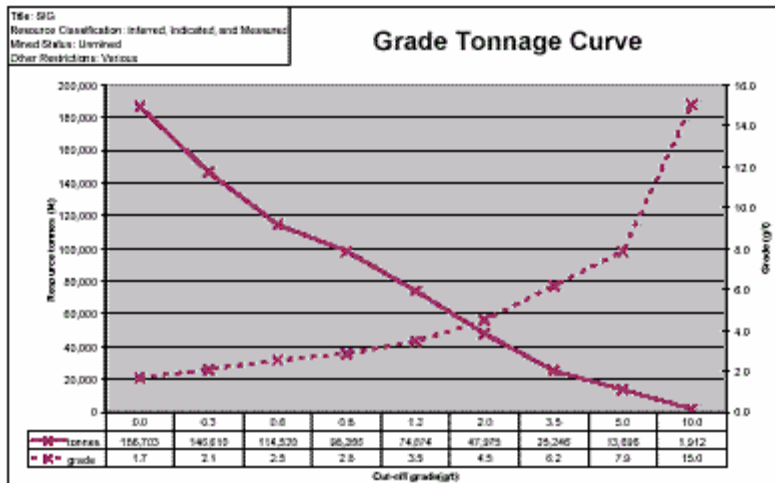


Table 10.8 highlights the Mineral Reserves sensitivity to gold price variation.

Table 10.8 St Ives: Mineral Reserve Sensitivity to Gold Price

	Units	-10%	-5%	0	5%	10%
Gold Price	(AUD/oz)	522	551	580	609	638
Ore	(kt)	27,239	28,970	29,439	31,342	31,585
Grade	(g/t)	3.2	3.2	3.2	3.2	3.2
Contained Gold	(koz)	2,819	2,982	3,007	3,158	3,193

10.7 Summary of Mineral Resources and Mineral Reserves

SRK consider that no material shortcomings exist in the underlying resource models in terms of the appropriateness of drilling density, sampling, assaying, geological interpretation, estimation techniques and classification.

Further analysis is, however required to better understand the material variance between the resource model estimate and the grade-control model predictions (and actual production) for the open-pit operations. During F2004, approximately 40% more tonnes were produced from the open-pits than was estimated in the underlying open-pit resource models, although the predicted metal content was within 5%. This difference is not necessarily due to unplanned dilution, as grade control drilling shows the mineralisation to be more complex and discontinuous than suggested by the wider space drilling, on which the resource estimate is based. The greater complexity, identified as result of the close-spaced drilling data, means that the selectivity predicted in the resource model assumption is lower than achievable in practice.

This issue cannot be addressed by simply applying global correction factors, as the grade and tonnage differences are relative to average mineralisation grade and associated cut-off grade, both of which vary

from deposit to deposit. Increased geological knowledge and mapping may improve the reconciliation, but individual pits are relatively short-lived and the revision of the resource models to reflect actual production would be neither warranted nor beneficial to aid production in the short-term.

The pit estimates are still correctly classified as Indicated Resources, however this classification is unlikely to be improved upon because of this issue. SRK do however believe that the projections of grade in the Mineral Reserves for the open-pits may as a result be optimistic.

These same issues are not encountered in the underground operations, where reconciliations between the resource model and production are within acceptable error limits for the resource classification. The better reconciliation history is due to the closer spaced drilling and geological mapping in the underground operations than in the open-pits.

The primary risk is therefore anticipated grade-tonnage profile projected in the Mineral Reserves derived from the open-pit operations. Due to the number of contributing sources (six existing pits and 11 future projects) and the complicated nature of reconciliation, SRK has not made any global adjustments to the open-pit Mineral Reserves, but highlights this risk as potentially having an adverse impact on cash flows. In terms of materiality, the open-pits contribute approximately 30% of the contained gold in the Mineral Reserves.

11 MINERAL PROCESSING AND METALLURGICAL TESTWORK

In compliance with Form 43-101F1 Technical Report Item 18 and Item 25b, this section provides detail in terms of:

- Metallurgical test work and analytical procedures;
- Existing and proposed processing facilities; and
- Recoverability, describing all test and operating results relating to the recoverability of the valuable components of the ore processed and methods utilised.

11.1 Current Processing Facilities

11.1.1 St Ives 3.1Mtpa Plant

The St Ives 3.1Mtpa gold plant was designed and constructed in 1987/1988 and fully commissioned in May 1988. The designed process throughput was 3Mtpa with a flow sheet comprising primary crushing, SAG milling (with pebble crushing), ball milling (with two mills in parallel) in a closed loop with cyclones, seven stage Pachuca CIL tanks and finally tailings filtration prior to repulping and pumping the tailings to a specifically constructed tailings impoundment. Elution of loaded carbon was by AARL procedure.

The circuit was unable to process at the design rate and consequently the secondary crushing circuit was introduced and commissioned in August 1989. This allowed a smaller feed size to the milling circuit and accordingly increased the milling throughput. The additional crushing capacity also allowed for a crushed low-grade product to be stockpiled for a future heap leaching processing.

Subsequent improvements to the overall circuit between 1993 and 2003 include:

- the addition of three extra leach tanks ahead of the CIL tanks (1993);
- tailings thickening circuits replaced the three horizontal belt filters for improved tailings density control prior to disposal (1993);
- the addition of a new gravity circuit (1994); and
- the gravity circuit was further improved (during 2002 and 2003) with the introduction of in-line pressure jigging and concentrate spinning, prior to intensive cyanidation, utilising the intense leach reactor cap.

Following these improvements the plant now operates at its design capacity of 3.1Mtpa.

Closure of the SIG 3.1Mtpa Plant is expected to take place between December and February 2005, following the commissioning of the new gold plant anticipated in December 2004. On closure the plant will be thoroughly cleaned and dismantled to recover any gold entrained prior to being offered for sale.

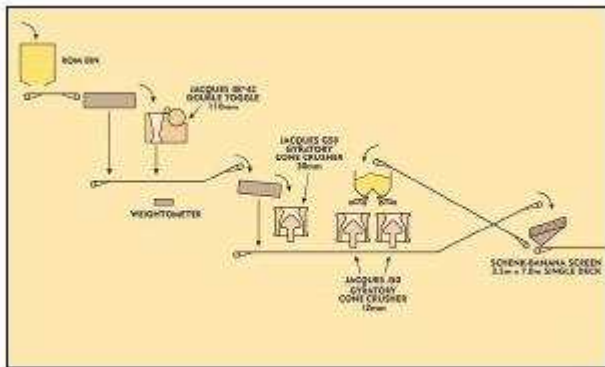
11.1.2 HL Facility

Heap leaching was investigated at St Ives in the early 1980s as low-grade ore sources from open pit mining increased. The use of a low cost heap leach facility to maximise the economic recovery of gold from low-grade material excavated from the pits, previously stockpiled, was needed. Commencing in 1999, a 2Mtpa capacity heap leach facility was designed and constructed during 2000 with the first gold recovered in December of that year.

The HL Facility comprises three-stage crushing, conveying and stacking (Figure 11.1) of ore onto

prepared ore pads. The crushed ore is stacked in cells 300m long, 64m wide and 10m high.

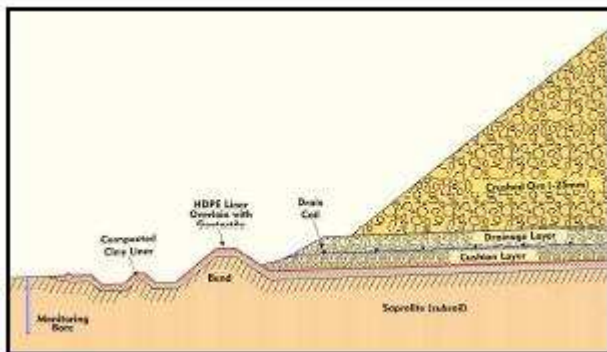
Figure 11.1 St Ives: Heap Leach Three-stage Crushing System



The name plate capacity of the crusher system is 2Mtpa at P_{80} passing 10mm. However, when operating at P_{80} passing 15mm, the systems capacity is projected to increase to 2.6Mtpa. This is the current target for FY2005.

The pads are of conventional construction, with an HDPE impervious liner overlain by geotextile and a cushion layer followed by a drainage layer and the stacked ore (Figure 11.2). The liner is place onto the subsoil which is saprolitic.

Figure 11.2 St Ives: Heap Leach Construction

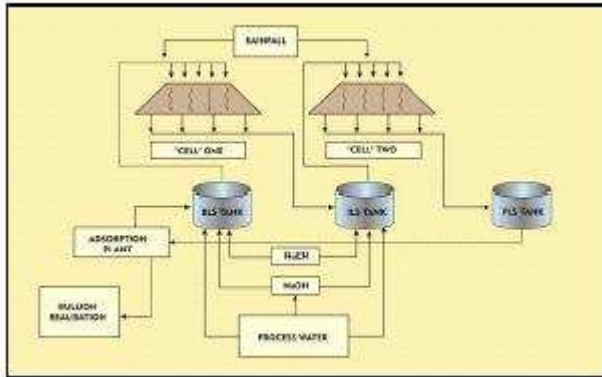


- (1) Note the ore on the pad is stated in the figure as 100% less than 25mm where as crushing is to 80% passing 15mm (P_{80}).

The irrigation is entirely by dripper tubes 20mm in diameter and spaced at 1m by 0.6m across the heap. Cyanide bearing solutions which are barren leach solution and intermediate leach solutions are applied

Gold deposited on wire-wool cathodes is transferred to the main plant for refining on a routine basis by Brinks security.

Figure 11.3 St Ives: Heap Leach Recovery Process



General maintenance is provided by the Gold Plant maintenance crew.

11.1.3 Toll Treatment

With the commencement of the new gold plant at St Ives there is no further requirement for toll treatment, irrespective of the fact that the toll plants are no longer available (or economic). The new plant offers a significant saving in unit processing cost compared to the high cost of this short-term toll treatment arrangement.

11.2 New Processing Facilities

Construction of the Lefroy 4.5Mtpa (as designed) facilities at St Ives commenced November 2003. It is anticipated that cold commissioning of the plant will commence during December 2004 and continue through January 2005, progressing to steady state operations from February 2005.

The new facility is located approximately 9km to the NW of the existing plant and is adjacent to the heap leach facility. This site location offers the potential to lower the mine haulage costs and it is hoped that 50% of the ore to the mill will be direct tipped into the primary crusher, thereby reducing the current rehandling costs.

The metallurgical process routes selected for the new facility reflect the existing SIG 3.1Mtpa Plant, incorporating knowledge gained with respect to ore mineralogy and the improvements in the equipment and technology made since the existing plant was commissioned in 1988.

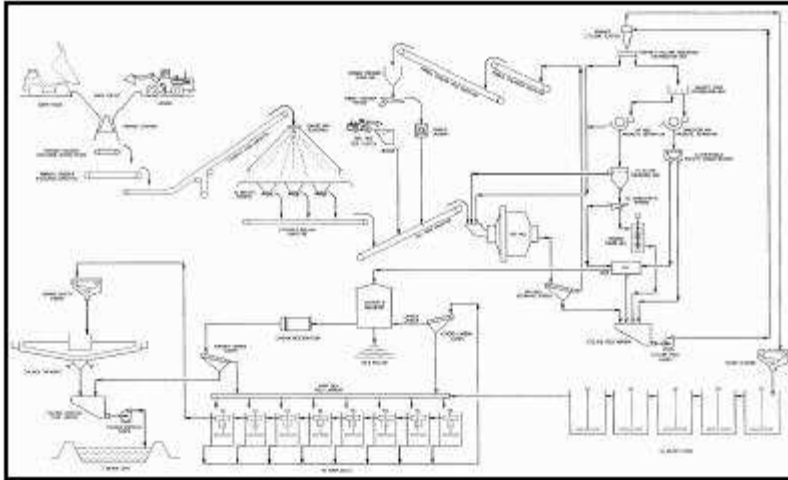
The proposed metallurgical flow sheet (Figure 11.4) comprises comminution by a primary gyratory crusher and single stage variable speed SAG mill with pebble crushing. Classification is by hydrocyclone with the overflow progressing to leaching. The cyclone underflow will be split into three streams, one returning to the mill circuit and two being submitted to gravity separation.

The first gravity stream will be pressure jigged after drum magnetic separation and the concentrate processed by a concentrate spinner. The tailings from the spinner will be reground to approximately 38 μ m in a tower-mill before recycling to the milling circuit. The concentrate from the spinner will be subjected to intensive cyanidation in the In-Line Reactor ("ILR").

The second gravity stream will be submitted to centrifugal separation, after magnetic separation, in Falcon concentrators. The concentrate from the Falcon units will go to the ILR and the tailings will be recycled. Solutions from the ILR will be pumped to the gold room for gold recovery.

Leaching of the cyclone overflow will be in five sequential leach tanks and gold recovery will be in six sequential pumpcell CIP tanks. Loaded carbon will be recovered by AARL split elution technology.

Tailings from the CIP section will be thickened in a 40m high-rate thickener prior to being pumped to impoundment in the newly commissioned tailings facility TSF 3.

Figure 11.4 St Ives: Lefroy 4.5Mtpa Gold Plant

The plant capacity is driven by the availability and capability of the installed 36' by 18' SAG mill to process the ore with variable hardness and characteristics. The installed power of 13MW is considered by SRK to be adequate for the designed grind P_{80} of 125 μ m and the availability projections of the variable speed drive should allow flexibility in the plant throughput, adequate to maintain the design production levels on an average basis.

Plant recovery for the gravity circuit is designed at 30% which is higher than the recovery achieved by the current plant.

Overall plant recovery as used for design purposes was estimated to be 94% with leach recovery at 91.4%. With the knowledge gained from treating the anticipated cocktail of ores in the existing SIG 3.1Mtpa plant these recoveries were considered conservative by St Ives and a gold recovery of 96% is projected for the next three years.

With a plant throughput of 5Mtpa, the resulting grind will be relatively coarser than the feed to the current treatment circuit. A projected 96% recovery is therefore considered by SRK to be overly optimistic and as a recovery of between 94% and 95%, is probably more realistic.

11.3 Metallurgical Test Work

A metallurgical test programme has been completed as part of the Lefroy 4.5Mtpa Gold Plant feasibility study which included:

- SG testing of anticipated future ores;
- Viscosity testing of ores to finalise blending requirements;
- Gravity testing and pilot equipment trials;
- Oxygen demand tests to identify problem ores and provide design criteria;

- Fine grinding tests to provide design criteria for the sulphide gravity concentrate regrinding; and
- Settling tests on various slurries for thickener design.

Additionally, tests were completed to generate data for possible future cyanide destruction by the INCO process, and flotation tests were undertaken to demonstrate viable alternatives for gravity separation of gold locked in sulphides.

St Ives' ores have been, and still are, free milling with both coarse and fine grained gravity recoverable gold. The ores generally have abrasion indices in the range 0.117 to 0.574. In addition, the JKMRC breakage function tests provided confirmatory data that the ores were of medium hardness, with the A*b values averaging 38 (values <30 are considered hard ores).

Work Indices for the ores indicate medium hardness with the Bwi Rod ranging between 15.4kWh/t and 24.1kWh/t and the Bwi ball between 12.7kWh/t and 17.6kWh/t. The weighted average of the ore types to be processed in the first three-years of operation of the new facility was used for the comminution design criteria.

The three ore types that will be processed from existing and planned mining operations comprise:

- **Lake Sediments Ore** : Lake sediments and clay ores have historically a high proportion of gravity recoverable gold and also demonstrate high viscosity slurries;
- **Oxide and Transitional Ore** : Oxide and transitional materials have similar recovery characteristics of the lake sediments, but without the viscosity effects.
- **Fresh Ores** : The fresh ores have historically achieved good mineral liberation at a P_{80} of 135 μ m with gold recoveries of between 92% and 95%. Test work shows that gold dissolution increased with fineness of grind with a 3% extraction increase between P_{80} of 125 μ m and P_{80} of 75 μ m.

Gold particles in fresh rock exist as free locked blebs in grain boundaries or as fine gold in pyrite, marcasite or pyrrhotite. There is some evidence of minor gold occurrence as telluride and bismuth alloys and also some arsenopyrite, but historically these occurrences have been negligible. All these mineral forms are known to cause difficulties in conventional cyanidation circuits and more intense cyanide levels are usually necessary for equivalent dissolution.

SRK considers that an appropriate level of metallurgical test work has been conducted to support both the design of the new plant and the metallurgical parameters used for Mineral Reserves modification and reporting.

11.4 Sampling, Analysis, Gold Accounting and Security

Sampling for metallurgical accounting purposes in the existing plant is provided by hand cut samples on a two-hourly basis. These comprise a belt cut for moisture, cyclone overflow and tailings. Gold from gravity sources is reliant on solution head grade and flow rate calculation.

The mass of ore to the mill is determined from the belt weightometer reading; which is the only arbiter for the reconciliation purposes. In some operations the leach feed and tailings are equipped with flow and density meters to provide a separate method of calculating the mass flow of dry solids as a comparison with weightometers, however this is not currently practiced at St Ives. For the Lefroy 4.5Mtpa Gold Plant however, tailings mass flow will be monitored after thickening.

To complete monthly reconciliations of gold it will be necessary to conduct a "gold in circuit" inventory to facilitate back calculation of the mill feed head-grade.

The sampling and analysis routine of the new facility is basically the same as the existing plant with the addition of automatic samplers at the head of the leach circuit and the tailing from the CIP tankage. The automatic sampling stations comprise primary and secondary cutting of the pulp streams to provide suitable sized samples. Sampling frequency can be varied remotely.

SRK considers that adequate attention is generally given to sampling, sample preparation and metal accounting.

Operators feed the ore into the plant according to a blend sheet recipe of loader buckets. The blend sheet is prepared to provide an optimal mill head feed requirement.

Ore is drawn from separate discrete stockpiles on the RoM pad by front-end loader. The loader is equipped with a weightometer, and the operator records the bucket load mass on a type basis, thus providing a mass ratio of ore types for accounting/reconciliation purposes. At month end, the RoM stockpiles are surveyed and reconciliation made between the mill figures and the mine underground and open pit sources in conjunction with the haulage contractors claimed tonnes and assays.

Gold room security of the 3.1Mtpa plant is typical of gold operations in the region. Access to the gold room is by Dallas-tag and combination pad; and relies on two person entry. CCTV and recording of the gold room working areas and strong room is monitored to the plant security gate.

All major Bullion transfer is by external security, as is the transfer of wire-wool cathodes from the heap leach plant. The new facility will also incorporate an additional layer of fencing to access the gold room which will further improve security and control of access.

Security facilities and procedures at the two process plants are considered by SRK to be well directed at attempting to minimise the risk of theft. Notwithstanding the above comment, all forward projections are based on historically achieved Mine Call Factors which will ultimately include any historical gold loss through theft. With the security in place, this situation is not deemed to deteriorate and as such the projections are considered valid.

11.5 Plant Performance and Operating Costs

11.5.1 St Ives 3.1Mtpa Plant

Table 11.1 shows the current unit operating costs and the highlights the benefit of the new plant in terms of unit cost reductions

Table 11.1 St Ives: 3.1Mtpa Plant – Historical and Planned Performance

PROCESSING	Units	2002 12mth Act	2003 12mth Act	2004 6mth Act
Total Processing				
Total Milled	(t)	1,598,659	3,194,175	1,497,455
Average Feed Grade	(g/t)	4.7	4.4	4.3
Gold Content	(oz)	239,521	454,727	209,195
Recovery	(%)	92.6%	95.9%	93.8%
Gold Recovered	(oz)	221,804	435,968	196,141
DPC	(USD)	11,873,179	28,084,580	15,988,754
Unit cost	(USD/t)	7.43	8.79	10.68
Capital Development	(USD)	2,765,915	284,205	735,154
Capital Works	(USD)	1,368,718	2,183,328	710,483
Capital Costs	(USD)	4,134,633	2,467,534	1,445,637
TOTAL COSTS	(USD)	16,007,812	30,552,114	17,434,392

During the period of commissioning of the new Lefroy 4.5Mtpa Gold Plant, the existing St Ives 3.1Mtpa Plant will be kept operational. It is anticipated, however that beyond February 2005, this plant will be closed.

11.5.2 Lefroy 4.5Mtpa Gold Plant

The design facilitates easy maintenance of the process equipment and ensures that the plant housekeeping should be of the highest order.

Operating costs are predicted in the feasibility study at USD6.2/t for the first five-years of operation for a throughput of 4.5Mtpa. The operating costs have been compiled from a variety of sources including first principle estimates, test work, supplier quotations and a combination of St Ives data and JR database of similar operations. Given the relatively low reagent usage historically and accounting for the high unit cost of power at USD0.08/kWh, these costs should be achievable and fall within the range of costs for similar sized and even larger capacity operations.

Recent studies have indicated that a slightly coarser grind an additional 0.5Mtpa can be processed through the Lefroy mill. SRK considers that the planned throughput of 5Mtpa, which is 11% higher than the feasibility study, is achievable. The only constraint may be the ability to mill the plant feed to the required grind size (P_{80} 125mm) to meet the anticipated 96% recovery. SRK considers that the mill will be able to treat the required throughput based on the design criteria. Should the ore hardness characteristics move above the design level, the grind will not be achieved and the recovery may drop-off. This will necessitate the choice between reducing throughput and accepting a lower gold recovery, not an uncommon dilemma, which usually tends to the latter.

The unit operating cost at 5Mtpa is budgeted at USD6.03/t which is USD0.17/t (3%) lower than the unit cost stated in the feasibility study at a 4.5Mtpa throughput, this lower unit cost should, however be achieved at the increased throughput. If the capacity is not achieved at 5Mtpa, then the unit cost will rise accordingly. The fixed/variable ratio is in the order of 35/65 and this ratio can be used to project the impact on unit cost on a lower throughput if the continued exploration does not realise additional resources beyond 2007.

11.5.3 Heap Leach Facility

Table 11.2 summarises the historical and planned operating performance of the HL Facility. The SBP projects a throughput of 2.6Mtpa for the LoM Period.

Table 11.2 St Ives: HL – Historical and Planned Performance

PROCESSING	Units	2002 12mth Act	2003 12mth Act	2004 6mth Act
Total Milled	(t)	1,019,755	2,430,865	1,063,115
Average Feed Grade	(g/t)	1.2	1.0	1.0
Gold Content	(oz)	38,479	76,336	33,227
Recovery	(%)	67.1%	57.8%	60.3%
Gold Recovered	(oz)	25,806	44,090	20,021
DPC	(USD)	2,945,322	8,449,219	4,122,322
Unit cost	(USD/t)	2.89	3.48	3.88
Capital Development	(USD)	1,627,413	-14,755	2,697
Capital Works	(USD)	17,368	77,351	39,732
Capital Costs	(USD)	1,644,781	62,596	42,429
TOTAL COSTS	(USD)	4,590,103	8,511,815	4,164,751

Table 11.2 shows the current unit costs, the LoM average cost reduces to USD3.71/t at an increased throughput of the facility from 2.4Mtpa in 2003 to 2.6Mtpa by 2006. For the current financial year a small capital expenditure of USD105k is to be utilised on minor projects for improvement of the facility.

Operational difficulties include the percolation of oxide materials which are being investigated and agglomeration techniques are being considered to improve the situation. The usual problems of scaling and salinity are being experienced and remedies/controls are constantly scrutinised.

With the introduction of the new 4.5Mtpa mill the cut-off grade for the HL Facility will fall to below 1g/t and as such methods of lowering costs are being actively pursued. The plant metallurgical personnel are currently looking strategically about the future of Heap Leach with the expansion of plant a major consideration.

Generally the HL CIP plant is considered to be in good condition both mechanically and structurally and, subject to adequate ongoing planned maintenance, should meet the LoM requirements

11.5.4 Toll Treatment

Toll treatment stopped in June 2004 therefore is not required for future operations and does not feature in the LoM plan commencing July 2004.

11.5.5 Plant Closure and Clean-up

The existing 3.1Mtpa plant is expected to close in February 2005 and the plant will be cleaned thoroughly before dismantling and sale. It is estimated that there are 8.5kcozs of recoverable gold within the plant post closure.

12 TAILINGS DEPOSITION

Plant tailing was initially impounded in a 64 hectare facility TCF1 however this now decommissioned and the subject of environmental rehabilitation.

The second facility TCF 2 adjacent to TCF1 is currently in use however will only be used as an emergency facility beyond 2004.

A new dam, TCF3 is now being commissioned and uses a central decantation with ring main slurry distribution in line with the existing facilities. All water is reclaimed from the dams and returned to the process plant.

The possibility of using a worked out open-pit as an alternative facility for future tailings disposal is being investigated which will reduce the tailings disposal cost as the depleted pit is located closer to the new Lefroy Plant than the current facility.

SRK considers there to be no material deficiencies with the existing facilities which are adequate to contain the stated Reserves with additional capital expenditure provisioned to construct new lifts on TCF3.

13 MINING

In compliance with Form 43-101F1 Technical Report Item 25a, this section provides detail in terms of:

- Mining operations and assumptions concerning modification from Mineral Resources to Mineral Reserves; and
- Mine planning and technical-economic projections into the LoM Plan.

13.1 Mineral Reserves

Table 13.1 summarises the available Mineral Reserves depleted in the LoM Plan and valuation model.

Table 13.1 St Ives: Mineral Reserves Depleted in LoM Plan

	Status	Tonnes (kt)	Grade (g/t)	Gold (koz)	Contribution(1) (% oz)	Contribution(2) (% oz)
Existing Operations						
Open-pit						
Mars-op - PWDP	Feas/Ongoing	3,392	2.8	302	80%	10%
Pluton-op - PWDP	Feas/Ongoing	898	1.7	50	13%	2%
West Revenge - PWDP	Feas/Ongoing	321	2.4	25	7%	1%
Subtotal Open-pits		4,611	2.5	376	100%	13%
Underground						
Argo-ug - PAI	Feas/Ongoing	4,415	5.9	839	72%	28%
East Repulse-ug - PAI	Feas/Ongoing	1,311	5.6	237	20%	8%
Junction-ug - PAI	Feas/Ongoing	178	7.7	44	4%	1%
Sirius-ug - PAI	Feas/Ongoing	262	5.2	44	4%	1%
Subtotal Underground		6,165	5.9	1,164	100%	39%
Surface Sources						
Leviathan-ss		1,760	0.9	52	40%	2%
Intrepide		1,448	1.0	46	35%	2%
Minotaur		506	1.1	19	14%	1%
Orchin-ss		185	0.9	6	4%	0%
Revenge-ss		181	1.3	8	6%	0%
Temeraire		37	1.0	1	1%	0%
Subtotal Surface Sources		4,116	1.0	131	100%	4%
Total Existing Operations		14,892	3.5	1,672		56%
Future Projects						
Open-pits						
Thunderer - PWDP	Feas	1,566	2.7	138	29%	5%
Bahama - PWDP	Feas	1,315	2.2	93	20%	3%
Agamemnon South - PWDP	Pre Feas	785	1.9	47	10%	2%
Swiftsure - PWDP	Pre Feas	217	5.7	39	8%	1%
Office - PWDP	Feas	418	2.3	32	7%	1%
Agamemnon West - PWDP	Feas	406	2.4	31	7%	1%
Agamemnon East - PWDP	Feas	391	2.2	28	6%	1%
Apollo - PWDP	Pre Feas	304	2.4	24	5%	1%
Leviathan-op - PWDP	Pre Feas	285	2.0	18	4%	1%
Neptune - PWDP	Pre Feas	150	2.6	13	3%	0%
NRK-op - PWDP	Pre Feas	137	2.6	11	2%	0%
Subtotal Open-pits		5,975	2.5	473	100%	16%
Underground						
Belleisle - PAI	Pre Feas	1,585	4.6	233	32%	8%
Cave Rocks - PAI	Pre Feas	1,667	4.1	219	30%	7%
Conqueror - PAI	Pre Feas	1,581	4.3	217	30%	7%
Orchin-ug - PAI	Pre Feas	410	4.5	60	8%	2%
Subtotal Underground		5,243	4.3	729	100%	24%

	Status	Tonnes (kt)	Grade (g/t)	Gold (koz)	Contribution(1) (% oz)	Contribution(2) (% oz)
Surface Sources						
	Mars-ss	1,036	1.5	49	37%	2%
	Agamemnon	972	1.2	39	29%	1%
	Santa Ana-ss	606	0.9	18	14%	1%
	Redoubtable	253	1.1	9	7%	0%
	Pluton-ss	177	1.3	7	5.4%	0%
	Argo-ss	165	1.2	6	4.6%	0%
	NRK-ss	84	1.2	3	2%	0%
	Defiance	14	1.2	1	0%	0%
	East Repulse-ss	3	4.3	0	0%	0%
	Junction-ss	0	4.4	0	0%	0%
	North Victory	13	1.2	1	0%	0%
	Sirius-ss	5	4.1	1	0%	0%
	Subtotal Surface Sources	3,329	1.2	133	100%	4%
	Total Future Projects	14,547	2.9	1,335		44%
	TOTAL MINERAL RESERVES	29,439	3.2	3,007		100%

- (1) Contribution to each subtotal.
(2) Contribution to total Mineral Reserves

As reported in Table 13.1 some 68% of the total Mineral Reserve ounces are sourced from one existing open-pit (Mars OP), two existing underground operations (Argo UG and East Repulse UG) and three future underground projects (Belleisle UG, Cave Rocks UG and Conqueror UG). The remaining ounces are sourced from a combination of small existing operations (2 open-pits, 2 underground operations and 6 surface sources) collectively contributing approximately 10% of the total Mineral Reserve ounces and future operations (11 open-pits, 1 underground operation and 12 surface sources) collectively contributing approximately 22% of the total Mineral Reserve ounces.

13.2 Competence and Responsibility

Table 13.2 details the Qualified Persons responsible for the mine planning and production at St Ives.

Table 13.2 St Ives: Mining Disciplines - Qualified Persons

Discipline	QP	Qualifications	Experience	Professional Body
St Ives				
Open-pit Production	Ian Copeland	B Sc (Geology)	23 years	AusIMM
Open-pit Planning	Max Shepherd	B E (Mining)	15 years	n.a.
Underground Production	Mark Morcombe	B E (Mining)		
Underground Planning	Atish Kumar	B E (Mining)		
Mineral Reserves				
SRK				
Open-pit Mining	Mike Warren	B Sc (Mining), MBA	30 years	AusIMM
Underground Mining	Thomas Schrimpf	Dip. Ing.	19 years	AusIMM
Mineral Reserves	Mike Warren	B Sc (Mining), MBA	30 years	AusIMM

In terms of the mine planning, mining, geotechnical and ventilation engineering disciplines the representatives listed in Table 13.2 take responsibility for the reporting of the economically mineable material derived from Measured and/or Indicated Mineral Resources and compliantly modified to Mineral Reserves. They have assessed the level of geoscientific confidence in the estimation and classified these estimates into the appropriate Mineral Reserve classification categories (Proved/Probable).

In addition to the reported Mineral Reserves, these representatives take responsibility in their professional capacity for the inclusion of Mineral Resources, not yet modified to Mineral Reserves, in

the LoM plan. The contribution of this material and associated impact on the underlying valuation is described within this section, and further detailed in the LoM valuation summaries in Section 14.

13.3 Open Pits

13.3.1 Salient Features

Figure 4.2 shows the location of the open-pits in relation to the current and new processing facilities and heap leach pads. The existing processing plant is shown as the St Ives Gold Plant. The new mill is shown as the Lefroy Mill.

Table 13.3 summarises the salient operating features of the current and planned open-pit operations, Table 13.4 summarises the current open-pit mining equipment and Table 13.5 summarises the drill and blasting design parameters.

Table 13.3 St Ives OP: Salient Features

Open-pit	Description
General	The open-pits are managed by St Ives staff; however all of the operational functions are outsourced to selected contractors. The current mining contractor is Leighton Contractors (“Leighton”). Transport of ore to the processing facilities and maintenance of the haul roads is contracted to Bulkhaul Pty Ltd (“Bulkhaul”). Drilling and blasting is contracted to Ausdrill. All of the above contractors are considered by SRK to be well established and experienced. St Ives have formed an “alliance” with Leighton, such that the two companies cooperate to achieve the most efficient mining schedule and cost. Leighton provides the required equipment and trained operators and is paid an hourly rate for their services and equipment. St Ives provide pit designs, mining schedules, survey, environmental compliance and geotechnical information. The term of the Leighton contract is from January 2004 to February 2006. Bulkhaul provide front-end-loaders and five “roadtrain” trucks (each composed of 1 x Kenworth prime mover and 3 x 25 tonne capacity trailers), plus sufficient ancillary equipment to maintain the haul roads. Bulkhaul load, transport and unload the ore from the top of pit stockpiles to the RoM stockpiles at either the existing processing plant or the heap leach plant. The contract specifies tonnages, haul distances and costs from each pit to either processing destination. Upon commissioning of the new processing plant, Bulkhaul will deliver ore from pit rim stockpiles to the new plant ROM stockpile. The term of the Bulkhaul contract is from January 2003 to February 2006. Ausdrill have provided a range of drill rigs under contract to St Ives including exploration, blast-hole and grade control drills. Ausdrill also provide contract services for blasting, including “down the hole” explosive delivery. The term of the unsigned draft Ausdrill contract is for two years. The major equipment provided by Leighton, Bulkhaul and Ausdrill is listed in Table 13.4. None of the listed equipment is owned by St Ives.
Mars OP	Designed depth: 145m. Current depth: 90m (1) Distance to Waste backfill in Minotaur pit: 1,000m flat haul from pit rim. Distance to current ROM pad: 14.0km Distance to new mill ROM pad: 5,970m including 770m at 1 in 8 grade and 400m at 1 in 10 gradient. Ore haul to pit rim stockpile: 1,680m including 770m at 1 in 8 gradient. Assumed water make: 80 litres per sec. Sumps and pumps established.
Pluton OP	Designed depth: 60m. Current depth: 40m. Distance to Waste dump: 3,390m, including 50m at 1 in 8 grade and 350m at 1 in 10 gradient. Distance to current ROM pad: 14.0km Distance to new mill ROM pad: 3.8km including 480 at 1 in 8 gradient and 400m at 1 in 10 gradient. Ore haul to pit rim stockpile: 1,880m, including 100m at 1 in 8 gradient. Assumed water make: not specified. Sufficient pumps assumed available.
West Revenge OP	Designed depth: Final design not completed. Current depth: 10m Distance to Waste Dump: 1,360m, including 130m at 1 in 8 gradient. Distance to current ROM pad: 14.0km Distance to new mill ROM pad: 3.4km including 400m at 1 in 10 gradient. Ore haul to pit rim stockpile: 130m at 1 in 8 gradient.

Assumed water make: not specified. Sufficient pumps assumed available.

**West Agamemnon
OP**

Designed depth: 15m. Current depth: 10m.
Distance to Waste Dump: 900m, including 140m at 1 in 8 gradient.
Distance to current ROM pad: 14.0km
Distance to new mill ROM pad: 4,700m, including 190m at 1 in 8 gradient.
Ore haul to pit rim stockpile: 590m, including 140m at 1 in 8 gradient.
Assumed water make: not specified. Sufficient pumps assumed available.

(1) All depths quoted are in metres below the surface

Table 13.4 St Ives OP: Contractors Mining Equipment

Major Equipment – Leighton(1)	Bucket/tray size (m3)	Number in fleet
Face Shovel - O&K RH120	15	1
Excavator - O&K RH120	13	2
Excavator - Komatsu PC1600	7	1
Excavator - Hitachi EX1200	6.5	1
Trucks - Caterpillar 785C	51	13
Major Equipment - Bulkhaul	Bucket/tray size (m3)	Number in fleet
Front-end-loaders - Caterpillar 988	6.4	3
Front-end-loaders - Caterpillar 966	3.8	1
Front-end-loaders - Caterpillar 990	8.6	1
Front-end-loaders - Caterpillar 980	5.4	1
Prime Movers - Kenworth	n.a.	5
Trailers/Dolly's	25 tonne	15
Major Equipment - Ausdrill	Hole Diameter	Number in fleet
Tamrock - CHA1100	102mm	4
Tamrock - Panterra 1500(2)	127mm	1
Atlas Copco L7(2)	127mm	1

- (1) The baseline equipment availability stated in the contract is 85%.
 (2) On trial. The selected drill rig will be added to the fleet

Table 13.5 St Ives OP: Drill and Blast Parameters

Parameter	Burden , Spacing , Depth
Hole diameter - 102mm	3.5m x 3.8m x 5m depth
Hole diameter - 127mm	4.3m x 4.9m x 5m depth
Hole diameter - 127mm	4.5m x 5.2m x 10m depth
Explosive used	Most blast holes require a PVC liner to keep the hole open and most holes have some water inflow. 70% emulsion / 30% ANFO prill @ 1.15 density
Powder Factor	Usual range: 0.45kg/t to 0.55kg/t. Maximum: 0.62kg/t
Material type	Percent expected to be blasted
Sedimentary	Zero
Oxide	20%
Transitional	50%
Fresh	100%
Current weighted average	40% of material is blasted, i.e., 60% is free dig.

Explosives are currently purchased by St Ives from Orica Explosives who provide a “down-the-hole” placement service. St Ives is in the process of tendering for the future supply of its explosives requirements from a number of explosive suppliers. Ausdrill install initiation systems and detonate the blast patterns.

13.3.2 Historical Performance and Reconciliation

Production : Table 13.6 summarises the historical key performance indicators (“KPIs”) for the open-pits to June 2004.

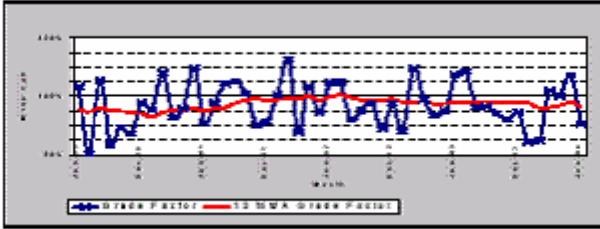
Table 13.6 St Ives OP: Historical and Projected Production

MINING		Units	2002 6mth Act	2003 12mth Act	2004 6mth Act
Open Pits(1)					
	Pre-Strip	(bcm)	2,655,484	3,285,307	2,447,771
	Internal Waste	(bcm)	2,404,935	5,111,906	1,981,458
Total Waste		(bcm)	5,060,419	8,397,213	4,429,229
Ore		(bcm)	943,426	1,874,362	697,129
	Total Moved	(bcm)	6,003,845	10,271,575	5,126,358
	SR	(w:o)	5.4	4.5	6.4
	Ore Density	(t/m3)	2.34	2.47	2.64
	HG Ore Ex Pit	(t)	1,517,986	2,964,703	969,200
	Allocated Grade	(g/t)	3.9	3.4	2.8
	Contained Gold	(oz)	192,363	324,311	88,131
	LG Ore Ex Pit	(t)	129,265	62,328	59,190
	Allocated Grade	(g/t)	1.4	1.6	1.1
	Contained Gold	(oz)	5,846	3,205	2,110
	HL Ore Ex Pit	(t)	556,974	1,611,314	811,994
	Allocated Grade	(g/t)	1.3	1.0	1.0
	Contained Gold	(oz)	22,619	50,416	25,609
Ore Ex Pit		(t)	2,204,225	4,638,346	1,840,383
Allocated Grade		(g/t)	3.1	2.5	2.0
Contained Gold		(oz)	220,828	377,933	115,850
	Ore to CIL	(t)	1,341,919	2,367,528	691,984
	Allocated Grade	(g/t)	4.2	3.6	3.0
	Contained Gold	(oz)	180,142	275,998	66,658
	Ore to HL	(t)	8,775	801,228	534,874
	Allocated Grade	(g/t)	1.1	1.1	1.0
	Contained Gold	(oz)	313	28,710	17,965
	Ore to Toll	(t)	68,075	481,988	497,340
	Allocated Grade	(g/t)	2.8	2.6	2.5
	Contained Gold	(oz)	6,049	39,591	40,414
Ore Processed		(t)	1,418,769	3,650,744	1,724,198
Allocated Grade		(g/t)	4.1	2.9	2.3
Contained Gold		(oz)	186,504	344,299	125,036
	ER	(AUD:USD)	0.55	0.66	0.74
	Direct + Capital Waste Cost	(USDk)	6,853,906	12,244,860	8,873,625
	Direct Costs Normalised	(USDk)	6,305,554	16,153,980	8,512,680
	Direct Ore Costs	(USDk)	3,863,857.0	8,993,898.9	4,661,156.2
Total Direct Mining Cost		(USDk)	17,023,317	37,392,739	22,047,460
	Haulage Cost to Plant	(USDk)	1,164,319	5,361,810	2,469,583
Unit Cost					
	Direct Waste Cost	(USD/bcm)	2.60	3.38	3.93
	Direct Ore Costs	(USD/bcm)	4.10	4.80	6.69
Total Direct Mining Cost		(USD/bcm)	2.84	3.64	4.30

- (1) Comprises Argo, Agamemnon, Minotaur, West Revenge, Temeraire, Mars, Bahama and Pluton.
- (2) 2005 comprises only Agamemnon, West Revenge, Mars, Bahama and Pluton.
- (3) Old CIL is due for closure March 2005.
- (4) Pre-September 2004 all tonnage to Toll Treatment, Post January 2004 all production to Lefroy Gold Plant.

Reconciliation : The reconciliation of mine grade to mill grade is conducted on a monthly basis as shown for open-pit, underground and surface source operations in Figure 13.1.

Figure 13.1 St Ives: Grade Reconciliation, to June 2004



The difference between the mined grade and the mill grade is converted to a “mine call factor” (“MCF”) to indicate the deviation from the expected result. The MCF factor for F2002 was 99.7%, for F2003 was 97.7% and for F2004, as shown in Figure 13.1 was 96.3%. The decline in the MCF is being addressed by St Ives by changes to the methods of reconciling grade performance. Where previously a 5% tonnage dilution (at zero-grade) was assumed for all pits, this assumption has now been removed from the procedures. St Ives tracks the actual mining dilution and is looking to improve reconciliation at each pit, however may require additional staff to ensure these targets are implemented.

The grade call factor has been below 100% for Mars and Pluton open pits during 8 months of the year for 2004 and SRK considers this to be indicative of a systematic problem which is being addressed by St Ives. For the Mars open-pit a new resource model that focussed on inclusion of low grade material (between high grade surfaces) has now been modelled, previously excluded. At the time of writing a revised Pluton model was under construction to bring new knowledge to bear from grade control drilling and in pit observations. These steps should improve the reconciliation results.

Operating Costs : Table 13.6 summarises the historical operating expenditure of the open-pit operations and the latest forecast for 2005.

SRK has compared the historical KPIs of the open-pit operations to the projected KPIs in the latest forecast and LoM Plan. Where the production capacity is projected to increase, or where significant improvements of production rates or modifying factors has occurred. SRK has taken a view and where deemed necessary made appropriate adjustments to the projected factors as generated by St Ives. In doing this, the reported Mineral Reserves and LoM cash flow projections are inclusive of any adjustments and are deemed technically achievable with an appropriate level of geoscientific confidence relating the Mineral Reserve classification and cash flow projections.

Current Mineral Reserves : Table 13.1 summarises the Mineral Reserves for the open-pit operations; in support of these estimates the following describes how the Mineral Reserves have been estimated in terms of the mining related disciplines.

St Ives surface mining is by conventional drill and blast methods, material is excavated by back-hoe and/or face shovels and hauled by rigid dump trucks. Grade control is generally completed by inclined RC drilling on approximately 5m by 8m centres in plan projection. Production drilling ranges from 3m by 3.5m up to 4m by 5m patterns using 102mm diameter blast holes. Pre-split in hard rock is done on

10m benches using 89mm drill-holes. The Revenge area projects (Mars, Pluton) include between 10m to 40m of unconsolidated sedimentary overburden. This overburden does not require drill and blast, but often requires between 10% and 20% hard rock to be imported for sheeting to provide equipment trafficability during mining, or dewatering of the sedimentary overburden prior to mining.

- **Block sizes** : Model block sizes are selected on the basis of deposit geology, drillhole spacing and sampling density. Recently, the block size has been optimised based on resultant kriging estimation quality. Where sample spacing permits, the planned mining method is included as a factor in model block size selection. For example, at the Mars deposit the block size is 20m x 20m x 2.5m and the pit is planned to be mined using 2.5m “flitches” within each 5m bench.
- **Mining Width** : Minimum mining width in relation to the ability to practically extract an ore block is taken into account in the determination of planned dilution. This relates to the capability of the proposed equipment and ore body geometry. Furthermore, in the generation of open-cut design, consideration for accessibility and manoeuvrability requires an allowance of around 30m at the pit floor.
- **Dilution** : St Ives report that the actual dilution during 2004 for the three main ore sources ranged between 14% and 19%, as shown in Table 13.7 below. The dilution assumptions used in the 30 June 2004 Reserves statement ranged from between 15% and 20%, depending on the nature of each specific open pit deposit.

Table 13.7 St Ives OP: Dilution and Mining Recovery

Assumptions applied	Dilution	Mining Recovery
Generic Assumption	1.20	0.95
Assumption applied in 30 June 2004 Reserves	1.15 to 1.20	0.9 to 1.0
F2004 Actuals – un-weighted averages for HG ore only		
Argo (6 months)	1.19	1.09
Agememnon (9 months)	1.14	1.01
Mars (11 months)	1.14	0.98

- **Mining Recovery** : St Ives report that the actual mining recovery during 2004 ranged between 98% and 109%, as shown in Table 13.8. The mining recovery assumptions used in the 30 June 2004 Reserves statement ranged between 90% and 100%, depending on the particular open pit.

13.3.3 Planning

Key Planning Assumptions : The Key financial assumptions other than direct mining cost used for project evaluation and Mineral Reserve calculation are provided in Table 13.8

Table 13.8 St Ives OP: Evaluation Inputs

Description	Rate
Administration and Processing costs	AUD12.80/t
World Gold Council	AUD2.86/oz
State gold tax	2.50%
Gold Price for cut-off-grade calculation and project evaluation	AUD530/oz
Mineral Reserve gold price	AUD580/oz
Mineral Resource gold price	AUD650/oz

The Resource block models are created in Datamine™ mine planning software and the above economic parameters are input to the optimisation software. St Ives use industry standard mine optimisation software (Whittle Four-X™) to determine the viability of each deposit. The Lersch-Grossman algorithm in the software creates a series of pit shells upon which a preferred pit design can be based. St Ives has indicated they usually selected a conservative pit shell. St Ives have also indicated that the practical pit design can included up to 10% more volume than the original pit shell chosen for the same ore extraction.

Key optimisation considerations include:

- **Low Grade ore :** St Ives has a heap leach processing facility for the processing of material which is below the CoG for the mill. Low grade stockpiles are located at each pit rim and hauled by contractor to the heap leach ROM stockpile according to a predetermined schedule;
- **Pit Rim Stockpiles :** The St Ives Mineral Reserve statement as at 30 June 2004 (see Table 13.1) includes 7.4Mt of stockpiled low grade ore at a grade of 1.1g/t gold. The larger stockpiles are located at the Leviathan pit (1.760Mt), Intrepide pit (1.448Mt), the Mars pit (1.036Mt) and the Agamemnon pit (0.972Mt). The low grade stockpiles are planned to be processed either via the heap leach plant or possibly by the new mill if insufficient feed is available from higher grade mined ore;
- **Pit associated waste dumps :** Each open pit has an associated waste dump which has been approved in the EMP by the relevant environmental authorities. Waste dumps are designed to minimise the haulage distance from the pit while also providing sufficient working space and clearance from final design limits. As St Ives have mined a number of pits to date, several of the pit voids are available for waste disposal. For example, the waste material from the Mars pit is currently being dumped in the Minotaur pit void, with a significant saving in haulage distance.

In general, St Ives practise dictates that an Inferred Resource must be drilled to a spacing of 100m by 100m on continuous structures increasing to 40m by 40m on more complex or poorly understood structures. Indicated Resource must be drilled to better than 80m by 80m on mined structures and at least 40m by 40m (usually 20m by 40m to 20m by 20m) on un-mined structures. Measured Resource must be drilled to 20m by 20m (usually 10m by 5m in open-pits) and must be fully developed along strike or grade control drilled in open pits. Grade control drilling is generally performed by 5m deep inclined reverse circulation ("RC") holes at 133mm diameter on approximately 5m x 8m centres.

Historically, St Ives report that approximately 70% of Inferred Resources convert to Measured and

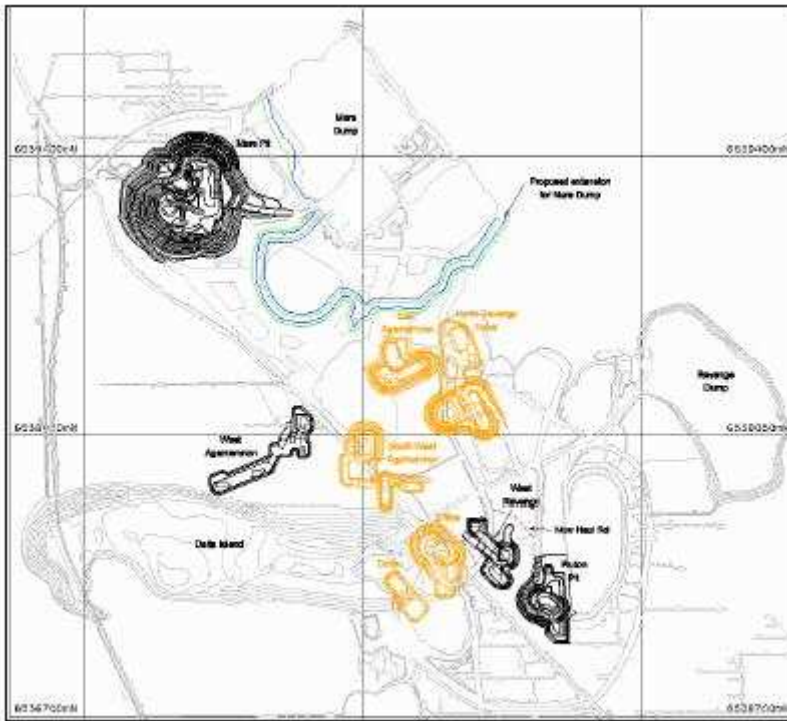
Indicated Resources and about 70% of Measured and Indicated Resources converts to Mineral Reserves. Therefore, on average, about 50% of all discoveries have previously converted to economic material which can be mined and processed profitably.

SRK considers that this historical conversion ratio can be maintained in the short-term, or even increase with the anticipated lower costs associated with the new mill. St Ives has identified a number of “future projects”, reported in Table 13.1, which are being explored and/or developed. St Ives is also continuing with exploration of their extensive tenements.

The LoM Plan therefore includes a portion of Inferred Resources modified at a 50% conversion rate to economic material. SRK concur with St Ives that to exclude this material from the LoM Plan would be overly conservative.

Figure 13.3 shows the final pit design for the Mars open-pit and other pits in the same area.

Figure 13.3 St Ives: Shows the Current and Future Open-pits with completed designs



Development and Scheduling : The mine planning sequence commences with an exploration discovery being sufficiently attractive that it is advanced to a Pre-Feasibility study. The deposit will then be included in the Strategic Plan and may be included in the list of “Future Projects”, as shown in

Table 13.1. Further drilling results and other technical studies may then advance the project to “Feasibility Study” stage, where the planning effort will be directed towards defining the economic viability of the deposit. Economics and other factors will then be reviewed to place the deposit in the planned mining sequence. Other deposits are also reviewed in parallel and the order of the mining sequence may be changed to maximise returns to the company.

The number of deposits mined at any time creates planning and scheduling complexities, however is necessary to ensure that the required blend of ore type and head grade is available to sustain optimal processing throughput, recoveries and unit operating costs.

St Ives employ a number of qualified mining engineers to plan, design and schedule the mining of the open pits, based on the data generated by other technical staff and consultants including geologists, hydro-geologists, geotechnical engineers, metallurgists and environmental scientists. The plans, design and schedules are provided and communicated to the contractors and form the basis of the contract between the two parties. St Ives plan and execute open-pits to a generally accepted industry standard, although with some scope for changes that will improve the accuracy of short-term planning.

In terms of contained gold, reconciliation between the grade control models and plant production consistently average above 95%, which is certainly within the realms of expected estimation accuracy. SRK considers that overall there is an appropriate level of geo-scientific confidence in the grade control predictions for medium and long term planning and scheduling.

Geotechnical Engineering and Planning Inputs : The first mines excavated by St Ives were generally shallow (<200m) and elongate open-pits south of the southern shore of Lake Lefroy. More recently, open-pits have generally become even shallower and increasingly located with the salt lake deposits. St Ives have mined 31 open-pits with generally very few slope stability issues. Only two multi bench failures have occurred in the past 20 years at St Ives. St Ives accept that they have been conservative in the past and are now considering the use of a combination of semi-deterministic and empirical data to provide more efficient slope designs.

The geotechnical process comprises:

- **Data collection :** All exploration drill-holes produce oriented core which is inspected and logged and allows an extensive geotechnical database to be developed;
- **Materials :** Generally, pit walls in the St Ives area are in strong mafic rock, although occasionally weak ultramafic material or blocky intermediate rockmasses are exposed. The lake pits excavate several tens of metres of lake sediments before encountering sands and oxidised material generally requiring a flatter batter angle. For the next two-years, pit production is planned from five lake pits, the deepest of which is Mars, approximately 150m below surface. The other four pits comprise two shallow pits (approximately 80m below surface) and two very shallow pits (<45m below surface); and
- **Monitoring :** Prism and extensometer monitoring is only used as required. There are currently 24 prisms monitoring the walls of the Mars open pit.

SRK considers the geotechnical parameters used by St Ives are generally conservative with minimal risk that the open pits will suffer any material or uncontrollable geotechnical failures. In terms of the primary areas of geotechnical risks SRK consider the following:

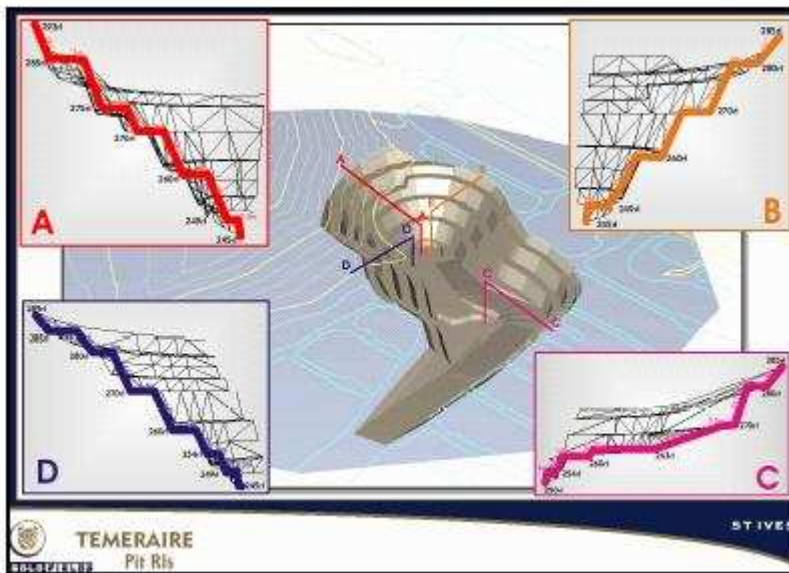
- **Slope angles :** Collection of empirical performance information under varying slope and ground conditions is underway to improve predictive capabilities. Pit inspection processes are being

reviewed to ensure operational ground control management options are identified and utilised effectively should design slope angles become more aggressive;

- **Water management** : Significant scope for improved water management planning has been identified. This has commenced with a consultant review of paleochannel and fresh rock transmissivity and management options for Mars open pit. The specialist hydrogeologist staff position has been removed in order to encourage greater integration and ownership of hydrogeological and water management issues within the existing technical and on-site geotechnical positions. The expectation is that, over time, improved understanding and consideration of water management issues will become routine, resulting in tangible economic, and safety and production performance benefits.

Figure 13.4 shows the typical geotechnical design inputs to the planning process of the open-pits at St Ives.

Figure 13.4 St Ives: Typical Geotechnical Design Inputs



Plant and Equipment : St Ives does not own the primary mining equipment operated in the open pits, as these are owned by contractors, as shown in Table 13.4. All three contractors are required to provide sufficient equipment to support the performance of the contract. The Leighton “Alliance” contract requires each piece of equipment in the mining fleet to have an availability of 85%. The other two contracts do not specifically state required equipment availabilities, however the contracted service is required to be performed to agreed limits. In all three contracts, the contractor suffers a penalty if the service level does not reach a preset level. The increasing depth of the Mars open-pit is being addressed by the addition of two more trucks to the fleet.

Cut-off Grades : St Ives use a gold price of AUD580/oz (calculated from USD350/oz and an exchange rate of AUD/USD = 0.603) for Mineral Reserves estimation. These values are used in the optimisation parameter file which drives the economic cut-off calculations in the Whittle Four-X™ software.

For project evaluation and determination of processing allocation, the gold price assumption is AUD530/oz (calculated from USD400/oz and an exchange rate of AUD/USD = 0.755).

St Ives have a standard spreadsheet for the calculation of CoG, and runs three cases, a non allocated case, a fully allocated case and the optimisation case. A CoG is calculated for both mill processing and heap leach processing. For example, at a gold price of AUD530/oz, the fully allocated case calculates a CoG of 1.2g/t for the mill and 1.0g/t for the heap leach. These CoGs are calculated without including mining costs, as the pit design has already incorporated the optimum pit shell, which is derived from a CoG calculation built into the optimising software. The calculated CoG therefore optimises the processing route to give the best return and assumes the ore has been mined and hauled to the top of the pit rim. Therefore depending on the gold grade, the material will be directed to the mill, the heap leach, the low grade stockpiles or the waste dump.

Open-pit grade control drilling is undertaken by dedicated RC drilling machines, drillholes are 133mm in diameter, 5m deep and inclined, commonly drilled at 5m by 8m centres. Samples are collected for every metre with assay for gold by 40g fire assay with AAS finish.

Grade Control : A grade control model is used to discriminate between waste and the three ore categories in use at St Ives. Ore boundaries are marked out in the pit and mined separately from waste, with care taken to minimise mixing of waste and ore. The dilution recorded for F2004 at between 14% and 19%, as shown in Table 13.9 is higher than SRK would have expected from the open-pits; however when taking cognisance of the large sized equipment shown in Table 13.4 dilution will be higher than would be the case if smaller, more selective mining equipment were utilised. Smaller equipment would however incur increased cost which would increase the CoG required.

Capacity Constraints : As shown in Table 13.6, St Ives mined a total of approximately 10Mbcm of material in 2003, which was down the previous twelve-months (6Mbcm in the last six-months of 2002). The plan for 2005 shows the total mined at 12.2Mbcm, increasing to 13.2Mbcm in 2006, which is the highest volume projected to be moved in the LoM Plan. SRK considers the plan to be achievable as the contractor proposes commissioning an additional 2 dump trucks to meet the increased demand. St Ives has completed work cycles for the fleet and SRK consider the level of study appropriate. One aspect that may assist future scheduling and fleet optimisation for this site would be to purchase truck cycle software such as “Talpac” which would assist the planning department and limit the use of large spreadsheets.

Operating Costs : Operating cost forecasts are based on current or pending contract rates. The additional of “day-works”, over and above standard contract rates, generally eventuates in operating costs being higher than the direct contract rate. Unit cost rose from USD2.84/bcm in 2002 to USD4.5/bcm in the first six-months of 2004 and this trend occurred in all pits. The average unit rate projected for the LoM is USD3.96/bcm, an improvement on the current unit expenditure due to lower cost (less drill and blast and shallower) pits commencing in the next two-years. SRK has reviewed the projected LoM operating costs and consider them appropriate and in line with historical achievement and has taken cognisance of future production levels on a fixed and variable basis. The production over the next two-years is sourced from a number of pits and the combination of deep and shallow pits combined with reduced haulage to the plant supports a slight reduction in unit cost than currently achieved.

SRK has compared the rates quoted by Leighton to other contract rates for open-pit mining in other areas of Australia and note the rates are reasonably comparable for equipment of similar size working at comparable production levels of between 11Mbcm and 13Mbcm per annum. SRK therefore considers the forecast mining costs are reasonable for the scale of operation and in line with industry norms.

13.4 Underground Mining

The underground operations at St Ives are characterised by common features, which allow a high-level of standardisation in operating strategy, mine design, stoping methods, mining equipment and utilisation. The ore bodies are generally shallow, thus allowing the extraction by open pit mines and subsequently by underground mines, which seldom exceed depths of more than 500m (Max. depth at Junction 730m). All underground mines are effectively extensions of open pit mines, with decline portals in the sidewalls of the open pits.

The portals are located in unweathered ground and the lowest levels of the pit below the portal provide sumps for precipitation water. In general the mines are accessed by a single decline, with raises as return airways and ladder-ways as second means of egress. Standard gradient of the declines are 1 in 7, common decline dimensions are 5.5m wide by 5.8m high with arched backs. In general ore drive dimensions are 5m wide by 5m high with arched backs.

The area has a history of seismic events in mining areas below 500m depth. Support and stoping methods, as well as the extraction sequencing have to take into account the increased risk for seismic events in these deeper areas. Ground support consists in general of 2.4m long galvanised split-sets with 6.5mm by 100mm aperture galvanised weld mesh. The split sets are installed by means of the twin boom development jumbos. In the capital development the split sets are grouted to increase the stiffness. Occasionally fibre reinforced shotcrete is applied, where deemed necessary.

Backfill is applied to achieve high recoveries. The backfill is applied as rockfill, using development waste trucked from the underground loading bays to the stopes and surface stockpiles or a paste fill. There are underground haul trucks with ejector trays for the haulage of backfill material and road base material. A semi-mobile surface batch plant on a semi-trailer prepares paste fill material. Sand and dry tailings from the tailings disposal facilities are mixed in a pug mill with cement (binder content 4% percent by weight) and water to achieve the required consistency. The paste is transported through lined boreholes and horizontal pipes to the stopes. The backfill is gravity fed and there are no positive displacement pumps.

Water inflows are low (maximum 129m³/h) and are handled by staged mono pump mine drainage arrangements. The ground water is highly saline.

The ore bodies are relatively wide and allow the use of large-scale mobile mining equipment. Haulage trucks are directly loaded by the development or production LHDs; there are no ore or waste passes. Road trains are used at some operations to haul from underground, however require additional development for turning efficiency and therefore are only deployed at operations where the tonnage and production life warrant the additional development.

Anfo is used as an explosive in for development. In production, emulsion slurries with adjusted densities are utilised. Currently Orica provides a supply and charge-up service for the production holes.

The mines have very high productivities with a relatively small workforce and short-life of mines. The smaller mines are grouped into one operation with common mine overheads. There is one underground mining contractor for all underground operations. This arrangement provides flexibility in the sharing

and allocation of labour and equipment. The contractor maintains the central mobile equipment workshop. The mines have only shift fitters and electricians for breakdown maintenance. The mobile plant workshop has a workforce of 50 tradespersons and workshop overhead personnel.

All mines have the same shift roster, the miners working two 11.5hour shifts a day and the maintenance crew working only one 12 hour shift. The roster rotates night-shifts and day-shifts with compulsory days off in between with 7 days on 3 days off then 7 days on followed by 4 days off, working equal day-shifts and night-shifts over the year.

Table 13.9 summarises the salient operating features of the current and planned underground operations.

Table 13.9 St Ives: Underground Operations – Salient Features

Underground	Description
Argo	Existing operation in ramp up phase with final extraction design to complete; Design price AUD550/oz; final depth 650m below surface with open mineralisation to the depth; ore production commenced in October 2002 with designed depletion period 108mths; Steady-state ore production 650ktpa in 2005 and development 6,000mpa in 2005; access via a decline portal in name open pit (RL180m); Stopes have a 20m strike length and vertical inter level spacing ranges between 22m and 26m; Primary ore extraction method by Avoca; Distance from current RoM pad 1.6km; ore haul from face to RoM pad will be up to 4.5km; water make 43.2m³/h; total labour compliments per shift is 50: 24 operators and maintenance persons and 25 persons in supervision and mine overheads; Production blast pattern of parallel 76mm dia. holes with 2.2m burden and 1.8m to 2.2m spacing, the holes are charged with emulsion slurries, the powder factor ranges from 0.22kg/t to 0.35kg/t, development cuts are in general 3.5m long, blasted on burn cuts, Anfo products are used as explosives; the Avoca stopes are filled with uncemented rockfill sourced from development waste, paste fill Powerclass, 2 x LHDs Elphinstone R2900, 1 x LHD Toro 0010, 1 x LHD Toro 1400, 3 x low profile haulage trucks (with ejector tray) Wagner MT 5010 B (45t payload), 1 x longhole production jumbo Tamrock Solomatic 720, 3 x integrated tool carriers Volvo L120, 1 x charge-up vehicle Normet Charmec, 1 x grader Cat 12G, shared with Junction. Existing operation at end of life with final extraction design completed; Design price AUD550/oz; final depth 260m below surface; date commenced December 2002 with planned depletion period 24 months; Peak ore production 670tpa in 2004; Access via a decline, portal in name open pit (RL 236); Stopes are either 100m strike by 60m width and sublevel spacing of 35m or 75m strike by 50m width and sublevel spacing of 50m; Primary ore extraction method open stoping; Haulage Distance from u/g central pass to mill is 7.8km, no RoM pad at mine portal; water make (5.5m³/h); total labour compliments per shift is 66: 38 operators and maintenance persons, 28 persons in supervision and mine overheads; Production blast pattern of blast rings with 102mm dia. holes with 3m burden and 4.5m toe spacing, the holes are charged with emulsion slurries, the powder factor ranges from 0.32kg/t to 0.35kg/t, development cuts are in general 3.5m long, blasted on burn cuts, Anfo products are used as explosives; the open stopes are post filled with development waste for stowage purposes only; Mining equipment: 1x LHD Toro 0011, 2 x underground road trains Gulf (85t payload).
Leviathan – Sirius	Existing operation in ramp up phase with final extraction design to complete; design price AUD555/oz; final depth 320m below surface; mine development commenced in March 2003; Steady state ore production of 720ktpa in year and development 4,400mpa after year; Access point via a decline, portal in name open pit (RL 162); Stope strike length 15m by 15m width and sublevel spacing of 15m to 25m; Primary ore extraction method longhole open stoping with primary and secondary stopes; 20% of the reserves are mined by room and pillar with pillar retreat extraction, 7.5m wide long pillars. Underground haul distance to Sirius central u/g ore pass is 1.1 km, from there haulage with u/g road train to mill 7.8 km; water make (21.6m³/h); mining personnel shared with Sirius u/g; Production blast pattern of blast rings in open stoping with 89mm dia. holes with 2m burden and 2.8m toe spacing, the holes are charged with emulsion slurries, the powder factor ranges between 0.32kg/t and 0.35kg/t, development cuts are in general 3.5m long, blasted on burn cuts, Anfo products are used; primary stopes are backfilled with paste fill (cement content 4% by weight); Mining equipment: 3 x development twin boom jumbos Sandvik Powerclass, 1 x development twin boom jumbos Sandvik Superclass, 2 x LHDs Toro 0010, 2 x low profile haulage trucks Toro 40D (40 tonnes payload), 2 x haulage trucks Cat 769 (30 tonnes payload), 1 x haulage trucks Cat 69 D with ejector tray (30 tonnes payload), 1 x longhole production jumbo Tamrock Solo 1020, 3 x integrated tool carriers Volvo L120, 1 x charge-up vehicle Getman, 1 x grader Cat 12G. shared by all Leviathan u/g operations.
Leviathan – East Repulse	Existing operation at end of life time; mine design Gold Price AUD550/oz; Final Design completed; final depth 730m below surface; Peak Annual Production Ore 811ktpa in 2001 and Development 8,907mpa in 1999; Access via a 5.8m high x 5.8m decline, portal in name open pit (RL257); General stope dimensions: strike length 15m and vertical inter level spacing 21m to 23m; Primary ore extraction method longhole stoping; Distance portal RoM pad 0.4km; max. ore haul from face to rom pad 6.8km; water make (129m³/h); total labour compliments per shift is 32: 16 operators and maintenance persons, 18 persons in supervision and mine overheads; Production Blast Pattern of parallel 76mm dia. holes with 2.2m burden and 1.8 spacing, the holes are charged with emulsion slurries, the powder factor ranges from 0.7kg/t to 0.8kg/t, development cuts are in
Junction	

Leviathan - Conqueror	general 3.5m long, blasted on burn cuts, Anfo products are used as explosives; the stopes are filled with paste fill (Cement content 4% by weight) Mining equipment: 1 x development twin boom jumbos Tamrock Minimatic, 1 x LHDs Toro 1400, 1x LHD Elphinstone R1700, 1 x Elphinstone R2900, 4 x low profile haulage trucks Toro 50D (50 tonnes payload), 1 x longhole production jumbo Tamrock Solomatic 7020, 1 x integrated tool carrier Volvo L120, 2 x integrated tool carriers Caterpillar IT 28, 1 x grader Cat 12G, shared with Argo. Feasibility Stage , access development and u/g diamond drilling in progress to enhance mine planning data; Mine design gold price AUD550/oz; Final Design to complete; final depth below surface 440m; Annual production of 490ktpa by year and development 5,040mpa year; Access point via 5.5m wide x 5.8m decline, portal in open pit (RL 162); Ore drive dimensions 4.5m wide x 4.5 high with arched backs; vertical inter level spacing 5m; Primary ore extraction method by room and pillar with retreat partial pillar extraction of long pillars, 4.0m remaining pillar width; water make (21.6m³/h); Operating hours as Sirius; Blast Pattern not designed, assumed 76mm dia. holes, 8 tonnes/drillm; Mining equipment as East Repulse.
North Orchin	Prefeasibility ; Mine Design Gold Price AUD530/oz; final design to complete; final depth 200m below surface; due to commence date; depletion period 23months; Peak Annual Production Ore 410ktpa in year and development 1,100mpa in year; Stope dimensions: strike length 40m and vertical inter level spacing 20m; Primary ore extraction method Avoca; Distance from portal to RoM pad 0.5km; Distance from RoM to mill 1km; haulage distance from face to portal about 1.5 km; water make (42m³/h); Operating hours as Leviathan; total labour compliments per shift is 5 operators (including working shiftboss), operation to be managed by Leviathan; backfill method uncemented rock fill; Mining equipment: 1 x twin boom development jumbo, 1 x long hole production jumbo, 2 x LHDs, 2 x low profile underground trucks (50t payload);
Belleisle	Prefeasibility ; Mine Design Gold Price AUD580/oz; Final design to complete; final depth 300m below surface; production commencing year; Access via high-wall/surface box cut - decline portal); ore drive dimensions 4.5m x 4.4m; vertical inter level spacing 20m; Primary ore extraction methods are Avoca and open stoping with primary and secondary stopes; Vertical strike length of open stopes 12m, strike length of Avoca stopes 20m. Distance from portal to RoM pad 0.5km; Distance from RoM Pad to mill 5.2km, max. u/g haulage to RoM pad is 2.5km; total labour compliments per shift 10 operators and maintenance personnel + 10 persons in site overheads; backfill method cemented rockfill or paste fill in primary stopes, rockfill in secondary and Avoca stopes.; Mining equipment: 2 x development twin boom, 1 x LHD Elphinstone R2700 / R2800, 1 x LHD Elphinstone R1500 / R1700, 2 x haulage trucks Cat 69 D (30 tonnes payload), 1 x longhole production jumbo, 1 x charge-up vehicle.
Cave Rock	Prefeasibility ; Mine design gold price AUD550/oz; Final Design to complete; final depth 600m below surface; commencement date year; Peak ore production 486ktpa in year; Access via decline portal in name open pit (RL 330); Vertical inter level spacing 20m ; Primary ore extraction methods are Avoca and open stoping with primary and secondary stopes; Distance from portal to RoM pad 0.5km; Distance from RoM Pad to mill 35km; total labour compliments per shift 10 operators and maintenance personnel + 10 persons in site overheads; Blast Pattern 76mm dia. production holes, 7t/drillm; emulsion slurries used in production blasting; backfill method cemented rockfill; Mining equipment: 2 x development twin boom, 1 x LHD Elphinstone R2700 / R2800, 1x LHD Elphinstone R1500 / R1700, 2 x haulage trucks Cat 69 D (30t payload), 1 x longhole production jumbo, 1 x charge-up vehicle.

Currently St. Ives Gold Mines has three underground mines: Junction, Argo and Leviathan: the projects North Orchard, Belleisle and Cave Rock are all at the pre-feasibility stage.

Junction UG Mine: Junction is the most mature and deepest mine extending to a final depth of 730m. The gold bearing material is within a large, moderately dipping shear zone. The underground mine started in February 1989 using mechanised cut and fill, sublevel retreat stoping with remaining rib pillars and Avoca mining with paste fill. Total production to June 2004 amounts to 7.9Mt at 6.85g/t.

The area has an increased seismic potential, the high extraction ratio and sequencing resulted in mining induced stress conditions, which triggered a seismic event in 1988 (2.5 on Richter scale) in the north of the mine. To manage the seismic risk the following actions have been taken by the previous mine owner and are accepted as good practice by St Ives:

- Installation of sensing system with 24 sensors;
- Cable bolt support of ore drives with “dynamic cable bolts” (partly routed yielding cables);
- Shotcreting of ore drives;
- Introduction of Avoca mining with paste fill (USC 0.5 to 1.2 mPa);
- Pre-splitting of slots and in-time production drilling; and
- Declaration of exclusion areas and times.

The last remaining mining block is mined by the Avoca method with paste fill. The extraction progresses from a central, regional pillar towards the extremities of the ore body, thus mitigating mining induced stress concentrations.

The remnant sill pillar “403-2” contains reserves of 77kt at a grade of 7.0g/t is included in the mining schedules, and is located in a shallow depth in the south of the ore body. Following the access development a sill drive will be driven and cable bolted. The pillar will be mined by the up-hole retreat method leaving a 2m to 3m arched sill pillar to the upper backfilled stope. Unplanned dilution of 10% and a recovery of 85% have been assumed.

SRK is of the opinion, that the mining approach for the remaining ore reserves represents good practice to manage the seismic risks. SRK further agrees, that the proposed method to mine sill pillar 403-2 is technically feasible and that the pillar is appropriately included in the reserves.

Argo Underground Mine: The Argo underground mine is a new mine in ramp-up phase to full mine production. Decline development started in late 2002. Current mine life (including inferred resources) is planned until late 2007 with the mine extending to a depth of 650m. The deposit consists of a multiple lode system of sub vertical to moderately dipping mineralised shears. The host rock is strong dolerite with occasional sediment zones and dyke intrusions.

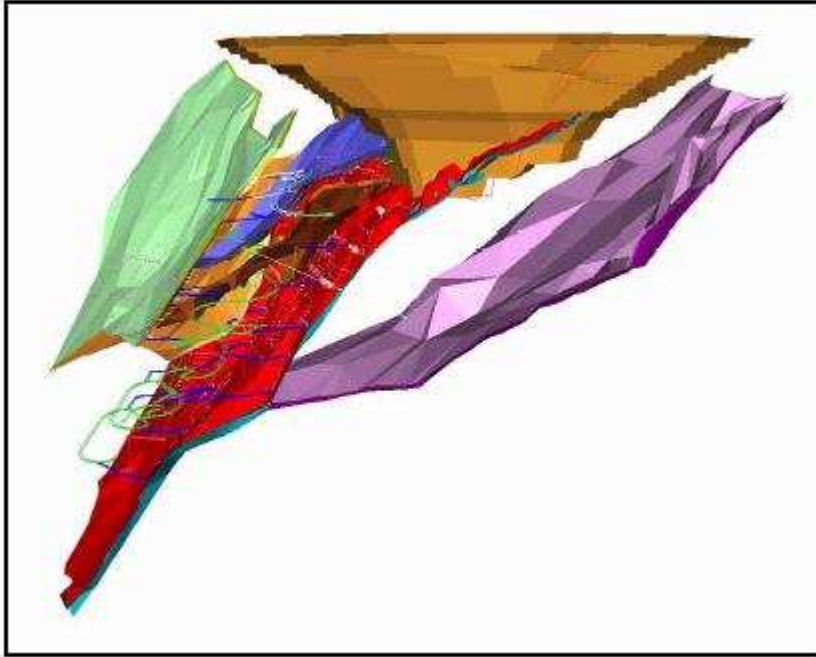
The current mine plan includes the “H1” ore surface in the hanging wall and the “A1” ore surface in the footwall. The mine development workings are located between both surfaces. The surfaces “B1” and “B2” are classified as Inferred Resources at this stage.

Avoca stoping with rock fill is a bottom-up mining method, which requires intensive decline and ore development, before independent mining panels can be brought into production. There will be six independent panels to provide the planned production of 650ktpa. The individual stopes are 20m long along the strike; the maximum true width is 18m. The vertical sublevel distance ranges from 22m to 26m. Based on geotechnical studies, using the stability graph method, all ore drives are cable bolted;

however this study assumes that stopes would be open over two sublevels which is no longer the case. As a result there is a potential for therefore to save on support costs and SRK recommends the reevaluation to assess the need for the systematic cable-bolting based on the available data and operational experience.

As the planned mine extends to depth exceeding 500m, there is an increased seismic risk. Once Junction is closed, the seismic monitoring system will be relocated to Argo. Paste-fill will be introduced and the mining sequence will be adapted to mitigate mining induced stress. At this point there are only Inferred Resources below 500m and therefore not included in the mine plan. SRK considers that the seismic risk is manageable providing best practice is applied.

Figure 13.4 S t Ives: 3D View of the Argo Underground Deposit and Primary Infrastructure



Leviathan Complex: The Leviathan complex consists of the mature Sirius mine, the East Repulse mine (in start-up phase) and the Conqueror area in the advanced feasibility phase.

- **Sirius Mine :** The Sirius deposit is a massive disseminated ore body in strong mafic rock below a barren pillar beneath the closed Sirius open pit.

The decline portal is located in the Britannia open-pit. The mine is at the end of its life with two open stopes separated by a 25m wide cross-cutting dyke intrusion. The stopes dimensions are 50m in width by 75m in length and 50m in height, and 60m in width by 100m in length and 65m in

height. The backs of the top sublevel are cable bolted and the backs of the stopes are arched. The crown pillar to the Sirius pit is monitored with extensometers and the pit sump is kept dry. All production holes are drilled and the remaining activities are charging, firing loading and ore haulage.

The Sirius and East Repulse mines will be connected (breakthrough in early 9/04) by an underground drive. The open stopes will be backfilled with development waste from East Repulse and Conqueror.

The Sirius mine has a central ore pass with a remote controlled chute to load underground haulage trucks. The chute is located in a turning loop. An underground road train with a nominal payload of 85t hauls the ore from the pass directly to the mill.

- **East Repulse** : The East Repulse mine is accessed from the old Leviathan pit via the decline of the old Victory gold mine. The ore is contained within an area east and below other areas associated with the Repulse fault. The hanging wall is a sub horizontal quartz vein with weak ultramafic immediately above. The width of the mineralisation ranges from about 10m up to 50m. Mining methods range from room and pillar with pillar retreat to open stoping with primary and secondary stopes. In general ore drives are cable bolted.
- **Conqueror** : The Conqueror shear structure is a shallowly mineralised shear structure in the southwest area of the old Victory mine. The ore is hosted by strong to very strong dolerite and basalt. The ore body with a width of about 10m has been mined by pillar retreat methods. In February 2003 St Ives has undertaken a feasibility study for this area. The proposed mining method is a room and pillar mining with partial pillar extraction in retreat. At this stage old workings above the mining area are dewatered and rehabilitated. Further diamond drilling is undertaken to gain further design data. The mining method will be removed. The application of paste fill to increase the ore recovery is under consideration.

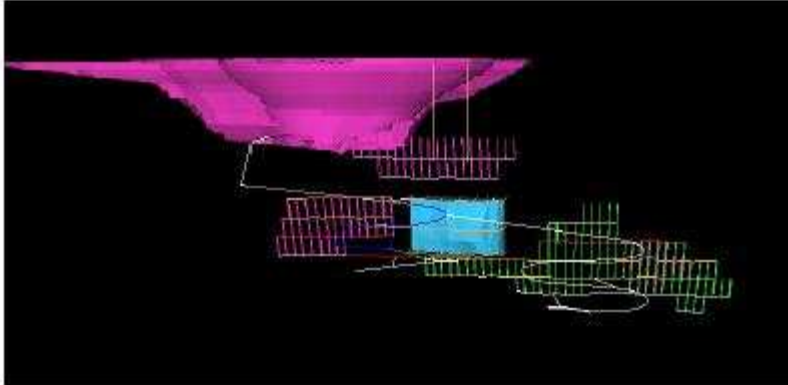
The North Orchin u/g mine is in the prefeasibility stage. It is intended to mine shallow reserves below the closed North Orchin pit. Avoca mining would used, including the extraction of the crown pillar to the pit. The proposed mine would have reserves of about 410kt at 4.5g/t. With a mine life of only 23 months this is a small project with a good IRR, but a small NPV. It is planned to use the North Orchin pit as tailings facility for the new Lefroy mill. Mining beneath a tailings facility is unacceptable due to safety aspects, mining would therefore have to cease prior to the commencement of tailings disposal. The savings potential in tailings disposal cost might out weight the gains from the continued mining of North Orchin.

The Belleisle project is located in Lake Lefroy hundred metres north of the ultimate Mars open pit. Due to the 80m thick cover of lake sediments open pit mining is not feasible. It is intended to mine the resource by underground methods. The mine would be accessed by a twin decline from the Mars pit. The ore width ranges from 2m to 35m. Bottom up Avoca in narrower areas and longhole stoping with primary and secondary stopes would be applied in wider areas. The primary stopes would be backfilled with paste fill of cemented aggregate fill: the secondary stopes would be filled with rock fill.

Due to inflow of hypersaline water from the lake and a poor rock mass all split sets would be grouted and all drives are shotcreted. All ore drives are to be cable bolted.

The design is not finalised and further geotechnical and hydrogeological studies are required to progress the project to feasibility stage.

Figure 13.5 St Ives: Typical Underground layout at Pre-Feasibility stage — Belleisle Project



The Cave Rocks project is an underground resource beneath an abandoned small open pit eight (8) km west of Kambalda and about 35 km from the Lefroy mill. Geotechnically logged cores and pit observations indicate a very competent dolerite rock mass.

The pre-feasibility study (prepared in 2002) assumes Avoca stoping in narrow areas and open stoping with primary and secondary stopes in wider areas with a width exceeding 12 metres. Primary stopes would be filled with cemented rock fill or paste fill. It is intended to mine 1.7 Mt over period of 3.5 years.

As the current resource extends to a final depth of 600m, there is a potential for seismicity in the deep mine. SRK is of the opinion, that the design in the final feasibility study should take consideration of this seismic issue

The study recommended further drilling to upgrade the inferred resource. The reserve was upgraded in May 2004, based on a gold price of AUD580/oz.

13.4.1 Historical Performance

Table 13.10 summarises the historical KPIs for the underground operations to end June 2004.

Table 13.10 St Ives: Underground Operations – Historical Production

MINING	Units	2002 6mth Act	2003 12mth Act	2004 6mth Act
Underground(1)				
Capital Development	(m)	1,525	7,815	4,842
Normal Development	(m)	319	2,466	873
Total Waste	(m)	1,844	10,281	5,715
Ore	(m)	620	4,073	2,867
Total Development	(m)	2,464	14,354	8,582
Dev Ratio	(%w:o)	1%	2%	1%
Waste Hoisted	(t)	113,702	439,252	218,985
HG Ore Ex Pit	(t)	236,308	944,292	970,471
Allocated Grade	(g/t)	7.5	6.4	5.4
Contained Gold	(oz)	57,034	194,844	169,646
LG Ore Ex Pit	(t)	0	2,822	0
Allocated Grade	(g/t)	0.0	2.3	0.0
Contained Gold	(oz)	163	206	0
HL Ore Ex Pit	(t)	0	5,296	0
Allocated Grade	(g/t)	0.0	0.7	0.0
Contained Gold	(oz)	0	114	0
Ore Ex UG	(t)	236,308	952,410	970,471
Allocated Grade	(g/t)	7.5	6.4	5.4
Contained Gold	(oz)	57,197	195,165	169,646
Ore to CIL	(t)	239,200	807,924	805,471
Allocated Grade	(g/t)	7.6	6.8	5.5
Contained Gold	(oz)	58,584	177,891	142,537
Ore to HL	(t)	0	2,789	28,822
Allocated Grade	(g/t)	0.0	1.3	0.9
Contained Gold	(oz)	0	120	792
Ore to Toll	(t)	20,656	122,281	134,351
Allocated Grade	(g/t)	0.7	3.6	5.0
Contained Gold	(oz)	472	14,324	21,635
Ore Processed	(t)	259,856	932,994	968,644
Allocated Grade	(g/t)	7.1	6.4	5.3
Contained Gold	(oz)	59,056	192,336	164,964
ER	(AUD:USD)	6,049.00	39,591.43	40,413.53
Direct + Capital Waste Cost	(USDk)	7,031,900	13,788,561	19,299,822
Direct Costs Normalised	(USDk)	372,924	6,346,086	2,129,106
Direct Ore Costs	(USDk)	7,120,571	33,359,006	29,248,204
Total Direct Mining Cost	(USDk)	14,525,395	53,493,653	50,677,132
Haulage Cost to Plant	(USDk)	200,521	1,770,146	2,404,889
Unit Cost				
Direct Waste Cost	(USD/m)	4,015.63	1,958.38	3,749.46
Direct Ore Costs	(USD/t)	30.13	35.03	30.14
Total Direct Mining Cost	(USD/t)	61.47	56.17	52.22

(1) Comprises, Junction, Argo, Sirius, East Repulse and Conqueror Mines.

Reconciliation : The reconciliation of mine grade to mill grade is conducted on a monthly basis as shown in Figure 13.2. The reconciliation practice does not allow for the individual reconciliation of the mine grades from each mine (open pit or underground) because ores are blended as mill feed rather than batch treated. Batch treatment is impractical in view of the materials and grade mix required to optimise the gold recoveries.

In the reconciliation process the actual hoist is compared with the “claimed hoist”. The claimed hoist is considered as the best estimate of tonnes and grade mined during the reporting period. The final claim is adjusted to truck counts and the grade is based on a combination of existing resource assays and production grade control assays obtained during the course of mining. The claimed hoist is the best

estimate of production from the mine based on models, sampling, mapping, stockpiles, etc. For both underground and open pit mines, claimed hoist is the material delivered to the ROM pads and stockpiles and in the future would include material hauled directly to the mill.

For underground mines, the final claim would be adjusted from underground stockpile to estimate the production delivered to the surface. The actual hoist is the claimed hoist tonnes and grade factored against the mill production and stockpile surveys and is considered the best estimate for the reporting period. It is based on the mill production but back-calculated through the stockpiles to be the actual equivalent of the claimed hoist. However, as the actual hoist is based on the mill feed blend from all sources, the actual hoist figures are allocated to the different sources, rather than sampled from the individual stock piles, which is deemed impractical with the high nugget effect and numerous individual sources.

The underground operations show good reconciliation for 2004. Argo 2004 YTD estimates for grade control vs. resource model are 101% for tonnes, 104% for grade and 106% for metal. Leviathan underground estimates for grade control vs. resource model are 109% for tonnes, 97% for grade and 106% for metal.

Operating Costs : Table 13.10 summarises the historical operating expenditure of the underground operations and the latest forecast for 2005.

SRK has compared the historical KPIs of the underground operations to the projected KPIs in the latest forecast and LoM Plan. Where the production capacity is projected to increase, or where significant improvements of production rates or modifying factors has occurred, SRK has taken a view and where deemed necessary made appropriate adjustments to the projected factors as generated by GFI. In doing this, the reported Mineral Reserves and LoM projections are inclusive of any adjustments and are now deemed technically achievable with an appropriate level of geoscientific confidence.

13.4.2 Mineral Reserves

Table 13.1 summarises the Mineral Reserves for the Underground Operations; in support of these estimates in terms of the mining related disciplines, the following describes the how the Reserves have been estimated.

Ore reserves are estimated from conceptual studies through to final stope designs. The stope design take practical stope layouts into consideration, as well as planned mining losses in pillars or other parts of the ore excluded from the extraction for technical reasons. Dilution material included in the stope design is planned. Further unplanned dilution is added, which includes stope over break or contamination with backfill material. Further ore losses can occur with material, which cannot practically be mucked from the stopes.

In general unplanned dilution factors are based on personal experience or historical performances and are applied as percentage factors or dilution skins.

Table 13.11 summarise the dilution and extraction factors for the various underground sources.

Table 13.11 St Ives UG: Dilution and Mining Recovery

Mine	Unplanned Dilution	Ore Loss
Argo	1.4m in hanging wall	
Junction	19%	nil
Sirius	5%	nil
East Repulse	7%	nil
Conqueror	7%	nil
North Orchin	15% to 20%	10%
Belleisle	1m dilution skin in narrow stopes 20% in open stopes	10%
Cave Rocks	1m dilution skin in narrow stopes 20% in open stopes	10%

Stope evaluation cut-off grades are calculated to Gold Fields standards including ore development, stoping, haulage, and overhead costs. Sunken costs may be excluded. The calculated stope cut-offs (SECO) are used to define potential stoping areas, which are subject to preliminary stope designs.

Following the design of the access development and infrastructure capital works, a break-even grade (BEG) is calculated for each stoping area. Stoping areas above the break even grade are economically viable and can be considered for inclusion into the reserves.

Current non direct mining cost assumptions for the determination of the cut-off are summarised in Table 13.9 and are same as the open-pit assumptions.

Plant and Equipment : The underground operations at St Ives are operated by the local contract mining company GBF, which provides the mobile mining equipment and the light vehicles for their own demand. St Ives as the mine owner provides fixed installations (services and communication, mine drainage, fans, paste fill batch plant, etc.).

St Ives is responsible for the major component life costs of the mobile plant. At the beginning of the current contractual arrangement the remaining major component life has been assessed for the purpose of the contract. Where new plant has been purchased they must be added to the major component life table for transparency. Both parties must agree on delays to major component change out times and will consider the best interests of the Alliance when doing so.

Operating Costs : Following an open tender process, SIGMC and GBF entered into a contractual arrangement. The contract stipulates that GBF will provide contract mining services at agreed unit rates. The unit rates have been split into fixed components for mobile plant, labour, workshops and buildings, etc. and a variable component for development, ground support installation, stoping, backfilling, etc. The unit rates include supply and installation. The contractor supplies materials and consumables required for all the work specified in the contract.

During the course of the contract, GBF ran into financial difficulties and were unable to continue without a revision of the contract terms. To avoid disruptions to the production, SIGMC agreed to change the contract arrangements and to form an “alliance” which can best be described as a modified cost-plus contract. The Alliance Deed was effective from April 2004 and the operation now works under this new arrangement. The reimbursement of the contractor is based on an open book policy. The actual margin of the contractor is subject to certain KPIs, which have to be met:

- Guaranteed reimbursement is 95% of actual costs;
- The KPI driven margin consists of an at risk amount of 5% and another 7% of the actual costs. For every KPI not met by GBF firstly the “margin” and secondly the “at risk” amount is reduced by the percentages allocated to the respective KPI, unless GBF can show the failure was due to circumstances beyond its reasonable control. All KPI targets are forecast and measured monthly;
- KPI items include: stope production (tonnes), normal development (m), key development (m) (critical path development), safety compliance, actual costs vs. forecast costs;
- A bonus payment (“the Bonus”) of up to an additional 5% of actual costs, shall be payable to GBF based on reductions in the actual activity AUD/oz for the full year compared with the forecast activity AUD/oz, as demonstrated in the “Nominal Bonus Payment Chart” provided in Table 13.12.

Table 13.12 St Ives UG: Bonus Payment Chart

KPI Driven			
95% of Actual Cost	At Risk Amount 5%	Margin 7%	Bonus 5%
100% of Actual Cost			
100% of Actual Costs		12% = Cash	

Alliance : The maximum achievable margin is 12% of actual cost. SRK is of the opinion that this target margin is comparable within the industry.

Under the agreement GBF does still supply the materials and consumables. SIGMC is reconsidering this arrangement and other supply arrangements. Diesel fuel is now purchased and provided by St Ives. There is an upside potential for bulk items, where major discounts can be achieved by large customers.

As a result of the revised “Alliance” contract, the unit mining costs have increased over the original contract, however remain within industry norms for underground stoping operation.

14 ENVIRONMENTAL

14.1 Introduction

In compliance with Form 43-101F1 Technical Report Items 6h and 6i, Item 19g and Item 25e, this section provides detail in terms of:

- environmental setting and regulatory framework;
- the company's policies and procedures and compliance;
- the environmental issues, quantifiable and unquantifiable risk; and
- an assessment of the quantifiable environmental liabilities.

14.2 Environmental Policy and Management Commitment

Gold Fields has developed a Group Environmental Policy; in addition the St Ives is also guided by its' own individual policies established within the Group Policy, however tailored for the local conditions. Environmental policy statements and commitments for St Ives were reviewed at an operational level and deemed to be well structured and effective guiding policy documents. Both sites have developed and implemented an environmental management system certified to the international standard IS14001 and the site policies broadly conform to the standard's requirements. These requirements include management commitment to continuous environmental improvement and the periodic review and implementation of the operations' Environmental Policy.

Where non-compliances were observed in terms of environmental legislation and approval documentation commitments, management are made aware of the issues and appear to be taking appropriate measures to address the situation in line with their policies.

Competence and Responsibility : Table 14.1 details the Qualified Persons responsible for the environmental planning and management at St Ives.

Table 14.1 Environmental Disciplines - Qualified Persons

<u>Discipline</u>	<u>QP</u>	<u>Qualifications</u>	<u>Experience</u>	<u>Professional Body</u>
St Ives			2.0 yr Env Mgr (Newmont Jundee)	
			1.3 yr Env Coordinator (Newmont Bronzewing)	
	Stuart Roseby(1)	MLandResSc	1.5 yr Env Officer (Pajingo JV)	
	Manager - Environment	BSc (Hons)	1.0 yr – QLD DME	
			0.5 yr – Fluor Daniel GTI	
			3.0 yr – CMLR / Placer Dome Asia Dome	
	Gillian Clark			
		BSc (Env Bio)	2 yr - St Ives	
	Environmental Advisor			
	Tracey Simpson		0.5 yr - St Ives	
SRK		Bsc Ag	8 yr - Resolute	
	Contract Environmental Advisor		3yr - Anglo Coal	
			2yr - SRK Sth Africa	
	Ed Clerk	BSc (Env Sci / Plant Sci)	0.3 yr Env Consultant	
	Senior Environmental Scientist	BSc Hons (1st Class)	4.5 yr - Env Supt Barrick Gold Tanzania	
			2 yr - Env Supt Anaconda Murrin Murrin Nickel Cobalt Project	
			2 yr - Env Coordinator - Gold Mines of Australia	
			2 yr - Snr Env Inspector Qld Dept of Env.	
			2 yr - Env Consultant	

(1) Environmental Manager is a newly appointed position which was not filled at the time of SRKs visit

In terms of environmental planning and management, site representatives listed in Table 14.1 take responsibility for all environmental related disciplines and liaising with the relevant authorities. They have assessed the level of geoscientific confidence in estimation of identified liabilities and have ensured that required permits and authorisation are in place and adequately comply to support the projected Mineral Reserve.

SRK has reviewed the environmental aspects and reported their findings and opinions within this section.

St Ives is committed to the continual improvement of its environmental performance. Specifically, the Environmental Policy statement commits the operation to:

- identify and understand the environmental aspects and impacts of its activities;
- track and comply with legislative and other obligations related to its activities;
- set prioritised objectives and targets, with a focus on the prevention of pollution;
- provide sufficient resources to meet these objectives and targets;
- communicate environmental goals to both internal and external stakeholders;
- develop commitment at all levels by clearly assigning environmental responsibility to line management;
- audit environmental management performance and identifying improvement opportunities; and
- evaluate environmental performance against Gold Field Strategic Values and requirements.

In response to this, St Ives have created and filled a new Environmental Manager position, reporting directly to the Mine Manager.

14.3 Western Australian and Commonwealth Legislative Environment

Mining operations on tenements in Western Australia must be developed and operated in compliance with the following key environmental legislative requirements:

Commonwealth :

- Environmental Protection and Biodiversity Conservation (“EPBC”) Act 1999.

State :

- Environmental Protection Amendment Act 2003;
- Contaminated Sites Act 2003;
- Heritage of Western Australia Act 1990
- Environmental Protection Act 1986;
- Conservation and Land Management Act 1984;
- Mining Act 1978;
- Aboriginal Heritage Act 1972;
- Wildlife Conservation Act 1950;
- Country Areas Water Supply Act 1947; and

- Rights in Water and Irrigation Act 1914.

St Ives is subject to the statutory approvals process described in the following subsections.

14.3.1 Commonwealth Approvals

Commonwealth approval is required if matters of national significance, as defined in the Environmental Protection and Biodiversity Conservation Act 1999, are triggered. The Department of the Environment and Heritage (“DEH”) is responsible for administering the Act. Matters of national significance include presence of migratory birds, federally listed rare flora or fauna, Commonwealth land, nuclear actions and marine areas.

14.3.2 State Approvals

Before commencement of any mining operation, the proponent is required, under provisions of the Mining Act 1978, to submit a Notice of Intent (“NoI”) to the Department of Industry and Resources (“DoIR”). The NoI describes the project, surrounding environment, potential environmental impacts and proposed prevention and mitigation measures. Commitments made within the NoI are binding for any future operations on these tenements unless a request for an amendment to the relevant government authorities is accepted. Commitments typically relate to:

- rehabilitation practices (topsoil removal and spreading);
- closure criteria (waste dump slope angles, vegetation establishment success);
- environmental management practices (dust control, chemical storage and handling); and
- environmental monitoring.

DoIR, as the decision making authority for mining projects is required under Part IV of the Environment Protection Act 1986 to refer mining projects to the Environment Protection Authority (“EPA”) if they consider them likely to have a significant effect on the environment.

A Memorandum of Understanding (“MoU”) exists between DoIR and the EPA whereby projects are considered automatically to have significant effects on the environment if they satisfy the criteria listed in Part IV (Environmental Impact Assessment) of the Environmental Protection Act.

Recent changes in vegetation clearance legislation (through the Environmental Protection Amendment Act 2003) have seen authority for granting clearing activities for mining projects change from DoIR to Department of Environment (“DoE”). As such, proposals involving vegetation removal are being assessed by the Native Vegetation Protection section of DoE.

The Contaminated Sites Act 2003 was passed by State Parliament in November 2003, however, the proclamation of these laws is not expected until late in 2004. Once proclaimed new environmental investigation and reporting requirements will be required by mining operations.

Referral to the EPA and Approval : All projects referred to the EPA under Part IV of the Environmental Protection Act 1986 are assessed on a case-by-case basis. Once the EPA has received a referral, they assume responsibility for determining the appropriate level of assessment for the project. The DoE provides technical assistance to the EPA.

The level of assessment set by the EPA will depend on environmental effects and the level of public interest associated with the operation. The levels of assessment available to the EPA include non-assessment, informal review or formal assessment. The differences between these levels of assessment

relate to the public review period and the detail of documentation required.

The EPA may determine that no assessment is necessary if the referred proposal is considered to have environmentally insignificant effects. Proposals that are considered not to warrant assessment under the Environment Protection Act 1986 are referred back to DoIR, who assess and assign environmental conditions to the proposal's tenement conditions upon approval of the environmental documentation.

The Water and Rivers Commission ("WRC") (a department within the DoE) administers statutory processes of the Rights in Water Irrigation Act (1914). Groundwater Licences ("GWLs") and Licences to construct or alter wells ("CAWs") are issued by the WRC.

- **Environmental Assessment Document** : An environmental assessment document will be prepared in accordance with EPA guidelines (Environmental Impact Assessment, Part IV Division 1: Administrative Procedures 2002) and environmental guidelines issued to the proponent following setting of the formal level of assessment by the EPA.

A consultation program with key stakeholders and interested parties will be carried out to identify concerns and incorporate any suggestions in developing the proposal. These consultations and responses must be recorded and described in the environmental assessment document.

The results of environmental and social studies required for assessment of the project (such as hydrogeological investigations, flora and fauna surveys, and Aboriginal heritage work and land administration issues) will be incorporated into the documentation.

- **Public Review of Assessment Document** : If the project is formally assessed at a Public Environmental Review level or above, then the assessment document must be publicly reviewed, for a period typically between eight and ten weeks. Responses to all public comments received must be prepared and submitted to the EPA. The period for advertising, public review and preparation of responses may take between four and six months, depending on the complexity of issues and objections to the project proposal.

The EPA will then assess the assessment document and proponent response to any public submissions. An EPA bulletin is prepared and submitted to the Minister for Environment for approval and issue of a Ministerial Statement. The St Ives Project was approved at a Public Environmental Review level in 1999 and as such a Ministerial Statement (No 458) approving the project was issued subject to a number of conditions.

- **Works Approval and Environmental Licence** : Once environmental approval is received, if activities to take place during operations are listed as Scheduled Activities under the Environmental Protection Act, a Works Approval will be required to be obtained from DoE to allow construction of infrastructure associated with these activities. Typically, Works Approval documentation is submitted concurrently with the NoI.

On completion of construction of such infrastructure, completion certificates are required to be submitted to DoE to confirm the infrastructure has been constructed in accordance with approved design criteria. Subsequent to this, an Environmental Licence is required to be obtained prior to operation of such infrastructure. Environmental licences are typically renewed on an annual basis.

DoIR Approval : If no formal assessment is made by the DoE, DoIR will issue approval on receipt of NoI documentation. If a formal assessment has been made by the DoE, DoIR will accept the assessment document without the need for NoI documentation, although tenement conditions are likely to reference the document and unconditional performance bond levels increased.

14.4 Operating Licences and Approval Documents

Approvals for the mining and processing operations conducted on the mining leases were obtained from DoIR using the NoI process. The need for formal assessment of the mining activities by DoE was undertaken in September 1999 with the submission of a Public Environmental Review for mining activities on Lake Lefroy. Approval was issued in Ministerial Statement 548 subject to conditions. Approvals were also sought and obtained from the DoE for the development of the new Lefroy Mill currently under construction. Table 14.2 lists the approvals issued by DoIR (previously DMPR) and DoE (previously DEP).

Table 14.2 St Ives: Environmental Approvals

<u>Approval Type</u>	<u>Approval Subject</u>	<u>Approval Date</u>	<u>Approval Authority</u>
Works Approval	Works Approval to construct Lefroy Mill	July-2004	Doe
Letter of Intent	Letter of Intent - Sirius Underground Mine Dewatering" dated 29 April 2003 (NOI 4285)	Apr-2004	DoIR
Notice of Intent	Low Impact Mining - Notice of Intent for ML15/199 and ML15/201 (NOI 4568)" dated 11 March 2004	Mar-2004	DoIR
Lake Lefroy Annual Environmental Management Plan	Goldfields St Ives Gold Mine Lake Lefroy Annual Environmental Management Plan, 1 January 2004 to 31 December 2004 EPA Assessment NO. 1250/48 dated January 2004 (NOI 4555)	Jan-2004	DoIR, DoE and CALM
Notice of Intent	St Ives Gold Mt Morgan Pipeline Diversion - Notice of Intent and Works Approval Application" dated December 2003	Dec-2003	DoIR
Notice of Intent	Notice of Intent For Re-Commencement of Mining Beta Hunt Project - Kambalda dated 11 September 2003 (NOI 4379)	Sep-2003	DoIR
Letter of Intent	Letter of Intent for Pre-Commissioning Activities of the Beta Hunt Project dated 4 August 2003	Aug-2003	DoIR
Notice of Intent	Notice of Intent - Variation to Lake Lefroy Annual Environmental Management Plan - Slurry Track Trial Mining" dated 14 July 2003 (NOI 4350)	Jul-2003	DoIR
Notice of Intent	Notice of Intent and Works Approval Application for the St Ives Gold Processing Plant" dated July 2003 (NOI 4377)	Jul-2003	DoIR
Lake Lefroy Annual Environmental Management Plan	Goldfields, St Ives Gold Mining Company Pty Ltd, Lake Lefroy Annual Environmental Management Plan, 1 January 2003 to 31 December 2003, EPA Assessment No. 1250/48	Jan-2003	DoIR, DoE and CALM
Notice of Intent	Notice of Intent - Variation 8 to Argo Stage III dated 13 May 2002	May-2002	DoIR
Notice of Intent	Notice of Intent - Argo Stage III Project - Variation No. 7 dated 15 January 2002	Jan-2002	DoIR
Notice of Intent	Notice of Intent Argo Stage III Project - Variation No. 7 dated 15 January 2002	Jan-2002	DoIR
Notice of Intent-Variation	Notice of Intent Variation for the Processing Plant Expansion and Tailings Storage Facility" dated December 2001	Dec-2001	DoIR
Notice of Intent	Notice of Intent - Argo Stage III - Variation 6" dated 10 September 2001	Sep-2001	DoIR
Notice of Intent	Notice of Intent - Sand Mining on M15/884 and M15/366 dated 16 July 2001	Jul-2001	DoIR

Notice of Intent	Notice of Intent - Argo Stage III - Variation” dated 7 June 2001	Jun-2001	DoIR
Lake Lefroy Annual Environmental Management Plan	Goldfields St Ives Gold Mining Company Pty Ltd, Lake Lefroy Annual Environmental Management Plan”, dated December 2001	Jan-2001	DoIR, DoE and CALM
Lake Lefroy Annual Environmental Management Plan	WMC St Ives Gold - Lake Lefroy Annual Environmental Management Plan, (1 January 2000 to 31 December 2001), Assessment No. 1250/548 dated December 2000	Jan-2001	DoIR
Notice of Intent	Notice of Intent - Argo Stage III - Variation” (NOI 3587) dated 18 December 2000	Dec-2000	DoIR
Notice of Intent-Variation	Variation to Notice of Intent Junction Open Pit and St Ives Gold Treatment Plant (1987)” (NOI 3541) dated 3 November 2000	Nov-2000	DoIR
Notice of Intent	Notice of Intent- Argo Stage II- Variation of Pipeline and Overhead Powerline dated 20 April 2000	Apr-2000	DoIR
Notice of Intent	Notice of Intent - Argo Stage III Project September 1999 dated 29 September 1999	Sep-1999	DoIR
Notice of Intent	Notice of Intent- Argo Stage III Project September 1999” dated 29 September 1999	Sep-1999	DoIR

Approval Type	Approval Subject	Approval Date	Approval Authority
Letter of Intent	Letter of Intent - Widening of Existing Haul Road - M15/367 dated 11th August 1995	Aug-1995	DoIR
Amendment to Notice of Intent	Amendments to Notice of Intent - Argo Open Pit Development” dated August 1994	Aug-1994	DoIR
Notice of Intent-Variation	Amendments to Notice of Intent - Argo Open Pit Development dated August 1994	Aug-1994	DoIR
Notice of Intent	Notice of Intent, The Argo Open Pit Development” dated November 1993	Nov-1993	DoIR
Notice of Intent	Western Mining Corporation Limited, Kambalda Nickel Operation Revenge - Notice of Intent” dated 3 February 1989	Feb-1989	DoIR
Notice of Intent	Notice of Intent, Junction Open Pit and St Ives Gold Treatment Plant” and dated 22 May1987”	May-1987	DoIR

14.5 Department of Environment Environmental Licence to Operate

The St Ives operations are licensed by the DoE in accordance with the Environmental Protection Act 1986. The licence (Licence Number L4570/8) is renewed each October and allows Agnew to operate the following prescribed activities:

- Category 05 - Processing or beneficiation of metallic or non metallic ore;
- Category 06 - Mine dewatering;
- Category 07 - Vat or ‘in situ’ leaching of metal; and
- Category 64 - Putrescible Landfill Site.

In addition to the Environmental Protection Licence, St Ives is also subject to the conditions attached to Ministerial Statement No 548 approving the gold mine developments on Lake Lefroy.

14.6 Groundwater Well Licences

St Ives holds two Groundwater Well Licences (“GWL”) (Table 14.3).

The licences stipulate allocation, use and conditions for abstraction, monitoring and mitigation of adverse effects of abstraction. St Ives provides an operating strategy for each GWL, which is binding. An aquifer review is prepared annually for the GWLs.

Table 14.3 St Ives: Groundwater Well Licences

Groundwater Well Licence Number	Purpose	Expiry Date	Tenement	Maximum Annual Extraction Volume (kilolitres)
GWL 59222(3)	Mineral ore processing	31 December 2010	L15/147 and M15795 Mt Morgan Borefield, Widgemooltha	2,920,000
GWL 62505(2)	Dewatering	31 July 2006	ML15/164, 165, 174, 193-195, 213, 268, 270, 288, 291, 307-310, 312, 313, 326, 327.	7,520,000
			ML15/252, 340, 341, 344, 405, 406, 438, 439, 442, 443, 446, 447, 451, 545, 470, 478, 480, 481.	
			M15/476, 884.	

14.7 Compliance Overview

An overview of the operations compliance with the key environmental approval documentation listed above was undertaken during the site visit and is discussed below.

- St Ives appears to be complying with the majority of key environmental approval documentation excluding the observed non compliances detailed below:

- Key characteristics table in Schedule 1 of Ministerial Statement 548 allowing gold mine developments on Lake Lefroy specifies a maximum dewatering rate of 15Mlpd (5,475Mlpa). This limit was exceeded in the calendar years 2000 (7,942Mlpa total, 45% over limit), 2003 (6,795Mlpa total, 24% over limit) and will again be exceeded in 2004 (by September it was 6,749Mlpa total, 23% over limit). St Ives became aware of this non compliance in August 2004 and has applied to the DoE Audit Branch for an interim increase (double) to 11,000Mlpa in 2004, increasing to 20,000Mlpa in 2005. No impact assessment has been undertaken to support the increase and no approval has yet been received from the DoE.

Correspondence with St Ives Environmental Manager highlighted that discussions have been held on and off site between St Ives and representatives of the DoE's Impact Assessment Branch (Perth) and Pollution Control Division (Kalgoorlie) regarding the proposed increase to the dewatering allocation to 20,000Mlpa, and the discharge allocation from 5,500 to 20,000Mlpa. A site meeting was held on 24 September and a follow up meeting in Perth on 6 October to further discuss the amendment process and information required.

He also advised that impact assessment works currently underway include investigations on any potential impacts to Lake Lefroy's surface hydrology or hydrogeology from current and proposed discharge activities. Works planned to be commissioned included as assessment of the potential impact of current and proposed discharges to the lake's fringing shoreline flora, aquatic and terrestrial fauna. It was stated that this documentation will also be used to provide objective evidence for the DoE concerning changes to SIG's dewatering allocation.

It was also highlighted by the environmental manager, that SIG has been advised by the DoE that it will receive a letter indicating SIG's technical non-compliance with the EPA Ministerial Condition(s) regarding discharge to lake with a request to provide information on what measures are currently being undertaken to mitigate current affects to the lake and how SIG intend to deal with rectifying this situation. The DoE will submit a Ministerial brief to the Minister for Environment outlining the current situation and a strong recommendation that no enforcement action be taken due to the SIG's recent endeavours to rectify this situation.

- It would appear that the need for increased abstraction and release is likely to be necessary for the medium term and consequently an amendment to the approval conditions must be requested. In the interim, St Ives remains noncompliant, however it is considered unlikely that this is sufficiently substantial to threaten closure or suspension of operations subject to an immediate request to amend the conditions. The release of water to Lake Lefroy does not constitute a breach of condition with respect to the quality of water.

This breach could have been foreseen by the operation prior to increasing dewatering and discharge volumes and highlights the need to improve upon tracking environmental commitments and obligations

- St Ives Gold are aware that there is a potential non-compliance for the total planned disturbance for 2004 (853.5 ha). This exceeds the maximum area of disturbance of 805 ha as specified in EPA Ministerial Statement 548. Environmental staff are currently clarifying the actual extent of disturbance on Lake Lefroy using aerial photography obtained in September 2004.

Section 6.1 of Ministerial Statement 548 requires the development of an Annual Environmental Management Programme (AEMP) addressing a number of criteria. Section 6.2 requires the AEMP to be updated on an annual basis and submitted to the DoE for approval. The AEMP submitted for the 2004 calendar year has not yet been approved by the DoE. The DoE are requesting the

following additional information:

- CSIRO reports to be included within an appendix of the AEMP,
- Updated disturbance summaries to allow comparison against Ministerial limits,
- Complete summary data and discussions on monitoring.

Dewatering is limited to 7,520Mlpa for the period 1 July 2003 to 30 June 2004 under GWL 62505(2) and it is calculated SIG will exceed the limit at current rates by February or March 2005. It should be noted that the GWL limit also exceeds the 5,475Mlpa limit stated within Ministerial Statement 548.

SRK were advised by St Ives that an application for a non-substantial change to St Ives' EPA Ministerial conditions (and other key technical documentation) was being prepared for submission to the DoE prior to 22 November 2004. URS Corporation is providing services to Gold Fields Australia Pty Limited to facilitate this process.

- The PER committed St Ives to conduct detailed hydrocarbon management audits on an annual basis. There is no evidence to suggest that this has been done.
- PER committed St Ives to construct all chemical and hydrocarbon storage facilities in compliance with AS1940-1993. Condition W9(a) and (b) within DoE Licence Number 4570/8 also requires hydrocarbon storages to meet certain requirements similar to those listed in AS1940-1993. A large number of fuel facilities observed were not in compliance with AS1940-1993 or DoE Licence Number 4570/8. These included:
 - Lack of appropriated signage and locks on valves,
 - Impermeable nature of secondary containment compromised through cracks,
 - Lack of lagging or cathodic protection on buried lines,
 - Combustible waste material located within secondary containment.

Soil contamination and pooling hydrocarbons were noted around below ground transfer pipes at the ARGO GBF fuel facility.

- Condition S2 within DoE Licence Number 4570/8 requires the licensee to ensure the putrescible landfill tipping length is less than 20 metres. Observations during the site visit revealed a tipping face of approximately 30 to 40 metres.

Excluding specific comments relating to the significance of breaches listed above, St Ives needs to address the failings to sufficiently identify environmental commitments and obligations and track the status of compliance. This is necessary to ensure future applications to regulatory authorities are not delayed due to Regulatory Authority concerns over St Ives' ability to comply with conditions imposed on the operation. Whilst technically non-compliant, the issues highlighted above are currently being dealt with in a proactive manner by St Ives in conjunction with all interested and affected parties. Based on current information, St Ives has committed to address all material issues by early 2005.

14.8 Environmental Issues and Associated Risks

In addition to the non-compliances noted in Section 14.7 which can attract significant penalties, other key environmental issues and associated risks include:

- ***Reclamation of disturbance areas in accordance DoIR guidelines to promote a self-sustaining***

vegetative cover : There are some good examples of successful waste rock dump rehabilitation. Nevertheless, there is little evidence to suggest disturbed areas are systematically recorded and progressively rehabilitated. Comments by DoIR during their annual inspection in September 2003 with respect to rehabilitation works ranged from 'Does Not Meet' to 'Meets Department Standards'. Failure to increase rehabilitation of disturbed areas may result in bond increases.

- **Identification and tracking of legislative and other obligations related to its activities** : Resignation of senior environmental staff has resulted in a loss of knowledge of legislative requirements and environmental commitments relevant to St Ives. As previously discussed, these commitments need to be systematically identified, recorded and compliance against them tracked on a regular basis to avoid development of distrust or legal action from interested and affected parties. Examples included commitments made in the PER, Environmental Policy, NoIs, Annual Environmental Management Programs, Ministerial Statement 548, Tenement conditions, Environmental License, letters to interested and affected parties, and codes to which the Company is a signatory.
- **Environmental training** : Excluding the environmental component of the general induction and adhoc TTTC (take Time Take Charge) awareness training, there has been no formal environmental needs analysis, training module development and scheduled delivery. Training is a critical element of environmental awareness and ensuring employees and contractors fully understand their environmental responsibilities and the minimum standard accepted in their daily activities. Appropriate training will reduce the risk of environmental harm.
- **Contaminated site assessment** : St Ives does have a contaminated sites register that identifies locations of incidents that have resulted in identified spills or leaks of hazardous materials requiring cleanup. The proclamation of the new Contaminated Sites Act 2003 will require St Ives to undertake a more detailed contaminated sites assessment to determine the extent of contamination across the site. Depending on the level of contamination noted, substantial assessment and remediation costs may be incurred. Use of the putrescible landfill to dispose of hazardous wastes and poor hydrocarbon management practices may have cost implications associated with assessment and potential decontamination.

14.9 Environmental Liabilities

SRK has identified non-compliances, issues and associated risks, which cannot be realistically quantified. In such cases, SRK has drawn attention to it without including specific provision. Potential future requirements for water treatment during continued operations or following decommissioning is the single most material risk and the most technically and economically difficult to estimate. Whilst water treatment at St Ives is not currently needed, the potential for future requirements will be dependent upon:

- Execution of both recently passed legislation and more stringent future legislation which imposes more costly water management requirements;
- Discharge criteria demanding potable water standards as opposed to more lenient general standards; and
- Tacit acceptance by various organisations of the concept of desalination and its increasing cost effectiveness as technology improves.

Closure Planning : In 2001, closure costs for St Ives were calculated to be USD15.1m. In June 2002, closure costs were increased to USD16.9m. Rehabilitation expenditure in 2002 and 2003 has reduced closure costs back to the 2001 estimate of USD15.1m. Disturbance since June 2002 involved commencement of two underground operations within previously disturbed areas, new mill and TSF, and exploration causeways. Closure costs need to be recalculated to reflect these additional disturbances.

Unconditional Performance Bonds : Current bond levels for St Ives is USD8.8m, in addition to this bond amount Table 14.4 summarises the assessed closure liabilities as at 30 June 2004.

Table 14.4 St Ives: Assessed Environmental Liabilities(1)

Mine	Estimated Liability (USDm)	Performance Bond (USDm)	Net Surplus/Shortfall (USDm)	Depletion Period(2)(3) (Years)
Total	15.1	8.8	6.3	9

(1) In 01 July 2004 money terms.

(2) Depletion period for Mineral Reserves only.

(3) Net surplus provisioned annually on the basis of Reserve ounces produced in each period.

15 HUMAN RESOURCES

All employment contracts for Gold Fields staff at St Ives are negotiated in line with Australian Workplace Agreements (“AWA”) or Common Law Contracts, negating the need for union involvement.

St Ives is adequately resourced with the appropriate levels of technically qualified and experienced personnel in production and related support functions. Table 15.1 gives the historical and the projected manpower requirements.

There are two significant changes coming up in the next 12 months that may materially affect employment conditions. Firstly, the WA State Government has proposed to establish a new State-wide code of practice to set limits on working hours. If approved, the new code will come into effect in July 2005, and will result in major shift restructuring at St Ives operations. Secondly, the Australian Labour Party proposes to abolish the AWA if they win the upcoming federal election, this may increase the exposure to union involvement as current contracts are renewed.

Staff attrition is an industry-wide issue. Table 15.1 gives the historical statistics on staff termination at St Ives reported in calendar years. In the past three-years St Ives has turned over 150 staff, on average this represented nearly 25% of the employees. Of the staff turnover it is estimated that 50% were classed as professional staff, and the remaining 50% were administration staff.

Table 15.1 St Ives: Manpower Statistics

Employment Status			2002	2003	2004
Permanents	(No.)		202	219	240
Temporary / short term	(No.)		42	65	20
Contractors	(No.)		571	612	650
TEC	(No.)		815	896	910
Terminations/Resignations	(No.)		42	53	45
Annualised Turnover (permanent)	(%)		21%	24%	20%

Table 15.2 summarise the productivity indicators for St Ives.

Table 15.2 St Ives: Productivity Indicators

Employment Status			2002	2003	2004(2)
Total Ore Tonnes Mined	(kt)		4,145	5,515	2,811
Total Contained Sold	(oz)		543	530	275
TEC	(No.)		815	896	910
Mining Productivity	(t/TEC/mth)		424	513	515
Gold Productivity	(oz/TEC/mth)		55	49	50

The statistic highlighted in Table 15.2 show that despite a high turn-over in employees, the productivity levels, in tonnage mined terms, appear to be increasing with a marked 23% improvement in the current year to that achieved in 2002. The gold produced indicator is more a reflection on grade than productivity, however does highlight the impact on unit cost per ounce, considering labour contributes a significant portion of the total operating costs.

16 OCCUPATIONAL HEALTH AND SAFETY

Health and Safety in Australia is governed by various regulatory bodies and mining and labour legislation. In particular, the mining industry is governed by the Mines Safety and Inspection Acts 1994 and the Mine Safety and Inspection Regulation 1995. Employers and employees are bound by a “Duty of Care” (p 17 and 19 respectively in the Mines Safety and Inspection Act) that outlines rights and responsibilities of the various parties with respect to the safety of both themselves and others. At State level, Safety and Health in Western Australia is regulated by the Occupational Safety and Health Act 1984, and the Occupation Safety and Health Regulations of 1996, which is supported by the “Codes of practice” and “Guideline notes”.

In compliance with these Acts and Regulations, mine management have:

- Developed and made available a site specific safety policy and manual at St Ives. The Broad philosophy of this document is summarised as follows: “ *Gold Fields is committed to maintaining best practice in occupational health and safety and to ensure continual improvement of our performance by attainment of targets and objectives set by our people through consultative processes. Gold Fields will provide a safe workplace for all employees, business partners, visitors, neighbours and customers. No business objective will take precedence over safety and health. Gold Fields employees, business partners and visitors have a legal responsibility to actively contribute towards maintaining a safe and healthy workplace* ”.
- Implemented a site induction programme for all new employees, in which each undergo a general induction, as well as a department specific induction with the relevant safety advisors and representatives;
- Established a network of safety advisors (full time safety professionals) and safety representatives (elected members of Gold Field’s staff) in each department, and employ 4 designated Emergency Services Officers at St Ives. These officers are responsible for medically treated injuries, and there is at least one on site at all times.

Table 16.1 presents safety statistics for St Ives and includes the total number of fatalities, total number of injuries from which time was lost (“LTI”), total number of medically treated injuries (“MTI”), the sum of which is summarised in the total number of serious injuries (“SITI”) and the associated frequency rate of SITIs, related to the total hours worked of all Gold Fields’ employees and contractors on site.

Table 16.1 St Ives: Safety Statistics

	Units	2002	2003	2004
Hours worked	(hrs)	179,325	193,898	165,560
Fatalities	(No.)	0	0	0
L.T.I	(No.)	2	2	0
M.T.I	(No.)	1	1	4
(LTI +MTI) Frequency Rate(1)	(i/mmhrs)	18	16	27

(1) mmhrs = million man hours – based on total hours worked by Gold Fields’ staff and all contractors.

St Ives’ safety performance improved dramatically over the period 1996 to 2001. Since Gold Fields took over the operation in 2001, St Ives performance has fluctuated around a SIFR of 16-27 per million man hours. For 2004, the SIFR benchmark was 24 per million man hours. As a recent commitment to Occupational Health and Safety, Gold Fields Australia has recently committed to target 0 SIFR per annum.

Operations at St Ives will continue to be exposed to commonplace mining hazards such as water, dust, fire, falls of ground (“FoG”), explosions, occupational hygiene issues and materials handling and transportation. SRK do however consider that St Ives by way of its policies and management strategies operate to international best practice in terms of Occupational Health and Safety.

17 TECHNICAL ECONOMIC INPUT PARAMETERS

17.1 Introduction

The following section includes discussion and comment on the technical-economic aspects of the LoM plan associated with the St Ives Tax Entity. Specifically, comment is included on the basis of projections, production schedules, operating costs and capital expenditures. These have been compiled into detailed TEPs on an annual basis to derive the revenue and cost inputs necessary to generate the FMs. Key aspects associated with the generation of the TEPs and their derivations are discussed.

17.2 Basis of the Technical-Economic Input Parameters

The valuation of the St Ives Tax Entity as presented in Section 18.0, has inter-alia been based on the LoM plan and the resulting production profile an associated revenue stream from gold sales, by-product credits, operating costs and capital expenditure profiles as provided to SRK by St Ives, and reviewed and adjusted by SRK where deemed appropriate. The generation of a LoM plan requires substantial technical input and detailed analysis and is critically dependent upon assumptions of the long-term commodity prices and the respective impact on cut-off grades, potential expansion and/or reduction in the Mineral Resource and Mineral Reserve and the return on capital expenditure programmes.

The basis of forward projections of operating costs for mature mining operations are generally based on the previous financial year's performance, with certain modifications for inflation, projected improvements in productivity and other cost-reduction initiatives. In the case of the Junction and Argo underground mines and the Agamemnon and Mars and Pluton open-pits all future costs are based on the historical operating results for the 18-month period ending 30 June 2004, which have subsequently been inflated to establish fixed and variable activity based costs in 1 July 2004 money terms. In respect of Swiftsure and Apollo open-pits and the underground projects such as Cave Rocks, costs are largely based on St Ives' forecasts and comparable contract rates to the current operations; however reflect the current project status.

Where warranted, following its independent review and post discussions with management at St Ives, SRK has adjusted the assumed operating costs to account for future operating conditions (i.e.) tonnage contribution from various ore sources and mining method(s) and taking cognisance of its view on any productivity initiatives as considered by St Ives.

Unless otherwise stated, operating expenditures comprise:

- **Cash Cost Components** : namely direct mining costs, direct processing costs, direct general and administration costs, consulting fees, management fees, transportation, and realisation charges;
- the incremental components, including royalties but excluding taxes paid, required to yield **Total Cash Costs** . Royalties in this regard include the amount of 2.5% paid on gross revue to the State of Western Australia and is payable for all gold sold;
- the incremental components, including terminal separation liabilities, reclamation and mine closure costs (the net difference between the total environmental liability and the current bond amount) but excluding non-cash items such as depreciation and amortisation. Incrementally these cash expenditures summate to yield **Total Working Costs** ; and
- **Total Costs** : the summation of total working costs, net movement in working capital and capital expenditure.

In addition to long-term capital projects, the LoM capital expenditure programmes generally include

significant detail based on approved expenditure programmes (typically two-years). Where warranted, SRK has made provision over and above these expenditures, specifically, for example, where no detail is available beyond this two-year period to cater for normal on-going capital expenditure requirements. In general capital provisioning over and above that classified as project capital is not provided for during first two periods and final two period of the LoM Plan.

Environmental provisions have been included in the operating costs as they are confirmed as necessary contributions to the fund ongoing environmental cost and closure provisions. Notwithstanding this approach the most likely scenario will result in expenditures from such provisions being expended on commencement of the closure programme. SRK considers that there are potential opportunities to realise salvage value on closure, although owing to the indeterminate nature of estimating such values and the requirements of the Rules and Companion Policies, these have been excluded from the LoM projections included herein.

17.3 Technical-Economic Parameters

The TEPs include:

- Commodity sales profiles derived from all ore sources;
- Total Working Cost profiles as previously defined; and
- Capital Expenditure Profiles.

The TEPs are detailed in Table 17.1 for the St Ives Tax Entity. All expenditures are stated in calendar years and in 01 July 2004 money terms. Note that in all instances Total Working Costs are inclusive of by-product credits, specifically silver. Such by-product credits are however not considered material and are included for completeness.

Table 17.1 St Ives: TEPs

YE Dec	Tonnage (Kt)	Gold Grade (g/t)	Gold (Koz)	Total Working Costs(2) (USDk)	Net Change in Working Capital (USDk)	Capital Expenditure(2) (USDk)	Total Expenditures (2) (USDk)
2004(1)	2,900	2.7	247	-78,263	13,069	-68,406	-133,600
2005	7,578	2.5	620	-164,622	-8,110	-30,425	-203,157
2006	7,394	2.5	588	-146,353	-511	-36,762	-183,626
2007	5,181	2.5	423	-100,933	-4,523	-18,703	-124,159
2008	2,436	3.8	294	-72,832	-2,021	-13,840	-88,693
2009	1,410	5.0	227	-54,749	-1,555	-9,915	-66,219
2010	1,333	4.8	205	-52,300	-322	-7,136	-59,757
2011	939	4.6	138	-37,012	-1,532	-731	-39,276
2012	267	3.9	33	-9,947	-2,632	0	-12,579
2013	0	0.0	0	0	0	0	0
2014	0	0.0	0	0	0	0	0
LoM Total	29,439	2.9	2,776	-717,010	-8,138	-185,917	-911,065

(1) 6 months only July 2004 to December 2004.

(2) Real Money Terms as at 01 July 2004.

The total working costs (reported in real-terms) reflect the significant reduction in tonnage as the open-pit reserves are depleted. The underlying unit costs for the open-pits, underground mines and processing facilities are described within each section and supported by historical KPI tables. The production profiles for the open-pit and underground mines are shown in Figure 17.1 and 17.2.

17.4 LoM Production Profiles

Figure 17.1 St Ives: Gold Production Profile

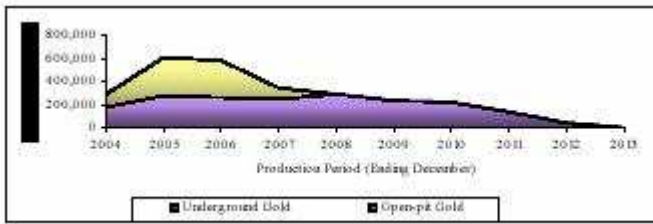
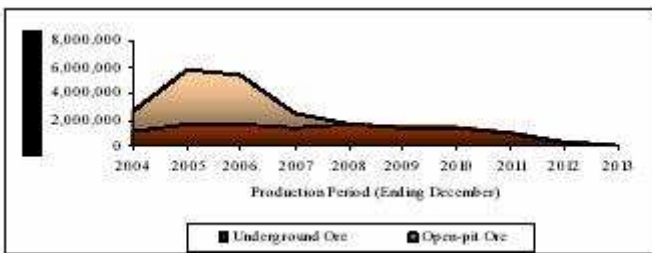


Figure 17.2 St Ives: LoM Milling Profile



17.5 Special Factors and Operational Risks

SRK has included its view on the achievement of the LoM plans and the appropriateness of the Mineral Reserve statements when presenting the data reported within this ITR. At the time of writing SRK considered these projections to be both technically and economically achievable.

In all likelihood many of the identified risks and/or opportunities will have an impact on the cash flows as presented in Section 18, some positive and some negative. The impact of one or a combination of risks and opportunities occurring cannot be specifically quantified to present a meaningful assessment. SRK has however provided sensitivity tables for single and multi parameters. The sensitivity range covers the anticipated range of accuracy in respect of commodity prices, operating expenditures and capital expenditure projections.

Where specific technical issues have arisen as part of the review process, SRK has given an indication of the likely impact on the resulting NPV's and other financial criteria accordingly.

17.5.1 General Risks and Opportunities

St Ives operations are subject to certain inherent risks, which apply to some degree to all participants of the Australian gold mining industry. These include:

- **Commodity Price Fluctuations** : These may be influenced inter-alia, by demand for gold in industry and jewellery, actual or expected sales by central banks, sales by gold producers in

forward transactions and production and cost levels for gold in major producing countries. In the period between 01 January 2002 and 30 June 2004 the gold price in USD terms has ranged between 307USD/oz and 415USD/oz. As at 30 June 2004 the USD gold price was USD397/oz;

- **Exchange Rate Fluctuations** : Specifically related to the relative strength of the USD, the currency in which commodity prices are generally quoted. During the period between 01 January 2002 and 30 June 2004 the USD:AUD exchange rate ranged between 0.54:1 USD:AUD and 0.77:1 USD:AUD. As at 30 June 2004 the USD:AUD exchange rate was 0.7:1 USD:AUD;
- **Legislative Risk** : Specifically changes to future legislation (tenure, mining activity, labour, health and safety and environmental) within Australia;
- **Exploration Risk** : Resulting from the elapsed time between discovery of deposits, development of economic feasibility studies to bankable standards and associated uncertainty of outcome;
- **Environmental Liability Risk** : The inability of St Ives to fund the balance of their environmental liabilities from estimated operating cash flows, should operations cease prior to the stated LoM Period. This would result in an outstanding liability since the estimated rehabilitation expenditure exceeds the amounts available in the respective rehabilitation trust funds as at 30 June 2004. As at 01 July 2004 the total outstanding liability remaining to be funded is estimated at USD6.3m; and
- **Mining Risks** : Specifically Mineral Reserve estimate risks, uninsured risks, industrial accidents, labour disputes, unanticipated ground water conditions, human resource management, and safety performance.

In contrast, whilst many of the above also reflect opportunities, SRK recognise that as of yet, an unquantified opportunity is the beneficial application of new technology.

In addition to those stated above, the individual operations are subject to certain specific risks and opportunities, which independently may not be classified to have material impact (i.e. likely to affect more than 10% of the St Ives Tax Entities' annual pre-tax profits), but in combination may do so.

17.5.2 Operational Specific Risks

In addition to those stated above, St Ives is subject to certain specific risks and opportunities, which independently may not be classified to have a material impact (i.e. likely to affect more than 10% of the annual pre-tax profits), but in combination may do so.

The most material operational risks are summarised as follows:

- **Open-pits** : Reconciliation and grade control results demonstrate the biggest area of risk in the open-pits at St Ives. Historically the planned grade has been less than called for in the budgets and SBPs. The nature of mineralisation at St Ives is such that high grade variability would be expected, however over longer periods of production this variability should even out as the knowledge of the deposits increases and estimates are improved. At St Ives, however the production periods from any one pit is relatively short and as such the poor reconciliation may well continue with a decrease in grade and increase in tonnes resulting. The contained gold ounces will, however likely to be within estimation acceptance limits in terms of quantum;
- **St Ives Complex** : The project economics on a complex level are materially influenced by the forecast operating costs and throughput rate (11% above the design capacity) of the Lefroy Gold Plant. The success of achieving the 30% reduction in unit rate will be reliant on the sustainability of throughput beyond the first few years of operation as the current Mineral Reserves from the

open-pits are depleted. St Ives is actively exploring from additional surface source and has already identified a substantial low-grade resource in the Leviathan deposit which requires further technical-economic studies to assess future viability potential. The throughput of the plant is reliant on a slightly coarser grind than that of the feasibility study not impacting on the recovery. There is a low risk that this will not be achieved, however the cash flows has assumed a slightly lower recovery to account for this risk.

17.5.3 Operational Specific Opportunities

The most material operational opportunities are summarised as follows:

- **Exploration** : There is considerable potential within the current tenement holdings to add significantly to current Mineral Resource and Mineral Reserves through a combination of extensional and greenfields exploration. St Ives has a recent success history of new discoveries, despite exploration being complicated by the Tertiary and Quaternary sedimentary cover. St Ives has committed adequate expenditure to support the ongoing replenishment strategy.

This aspect is by far the single biggest opportunity at St Ives and Gold Fields has a firm exploration expenditure commitment to fund current and future exploration plans.

- **Mineral Resources** : St Ives currently has Inferred Mineral Resources which are being investigated further at various levels of technical-economic studies in order to test viability and prior to funding further work sufficient to increase to Indicated Resources and into Probable Reserves. No value has been assigned to these Resources and this offers a significant potential in addition to the continued exploration.

18 MACRO-ECONOMICS AND COMMODITY PRICES

18.1 Introduction

The following section includes historical and forecast data in respect of the macro-economic and commodity price environments within which the St Ives operates. Historical data has been sourced from various sources and is generally presented in calendar years up to and including 30 June 2004. Forecast data is based on Gold Field's projections of the various commodity prices and the country specific macro-economic parameters and is generally presented in financial years ending 30 June and commencing from 01 July 2004.

18.2 Historical and Forecast data

Figure 18.1 and Figure 18.2 presents the relevant macro-economic parameters (exchange rates and CPI) for Australia.

Figure 18.1 Exchange Rate Profile

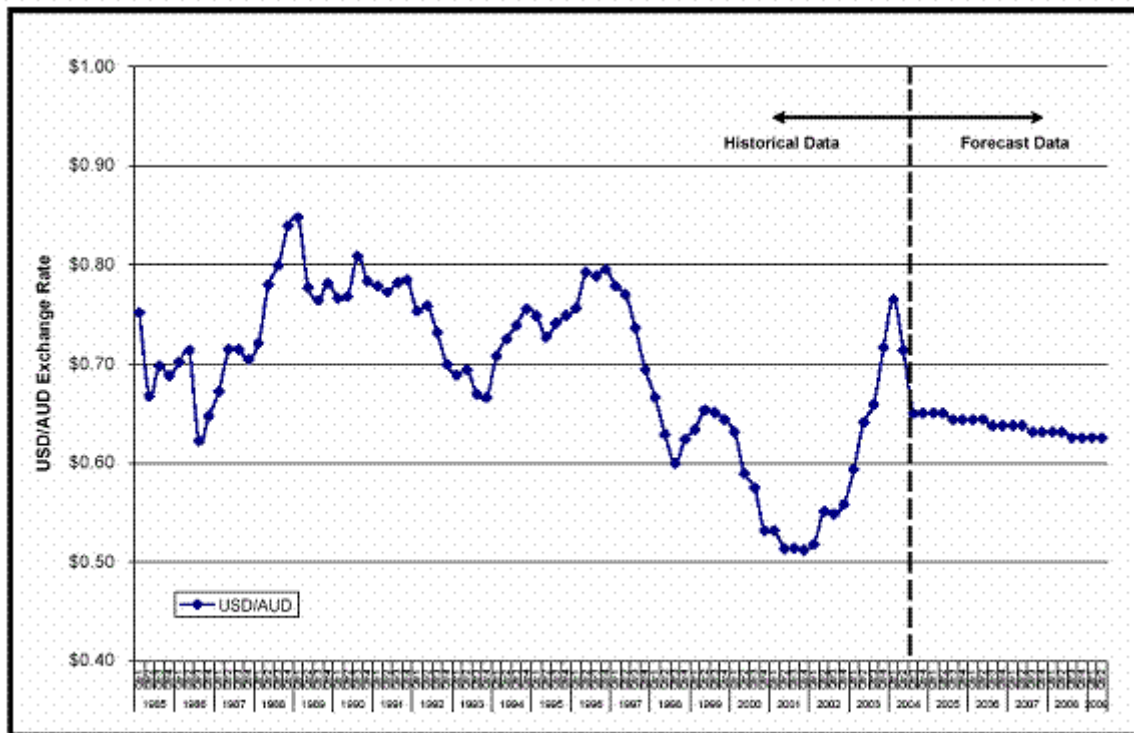


Figure 18.2 Inflation Profile

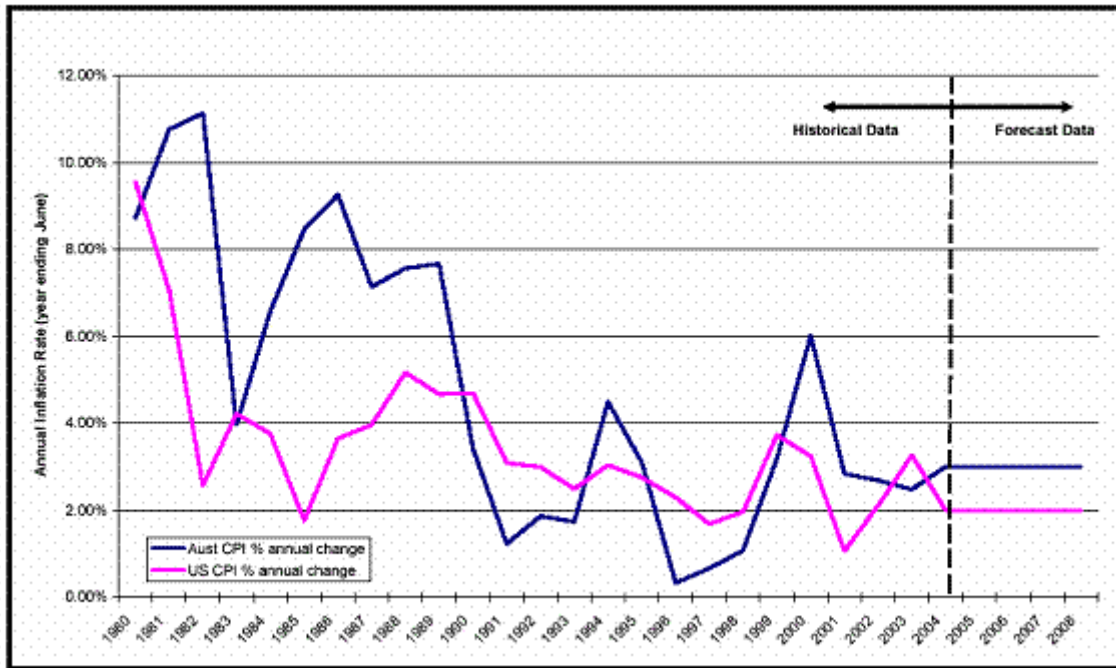
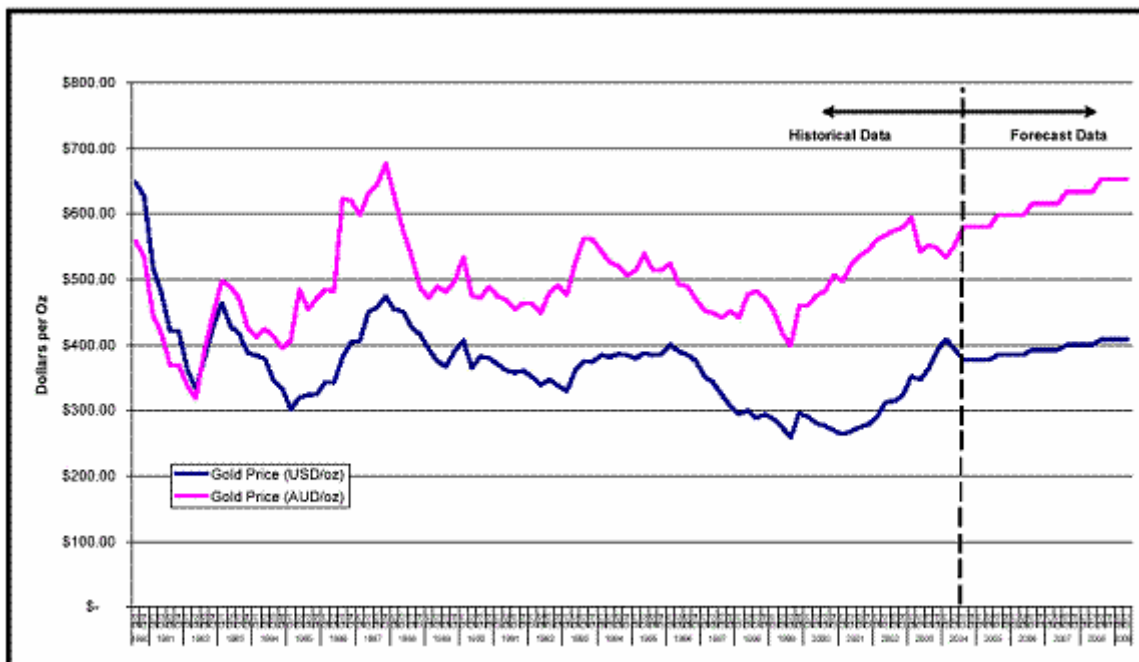


Figure 18.3 presents the historical and forecast commodity prices for gold in USD and AUD.

Figure 18.3 Commodity Price Profile



19 ASSET VALUATION

19.1 Introduction

The following section presents discussion and comment on the valuation of the St Ives Tax Entity. Specifically, comment is included on the methodology used to generate the FM including basis of valuation, valuation techniques and valuation results.

In compliance with certain requirements to generate post-tax pre-finance cash flows for the purpose of valuation, SRK has relied upon Gold Fields for certain inputs to the FMs. These inputs are duly acknowledged by SRK. Further in reproducing the results of the FM in this ITR, SRK provides assurances to the Directors of Gold Fields, that the technical-economic inputs including operating costs, capital expenditure and saleable product profiles of the St Ives Tax Entity, as provided to and reviewed by SRK, are accurately incorporated into the FM. SRK also duly acknowledge Gold Field's opinion that the remaining inputs to the FM required in respect of working capital determination and taxation are accurately reflected in the FM.

19.2 Basis of Valuation

In generating the FM and deriving the valuations, SRK has:

- Incorporated certain macro-economic parameters (Table 3.5) as provided by Gold Fields;
- Incorporated the commodity price forecasts (Table 3.5) as provided by Gold Fields;
- Incorporated the accounting opening balances (Table 3.4) as provided by Gold Fields;
- All minerals extracted from the St Ives' tenements are subject to a State Royalty of 2.5% of received revenue, payable before any other deductions. St Ives accounts this front-end royalty in both its cut-off grade estimates and financial provisions.
- Other than the State Royalty and pursuant to the agreement with WMC for the purchase of St. Ives, Gold Fields agreed to pay WMC a royalty based on future gold production at St. Ives according to the following criteria:
 - 4% of the net smelter return of the gold production of St. Ives for each quarter to the extent that cumulative production of gold from November 30, 2001, exceeds 3.3 million ounces, subject to the spot price of gold exceeding AU\$400 per ounce,
 - 10% of the difference between the spot gold price and AU\$600 per ounce of gold in respect of all gold produced from St. Ives each quarter after November 30, 2001, subject to the spot price of gold exceeding AU\$600 per ounce,

Both of these commitments have been provisioned in the projected cash flows as reported herein and are included in the line item termed "mineral royalty";

- Assumed a nominal discount factor of 7.46% for all assets to establish a base case. Note that this does not necessarily reflect the nominal WACC assuming Gold Field's expected average tax rate; country inflation rate and debt/capital ratio;
- Relied upon Gold Fields for all accounting inputs as required for the generation of the FM as detailed in Table 19.1.

Relied upon Gold Fields that, for the purpose of valuation, the assumption that 100% of the sales revenue as derived from the quantum of gold production sold, the forecast USD gold price and the

forecast exchange rate is available to the St Ives Tax Entity;

- Relied upon Gold Fields that the calculation of nominal cash flows is in accordance with the fiscal regime within which the St Ives Tax Entity operates and are accurately reflected in the FM;
- SRK has been informed by Gold Fields that an additional revenue stream derived from hedging gains is attributable to the Australian assets of St Ives and Agnew. The total additional revenue for St Ives as at 01 July 2004 is USD27.2m for the six-months to December 2004 and USD23.6m during calendar year 2005;
- Reported a DCF valuation, dated 01 July 2004, which includes Mineral Reserves only;
- Performed sensitivity analyses to ascertain the impact of discount factors, commodity prices, total working costs and capital expenditures;
- No salvage value has been included for plant and equipment on cessation of operations;
- The valuation of the St Ives Tax Entity is on a stand alone basis only;
- Items excluded:
 - the net cash position of the St Ives Tax Entity as at 30 June 2004 is negative (USD49.4m),
 - Corporate allocation at Gold Fields Level amounted to USD1.8m in the last financial year, future allocations have been excluded from the cash reported herein as the new company structure may not allocated corporate expenses in the same fashion or magnitude,
 - In terms of the “potential” statements and the comments that Gold Fields are committed to continued exploration, an amount of USD11.4m is budgeted to fund exploration activities for financial year ending June 2005, it is likely that this amount will continue to be funded and spent on an annual basis, however has been excluded from the cash flows because no resource potential has been ascribed any value.

19.3 Limitations and Reliance on Information

The cash flows reported for the St Ives Tax Entity are contingent upon the current and anticipated performance of mine management, as well as the expected achievement of the operating parameters as provided to and reviewed by SRK and set out in this ITR.

SRK has relied upon Gold Fields that such projections and forecasts as indicated, will be realised in the amounts and time periods contemplated.

The cash flow projections and valuation is based upon the anticipated operating performance as well as information provided to SRK by Gold Fields at the date hereof. It should be understood that unforeseen developments might affect our opinion, or the reasonableness of any assumptions or basis used.

The LoM plans and the FM include forward-looking statements that are not historical facts. These forward-looking statements are necessarily estimates and involve a number of risks and uncertainties that could cause actual results to differ materially. Notwithstanding the aforementioned comments, SRK considers that at the time of compilation, the Mineral Reserves and associated depletion resulting in cash flow projections are appropriate and technically and economically achievable, however it must be noted that SRK does consider that a certain amount of upside potential is already built into the projections that fundamentally rely on the existing management performance to implement and sustain

recent initiatives to ensure that the projected cash flows are realised within the anticipated timeframe.

19.4 Valuation Methodology

The valuation methodology for the St Ives Tax Entity is based on a sum of the parts approach comprising NPV for the ring-fenced mining asset and supplemental information as provided by Gold Fields (balance sheet items) to arrive at the Net Asset Value ("NAV") for St Ives.

The NPV has been derived using DCF techniques applied on a post-tax pre finance basis for the ring-fenced St Ives Tax Entity. These are based on the various LoM production plans, including the resulting TEPs (Section 17), and are solely based on Mineral Reserves.

In respect of non-LoM Mineral Resources and the EPs no valuation is presented, and discussion is limited to technical disclosure in accordance with the requirements of the Rules and Companion Policies.

The post-tax pre-finance cash flow is developed on the basis of the commodity price and macroeconomic projections as presented in Table 19.1. SRK has developed a FM which is based on: annual cash flow projections ending 31 December; and TEPs stated in 01 July 2004 money terms. As the valuation date is 01 July 2004, the cash flow projection for the first period includes projections for the 6 months to December only.

Variances in commodity prices exist between those used to derive Mineral Reserves, the current spot market prices and those used for the financial valuation. The impacts on the individual Mineral Reserve statements are presented in the Mineral Reserve and Mineral Resource sensitivity tables as included in Section 10.0 of this ITR. Further, as the generation of LoM plans is constrained by the annual planning process SRK has based its review on the latest available information as presented by Gold Fields.

19.5 Post-Tax – Pre-Finance Cash Flows

Table 19.1 present the post-tax pre-finance cash flows for St Ives Tax Entity. Note that this table is not representative of a financial statement as may be customary for determining the consolidated cash flow positions for a company. Further, no account is taken of movements in working capital at the Gold Fields level, or deferrals of tax liabilities between accounting periods, as may be the case in the generation of such Company level financial statements. The first period 2004 reports the forecast six-month projections from 01 July 2004 to 31 December 2004, thereafter projections are annual ending 31 December. Actual results for the six-month period ending 30 June 2004 are reported in Section 4 of this ITR. The St Ives Tax Entity valuation is derived from the reported cash flows commencing 01 July 2004.

Table 19.1 St Ives Tax Entity: TEM in USD (nominal terms)

Financial Year Project Year	Units	Totals /Averages	2004 1	2005 2	2006 3	2007 4	2008 5	2009 6	2010 7	2011 8	2012 9
Production Mining											
RoM Tonnage	(kt)	21,994	2,651	5,861	5,325	2,511	1,697	1,410	1,333	939	267
Head Grade	(g/t)	3.9	3.5	3.2	3.4	4.3	5.2	5.2	5.0	4.8	4.1
Contained Gold	(koz)	2,743	296	604	585	344	284	236	214	145	35
Processing											
Milled Tonnage	(kt)	29,439	2,900	7,578	7,394	5,181	2,436	1,410	1,333	939	267
Milled Grade	(g/t)	3.2	3.0	2.8	2.7	2.8	4.0	5.2	5.0	4.8	4.1
Milled Gold	(koz)	3,007	277	685	646	459	310	236	214	145	35
Metallurgical Recovery	(%)	92.3%	89.3%	90.6%	91.0%	92.2%	94.7%	95.9%	95.8%	95.7%	95.3%
Recovered Gold	(koz)	2,776	247	620	588	423	294	227	205	138	33
Clean-up Gold	(koz)										
Saleable Metal	(koz)	2,776	247	620	588	423	294	227	205	138	33
Commodity Sales											
Gold	(koz)	2,776	247	620	588	423	294	227	205	138	33
Silver	(koz)										
Commodity Prices											
Gold Price	(USD/oz)		404	412	420	429	437	446	455	464	473
	(AUSD/oz)		580	598	616	634	653	673	693	714	735
Macro Economics											
AUS PPI	(%)		1.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
AUS CPI	(%)		1.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
US PPI	(%)		1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
US CPI	(%)		1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
	(USD:AUSD)		1.44	1.45	1.47	1.48	1.49	1.51	1.52	1.54	1.55
Financial - Nominal											
Sales Revenue - Gold	(USDm)	1,169.2	99.4	256.9	245.9	178.7	125.4	97.8	89.3	60.9	14.9
Operating Expenditures	(USDm)	(764.3)	(28.5)	(152.0)	(163.9)	(122.7)	(92.2)	(71.0)	(67.6)	(50.1)	(16.3)
Mining	(USDm)	(494.5)	(49.5)	(101.6)	(97.6)	(57.4)	(55.1)	(47.2)	(45.2)	(32.3)	(8.6)
Processing	(USDm)	(197.5)	(21.0)	(54.8)	(42.5)	(34.1)	(16.5)	(9.8)	(9.7)	(7.0)	(2.0)
Overheads	(USDm)	(78.0)	(7.5)	(15.9)	(16.1)	(16.0)	(8.1)	(4.9)	(5.0)	(3.5)	(1.0)
Other Revenue	(USDm)	74.9	39.5	35.3	—	—	—	—	—	—	—
Mineral Royalty	(USDm)	(50.2)	(2.5)	(6.4)	(6.2)	(7.4)	(8.6)	(6.9)	(6.5)	(4.5)	(1.1)
Environmental	(USDm)	(6.8)	(0.6)	(1.5)	(1.4)	(1.0)	(0.7)	(0.6)	(0.5)	(0.4)	(0.1)
Terminal Benefits	(USDm)	(4.8)	—	—	—	(2.4)	(1.0)	—	(0.4)	(0.7)	(0.3)
Net Change in Working Capital	(USDm)	(7.3)	13.0	(7.1)	(0.1)	(4.5)	(2.0)	(1.6)	(0.2)	(1.7)	(3.2)
Operating Profit	(USDm)	404.9	70.9	105.0	82.0	56.0	33.2	26.7	21.7	10.8	(1.4)
Tax Liability	(USDm)	(12.7)	—	-6.2	-1.6	-4.8	—	—	—	—	—
Capital Expenditure	(USDm)	(195.1)	(68.1)	(31.8)	(39.2)	(20.3)	(15.4)	(11.2)	(8.2)	(0.9)	—
Project	(USDm)	(195.1)	(68.1)	(31.8)	(39.2)	(20.3)	(15.4)	(11.2)	(8.2)	(0.9)	—
Sustaining	(USDm)	—	—	—	—	—	—	—	—	—	—
Final Net Free Cash	(USDm)	197.2	2.8	66.9	41.2	30.8	17.9	15.5	13.5	9.9	(1.4)
Reporting Statistics - Real											
Cash Operating Costs	(USD/oz)	269	166	231	276	271	301	304	324	342	381
Total Cash Costs	(USD/oz)	269	166	231	276	271	301	304	324	342	381
Total Working Costs	(USD/oz)	273	168	234	279	280	307	306	328	350	393
Total Costs	(USD/oz)	346	391	296	346	338	366	363	370	368	487

19.6 NPV Sensitivities

The following tables present the NPVs of the nominal cash flows as derived from the FM. In summary they include:

- The variation in NPV with discount factors;
- The variation in NPV based on single parameter sensitivities; and
- The variation in NPV based on twin (revenue and operating expenditure) sensitivities.

Table 19.3 St Ives Tax Entity: variation of NPV with discount factors

Discount Factor (%)	NPV (USDm)
0.00%	197.2
5.00%	160.2
7.46%	151.9
10.00%	144.1
12.00%	138.6
14.85%	131.3

Table 19.4 St Ives Tax Entity: NPV – single parameter sensitivity

Sensitivity Range - Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range - Operating Expenditures	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range - Capital Expenditures	-30%	-20%	-10%	0%	10%	20%	30%
Currency	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)
Variation in NPV @ 0% DCF							
Revenue	(152.4)	(37.2)	78.0	197.2	265.1	346.1	427.2
Operating Expenditures	353.2	296.8	240.0	197.2	113.2	33.1	(46.9)
Capital Expenditures	231.2	214.3	197.4	197.2	163.0	145.7	128.5
Variation in NPV @ 7.46% DCF							
Revenue	(129.1)	(31.5)	66.0	151.9	223.0	291.5	360.1
Operating Expenditures	296.2	249.0	201.4	151.9	96.2	28.9	(38.5)
Capital Expenditures	197.7	182.5	167.3	151.9	136.4	120.9	105.3

Table 19.5 St Ives Tax Entity: NPV – twin parameters sensitivity at 7.46% discount factor

NPV (USDm)		Revenue Sensitivity						
Operating Expenditure Sensitivity		-30%	-20%	-10%	0%	10%	20%	30%
-30%		73.0	157.6	227.7	296.2	364.7	433.0	501.2
-20%		5.6	102.7	179.9	249.0	317.5	385.9	454.2
-10%		(61.8)	35.8	128.2	201.4	270.3	338.8	407.2
0%		(129.1)	(31.5)	66.0	151.9	223.0	291.5	360.1
10%		(196.5)	(98.9)	(1.3)	96.2	174.5	244.3	312.8
20%		(263.9)	(166.3)	(68.7)	28.9	122.5	196.4	265.6
30%		(331.2)	(233.6)	(136.1)	(38.5)	59.1	146.1	217.9

20 CONCLUDING REMARKS

The views expressed in this ITR have been based on the fundamental assumption that the required management resources and proactive management skills to access the adequate capital necessary to achieve the LoM plan projections for the Mining Assets are sustained.

SRK has conducted a comprehensive review and assessment of all material issues likely to influence the future operations at St Ives. The LoM plan, as provided to and taken in good faith by SRK, has been reviewed in detail for appropriateness, reasonableness and viability, including the existence of and justification for departure from historical performance. Where material differences were found, these were discussed with St Ives and adjusted where considered appropriate. SRK consider that the resulting TEPs and FM are based on sound reasoning, engineering judgement and technically achievable mine plans, within the context of the risks associated with the Australian gold mining industry.

/s/ Jonathan Suthers,

Mr. Jonathan Suthers,
Principal,
SRK Consulting.

/s/ Phil Jankowski,

Mr. Phil Jankowski,
Senior,
SRK Consulting.

/s/ Mike Warren

Mr Mike Warren,
Director,
SRK Consulting.

GLOSSARY, ABBREVIATIONS AND UNITS**GLOSSARY**

acicular	needle-shaped
actinolite	an amphibole mineral commonly found in metamorphosed
greenstone:	$\text{Ca}_2(\text{Mg,Fe})_5\text{Si}_8\text{O}_{22}(\text{OH})_2$
aeolian	pertaining to wind-driven processes
aircore	target generation drilling technique used in the weathered zone
albite	a sodium bearing feldspar mineral: $\text{NaAlSi}_3\text{O}_8$
alluvial	ertaining to a sedimentary deposit deposited by a river
alluvium	an unconsolidated sedimentary deposit deposited by a river
alternation	a change in a rock's mineral composition
amphibole	a group of ferromagnesian minerals characterised by a molecular structure of a double chain of silica tetrahedra
amphibolite	a metamorphic facies formed under moderate to high temperature and pressure
ankerite	a calcium –iron carbonate mineral: $\text{CaFe}(\text{CO}_3)_2$
anticline	a convex fold in rock, the central part of which contains the oldest rock.
antiform	a convex fold in rock where the relative ages of the constituent rocks are unknown.
Archaean	that period of geological time prior to 2.5 million years before present; the earlier part of the Precambrian Era
argillaceous	applied to rocks or substances composed of clay minerals, or having a notable portion of clay in their composition
argillite	a sedimentary rock composed mainly of argillaceous material; the term includes shale, mudstone and siltstone
arsenopyrite	an iron-arsenic sulphide mineral: FeAsS
assay	the chemical analysis of mineral samples to determine the metal content
auriferous	bearing gold
axial planar	subparallel to the axial plane of a fold
backfill	material generally sourced from mine residues and utilised for the filling of mined voids, to ensure long terms stability of excavations and minimize the effects of seismic activity
Banded Iron formation	a rock that consists of alternating bands of iron-rich minerals, generally hematite, and chert or fine grained quartz

basalt	a dark-coloured igneous rock, commonly extrusive, composed primarily of calcic plagioclase and pyroxene; the fine-grained equivalent of gabbro
batter angle	slope from bottom to top of the face of a wall
bedrock	the solid rock that underlies gravel, soil, or other superficial material
biotite	a common brown mica mineral: $K(Mg,Fe)_3 AlSi_3 O_{10} (OH,F)_2$
bismuthinite	a bismuth sulphide mineral: Bi_2S_3
blasthole	a drill-hole in a mine that is filled with explosives in order to blast loose a quantity of rock
breccia	a coarse-grained clastic rock, composed of angular broken rock fragments held together by a mineral cement or a fine-grained matrix
bulk mining	any large-scale, mechanised method of mining involving many thousands of tonnes of ore being brought to surface each day
BWI	ball and rod indices
Cainozoic	the youngest era comprising the Tertiary to Quaternary, 65Ma to 0Ma
calcite	a calcium carbonate mineral: $CaCO_3$
capital expenditure	specific project or ongoing expenditure for replacement or additional equipment, materials or infrastructure
carbonaceous	rich in carbon
carbon-in-leach	("CIL") the recovery process in which gold is leached from gold ore pulp by cyanide and simultaneously adsorbed onto activated carbon granules in the same vessel. The loaded carbon is then separated from the pulp for subsequent gold removal by elution. The process is typically employed where there is a naturally occurring gold adsorbent in the ore
carbon-in-pulp	("CIP") the recovery process in which gold is first leached from gold ore pulp by cyanide and then adsorbed onto activated carbon granules in separate vessels. The loaded carbon is then separated from the pulp for subsequent gold removal by elution
cash costs	namely direct mining costs, direct processing costs, direct general and administration costs, consulting fees, management fees, bullion transport and refining charges
cataclasite	rock containing angular fragments formed by cataclasis
chalcopyrite	a copper-iron sulphide mineral: $CuFeS_2$
chert	a hard, dense microcrystalline sedimentary rock, consisting chiefly of interlocking crystals of quartz

chip-sample	a method of sampling a rock exposure whereby a regular series of small chips of rock is broken off along a line across the face
chlorite	$\text{Mg,Fe}_3(\text{Si,Al})_4\text{O}_{10}(\text{OH}_2) \cdot (\text{Mg,Fe})_3(\text{OH})_6$ an important group of sheet silicates found in metamorphic, sedimentary and altered igneous rocks
clast	a particle of rock or single crystal which has been derived by weathering and erosion
cleavage	splitting or the tendency to split, along parallel, closely positioned planes in a rock
composite	combining more than one sample result to give an average result over a larger distance
concentrate	a metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore.
conglomerate	a detrital sedimentary rock composed of rounded or sub-angular pebbles or cobbles in a finer grained matrix of siltstone or sandstone.
craton	a part of the earth's crust that has attained stability and has been little deformed for a long period of geological time
crenulation	a microscopic-scale cleavage formed by the folding of an existing fabric
crosscut	a horizontal underground drive developed perpendicular to the strike direction of the stratigraphy
crushing	initial process of reducing ore particle size to render it more amenable for further processing
cummingtonite	$(\text{Mg,Fe})_7\text{Si}_8\text{O}_{22}(\text{OH}_2)$ an amphibole
cumulate	any igneous rock formed by the accumulation of crystals settling out of a magma
cut-off-grade	("CoG") the grade of mineralised rock which determines as to whether or not it is economic to recover its gold content by further concentration
cyanidation	extraction of gold or silver from crushed ore by dissolving the metal in a weak solutions of sodium cyanide
decline	a surface or sub-surface excavation in the form of a tunnel which is developed from the uppermost point downwards
desorption	the reverse process of adsorption whereby adsorbed matter is removed from the adsorbent.
development	underground work carried out for the purpose of opening up a

	mineral deposit, includes shaft sinking, crosscutting, drifting and raising
dewatering	the removal of water from a drowned shaft, waterlogged workings or an aquifer to allow the commencement or sustainment of mining
diamond drill	a rotary type of rock drill that cuts a core of rock that is recovered in long cylindrical sections
differentiated	separated magma into two or more fractions
dilution	waste which is unavoidably mined with ore
dip	angle of inclination of a geological feature/rock from the horizontal
dolerite	a medium grained intrusive mafic igneous rock similar in composition to basalt
dolomite	a calcium-magnesium carbonate mineral: $\text{CaMg}(\text{CO}_3)_2$
doré	unrefined gold, usually in bar form and consisting primarily of gold with smaller amounts of other precious and base metals, which will be further refined to high purity gold bullion
drill-hole	method of sampling rock that has not been exposed
dyke	a tabular, vertical to sub-vertical body of igneous rock formed by the injection of magma into planar zones of weakness
elution	the chemical process of desorbing gold from activated carbon
eocene	an epoch of the Palaeogene, 56.5Ma - 35.4 Ma
epiclastic	descriptive of sedimentary material redeposited from an existing sediment
epidote	a group of minerals commonly formed by low temperature metamorphism of igneous or sedimentary rocks: $\text{Ca}_2(\text{Fe,Al})_3(\text{SiO}_4)_3(\text{OH})$
erosion	the wearing-away of soil and rock by weathering, mass wasting, and the action of streams, glaciers, waves, wind and underground water
euhedral	descriptive of a grain with a fully developed crystal form
face	the end of a drift, crosscut or stope at which work is taking place
facies	a rock unit defined by its composition, internal geometry and formation environment
fall of ground	a partial or complete collapse of rock hosting underground mine workings
fault	a discontinuity surface across which there has been shear displacement
felsic	term used to describe the amount of light-coloured minerals in an

	igneous rock
flotation	the process by which the surface chemistry of the desired mineral particles is chemically modified such that they preferentially attach themselves to bubbles and float to the pulp surface in specially designed machines. The gangue or waste minerals are chemically depressed and do not float, thus allowing the valuable minerals to be concentrated and separated from the undesired material
fluorite	an uncommon calcium-fluoride mineral: CaF_2
fluvial	pertaining to the processes and actions of a river or stream
fold	plastic deformation of previously horizontal rock strata
foliation	a repeated or penetrative planar feature in a rock
footwall	the underlying side of an orebody or stope
fuchsite	a green chrome bearing variety of muscovite: $\text{KAl}_2(\text{Si}_3\text{Al})\text{O}_{10}(\text{OH},\text{F})_2$
gabbro	a coarse grained intrusive mafic igneous rock similar in composition to basalt
galena	a lead sulphide mineral: PbS
gangue	Non-valuable mineral components of the ore
Garnet	cubic mineral with the general formula $\text{A}_{32} + \text{B}_{23} + \text{Si}_3\text{O}_{12}$ where A = magnesium, iron, manganese or calcium and B = aluminum, iron or, rarely, chromium
grade	the measure of concentration of gold or other valuable metal within mineralised rock
granite	a coarse grained igneous rock composed of quartz and alkali feldspar with small amounts of plagioclase, biotite and hornblende
granitoida	term for any granitic rock
granodiorite	a coarse grained igneous rock composed dominantly of sodic plagioclase, alkali feldspar, quartz and small amounts of dark-coloured minerals
granophyre	a quartz porphyry or fine-grained porphyritic granite
granulite	a metamorphic facies found at great depths and temperatures $>650^\circ\text{C}$
greenschist	a metamorphic facies of low-grade regional metamorphism of temperature range $300\text{--}500^\circ\text{C}$
greenstone	a field term for any compact dark-green altered or metamorphosed basic igneous rock that owes its colour to chlorite
greywacke	term for an immature sandstone with $<15\%$ clay minerals

gyroscopic survey	a survey conducted using a non-magnetic gyroscopic tool oriented to known survey co-ordinates on the surface
hanging wall	the overlying side of an orebody of stope
haulage	a horizontal underground excavation which is used to transport mined ore
head-grade	the average grade of ore fed to a mill/plant
hedging	taking a buy or sell position in futures market opposite to a position held in the cash/spot market to minimise the risk of financial loss from an adverse price change
hornblende	$(\text{Ca,Na})_{2-3}(\text{Mg,Fe,Al})_5\text{Si}_6(\text{Si,Al})_2\text{O}_{22}(\text{OH})_2$] a calcium rich amphibole
hydrothermal	process of injection of hot, aqueous, generally mineral-rich solutions into existing rocks or fractures
igneous	a primary crystalline rock formed by the solidification of magma
Indicated Mineral Resource	that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill-holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed
Inferred Mineral Resource	that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill-holes which may be limited or of uncertain quality and reliability
intermediate	a rock with <10% quartz plus alkali and plagioclase feldspars
intrusive	pertaining to rocks formed by the injection of magma into pre-existing rock and solidified by cooling beneath the surface
inverse distance	interpolation method of assigning values from samples to blocks based on the distance of the samples to the block centroid
isoclinal	descriptive of a fold where the adjacent limbs are parallel
Jurassic	the middle period of the Mesozoic, 208Ma –145.6Ma
Komatiite	a mantle-derived igneous rock rich in magnesium oxide
komatiite	an igneous suite of basaltic and ultramafic lavas and associated rocks

kriging	an interpolation method of assigning values from samples to blocks that minimises the estimation error
lacustrine	referring to a lake
lag (bed load deposit)	a residual accumulation of coarse particles from which the fine material has been removed by wind and water currents
lamprophyre	any group of igneous rocks characterised by a porphyritic texture with abundant dark-coloured minerals in microscopic matrix
lateratised	rock that has become highly concentrated in iron and aluminum oxides due to the removal of silica and alkalis during weathering
leaching	dissolution of gold from crushed and ground material
lenticular	resembling in shape the cross-section of a lens
level (mining level)	horizontal tunnel the primary purpose is the transportation of personnel and materials
lignite	low-grade coal, with about 70% carbon and 20% oxygen, intermediate between peat and bituminous coal
lineament	a major, linear, topographic feature of regional extent of structural or volcanic origin
lineation	a repeated of penetrative linear structure in a rock mass
lithological	geological description pertaining to different rock-types
lock-up gold	gold locked as a temporary inventory within a processing plant, or sections thereof, typically milling circuits
LoM plans	Life-of-Mine plans
mafic	an igneous rock composed chiefly of ferromagnesian minerals and feldspars
magnetite	an iron oxide mineral of the spinel group: Fe_3O_4
massive	does not have a fabric
Measured Mineral Resource	that part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill-holes. The locations are spaced closely enough to confirm geological and grade continuity
metamorphism	structural and/or chemical alteration of rocks and minerals by heat, pressure and/or chemical processes
mill lock-up	the inventory of gold which has accumulated within milling circuits over a defined period
milling	a general term used to describe the process in which the ore is

	crushed and ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product
Mineral Reserve	the economically mineable material derived from a Measured and/or Indicated Mineral Resource. It is inclusive of diluting materials and allows for losses that may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out, including consideration of and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified. Mineral Reserves are sub-divided in order of increasing confidence into Probable Mineral Reserves and Proved Mineral Reserve
Mineral Resource	a concentration [or occurrence] of material of economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, estimated from specific geological evidence and knowledge, or interpreted from a well constrained and portrayed geological model. Mineral Resources are sub-divided in order of increasing confidence, in respect of geoscientific evidence, into Inferred, Indicated and Measured categories
mineralised	rock in which minerals have been introduced to the point of a potential ore deposit
modified stability number	(N')
muscovite	a common white mica mineral: $KAl_2(Si_3Al)O_{10}(OH,F)_2$
mylonite	a compact chertlike rock with a streaky or banded structure
normal fault	a fault in which the hangingwall moves downward relative to the footwall
nugget effect	the measure of the inherent randomness of a grade distribution
oligocene	the youngest epoch of the Palaeogene, 35.4Ma to 23.3Ma
olivine	a group of common ferromagnesian minerals characterised by a molecular structure of isolated silica tetrahedra: $(Mg,Fe)SiO_4$
open-pit	a mine working or excavation open to the surface
open	a fold with an interlimb angle between 70° and 120°
ordinary kriging	a common type of kriging used when sampling information is relatively dense
ore	a mixture of minerals, host rock and waste material which is

	expected to be mineable at a profit
Permian	the youngest period of the Palaeozoic, 290Ma -245Ma
pillar	rock left behind to help support the excavations in an underground mine
pillowed	formed when lava flows come into contact with water
placer	a concentration of heavy minerals in a fluvial system
plunge	the inclination of a fold axis or other linear feature, measured in the vertical plane
porphyry	igneous rock with phenocrysts in fine-grained or glassy matrix
prehnite-pumpellyite	a metamorphic facies formed under moderate pressure and low temperature
Probable Mineral Reserve	the economically mineable material derived from a Measured and/or Indicated Mineral Resource. It is estimated with a lower level of confidence than a Proved Mineral Reserve. It is inclusive of diluting materials and allows for losses that may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out and including consideration of and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified
project capital	capital expenditure which is associated with specific projects of a non-routine nature
Proterozoic	the era of geological time between 2.5 billion and 570 million years ago
Proved Mineral Reserve	the economically mineable material derived from a Measured Mineral Resource. It is estimated with a high level of confidence. It is inclusive of diluting materials and allows for losses that may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out, including consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified
pyrite	an iron sulphide mineral: FeS_2
pyroxene	a group of common ferromagnesian minerals characterised by a molecular structure of a chain of silica tetrahedral.
pyrrhotite	an iron sulphide mineral: Fe_{1-x}S
quartz	crystalline silica, one of the commonest minerals: SiO_2
Quaternary	the most recent subperiod of the Cainozoic 1.64Ma-present

range (of a variogram)	The distance at which the variogram model becomes a constant
reclined	a fold whose hinge line plunges steeply
recovery	the percentage of valuable constituent derived from an ore; a measure of mining or extraction efficiency
recumbent	a fold whose hinge line and axial surface are both horizontal
regolith	the superficial layer of loose, unconsolidated material which overlies bedrock over much of the land surface
retrogressive	metamorphism which produces a lower grade from a higher grade
reverse / thrust fault	fault in which hangingwall moves upwards relative to the footwall
reverse circulation	drilling technique
rheological	flow and deformation of materials
rhyolite	an extrusive igneous rock, typically porphyritic and commonly exhibiting flow texture
sedimentary	pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks
seismic	earthquake or earth vibration including those artificially induced
selvage	the marginal zone of an igneous mass, characterised by a fine- grained or glassy texture
semi-variogram	a semi-variogram is a graph that measures the change of the differences of grade as the separation between samples increases; also known as a variogram; a necessary input for kriging
sericite	a white, fine grained variety of muscovite: $\text{KAl}_2(\text{Si}_3\text{Al})\text{O}_{10}(\text{OH},\text{F})_2$
shaft	an opening cut downwards from the surface for transporting personnel, equipment, supplies, ore and waste
shale	a fine grained detrital sedimentary rock formed by the compaction of clay, silt or mud which splits easily along its bedding planes
shear	a fault that developed with a significant amount of ductile deformation of the rock mass it transgresses.
sigmoidal	curved in two directions
siliceous	rich in silica
sill	a tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness
sinistral	left hand displacement on a fault plane
spinifex	a lacy mesh of acicular olivine crystals, typical of extrusive komatiite rocks
stockwork	a mineral deposit consisting of a three-dimensional network of planar to irregular veinlets closely enough spaced that the whole

stope	mass can be mined underground void created by mining
strain	change of dimensions of matter in response to stress
stratigraphy	the science of rock strata
strike	direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction
stripping ratio	the unit amount of overburden that must be removed to gain access to a unit amount of ore or mineral material
stripping	in chemical extraction of minerals, treatment of pregnant solution to remove dissolved values
sulphide	sulphur bearing mineral
supergene	referring to mineral deposits or enrichments formed by descending solutions
surface sources	ore sources, usually dumps, tailings dams and stockpiles, located at the surface
sustaining capital	capital estimates of a routine nature which are necessary for sustaining operations such as replacement or additional equipment, materials or infrastructure
syncline	a concave fold in rock, the central part of which contains the youngest rock.
synform	a concave fold in rock where the relative ages of the constituent rocks are unknown.
tailings	processed waste material left after extraction of most of the economic components
talc	a sheet silicate mineral commonly found in metamorphosed ultramafic rock: $\text{Mg}_3\text{Si}_4\text{O}_{10}(\text{OH})_2$
tectonic	descriptive of a structure produced by deformation or relating to a major Earth structure and its formation
terrane	a region of the crust with well-defined margins, which differs significantly in tectonic evolution from neighbouring regions
tertiary	a period of the Cainozoic comprising the Palaeocene to Pliocene, 65.0Ma – 1.64Ma
tholeiite	a basalt or related igneous rock comprising plagioclase and orthopyroxene
thrust	overriding movement
tight (fold)	a fold with a small angle between its limbs
titanite	an uncommon titanium bearing mineral found in metamorphosed

	igneous rocks: CaTiSiO_5
trondhjemite	an igneous intrusive rock; a variety of granodiorite with low levels of potassium feldspar and ferromagnesian minerals
tuff	a general term for all consolidated pyroclastic rocks
ultramafic	an igneous rock composed of ferromagnesian minerals to the exclusion of quartz and feldspars.
variogram	see semi-variogram
vein	a sheet-like or tabular, discordant, mineralised body formed by complete or partial infilling of a fracture within a rock
volcaniclastic	containing volcanic material
waste	the part of an ore deposit that is too low in grade to be of economic value at the time of mining, but which may be stored separately for possible treatment later
xenolith	rock fragment foreign to igneous rock in which it occurs
Yilgarn Craton	stable interior of the continental plate, unaffected by plate margin activity since the Precambrian

ABBREVIATIONS AND UNITS

Ag	Silver
ANFO	Ammonium Nitrate Fuel Oil
Au	Gold
AusIMM	Australian Institute of Mining and Metallurgy
CIL	Carbon-in-leach
CIP	Carbon-in-pulp
CoG	Cut-off Grade
CPI	Consumer Price Index
CPR	Competent Persons' Report
DCF	Discounted Cash Flow
DEH	Department of the Environment and Heritage
DOE	Department of Environment
DoIR	Department of Industry and Resources
DME	Department of Minerals and Energy
EIA	Environmental Impact Assessment
EMP	Environmental Management Programme
FIFO	Fly-In-Fly-Out
FM	Financial Model
FoG	Fall of Ground
FY	Financial Year
ILR	Intensive Leach Reactor
ITR	Independent Technical Report
JORC Code	1999 Australasian Code for Reporting of Mineral Resources and Mineral Reserves
JSE	JSE Securities Exchange South Africa
JV	Joint Venture
KPI	Key Performance Indicator
LHD	Load Haul Dump (underground mechanised mining machine)
LoM plan	Life-of-Mine plan
SIFR	Serious Injury Frequency Rate, quoted in Mmhrs
MCF	Mine Call Factor

Mmhrs	Million man hours
NAV	Net Asset Value
NoI	Notice of Intent
NPV	Net Present Value
op	Open-pit
PWDP	Planned Within Design Pit
P	Planned
P ₈₀	80% Probability
PAI	Planned Above Infrastructure
QA/QC	Quality assurance / quality control
QP	Qualified Person
RC	Reverse Circulation
RoM	Run-of-Mine
RMR	Rock Mass Rating
SAG	Semi-autogenous grinding
SAMREC	South African code for Reporting of Mineral Resources and Mineral Reserves
SBP	Strategic Business Plan
SEC	United States Securities and Exchange Commission
SPQ	Single Persons' Quarters
SRK	Steffen, Robertson and Kirsten (South Africa) (Pty) Limited
SS	Surface Sources
TEC	Total Employees Costed
TEP	Technical Economic Projection
TSF	Tailings Facility
TSX	Toronto Stock Exchange
ug	underground
UHR	Uphole Retreat Stopping
UP	Unplanned
UPBI	Unplanned Below Infrastructure
UPODP	Unplanned Outside of Design Pit
WACC	Weighted Average Cost of Capital

WRD	Waste Rock Dump
YTD	Year to Date

UNITS

AUD	Australian Dollar
bcm	bank cubic metres (insitu volume)
Mbcm	Million bank cubic meters
cm	a centimetre
g	grams
g/t	grams per metric tonne - gold concentration
GBP	Great Britain Pound
Ha	a Hectare
kg	a kilogram
km	a kilometre
km ²	a square kilometre
koz	a thousand ounces
kt	a thousand metric tonnes
ktpa	a thousand metric tonnes per annum
ktpm	a thousand tonnes per month
m	a metre
m ²	a square meter
m ³	a cubic meter
MI	a million litres
mm	a millimeter
Moz	a million ounces
oz	a fine troy ounce equalling 31.10348 grams
ppm	parts per million
t	a metric tonne
°	degrees
‘	minutes
%	percentage
USD	United States Dollar

USDk	thousand United States Dollar
USDm	million United States Dollar
USD/oz	United States Dollar per ounce
ZAR	South African Rand

App. 1 Certificates of Qualification

CERTIFICATE of QUALIFICATION

**To Accompany the Report entitled
“Independent Technical Report on St Ives Gold Mine, Western Australia.”
dated, 01 July 2004.**

I, Philip Edward Jankowski, do hereby certify that:

1. I reside at 44 King Street, East Fremantle, WA 6058, AUSTRALIA.
2. I am a graduate from the Australian National University, Canberra, Australia, with a Bachelor of Science degree in Geology in 1986, and a Graduate Diploma in Science in 1988; and a graduate from the University of Western Australia, Perth, Australia with a Masters of Science in 2003. I have continually practiced my profession since 1988.
3. I am a Member of The Australasian Institute of Mining and Metallurgy.
4. I am a Senior Resource Evaluation Consultant with SRK (Australasia) Pty Ltd, a firm of consulting geologists and engineers which has been practicing in this profession since 1974. I hold office at 1064 Hay Street, WEST PERTH, WA 6005, AUSTRALIA and have been employed as such since 2004.
5. With 16 years mining industry experience, including on-site and head office roles and, I have worked as a geologist in open cut and underground gold mines, mineral exploration and resource estimation as well as provided technical skills to underground and open cut gold and tantalum-tin mines.
6. I have read the definition of “qualified person” as set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfil the requirements to be a qualified person for the purpose of NI43-101.
7. I have prepared parts of the Independent Technical Assessment Report (the ‘Report’) concerning the St Ives Gold Mine, mainly those related to the geology and Mineral Resource estimates.
8. I have visited the site of St Ives Gold Mine, most recently between the 30th August and 3rd September, 2004.
9. I have no personal knowledge, as of the date of this Certificate, of any material fact or change, which is not reflected in this report, the omission to disclose that would make this report misleading.
10. Neither I, nor any affiliated entity of mine is at present, or under an agreement, arrangement or understanding expects to become, an insider, associate, affiliated entity or employee of St Ives Gold Mine and/or Gold Fields Limited, and/or any associated or affiliated entities.
11. Neither I nor any affiliated persons or entity of mine, own, directly or indirectly, nor expect to receive, any interest in the properties or securities of St Ives Gold Mine and/or Gold Fields Limited, or any associated or affiliated companies.
12. I am independent of St Ives Gold Mine and/or Gold Fields Limited Ltd, in accordance with the application of Section 1.5 of (NI) 43-101.
13. I have not had any involvement with the St Ives Gold Mine property prior to the review commissioned by Gold Fields Limited.

14. I have read the NI 43-101 and Form 43-101F1, and CIM on Mineral Resources and Reserves, and have prepared the technical report in compliance with NI 43-101 and Form 43-101F1.
15. I consent to the filing of this Report with the relevant securities commission, stock exchange and other regulatory authorities as may be determined, including general publication in hardcopy and electronic formats to shareholders and to the public.

/s/ Phil Jankowski
Phil Jankowski, Msc, MAusIMM

Dated at West Perth, Australia this 2nd day of November 2004

CERTIFICATE of QUALIFICATION

**To Accompany the Report entitled
“Independent Technical Report on St Ives Gold Mine, Western Australia.”
dated, 01 July 2004.**

I, Michael John Warren, do hereby certify that:

1. I am responsible for the technical report titled “Independent Technical Report on St Ives Gold Mine, Western Australia.” dated, 01 July 2004 (the “Technical Report”) relating to the property and was responsible for the preparation of Section 13 of the Technical Report. For the balance of the Technical Report, I relied upon the work completed by QPs listed in Section 3.6.
2. I reside at 97 Monteith Street, Warrawee, NSW 2074, AUSTRALIA.
3. I am a graduate from the University of New South Wales, Sydney, Australia in 1979, with a BSc degree in Mining Engineering, and a graduate from Macquarie University, Sydney with an Masters of Business Administration (1991). I also hold a First Class Mine Managers Certificate, Queensland and a Mine Managers Certificate, NSW. I have continually practiced my profession since 1979.
4. I am a Member of The Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Company Directors.
5. I am a Principal Consultant in Mining Engineering with SRK (Australasia) Pty Ltd, a firm of consulting geologists and engineers which has been practicing in this profession since 1974 . I hold office at Level 9, 1 York St SYDNEY, NSW 2000, AUSTRALIA and have been employed as such since 2000.
6. With over 25 years mining industry experience, including on-site and head office roles and 5 years in investment banking for mining projects, I have worked in underground metal mines, open cut uranium mines and open cut coal mines, as well as provided technical skills to underground and open cut copper/gold mines, underground coal mines and open cut gold mines.
7. I have read the definition of “qualified person” as set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfil the requirements to be a qualified person for the purpose of NI43-101.
8. I have prepared parts of the Independent Technical Assessment Report (the ‘Report’) concerning the St Ives Gold Mine, mainly those related to the mining and Mineral Reserves aspect of the report.
9. My work in this Report also involved peer review and editing of the Report.
10. I have visited the site of St Ives Gold Mine, most recently between the 30th August and 3rd September, 2004.
11. I have no personal knowledge, as of the date of this Certificate, of any material fact or change, which is not reflected in this report, the omission to disclose that would make this report misleading.
12. Neither I, nor any affiliated entity of mine is at present, or under an agreement, arrangement or understanding expects to become, an insider, associate, affiliated entity or employee of St Ives Gold Mine and/or Gold Fields Limited, and/or any associated or affiliated entities.

13. Neither I nor any affiliated persons or entity of mine, own, directly or indirectly, nor expect to receive, any interest in the properties or securities of St Ives Gold Mine and/or Gold Fields Limited, or any associated or affiliated companies.
14. I am independent of St Ives Gold Mine and/or Gold Fields Limited Ltd, in accordance with the application of Section 1.5 of (NI) 43-101.
15. I have not had any involvement with the St Ives Gold Mine property prior to the review commissioned by Gold Fields Limited.
16. I have read the NI 43-101 and Form 43-101F1, and CIM Standards on Mineral Resources and Reserves, and have prepared the technical report in compliance with NI 43-101 and Form 43-101F1.
17. I consent to the filing of this Report with the relevant securities commission, stock exchange and other regulatory authorities as may be determined, including general publication in hardcopy and electronic formats to shareholders and to the public.

/s/ Michael Warren

Michael Warren BSc, MBA, MAusIMM, FAICD

Dated at Sydney, Australia this 2nd day of November 2004

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Exhibit 99.4

**AN INDEPENDENT TECHNICAL REPORT ON
AGNEW GOLD MINE,
WESTERN AUSTRALIA**

**Effective Date of the Technical Report
01 July 2004**

Prepared for:

**GOLD FIELDS LIMITED
and
IAMGOLD CORPORATION**

Prepared by:

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Estimation of Mineral Resources – Louw Smith, AusIMM
Estimation of Mineral Reserves – Louw Smith, AusIMM**

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Reported Mineral Reserves – Mike Warren, AusIMM**

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**AN INDEPENDENT TECHNICAL REPORT ON AGNEW GOLD MINE,
WESTERN AUSTRALIA**Our Ref: **43-101.GFL.Agnew.JSE2vFin.021104.doc****1 SUMMARY**

In compliance with Form 43-101F1 Technical Report Item 1, this Section provides an executive summary of the:

- physical property descriptions;
- Mineral Resource and Mineral Reserve Statements;
- property valuation; and
- SRK's conclusion and recommendations.

1.1 Property Location, Overview and Ownership

The main Agnew site office is located in the Township of Agnew, situated 23km west of the town of Leinster in Western Australia, approximately 1,050km (by road) northeast of Perth. Located approximately at latitude 27°55'S and longitude 120°42'E in the Norseman-Wiluna Greenstone Belt, the nearest major settlement is the town of Leonora situated 128km south. The site extends over 60km and covers an area of approximately 75,000ha.

Gold production from the Agnew area commenced in the early 1900s, and has produced 20.8Mt at 4.4g/t yielding 2.9Mozs from 6 open-cut and 3 underground mining operations.

During calendar year 2004, Agnew produced from 1 open-pit, surface stockpiles and 2 underground mining operations in conjunction with the Agnew mill/CIP processing plant (1.2Mtpa capacity). Agnew is budgeted to produce over 200koz of gold in 2005.

The Agnew operations are conducted within tenements owned by Agnew Gold Mining Company Pty Limited comprising 14 Mining Leases/Titles (6,582Ha), 9 Exploration Licences (18,200Ha), and 4 Prospecting Licences (383Ha) and 1 Miscellaneous Licence (2Ha). Agnew also has under application 10 additional Mining Licences (5,100Ha). In addition to its own mineral tenements, Agnew is currently in Joint Venture with BMV Properties Limited the terms of which give Agnew a 60% interest in an additional 42,192Ha of tenements with a combination of Prospecting, Exploration, Mining and general licences, a third of which are currently under application. Agnew has legal entitlement to all its stated Mining Tenements with appropriately granted licences and leases. With timeously presented NoIs, renewal applications and continued financial commitment, no material issues have been identified in relation to the tenement status that would negatively impact on the projected depletion of

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the current Mineral Reserves. All rentals and expenditure commitments have been met and appropriate provision for future commitments are included in the forward cash flow projections.

All minerals extracted from the Agnew owned tenements are subject to a State Royalty of 2.5% of received revenue, payable before any other deductions. Agnew accounts for this front-end royalty in both its cut-off grade estimates and financial provisions.

Aside from this State Royalty Agnew has one other permitted encumbrance with “a gold royalty payable to Normandy Wiluna Gold Pty Ltd equal to 3% of each ounce of Refined Gold after 25,000 ounces pursuant to an agreement between Normandy Wiluna Gold Pty Ltd and Consolidated Gold Pty Ltd dated 24 April 1997.” This forms part of the Vivien FI and JV agreement.

The following table summarises the Key Performance Indicators for Agnew since Gold Fields acquired the asset in December 2001. The table reports in Calendar Years from January 2002.

MINING	Units	2002 12mth Act	2003 12mth Act	2004 (1) 6mth Act
Total Mining (2)				
Ore Tonnes Hoist	(kt)	2,367	599	239
Head Grade Hoist	(g/t)	2.7	7.8	12.2
Contained Gold	(koz)	206	150	93
PROCESSING				
Total Processing (3)				
Tonnes Processed	(kt)	1,206	1,237	582
Head Grade	(g/t)	3.8	4.6	6.0
Gold to Process	(koz)	147	182	113
Gold Recovered	(%)	91.3 %	91.9 %	93.8 %
Gold Produced	(koz)	134	168	106
LABOUR				
TEC	(No.)	365	264	137
Terminations/Resignations	(No.)	14	20	13
Annualised Turnover (permanent)	(%)	15 %	21 %	27 %
FINANCIAL				
Closing Exchange Rate	(AUD:USD)	0.54	0.66	0.74
Gold Price Received (spot)	(USD/oz)	311	366	400
Revenue	(USDk)	42,581	62,089	42,272
Royalty	(USDk)	987	1,575	1,087
Direct Operating Costs	(USDk)	38,360	31,598	19,509
Unit Operating Costs	(USD/t)	31.80	25.55	33.52
	(USD/oz)	281	187	185
Total Capital	(USDk)	18,124	17,726	10,418

(1) six-months actual results to June 2004.

(2) Sourced from 2 underground operations and 1 open-pit operation.

(3) Processing includes material from stockpiles. Total processing is the combine through using a combination of CIL and Heap Leach processing.

1.2 Accessibility, Climate, Local Resources, Infrastructure and Physiography

As described in detail in **Section 5** of this Independent Technical Report (“ITR”) the climatic conditions do not materially impact on the normal operations of the site. Temperatures range between 10°C and 45°C over the year, and rainfall averages 218mm, mainly received between the late summer months and middle winter.

The landform in the region is flat to gently undulating with minor drainage channels feeding into a chain of salt-lakes. Vegetation in the area is sparse and consists of eucalyptus, mulga, halophytic shrubs with a few grasses.

The site is accessed by public tarred roads which are generally well maintained by State road services

and as such no material access issues for services and supplies are apparent.

Power is supplied via a long-term (to 2011) “take-or-pay” contract with WMC. There is more than adequate off-take in this agreement and as such the power is currently costing more than industry average.

All water needed for site activities is supplied by boreholes. Water for the processing plant is supplied directly from boreholes. Any potable drinking water is processed through a Reverse Osmosis Treatment Plant (“ROP”) that processes the water in line with ANZEC Australian Drinking Water Quality Standards. The township at Agnew is supplied with water from the Agnew town bore, while the township at Leinster is supplied from WMC’s boreholes located within WMC’s bore license area.

Agnew is required to submit annual water returns to the Water and Rivers Commission. Fines may be imposed on Agnew by this Commission for exceeding the extraction limit on individual licenses, but there is a no material risk of the licence being revoked.

The township at Leinster is owned and operated by WMC. Agnew has a contract in place with WMC, whereby 280 single persons quarters (SPQs) and 40 houses will be made available to Agnew staff, with the option to increase this allocation, subject to availability (at present, Agnew hold 57 houses in the town). In return, Agnew pays a fixed cost for town infrastructure maintenance and a unit rate per SPQ per night (includes accommodation, food and utilities).

The operation is a FIFO operation with only 20% of staff (approx) electing to live in Leinster full time (residential staff). WMC charts a Qantas flight from Perth to Leinster return twice daily on Monday-Thursday, once daily on Friday and Sunday and no flights on Saturday. In addition to the usual rotation flights, each staff member (including residential staff) are offered 4 return flights to Perth per quarter (restricted to low load flights) as part of their package. They can be taken by family or friends (or themselves in the case of residential staff).

1.3 Property History

As described in detail in **Section 6** of this ITR, Gold Fields purchased the Agnew Gold operation as part of their acquisition of WMC Resources Ltd gold assets in December 2001. Activity on the property can be summarised into three periods, pre-1970s, 1970 to 2001 and post 2001.

Pre-1970s : Gold was first discovered in the Agnew region in 1895, 10km south of Agnew. Since this time open-pit mining operations have been undertaken by four separate operators with main activity occurring between 1913 and 1948.

1970 to 2001 : WMC acquired options to purchase the leases and explored the property between 1962 and 1976 when they exercised their option and following a further period of exploration and feasibility studies, commenced mining in 1986 from the Emu pit which continued until 1992. Following a new phase of drilling commencing in 2001 and in addition to entering into JVs to access contiguous tenements, many of the ore bodies comprising the current Reserves were discovered, but not exploited.

2001 to current : Gold Fields acquired the property in December 2001 and continued with the Waroonga pit cut-back until its closure in February 2003. Underground declines were developed to access the Kim and Main lodes in February 2002 to replace underground production from the existing Redeemer mine, which closed in January 2002. Crusader underground mine is still producing however is now focussed on remnant pillars which should continue until the end of the current calendar year.

The Songvong project has been supported by Agnew, since the acquisition in December 2001, and extensional and infill drilling resumed in 2002. With the assistance of additional geological

information, mineralised ore zones were reinterpreted. Extensional drilling to the south and east subsequently identified a larger mineralised shear zone to the east of the Donegal prospect. The prospect was also renamed as Songvang or 'River of Gold' in October 2002, and pre-stripping commenced in September 2004.

1.4 Geological Setting , Deposit types and Mineralisation

As described in detail in **Section 7** of this ITR, Agnew is situated in the Norseman Wiluna Greenstone Belt, which is part of the Yilgarn Craton, a 2.6Ga granite-greenstone terrain in Western Australia. The Norseman-Wiluna Belt is highly mineralised, particularly in gold and nickel. The rock-types in the belt comprise abundant tholeiitic and komatiitic volcanic rocks, chert, sulphidic and albitic sedimentary rocks, and a chain of discrete felsic volcanic centres. The generalised stratigraphic sequence comprises three mafic-ultramafic units, two felsic volcanic units, and an uppermost epiclastic sequence.

There was a complex and long-lasting series of structural deformations during and after the metamorphism, during which the majority of the economic gold deposits were formed. Throughout the belt, most of the rocks are low strain and as original igneous textures and structures are well preserved, and original rock names are used to describe the geology. Strain is focused in linear shear zones characterised by penetrative planar and linear fabrics and higher metamorphic facies, which are thought to control the location of the majority of economic gold deposits in the belt.

The Agnew-Wiluna section of the Norseman-Wiluna Greenstone Belt is bounded by large granitoid bodies and the Ida Fault to the west. The Ida Fault, locally termed the Waroonga Shear, is a major regional scale shear zone that defines the western edge of the Kalgoorlie Terrane. The majority of the Agnew ore bodies are on the western limb of the Lawlers Anticline, a large open fold, plunging 30° to the north, although economic mineralisation is also formed on the eastern limb (e.g. Vivien), in axial planar positions to the north (e.g. Cams) and in the adjacent Mt White Syncline (e.g. Maria).

Structure : There were at least three major phases of deformation in the Agnew area. The first involved the development of major shear zones such as the Waroonga Shear. The second deformation was an east-west shortening that formed open folds, with the Scotty Creek Sandstone deposited into restricted structurally controlled sedimentary basins; the third deformation was regional wrench faulting with movement on the major thrust faults resulting in the formation of broad anticlines and pinched synforms.

The Agnew Anticline and the Mt White Syncline are large scale folds plunging 30° to the north. The limbs' dip range from moderate at the nose and shoulders of the folds (e.g. at Waroonga) to steep and slightly overturned along the limbs (e.g. at Songvang).

Aeromagnetism reveals numerous north-south lineaments, interpreted to be axial planar structures, associated with the regional D2 folding, in particular the Lawlers anticline. These structures create flexures at lithological contacts that generate dilational sites for focusing fluid flow.

Alteration and Mineralisation : Although all of the Agnew deposits are broadly hosted by the intersections between structures and stratigraphy, there are subtle differences in alteration and mineralisation controlled in part by the local host rock chemistry. Songvang is unusual in its relatively high lead, silver and fluorine content, possibly reflecting input from tonalite and porphyry intrusions. There also appears to have been a slight decline in mineralisation temperatures from south to north through the Agnew area, associated with the north plunge of the Lawlers Anticline and resultant erosion of the overlying lower temperature rocks to the south. This temperature change is reflected in the changing mineralisation styles from south to north, with biotite +/- garnet assemblages dominating

to the south and quartz veining to the north.

Waroonga Complex : Gold mineralisation at Waroonga is found in quartz breccia lodes, quartz tensional veining and disseminated arsenopyrite – pyrite – biotite mineralisation developed along the lithological contact between the Scotty Creek Sandstone and SC3 ultramafic conglomerate and on other contacts within the ultramafic conglomerates. High grade ore shoots plunge steeply to the north along these contacts. The controls on mineralisation are dilational zones at the intersection of steeply dipping N-S axial planar structures with the stratigraphy. The stratigraphy steepens and changes strike at these intersections by being dragged towards the axial planar direction. The stronger the contrast in rock competency in these zones, the greater is the potential for mineralisation. Gold mineralisation also occurs west of the mine in the Scotty Creek Sandstone as discrete lodes of stockwork quartz veining with disseminated arsenopyrite. These lodes are discontinuous and sub-economic in the immediate vicinity of the Emu mine but show potential for improvement 200-300m to the West.

Four main ore positions are recognised (hanging wall, footwall, Hunters Lode and Cross Lode), all of which were extensively mined in the open-pit. The underground operations mine steeply plunging, higher grade lodes within each of these ore positions.

The three main lodes worked or currently undergoing feasibility studies within the Waroonga Complex are Kim Lode (in production), Main Lode (in development) and Rajah Lode (under study).

Crusader Complex : The Crusader ore body occurs as a 20-30° north plunging shoot associated with a flexure in the ultramafic-basalt contact. Cross sectional width varies from 2m to 30m with a strike length of up to 50m. Mineralisation near the surface is largely contained within three zones parallel to the contact. Below 300m depth, these shoots converge to one higher grade shoot coinciding with a change in plunge of the controlling flexure. This down plunge extension of Crusader is closed off by underground diamond drilling. The lode splits into two discrete zones, an elongate north plunging shoot and to the south a zone decreasing in grade and strike length.

Gold mineralisation is hosted within the basal tholeiitic basalt at, or close to, its contact with the ultramafic hanging wall. In the upper part of the mine, mineralisation is commonly associated with sedimentary interflow units within the basalt. High grade zones of mineralisation are also found between sheared sediment interflow units within high strain zones. In these high grade zones, fine visible gold is associated with magnetite veining and carbonate-epidote-biotite-actinolite alteration in a zone of pervasive chlorite alteration ± garnet. There is a strong geochemical association between gold and bismuth, tellurium and molybdenum. The Crusader Complex comprises the Deliverer and Pilgrim ore bodies.

Claudius : The Claudius deposit was discovered in 1990, 400m north of the Deliverer open-pit. At surface the mineralisation covers an area of 50m east-west by 75m north-south. The mineralisation style and structural setting of the deposit is similar to both the Crusader and Deliverer ore systems. Claudius plunges 50° to the north and gold mineralisation is strongest within the basalt on the basalt-ultramafic contact and in or surrounding the sedimentary units and shears.

Songvang : Songvang is 15km south of Waroonga approximately 4km west of the historic Donegal Mine. The dominant host rock is the Lawlers Basalt with numerous narrow units of dolerite. The sequence is overturned and dips steeply to the east. Much of the area is intruded by tonalite and porphyry associated with a granitic pluton immediately to the east. The lease is covered by recent alluvial and colluvial gravels varying in thickness from 2m at the southern end to over 40m in the north.

The mineralised structures at Songvang are shallowly west-dipping and moderately east-dipping shear zones, interpreted as conjugate reverse shears formed in a compressive environment.

Shallowly west dipping shear zones (Lodes 10, 11 and 12) contain more than 75% of total resources. They consist of intensely foliated host rocks, with silica-biotite-pyrite alteration in basalt and sericitemuscovite/ fluorite alteration in porphyry. Moderately east-dipping shear zones (Lodes 1 to 8) comprise several small but high-grade ore shoots, with shallow plunges to the south. They commonly occur near an ultramafic/basalt contact to the west and the basalt/porphyry contact in the south.

Unlike the other Agnew deposits, Songvang has an elevated silver content, with an Ag to Au ratio of about 3:1.

In addition to these active zones, the Cams deposits (30km north of Agnew) and Vivien deposits (7km east of Waroonga) are being investigated in Joint Ventures.

1.5 Significant Exploration

As described in detail in **Section 8** of this ITR, Agnew's exploration strategy is focused on replacing production as a minimum, and additionally to identify an extra years production; setting the F2005 annual reserve target at 360koz. To achieve this, three strategies are used.

Exploration Strategy 1 : The first strategy is to explore the highly endowed corridor hosting the Waroonga, Redeemer, Crusader/Deliverer and Songvang Complexes. This corridor provides short-term potential for open-pit and underground extensions along strike and down dip of existing resources. New resources in the Redeemer North Deeps and extensions of the existing Redeemer North and Zone 2 deposits are also targets with potential from underground extensions to the Songvang pit and additional satellite pits along the Songvang structure.

Exploration Strategy 2 : The second strategy is to explore the regional potential of the Agnew and Miranda JV tenements. A structural and geological review by SRK Consulting generated new targets and confirmed the prospectivity of existing targets.

Exploration Strategy 3 : The third strategy is to explore the lowest potential tenements with a view to surrendering these tenements if exploration confirms their low prospectivity.

Exploration targets are designated as being at one of six stages or milestones. Milestone One is when a target is generated and the lease acquired; Milestone Three is when a bedrock drill target has been identified; Milestone Four is an Inferred Resource and Milestone Six an Ore Reserve. Milestones One to Three represent future potential, whereas Milestones Four to Six represent the reported Resources and Reserves.

Targets are ranked by a combination of a geological and economic score, with the highest scoring targets being given priority in exploration. The geological merit of is scored against numerous conceptual and empirical parameters. The economic potential of each target is assessed by assuming a tonnage and grade from an analogous deposit and applying a set of mining parameters.

Exploration Summary : There is considerable potential at Agnew to add significantly to current resource and reserves through a combination of extensional and greenfields exploration. In terms of the extent of its tenement holdings and the exploration undertaken thus far, Agnew cannot yet be considered advanced in exploration terms, and recent geological studies have identified numerous prospective areas yet to be tested effectively.

1.6 Drilling , Sampling, Preparation, Analysis and Verification

As described in detail in **Section 9** of this ITR, drilling, sampling, sample preparation procedures at Agnew can be summarised as follows.

Drilling : Diamond and RC drilling are the dominant drilling techniques used for resource definition. Other drilling techniques such as air core, used in target definition, are not included in resource estimations.

Open pit resources are drilled to Indicated resource status using 5.25” RC drilling with some HQ and NQ diamond drilling. During production, open pit resources are further refined using RC grade control drilling. Underground resources are defined with a combination of HQ and NQ surface diamond drilling and LTK60 and NQ underground diamond drilling.

The lithology, alteration, and structural characteristics of core and percussion chips are logged to the level of detail required for resource modelling using the standard Agnew geological legend.

Very little qualitative recovery data is available for RC drilling, although recently qualitative comments have been recorded in the drilling database. Recovery is anecdotally good. RC samples are riffle split to 3kg sub-samples by drilling contractors. Two random site duplicates, two standards and one blank are submitted with every 100 samples.

Although diamond core blocks are used to record core length, no analysis of the average recovery has been undertaken.

Drill core is cut to geological intervals between 0.3m and 1m specified by the logging geologist. Each batch of drill core samples submitted for analysis contains at least one standard. Duplicate samples are submitted at the geologist’s discretion on every hole.

Sampling : Face chip samples are used in the Kim Lode and Crusader resource estimations. Two channels are sampled across every development face, one at 2m above the floor and another at 4m. Individual samples in the channels range from 0.3m to 1m in length depending on geological contacts. On average, at least 10 samples are taken from each face. Duplicate samples are routinely taken from mined ore faces for quality assurance / quality control (“QA/QC”) purposes. Underground sludge samples are used in production to define the hanging wall position to the west of the footwall development. Agnew recognises that using these samples are not optimal, however do consider that the use of sludge samples improves the geological interpretation.

Sampling and assay techniques : Procedures for the submission of samples for QA/QC, include standards, blanks, duplicates, and check assays. Sampling of diamond drill core for QA/QC is performed at the geologist’s discretion under the guidelines of the AGMC policy. At least one standard is included with each batch of samples submitted for analysis.

QA/QC data is included in resource model reports; however during the year, a programme was undertaken to check standards that returned anomalous results. All standards with a result of more than 20% difference from the nominal value were checked. Additionally, two major external audits were conducted this year and Agnew staff also periodically visit the laboratory to conduct audits.

Location of data points : All planned drill hole locations are set out by the Survey Department. After drilling, all collars are surveyed and complete multi-shot down-hole surveys are conducted. In the case of deep boreholes drilled in highly magnetic ultramafic rocks, down-hole gyroscopic surveys are frequently used.

Data density and distribution : Data density is variable across the Agnew deposits. Resource classification is partly based on data density. In general, open pit and underground Indicated Resources are drilled to at least 20m by 20m; Inferred Resources may be drilled from 40m by 40m to 100m by 100m depending on geological complexity and mining history. Measured Resources must be within mining areas and contain RC grade control or underground face samples. RC grade control drilling is optimized for individual deposits with the drillhole spacing averaging 10m by 5m.

Database integrity : All assay and logging data is stored in a relational database. Various tools are available to allow geological staff to extract and validate the data. Data entry is monitored by a dedicated database administrator.

Summary : Sampling and assaying of resource and grade control holes at Agnew is performed at a relatively high standard compared to the general mining industry. There have been improvements since SRK's last site inspection in 2002, although the methods of face and sludge sampling at Agnew are not optimal and require review. There is a stated intention for Agnew to achieve industry best practice standards of sampling and assaying. In SRK's opinion, the sampling and assaying are adequate for the intended purposes and there is a low probability of a material shortcoming as a result of sampling or assaying.

1.7 Mineral Resource and Mineral Reserve Statement

As described in detail in **Section 10** of this ITR the Mineral Resources and Mineral Reserves have been generated under the auspices of the reporting code prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia ("JORC"), herein referred to as ("the JORC Code"). The JORC code remains effective from September 1999 and is currently under revision.

Mineral Resource estimates are based on interpretations of rock-types and mineralisation. Controls on mineralisation are generally well understood given the lengthy production history at Agnew. Wireframes of regolith zones and mineral zones, and digital surfaces describing topography, base of oxidation, etc, are used to domain and constrain grade interpolation when relevant.

Most of the resource models were generated by kriging after a thorough examination of appropriate composite lengths, top-cutting and variography. Results are validated by comparing section and vertical interval grade estimates with composite data grades. Classification is based on geological confidence and the kriging efficiency and the slope of the regression statistics.

In SRK's opinion, the method of declustering data for the Main Lode data is not optimal; the fire assaying (FA) at Vivien, a coarse gold environment, undervalues gold as compared to screen fire assays. The FA assays have been used in the resource estimate without adjustment.

Tonnage Factors : Samples are taken regularly by Mine Geologists to determine appropriate densities for tonnage calculations. On new projects, samples of core may be taken for density determination or known densities from similar lithologies may be used. Densities are generally consistent within lithologies and ore types.

Classification : Generally, resource categories are based on geological complexity, grade variance, drillhole intersection spacing, and mining development. In general, an Inferred Resource is drilled to a spacing of 100m by 100m, increasing to 40m by 40m on more complex or poorly understood structures. Indicated Resources are drilled to better than 80m by 80m on mined structures and 40m by 40m on unmined structures. Measured Resources are drilled to 20m by 20m, usually 10m by 5m in open pits and must be fully developed along strike in the underground mines.

Model Validation: All models are visually inspected in plan and section to compare the interpolated grades with the supporting sample data. Moving average grades and distributions are compared for model and sample populations. Models are checked to see if they have been efficiently kriged and the slope of regression and impact of any negative kriging weights are within acceptable limits. Generally if a regression slope of 0.95 or greater is achieved and the sum of negative kriging weights is less than 5% of the total, then the results are considered acceptable. Interpolation parameters may be adjusted to improve the regression slope and minimise the impact of negative kriging weights.

Charts are prepared comparing the grade distribution of the block model with the supporting sample data by lode and Jack knifing (estimation of sample locations) is also routinely used to test interpolation parameters.

Internal peer reviews are conducted on all new or updated resource models. External reviews using outside consultants are conducted periodically.

Reconciliation : The two main geological reconciliation measures are the comparisons between the Resource and Actual Hoist and the Reserve and Actual Hoist. For both measures, the mine significantly outperformed both the resource and reserve. Historic resource estimation models were considered overly conservative; current models are however more realistic and it is unlikely that underestimation will continue in the medium-term. Associated with the style of mineralisation, there exists a high-level of uncertainty with regard to local prediction of tonnes and grades which may be reflected in significant differences in the short-term between predictions and actual production.

The resource models often underestimate the ore widths, due mainly to insufficient drilling. As development has advanced the inclusion in-fill drilling, face sampling assays and mapping has improved the prediction of models. In some deposits (e.g. Crusader) significant amount of ore was mined from mineralisation outside of the resource model at the beginning of the period and these additional economically mineralised areas were only identified from sludge drilling as production advanced. Additional pillars and hangingwall ore were also mined as unplanned dilution. Some of the other unplanned dilution from previous mullock fill was ore grade, as cut-offs were higher in the past.

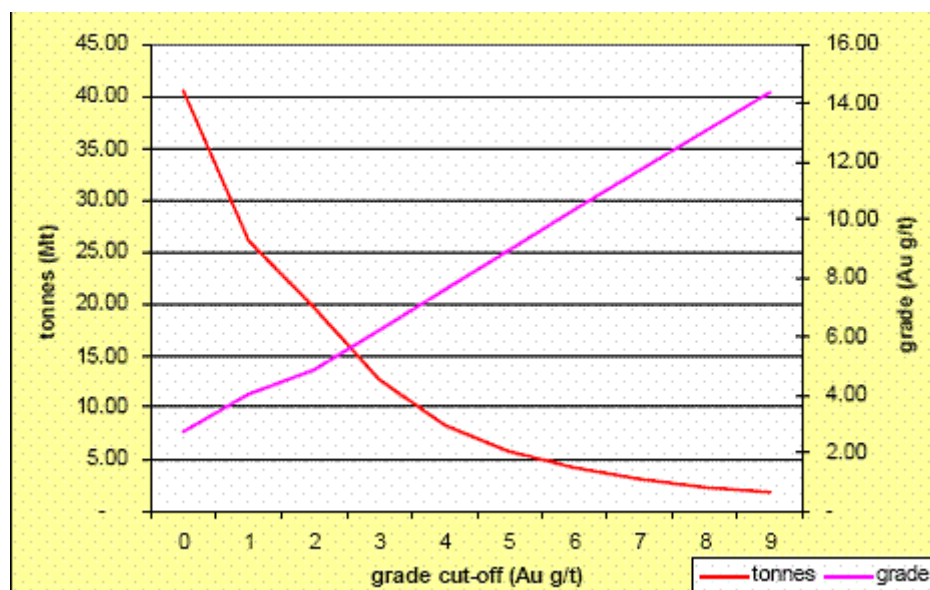
The following table summarises Agnew's June 2004 Mineral Resource and Mineral Reserve estimates. The estimates have been generated by GFL, however audited and where deemed necessary modified by SRK.

Reserve Classification	(kt)	(g/t)	(kg)	(koz)	Resource Classification (6)	(kt)	(g/t)	(kg)	(koz)
Proved					Measured				
UG - PAI(3)	378	14.8	5,593	180	UG - PAI	639	14.5	9,299	299
UG - UPBI(4)	0	0.0	0	0	UG - UPBI	0	0.0	0	0
OP - PWDP (1)	0	0.0	0	0	OP - PWDP	0	0.0	0	0
OP - UPODP (2)	0	0.0	0	0	OP - UPODP	0	0.0	0	0
SS - P (5)	462	1.4	643	21	SS - P	462	1.4	643	21
Subtotal	839	7.4	6,235	200	Subtotal	1,101	9.0	9,942	320
Probable					Indicated				
UG - PAI	693	7.5	5,220	168	UG - PAI	1,787	6.4	11,352	365
UG - UPBI	0	0.0	0	0	UG - UPBI	2,556	4.9	12,457	401
OP - PWDP	2,763	3.2	8,915	287	OP - PWDP	3,957	3.4	13,592	437
OP - UPODP	0	0.0	0	0	OP - UPODP	700	3.5	2,437	78
SS - P	0	0.0	0	0	SS - P	0	0.0	0	0
Subtotal	3,456	4.1	14,135	454	Subtotal	8,999	4.4	39,838	1,281
TOTAL	4,295	4.7	20,371	655	TOTAL	10,100	4.9	49,780	1,600
					Inferred				
					UG - PAI	0	0.0	0	0
					UG - UPBI	5,594	5.4	30,198	971
					OP - PWDP	0	0.0	0	0
					OP - UPODP	105	3.8	395	13
					SS - P	0	0.0	0	0
					Total Inferred	5,699	5.4	30,593	984

- (1) PWDP = Planned Within Design Pit – Mineral Resources and Mineral Reserves contained within a fully engineered open-pit designed from the final “optimised” Whittle pit.
- (2) UPODP = Unplanned Outside of Design Pit – Mineral Resources identified in the zone between the design pit surface and the Whittle Pit Shell containing the total resource inventory above a potentially economic cut-off grade.
- (3) PAI = Planned Above Infrastructure – Mineral Resources and Mineral Reserves accessible from existing infrastructure where no further material capital development is required to access any resource block
- (4) UPBI = Unplanned Below Infrastructure – Mineral Resources accessible only with significant additional capital development
- (5) P = Planned
- (6) UP = Unplanned

Subject to a positive feasibility study and project implementation by 10th September 2004, Agnew may also gain attributable Mineral Resource 326kt at a grade of 8.8g/t containing 92koz of gold (60% to Gold Fields). The feasibility work completed to date is indicating that the deposit may not be robust enough to justify exploitation at this stage.

The following figure highlights the grade-tonnage relationship for the total resources, including Measured, Indicated and Inferred.



The following table highlights the Mineral Reserves sensitivity to gold price variation.

Gold Price	Units (AUD/oz)	-10% 315	-5% 332	0 350	5% 368	10% 385
Ore	(kt)	4,106	4,254	4,295	4,521	4,722
Grade	(g/t)	5.0	4.9	4.7	4.7	4.6
Contained Gold	(koz)	640	654	655	665	679

SRK consider that no material shortcomings exist in the underlying resource models in terms of the appropriateness of drilling density, sampling, assaying, geological interpretation, estimation techniques and classification.

Further analysis is, however, required to better understand the material variance between the resource model estimate and the grade-control model predictions (and actual production) for the Agnew underground operations. The reconciliation issues cannot be addressed by simply applying global correction factors, as the grade and tonnage differences are relative to average mineralisation grade and associated cut-off grade, both of which vary from deposit to deposit. Increased geological knowledge and mapping has improved recent resource modelling and SRK consider that the historical conservatism has to some degree been engineered out; however work is still ongoing to further improve the confidence levels and close the reconciliation gap.

1.8 Mineral Processing and Metallurgical Test work and Tailings Deposition

As described in detail in **Section 11** of this ITR, the gold plant currently in operation at Agnew is the Agnew 1.2Mtpa gold plant. The plant, in its current form, has been modularly improved/expanded from the original Emu Plant, commissioned in 1986. The plant configuration is best described as a conventional leach/CIP facility with a retrofitted gravity gold circuit and subsequent intensive cyanidation circuit to treat the gravity concentrate.

In February 2003, a gravity circuit, comprising a 30” Knelson gravity concentrator in conjunction with an Intensive Leach Reactor (“ILR”) for intensive cyanidation of the gravity concentrate, was retrofitted. In FY2004, recovery from the gravity circuit was 39.4% contributing to an overall recovery of 94% for the year.

Annual process water requirements amount to 1.8Mm³ pa which is sourced from a combination of local bore holes and recycled water from the tailings facility. Power is supplied on a contract basis by Leinster Nickel Operations via its main power station owned and operated by TransAlta.

A significant contributor to the Life of Mine (“LoM”) plant feed is ore sourced from the Songvang open-pit. Metallurgical testing at the AMMTEC laboratory has demonstrated that the ores are amenable to the current flowsheet, however were tested at a grind P₈₀ 75µm, which is finer than the current P₈₀ 106µm grind. This may negatively influence the recovery projections.

For other ore types sourced from existing mining operations, future projections are based on historical performance, specifically where the ore make-up does not materially change over the depletion period.

Silver and copper levels in the Songvang ore are estimated at 7.7g/t and 377ppm respectively and are higher than levels contained in the current feed (1g/t and 50ppm respectively). Copper, however is present as chalcopyrite and this is unlikely to be detrimental to the recoveries. The elevated silver may cause carbon loading and desorption difficulties and may necessitate increasing the frequency of stripping.

Reagent consumptions, based on the test work programme of Songvang ores, are similar to current plant usage with metal recoveries slightly lower than existing ores.

Unit operating costs, when running at capacity is approximately USD12.8/t.

Other than standard circuit lock-up, no other closure recovery has been estimated mainly due to the fact that the plants are based on modern designs, have shorter operating lives and are compact in layout which reduces to the potential to accrue material amounts of recoverable gold from the plant and stockpile foundations.

Tailings are no longer deposited into the existing surface facility which has now reached its limit, however can be raised another 10m if required. Plant tailings are now deposited into the worked-out Redeemer orebody situated some 7km (downhill) from the plant. This closed mine has adequate capacity to contain the tailings from the Mineral Reserves and beyond.

1.9 Mining

As described in detail in **Section 13** of this ITR, the Mineral Reserves comprise one open-pit operation and three underground operations and six surface stockpiles, namely Songvang open-pit and Kim, Main and Crusader underground mine, these operations account for 97% of the contained gold ounces, the balance sourced from two small projects under feasibility study status.

Songvang Open-pit : The Songvang open-pit Mineral Reserves consist of 2.6Mt at a grade of 3.4g/t, containing 276koz of gold. The pit only commenced pre-stripping in September 2004 and first ore production is due in November. The Songvang open-pit has recently commenced following a positive Feasibility Study which was approved by Agnew in May 2004 and received approval of its Notice of Intent (“NoI”) in September 2004. Whittle shell optimisation were completed at a gold price of AUD530/oz. The final pit design has been completed but will be updated as additional data requires.

The current design takes the pit to a final depth of 160m below surface. The total stripping ratio

waste:ore is 12.7:1. Depletion should occur within a 33 month period in line with the mining contract, with peak annual production of ore at 1.2Mtpa in 2007 and waste 1.5Mbcm in 2007. The batter angle is expected to range between 45° and 70° with an overall wall angle of between 30° and 52°. The ore will first be hauled from the mining face to the mine ore pad, involving a maximum haul of 1,280m (160m deep @ 1 in 8 gradients). The ore will then be hauled some 16km to the plant RoM pad. The water make is forecast to average 2Ml/day, with a maximum of 4Ml/day.

The pit will operate two 12hr shifts per day, 7 days per week, including all public holidays. The workforce will comprise a 14 man Agnew management team and an in-pit contract labour compliment of 62. Blast patterns will vary with material type with five different patterns planned with the primary use of ANFO. There is a potential free-dig component in the oxide material.

The primary Mineral Reserve modification factors are 18% dilution and 90% extraction deemed appropriate for the large mining equipment to be used.

SRK consider that the pit has been planned appropriately by suitably qualified and experienced mine personnel. The design parameters and modification factors are in line with industry standards and cost based on known contractor rates. SRK do however note that the pit is some 16km from the plant and this adds to the unit operating cost over and above normal haulage distance. The pit was optimised on a marginal basis, with only portions of the fixed plant costs and no off-site overheads. The reliance on grade-tonnage performance is therefore all the more critical. The Mineral Reserves are modified from Indicated Resources and therefore estimation confidence needs to be considered and adds to the overall risk profile of a project based on marginal costing.

Waroonga Complex : The Kim and Main lode mines are situated in the Waroonga Complex. The Kim final mine design is an existing operation designed at a AUD580/oz gold price. The Main Lode has a completed feasibility study and is due to commence stoping before the end of calendar year 2004.

The mine extends to a final design depth of 515m below surface. Production commenced in February 2001 with a mine life anticipated over a 79 month period; Peak annual production of ore is 240ktpa planned to occur during 2005 and development 4,500mpa in 2004.

The mine decline portal in the Waroonga open-pit is at RL10,430. The main decline has the dimensions of 6m by 6m with arched backs however this reduces to 5.5m by 5.5m with rounded shoulders in Kim Lode access decline. Ore drives are generally between 4.5m and 6m wide by 5m high. Development rounds with burn cut are 3.8m to 4.0 m long.

General stope dimensions are based on a strike length of between 10m and 15m for primary stopes and a maximum of 25m for secondary stopes. Vertical inter level spacing is 25m in the Kim Lode and will be 20m in the Main Lode. Primary ore extraction method is sublevel stoping with primary and secondary stopes. The haulage distance from stope to mill averages 6km. Production blast pattern is 76mm diameter holes at 1.8m burden and 2.2m spacing, Anfo is used as explosive in development and production; 4 to 6.5 tonnes/drillmetre. Backfill of primary stopes is with cemented aggregate fill (4% cement content by weight).

Mine water inflow was pumped out at a rate of 180m³/hr in F2004, including dewatering of old Waroonga underground workings.

The mine has a total labour compliment of 17 operators and shift maintenance personnel per shift in addition to 13 persons in site overheads and supervision.

The mining equipment comprises twin boom jumbos, LHD machines, haulage trucks, longhole production jumbos, charge-up vehicles and a shotcrete unit. The backfill is transported from surface by

agitator trucks.

Crusader Underground: Crusader mine has few Mineral Reserves remaining in remnant pillars which will be depleted by the end of this year.

Vivien Feasibility Study : At this stage the feasibility study does not show sufficiently robust results to warrant modification to Mineral Reserves. The work is still ongoing; however alternative methods of extraction may need to be considered if the project is to be viable at a target gold price of AUD550/oz.

Mineral Reserve Estimation : The Mineral Reserves are estimated from conceptual studies through to the final stope design stage, with an increasing level of technical confidence in terms of the mining related disciplines. The stope designs take practical stope layouts into consideration as well as planned mining losses in pillars or other areas of the orebody not planned for extraction for technical or safety reasons. Dilution is estimated as planned and unplanned and based on a combination of personal experience and historical performance, supported with in stope measurements where practically possible.

Geotechnical Input : Adequate geotechnical investigations have been undertaken and incorporated into the designs, however due to the nature of insitu stresses this represents an area of risk, increasing as mining develops below 400m to 500m below surface. The variation in both stress magnitude and direction can be considerable over short distances and depths, as such design need to be tailored for each mining area and assessed regularly as mining advances. Monitoring systems have been installed at Kim.

Operating Costs : The majority of the expenditure is contract driven and as such the estimation of future costs is undertaken with a reasonable level of certainty over the contract periods.

Overall, SRK considers that the underground mine planning and Mineral Reserve estimation is undertaken appropriately and in line with Industry norms. The risks associated with the mining related disciplines are common for these types of operations. They include:

- Grade control and dilution;
- Geotechnical and seismic related activity at depth;
- Productivity of the contractors and impact on unit costs with a high fixed cost element for labour and equipment hire; and
- Approximately 50% of the Mineral Reserves ounces for the Kim and Main deposits from Indicated Resources and as such tend towards the lower-level of accepted levels in geoscientific confidence for both for tonnage and grade estimates. To date the production has demonstrated a positive reconciliation against the estimates for the underground operations; however this is unlikely to continue as improved geological knowledge gained from this historical production has now been incorporated into the latest estimation and mine designs.

1.10 Environmental

As described in detail in **Section 14** of this ITR, the environmental policies and management are deemed by SRK to be adequate and effective; however high-turnover in staff has created certain gaps in the continued level of required conformance, specifically relating to effective tracking of legislative requirements. Agnew has achieved ISO1 4001 accreditation.

Agnew operates on tenements that must be worked in compliance with key Western Australian (Commonwealth) and State environmental legislation. This legislation governs the approvals to

operate and to continue to operate. Agnew has all the key environmental approvals in place to operate, however management must now ensure that for continued environmental risk mitigation and future approvals and renewals, they materially comply with the conditions stipulated.

During its review, SRK identified several areas of non-compliance involving groundwater extraction, groundwater pollution associated with the tailings facilities, storage freeboard to contain flood events, spillages and reporting; the more material ones requiring immediate attention.

For its approvals, Agnew lodged bonds to cover the environmental commitments assessed at the time of application. These liability assessments are required to be updated at set periods. The current assessment, which has not been submitted for approval, estimates the liability to be in the order of USD5.4m which is USD3.1m more than the bond value. This additional liability estimate has been incorporated into the cash flows based on equal annual increments over the depletion period.

SRK has identified non-compliances, issues and associated risks, which cannot be realistically quantified. In each case, SRK has drawn attention to it in reporting without including a specific provision in the financial modelling. For example, potential future requirements for water treatment during continued operations or following decommissioning is the single most material risk and the most technically and economically difficult to estimate. Whilst water treatment at Agnew is not currently needed, the potential for future requirements will be dependent upon:

- Execution of both recently passed legislation and more stringent future legislation which imposes more costly water management requirements;
- Discharge criteria demanding potable water standards as opposed to more lenient general standards; and
- Tacit acceptance by various organisations of the concept of desalination and its increasing cost effectiveness as technology improves.

1.11 Human Resources

As described in detail in **Section 15** of this ITR, Agnew is currently adequately staffed with the appropriate combination of technical and administrative staff, with the exception of one or two positions vacant due to recent resignations and the start-up of the Songvang open pit.

All employment contracts for Gold Fields staff at Agnew are negotiated in line with Australian Workplace Agreements (“AWA”) or Common Law Contracts, negating the need for union involvement.

One significant change anticipated in the next 12 months that may materially affect employment conditions is that the WA State Government has proposed to establish a new State-wide code of practice to set limits on working hours. If approved, the new code will come into effect in July 2005, and will result in major shift restructuring at Agnew operations.

The following tables summarise the historical and current employee and productivity statistics. The tables report in calendar years from January 2002.

Employment Status		2002 12mth Act	2003 12mth Act	2004 (1) 6mth Act
TEC	(No.)	365	264	274
Terminations/Resignations	(No.)	14	20	13
Annualised Turnover (permanent)	(%)	15%	21%	14%

(1) six-months actual results to June 2004.

Employment Status			2002 12mth Act	2003 12mth Act	2004(1) 6mth Act
Ore Tonnes Hoist	(kt)		2,367	599	239
Gold Produced	(koz)		137	169	105
TEC	(No.)		365	264	274
tonnes mined	(t/TEC/mth)		540	189	145
ounces sold	(ozTEC/mth)		31	53	64

(1) six-months actual results to June 2004.

The statistics show that despite a high turn-over in employees, the productivity levels, in tonnage mined terms, appear to be sustainable.

Agnew is a FIFO operation with only 20% of staff (approx) electing to live in Leinster full time (residential staff). WMC charts regular flights to Perth. In addition to the usual rotation flights, each staff member (including residential staff) are offered 4 return flights to Perth per quarter as part of their package, these flights can be used by family and friends..

1.12 Health and Safety

As described in detail in **Section 16** of this ITR, health and safety is a primary component of operations at Agnew. Health and Safety in Australia is governed by various regulatory bodies and mining and labour legislation. In particular, the mining industry is governed by the Mines Safety and Inspection Acts 1994 and the Mine Safety and Inspection Regulation 1995. In compliance with these Acts and Regulations Agnew's management has developed, and made available to all its employees, a site specific safety policy and manual.

The current safety statistics for Agnew are summarised in the following table. The table reports in Calendar years from January 2002.

	Units	2002	2003	2004 (1)
Hours worked		99,642	68,229	67,330
Fatalities	(No.)	0	0	0
L.T.I	(i/mmhrs)	1	0	0
M.T.I	(i/mmhrs)	2	1	2
(LTI +MTI) Frequency Rate	(i/mmhrs)	25	13	30

(1) Calendar years.

(2) mmhrs = million man hours – based on total hours worked by Gold Fields' staff and all contractors Calendar Years.

Agnew has achieved a SIFR record that has fluctuated around 13-25 per million man hours. For 2004, the SIFR benchmark was 24 per million man hours, which Agnew achieved. In the same time period, the site achieved 1 million man hours without an LTI. As a recent commitment to Occupational Health and Safety, Gold Fields Australia has recently committed to target 0 severe injuries (SIFR) per annum.

Operations at Agnew will continue to be exposed to commonplace mining hazards such as water, dust, fire, falls of ground ("FoG"), explosions, occupational hygiene issues and materials handling and transportation. SRK do, however, consider that Agnew by way of its policies and management strategies operate to international best practice in terms of occupational health and safety.

1.13 Asset Valuation

As described in detail in **Section 17** to **Section 20** inclusive of this ITR, the valuation of Agnew has been based on the following key facts and assumptions:

- Only the Mineral Reserves have been valued based on the LoM plan and resulting production profile and associated revenue stream from gold sales;
- All associated cost and capital required to implement the plan have been included and in money terms as at 01 July 2004;
- Where existing operations are extended into the LoM plan, cost and productivity projections have been assessed against historical performance, future projects have been based on pre/feasibility studies and costs have been compared with similar deposits previously depleted within the same complex of similar operations worked elsewhere;
- All environmental and termination provisions have been included in the working costs projections;

The following table summarises the Technical-Economic Projections (“TEPs”) deemed by SRK to be technically and economically achievable as at 01 July 2004. The TEPs include commodity sales profiles derived from all ore sources; the total working-cost profiles; and capital expenditure profiles.

YE Dec	Tonnage (Kt)	Gold Grade (g/t)	Gold Total Working Costs		Net Change in Working Capital (USDk)	Capital Expenditure (USDk)	Total Expenditures (USDk)
			(Koz)	(USDk)			
2004(1)	635	4.5	91	-21,810	2,703	-14,866	-33,973
2005	1,270	5.1	210	-56,546	93	-14,784	-71,237
2006	1,270	5.3	215	-51,794	-957	-6,664	-59,414
2007	1,120	2.6	93	-29,821	-3,876	-412	-34,109
2008	0	0.0	0	0	0	0	0
LoM Total	4,295	4.4	609	-159,970	-2,037	-36,726	-198,733

Real Money Terms as at 01 July 2004 .

Certain technical and economic risks have been identified with regard to the achievability of the LoM projections as presented. These are identified as general risks, many of which are beyond the control of the management of Agnew.

The most material general risks are those associated with commodity price and exchange rate fluctuations which can materially impact on the technical-economic generation and profitable depletion of Mineral Resources and Mineral Reserves. The commodity price and exchange rate fluctuations can offer equal opportunity.

In addition to those stated above, Agnew is subject to certain specific risks and opportunities, which independently may not be classified to have a material impact (i.e. likely to affect more than 10% of the annual pre-tax profits), but in combination may do so.

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The most material **operational risks** are summarised as follows:

- **Open-pits** : The Songyang pit has only just commenced and as yet no ore production has taken place. The primary risk to the production profile, as projected, is the consistency of grade and dilution control measures. The nature of mineralisation at this deposit is such that highly variable grades can be encountered over short distances as the geological controls vary across the pit. As such the grade control model needs to appropriately account for this likelihood within the various geological domains. The potential impact could result in more ore tonnes, at a lower grade with the contained ounce remaining close to target. The economic impact would result in a reduced operating margin. SRK consider the risk to be of a medium level that the RoM grade will be lower

than projected.

The decision to advance the Songvang feasibility study into an operation was based on marginal costing, allocating a reduced fixed component of the processing cost and no external administration costs. This further emphasises the importance of grade control and maintaining the target grade, specifically considering the long haulage distance of +14km to the processing facilities;

- **Underground** : The Kim Lode is the hub of the high-grade ore sources, being on average some 5g/t higher than the Main Lode which is in turn approximately 2g/t higher than the Rajah lode. The consistency and continuity of this high-grade ore supply is critical to meet the projected cash flows. To maintain this consistency an increased flexibility is required by advancing development which is planned accordingly. Any deviations or unplanned delays in stoping activities at the Kim mine will material impact on the cash flows in any given period. SRK consider the risk to oresupply shortfall from the Kim Lode to be low based on a good understanding of the orebody gained over the past two-years and an improved extraction plan. The mine is however working at increased depths and the rock engineering aspects are becoming more challenging and will need to be diligently managed to prevent any seismic related stoping delays;
- **Processing** : The current processing facilities require ongoing maintenance to ensure its long-term viability and prevent the unit costs rising above current levels and during 2005 ongoing refurbishment of the adsorption tanks (as committed by the approved AFE), ongoing replacement of structural steel and general maintenance is planned.

Mitigation of the risk of major failures of fixed plant is managed by timely non-destructive testing, adequate critical spares of major items of plant & the ongoing commitment to the tank refurbishment program. The Ball Mill 1 girth gear has been extensively tested to determine whether the identified cracks are worsening, all indications are that the cracks may have been a casting defect, however it has not shown any signs of deterioration in 2005.

The mill control has been replaced with a PLC/SCADA system utilising Citect. A focus on value adding automation will be maintained throughout the strategic planning cycle, as Agnew aim to incorporate automated reagent control & additional field instrumentation & Citect programming to allow trending of performance, monitoring of fixed plant operational run hours and electronic data capture of metallurgy physicals for daily/weekly/monthly reporting;

- **Human Resources** : High attrition rates are typical with FIFO remote sites in Australia, driven not only by social, family pressures and shift work fatigue, but predominantly by a migrant culture that has developed in the industry and has become the norm rather than the exception. 'Long service' is now regarded as continuous service for more than 2 to 3 years at any particular FIFO site, the average stay is seldom more than 3 years at Agnew. Whilst difficult to quantify, the impact on the unit operating costs, the time and money needed to retrain new employees; together the site experience factor certainly has a cost effect, and not just related to wage increases to attract new people.

Initiatives implemented to date include, the streamlining of rosters to be predominantly no more onerous than 9/5, the formation of a multi-functional leadership team and functional adjustment to the service orientated organisation. This includes a functional Human Resource department, development and implementation of an incentive scheme, quarterly family flights and exploring opportunities to make our packages more tax efficient. The custodians of these initiatives are both management and employees; and

- **Environmental** : In depth understanding of the site water management issues at Agnew require further attention. Two ground & surface water engineering companies have put forward proposals to deliver a comprehensive site water management plan with a live site water balance model. This will provide a holistic approach to Agnew's water management needs incorporating processing and mining.

The Redeemer in-pit tails storage facility was commissioned in 2004; this successfully addressed the immediate tailings storage requirement. This facility provides in excess of 10 years capacity for tailings deposition.

The most material **operational opportunities** are summarised as follows:

- **Exploration** : There is considerable potential at Agnew to add significantly to current resource and reserves through a combination of extensional and greenfields exploration. In terms of the extent of its tenement holdings and the exploration undertaken thus far, Agnew cannot be considered advanced at this stage, and recent geological studies have identified numerous prospective areas yet to be tested effectively.

This aspect is by far the single biggest opportunity at Agnew and Gold Fields has a firm exploration expenditure commitment to fund current and continued exploration plans.

Mineral Resources : Agnew currently has Inferred Mineral Resources which are being investigated further at various levels of technical-economic studies in order to test viability and prior to funding further work sufficient to increase to Indicated Resources and into Probable Reserves. No value has been assigned to these Resources and this offers a significant potential in addition to the continued exploration.

The asset valuation has been based on macro economic assumptions provided to SRK by Gold Fields as summarised in the following table.

Parameter	(Units)	2004	2005	2006	2007
Gold Price (1)					
Real-terms	(USD/oz)	400	400	400	400
Nominal Terms	(USD/oz)	404	412	420	429
Inflation (2)					
US CPI	(%)	1.00%	2.00%	2.00%	2.00%
AUS CPI	(%)	1.50%	3.00%	3.00%	3.00%
Exchange Rates (3)					
Real-terms	(AUD:USD)	1.43	1.43	1.43	1.43
Nominal-Terms	(AUD:USD)	1.44	1.45	1.47	1.48

-
- (1) Assumed to be the average price achieved over the period.
- (2) Assumed to be the average inflation over the period
- (3) Assumed to be the average exchange rate over the period – (based on CPI)

The key financial assumptions have also been relied upon to estimate working capital and tax components of the cash flow projection, these are summarised in the following table.

Input	Units	Amount
Assessed Losses	(USDk)	104,910
Tax Rate	(%)	30%
Debtors	(USDk)	1,812
Creditors	(USDk)	-7,106
Stores	(USDk)	3,767
Debtors	(days)	7
Creditors	(days)	30
Stores	(days)	90

The cash flows reported for the Agnew Tax Entity are contingent upon the current and anticipated performance of mine management, as well as the expected achievement of the operating parameters as provided to and reviewed by SRK and set out in this ITR.

The LoM plans and the Financial Model (“FM”) include forward-looking statements that are not historical facts. These forward-looking statements are necessarily estimates and involve a number of risks and uncertainties that could cause actual results to differ materially. Notwithstanding the aforementioned comments, SRK considers that at the time of compilation, the Mineral Reserves and associated depletion resulting in cash flow projections are appropriate and technically and economically achievable. It must be noted, however that SRK does consider that a certain amount of upside potential is already built into the projections that fundamentally rely on the existing management performance to implement and sustain recent initiatives to ensure that the projected cashflows are realised within the anticipated timeframe.

The following table presents the post-tax pre-finance ring-fenced cash flows for the Agnew Tax Entity.

Calendar Year Project Year	Units	Totals/Averages	2004 1	2005 2	2006 3	2007 4
Mining						
	RoM Tonnage (kt)	3,833	357	1,197	1,448	832
	Head Grade (g/t)	5.1	7.2	5.8	5.1	3.4
	Contained Gold (koz)	634	83	222	237	92
Processing						
	Milled Tonnage (kt)	4,295	635	1,270	1,270	1,120
	Milled Grade (g/t)	4.7	4.8	5.5	5.6	2.9
	Milled Gold (koz)	655	99	224	228	104
	Metallurgical Recovery (%)	93.1%	92.5%	93.7%	94.3%	89.5%
	Recovered Gold (koz)	609	91	210	215	93
	Clean-up Gold (koz)					
	Saleable Metal (koz)	609	91	210	215	93
Commodity Sales						
	Gold (koz)	609	91	210	215	93
	Silver (koz)					
Commodity Prices						
	Gold Price (USD/oz)		404	412	420	429
	(AUSD/oz)		580	598	616	634
Macro Economics						
	AUS PPI (%)		1.5%	3.0%	3.0%	3.0%
	AUS CPI (%)		1.5%	3.0%	3.0%	3.0%
	US PPI (%)		1.0%	2.0%	2.0%	2.0%
	US CPI (%)		1.0%	2.0%	2.0%	2.0%
	(USD:AUSD)		1.44%	1.45	1.47	1.48%
Financial - Nominal						
Sales Revenue - Gold	(USDm)	253.0	36.8	87.0	90.0	39.3
Operating Expenditures	(USDm)	(146.1)	(3.2)	(46.3)	(58.9)	(37.7)
Mining	(USDm)	(99.0)	(12.7)	(40.0)	(35.7)	(10.7)
Processing	(USDm)	(42.7)	(5.8)	(12.3)	(12.5)	(12.1)
Overheads	(USDm)	(22.0)	(3.0)	(6.3)	(6.4)	(6.2)
Other Revenue	(USDm)	32.1	16.9	15.1	—	—
Mineral Royalty	(USDm)	(6.3)	(0.9)	(2.2)	(2.3)	(1.0)
Environmental	(USDm)	(3.3)	(0.5)	(1.1)	(1.2)	(0.5)
Terminal Benefits	(USDm)	(3.0)	—	—	—	(3.0)
Net Change in Working Capital	(USDm)	(1.9)	2.7	0.4	(0.9)	(4.1)
Operating Profit	(USDm)	106.9	33.5	40.7	31.1	1.6
Tax Liability	(USDm)	—	—	—	—	—
Capital Expenditure	(USDm)	(37.8)	(14.8)	(15.5)	(7.1)	(0.4)
	Project (USDm)	(37.8)	(14.8)	(15.5)	(7.1)	(0.4)
	Sustaining (USDm)	—	—	—	—	—
Final Net Free Cash	(USDm)	69.1	18.7	25.2	24.0	1.1
Reporting Statistics - Real						
Cash Operating Costs	(USD/oz)	226	60	217	264	323
Total Cash Costs	(USD/oz)	226	60	217	264	323
Total Working Costs	(USD/oz)	237	65	222	270	361
Total Costs	(USD/oz)	302	197	294	307	411

The following tables present the NPV and variations with discount factors and sensitivity factors on revenue, working costs and capital.

Discount Factor (%)	NPV (USDm)
0.00%	69.1
5.00%	57.8
7.46%	56.8
10.00%	55.7
12.00%	54.9
14.85%	53.8

Sensitivity Range - Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range - Operating Expenditures	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range - Capital Expenditures	-30%	-20%	-10%	0%	10%	20%	30%

Currency	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)
Variation in NPV @ 0% DCF							
Revenue	(14.8)	10.2	35.2	69.1	85.2	110.2	133.9
Operating Expenditures	111.8	94.6	77.4	69.1	43.0	25.8	8.7
Capital Expenditures	71.7	67.9	64.0	69.1	56.4	52.6	48.7
Variation in NPV @ 7.46% DCF							
Revenue	(12.5)	10.6	33.7	56.8	79.9	103.0	125.0
Operating Expenditures	104.0	88.3	72.5	56.8	41.0	25.2	9.5
Capital Expenditures	67.8	64.1	60.4	56.8	53.1	49.4	45.7

NPV (USDm) Operating Expenditure Sensitivity	Revenue Sensitivity						
	-30%	-20%	-10%	0%	10%	20%	30%
-30%	34.7	57.8	80.9	104.0	125.7	142.4	158.8
-20%	19.0	42.1	65.2	88.3	111.4	131.0	147.6
-10%	3.2	26.3	49.4	72.5	95.6	118.7	136.4
0%	(12.5)	10.6	33.7	56.8	79.9	103.0	125.0
10%	(28.3)	(5.2)	17.9	41.0	64.1	87.2	110.3
20%	(44.1)	(21.0)	2.1	25.2	48.3	71.4	94.5
30%	(59.8)	(36.7)	(13.6)	9.5	32.6	55.7	78.8

1.14 Qualified Persons' ("QPs") Conclusions

The views expressed in this ITR have been based on the fundamental assumption that the required management resources and proactive management skills to access the adequate capital necessary to achieve the LoM plan projections for the Mining Assets are sustained.

SRK has conducted a comprehensive review and assessment of all material issues likely to influence the future operations at Agnew. The LoM plan, as provided to and taken in good faith by SRK, has been reviewed in detail for appropriateness, reasonableness and viability, including the existence of and justification for departure from historical performance. Where material differences were found, these were discussed with St Ives and adjusted where considered appropriate. SRK consider that the resulting Technical Economic Parameters ("TEPs") and Financial Model ("FM") are based on sound reasoning, engineering judgement and technically achievable mine plans, within the context of the risks associated with the Australian gold mining industry.

2 INTRODUCTION

In compliance with Form 43-101F1 Technical Report Item 4, this Section provides an introduction to the Independent Technical Report (“ITR”) in terms of:

- who the ITR is prepared for;
- the purpose for which the ITR was prepared;
- the source of information and data contained in the ITR and/or used for its preparation; and
- extent of field involvement.

2.1 Independent Technical Report

Steffen, Robertson and Kirsten (Australasia) (Pty) Limited (“SRK”) is a subsidiary of the International group holding company, SRK Global Limited (the “SRK Group”). SRK has been commissioned by the directors of Gold Fields Limited (“Gold Fields”) and IAMgold Corporation (“IAMgold”) to prepare an ITR on Agnew Gold Mine, Western Australia (“Agnew”) in support of the proposed transaction between Gold Fields and IAMgold.

This ITR has been prepared in accordance with the following:

- The Listing Requirements of the TSX; and
- The Rules and Companion Policies of the Ontario Securities Commission (“OSC”) enacted by Section 143 of the Securities Act, specifically:
 - National Instrument 43-101 Standards of Disclosure for Mineral Projects (“National Instrument 43-101”),
 - Form 43-101F1 (the “Form”),
 - Companion Policy 43-101 CP (the “Companion Policy”).

In accordance with the applicable Rules and Companion Policies, this ITR has been prepared under the direction of the Qualified Persons (“QPs”) who assume overall professional responsibility for this ITR. The ITR, however, is published by SRK, the commissioned entity, and accordingly SRK assumes responsibility for the views expressed herein. Consequently with respect to all references to QPs and SRK: ‘all references to SRK mean the QP and vice-versa’.

The ITR principally comprises a technical-economic appraisal of the Agnew Gold Mine and has been prepared in accordance with the Rules and Companion Policies stated above.

2.2 Purpose of the ITR

The proposed transaction means the acquisition by IAMGold of the Acquired Interests from Gold Fields and its affiliates and the issue by IAMGold of the Consideration Shares to Gold Fields and its affiliates as consideration thereof, resulting in the acquisition by IAMGold of all of the interests of Gold Fields in certain of its subsidiaries which collectively hold all of the mining assets of Gold Fields located outside of Southern African Development Community (“SADC”).

In this regard Gold Fields will transfer to IAMgold ownership of its interests in:

- Orogen Holding (BVI) Limited (“Orogen”): Orogen holds Gold Fields indirect interests of:
 - 100% of St Ives Gold Mine, Western Australia (“St Ives”),

- 100% of Agnew Gold Mine, Western Australia (“Agnew”),
- 80.7% of Cerro Corona development property, Peru (currently under option),
- 100% of Arctic Platinum Project, Finland,
- a portfolio of other exploration properties and investments;
- Gold Fields Ghana Holdings Limited (“GF Ghana Holdings”): GF Ghana Holdings holds Gold Fields indirect interests of:
 - 71.1% interest in and claim on loan account against Gold Fields Ghana Limited, which owns and operates the Tarkwa Gold Mine, Ghana,
 - 71.1% interest in Abosso Goldfields Limited, which owns and operates the Damang Gold Mine, Ghana; and
- Gold Fields Guernsey Limited, which include a portfolio of exploration properties and investments.

For the transfer of ownership Gold Fields will be issued with 351,690,218 IAMgold Shares in addition to a number of IAMgold Shares equivalent to the net cash contributions made by Gold Fields into the Acquired Companies between 24 June 2004 and the Completion Date.

SRK has been informed that Gold Fields and IAMgold have signed definitive agreements to implement the Transaction on September 29, 2004 subject to satisfaction of certain conditions precedent.

This ITR principally comprises a technical-economic appraisal of Agnew and has been prepared in compliance with the Securities Act – National Instrument 43-101 Standards of Disclosure of Mineral Projects, Form 43-101F1, Technical Report, and Companion Policy 43-101CP. Specifically Part 4 Obligation to File a Technical Report (Section 4.2, Subsection (1)3) in support of the Joint Information Circular to be sent to the IAMgold and Shareholders.

2.3 Sources of Information

The ITR has been prepared based on information provided by the management of Gold Fields, specifically the management of Agnew, and taken in good faith by SRK. SRK has not independently verified by means of re-calculation of the underlying data, however SRK has:

- undertaken inspection visits to surface and underground operations, processing facilities, surface structures and associated infrastructure at Agnew during August and September 2004;
- held discussion and enquiry following access to key personnel based at the individual site operations and at head office;
- reviewed and, where considered appropriate by SRK, modified Agnew’ estimates and their classification of Mineral Resources and Mineral Reserves;
- reviewed Agnew’ plans and supporting documentation and, where considered appropriate by SRK, modified Agnew’ LoM plans and the associated Technical-economic Projections (“TePs”), including assumptions regarding future operating costs, capital expenditures and gold production; and
- examined historical information and results made available by Agnew in respect of the individual operations in support of, in particular, the forecasts contained in the LoM plans and one-year budgets.

Key documentation provided to SRK in support of this ITR and as generated by Agnew is:

- Competent Persons Report for Mineral Resources and Ore Reserves, June 2004 prepared by Agnew Gold Mining Company Pty Limited (“Agnew CPR”); and
- Strategic Business Plan commencing July 2005, depleting the Mineral Reserves as declared in the Agnew CPR;
- Actual monthly results for the periods: January 2002 to August 2004 inclusive.
- Projected performance for the periods:
 - July 2004 to June 2005 – in the form of a revised budget forecast on a monthly basis finalised in August 2004,
 - Strategic Business Plan (“SBP”) in the form of an annual cash flow model depleting the Mineral Reserves and including depletion where deemed appropriate by the management of Agnew of Mineral Resources not yet modified to Mineral Reserves due to ongoing but incomplete technical studies.

SRK has satisfied itself that such information is both appropriate and valid for valuation as reported herein. SRK considers that with respect to all material technical-economic matters it has undertaken all necessary investigations to ensure compliance, both in terms of level of investigation and level of disclosure.

In doing so SRK has not reproduced the information provided to it by Agnew without due consideration or appropriate modification. Notwithstanding this comment, SRK has not recalculated the base information supporting the Mineral Resource estimates as derived from bore-hole and assay data, this given the generally extensive history of Agnew and geological investigations undertaken by Agnew and previous owners. SRK has, however undertaken sufficient checks through the course of its investigations to enable an appropriate level of reliance to be placed on such data, as provided.

Where fundamental base data has been provided (LoM plans, capital expenditures, operating budgets etc) for the purposes of review, SRK recognise the requirements of 43-101F1 Item 25 and accordingly state that SRK has performed all necessary validation and verification procedures deemed appropriate in order to place an appropriate level of reliance on such information.

2.4 Effective Date

The effective date (the “Effective Date”) of this ITR is deemed to be 01 July 2004, and is co-incident with the Valuation Date and cash flow projections as incorporated herein. The valuation of Agnew (the “Valuation”) is dependent upon the following:

- Technical information as generated by Agnew in accordance with their annual planning process defined as the Base Information Date (“BID”), which in the case of Agnew is 01 July 2004; and
- Adjustments to all technical information to reflect depletion, historical performance and any additional material information provided from the BID to the Effective Date.

3 RELIANCE ON OTHER EXPERTS

In compliance with Form 43-101F1 Technical Report Item 5, this Section provides details on the reliance that SRK has placed on other experts, specifically in the discipline areas of:

- Technical Reliance;
- Legal Reliance; and
- Financial and Accountancy Reliance.

3.1 Technical Reliance

SRK places reliance on Agnew's Qualified Persons that all technical information provided to SRK as at 01 July 2004, is both valid and accurate for the purpose of compiling this ITR. The information with respect to Mineral Resources and Ore Reserves as stated by Agnew has been prepared under the direction of each individual as named in Table 3.1

Table 3.1 Agnew: Qualified Persons in terms of Technical Reliance

Name	Discipline	Qualification	Relevant Experience	Professional Membership
Agnew				
Louw Smith	Resource and Reserve Estimation	B.Sc (Hons) Geology; B Comm; M.Sc Mining (Business Economics)	1 Year at Agnew	AusIMM
Dan Baldwin	Resource Estimation	B.Sc (Hons) Geology; Grad.Dip. (Business)	2 years at Agnew	AusIMM
Wayne Pope	Reserve Estimation	B.Eng Mining	Over 4 years at Agnew	AusIMM
SRK				
Phil Jankowski	Resource Estimation	BSc (geology), MSc (deposit evaluation)	16 years in the Gold Mining Industry	AusIMM
Mike Warren	Reserve Estimation	BSc (Mining), MBA	30 years in the Mining Industry	AusIMM

- (1) The Mineral Resources and Mineral Reserves have been generated by a team of 20 professional staff, six of which are professionally registered. The staff complement is split into management teams whom take responsibility for each of the primary resource areas, namely Waroonga Complex, Redeemer Complex, Crusader/Deliverer Complex, Songvang and Miranda/Vivien JV.

3.2 Legal Reliance

In consideration of all legal aspects relating to the declaration of the Mineral Resources, Mineral Reserves and valuation of Agnew, SRK has placed reliance on representatives employed by Gold Fields that the following legal aspects/statements are correct as at 1 July 2004.

- a statement by the Directors of Gold Fields “ *that any legal proceedings that may have an influence on the rights to explore for to continue to exploit minerals...* ” or an appropriate negative statement, has been included in the body of the various circulars relating to the Transaction;
- that the legal ownership and entitlement of all mineral and surface rights has been verified; and
- that no significant legal issues exists which would affect the likely viability of a project and /or the estimation and classification of the Mineral Reserve and Mineral Resources as reported herein.

3.3 Accounting and Financial Reliance

3.3.1 Accounting Reliance

In consideration of all financial aspects relating to the valuation of Agnew, SRK has placed reliance on Agnew's Financial Officer that the following information is accurate as at 01 July 2004:

- assessed losses;

- opening balances for debtors, creditors and stores; and
- working capital and taxation logic.

The information with respect to the above accounting disclaimer has been prepared under the direction of the FO of Agnew whom provided the data contained in Table 3.2.

Table 3.2 Agnew: Accounting Inputs as at 30 June 2004

Input	Units	Amount
Assessed Losses	(USDk)	104,910
Tax Rate	(%)	30%
Debtors	(USDk)	1,812
Creditors	(USDk)	-7,106
Stores	(USDk)	3,767
Debtors	(days)	7
Creditors	(days)	30
Royalties	(days)	7
Stores	(days)	90

3.3.2 Financial Reliance

In generating the valuation of Agnew, SRK has relied upon the commodity price and macro economic forecasts as included in Table 3.3, which have been generated by NM Rothschild's (Washington), Financial Advisors to Gold Fields.

Taking cognisance of the volatile nature of both the gold price (USD/oz) and the exchange rate between the USD and both the ZAR and AUD, SRK has run sensitivities on revenue ranging between -30% and + 30% to these macro-economic projections as discussed in the risks and opportunities in Section 17 of this ITR:

Table 3.3 Agnew: Macro-Economic Inputs

Parameter	(Units)	2004	2005	2006	2007
Gold Price(1)					
Real-terms	(USD/oz)	400	400	400	400
Nominal Terms	(USD/oz)	404	412	420	429
Inflation(2)					
US CPI	(%)	1.00 %	2.00 %	2.00 %	2.00 %
AUS CPI	(%)	1.50 %	3.00 %	3.00 %	3.00 %
Exchange Rates(3)					
Real-terms	(AUD:USD)	1.43	1.43	1.43	1.43
Nominal-Terms	(AUD:USD)	1.44	1.45	1.47	1.48

(1) Assumed to be the average price achieved over the period.

(2) Assumed to be the average inflation over the period

(3) Assumed to be the average exchange rate over the period – (nominal forecasts based based on CPI differential)

3.4 Warranties and Limitations

SRK's opinion is effective 01 July 2004 and is based on information provided by Gold Fields and specifically the management of Agnew throughout the course of SRK's investigations, which in turn reflect various technical-economic conditions prevailing at the time of writing. These conditions can change significantly over relatively short periods of time and as such the information and opinions contained in this report may be subject to change.

In this ITR, SRK provides assurances to the directors of Gold Fields that the TePs, including production profiles, operating expenditures and capital expenditures, as provided to SRK by Agnew and reviewed and, where deemed appropriate to do so, modified by SRK, are reasonable, given the information currently available.

The achievability of LoM plans, budgets and forecasts are neither warranted nor guaranteed by SRK. The forecasts as presented and discussed herein have been proposed by Agnew's management and cannot be assured; they are necessarily based on economic assumptions, many of which are beyond management control. Future cash flows and profits derived from such forecasts are inherently uncertain and actual results may be significantly more or less favourable.

This report includes technical information, which requires subsequent calculations to derive subtotals, totals and weighted averages. Such calculations may involve a degree of rounding and consequently introduce an error. Where such errors occur, SRK does not consider them to be material.

3.5 Disclaimers and Cautionary Statements for US Investors

The United States Securities and Exchange Commission (the "SEC") permits mining companies, in their filings with the SEC, to disclose only those mineral deposits that a company can economically and legally extract or produce from. Certain terms are used in this report, such as "resources", that the SEC guidelines strictly prohibit companies from including in filings.

Ore Reserve estimates are based on many factors, including, in this case, data with respect to drilling and sampling. Ore Reserves are derived from estimates of future technical factors, future production costs, future capital expenditure, future product prices and the exchange rate between the Australian Dollar ("AUD") and the United States Dollar ("USD") and the South African Rand ("ZAR"). The Ore Reserve estimates contained in this report should not be interpreted as assurances of the economic life of the Mining Assets or the future profitability of operations. As Ore Reserves are only estimates based on the factors and assumptions described herein, future Ore Reserve estimates may need to be revised. For example, if production costs increase or product prices decrease, a portion of the current Mineral Resources, from which the Ore Reserves are derived, may become uneconomical to recover and would therefore result in lower estimated Ore Reserves.

The LoM plans, the TEP's and the Financial Model ("FM") include forward-looking statements in compliance with the requirements of National Instrument 43-101. These forward-looking statements are necessarily estimates and involve a number of risks and uncertainties that could cause actual results to differ materially.

3.6 Qualifications of Authors

The SRK Group comprises 500 staff, offering expertise in a wide range of resource engineering disciplines. The SRK Group's independence is ensured by the fact that it holds no equity in any project. This permits the SRK Group to provide its clients with conflict-free and objective recommendations on crucial judgment issues. The SRK Group has a demonstrated track record in undertaking independent assessments of resources and reserves, project evaluations and audits, ITRs and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies and financial institutions worldwide. The SRK Group has also worked with a large number of major international mining companies and their projects, providing mining industry consultancy service inputs. SRK also has specific experience in commissions of this nature.

This ITR has been prepared based on a technical and economic review by a team of 7 consultants sourced from the SRK Group's offices in Australia over a two-month period. These consultants are

specialists in the fields of geology, resource and reserve estimation and classification, underground and open-pit mining, rock engineering, metallurgical processing, hydrogeology and hydrology, tailings management, infrastructure, environmental management and mineral economics.

Neither SRK nor any of its employees and associates employed in the preparation of this report has any significant beneficial interest in Agnew or in the assets of Gold Fields. SRK will be paid a fee for this work in accordance with normal professional consulting practice.

The individuals who have provided input to this ITR, who are listed below, have extensive experience in the mining industry and are members in good standing of appropriate professional institutions.

- Edward Clerk: Environmental – B.Sc (Hons) (environmental science);
- Keith Leather: Metallurgy and Tailings – B.Eng (metallurgy) and Fellow AusIMM, Member IMM;
- Jonathan Suthers: Valuation – B.Eng (Hons) (mining);
- Michael Warren: Surface Mining and Mineral Reserves – B.Sc (mining), MBA and Member AusIMM;
- Philip Jankowski: Geology and Mineral Resources – B.Sc (geology) M.Sc (Ore deposit geology and evaluation) and Member AusIMM;
- Sally Griffin: Technical-economic Projections – B.Sc (Geology), MCom (finance) and a graduate member AusIMM;
- Thomas Schrimpf: Underground Mining and Mineral Reserves – Dipl.Ing and Member AusIMM;

In compliance with 43-101F1 Part 5 subsection 5.1 this ITR has been prepared by and /or under the supervision of the following Qualified Persons:

- the Qualified Person with **overall responsibility** for the compilation of this ITR is **Mr. Michael Warren**, B.Sc(Mining), MBA and Member AusIMM who is an employee of SRK. Mr. Warren is a mining engineer with 25 years experience in the mining industry and has supervised numerous due-diligence reviews and various technical studies on similar gold mining assets during the past five-years. In compliance with the 43-101F1 requirements, Mr. Warren also assumes responsibility for the reporting of Mineral Reserves as included in this ITR; and
- the Qualified Person with responsibility for reported Mineral Resources is **Mr. Philip Jankowski**, B.Sc (geology) M.Sc (Ore deposit geology and evaluation) and Member AusIMM who is an employee of SRK. Mr. Jankowski is a mining geologist with 16 years experience in the mining industry and has been responsible for the reporting of Mineral Resources on various gold mining properties, specifically specialising in resource estimation, mine geology and grade control.

4 PROPERTY DESCRIPTIONS AND LOCATION

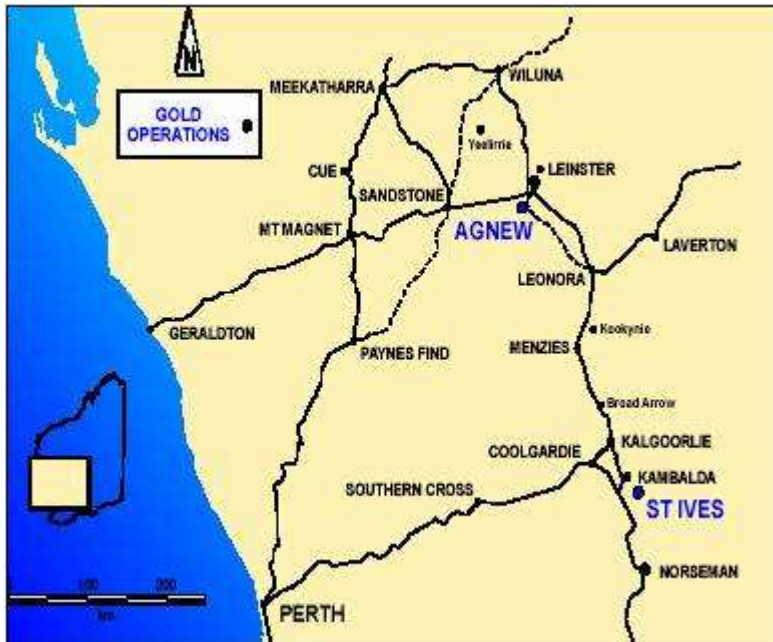
In compliance with Form 43-101F1 Technical Report Item 6, this section provides detail in terms of:

- the location of the property;
- the size of the property and a current surface plan;
- the tenement details and associated rights to exploit minerals;
- the legal status of the tenements and rights including the ownership and any applicable royalties; and
- the environmental permitting and associated binding commitments.

4.1 Location

The main Agnew site office is located in the Township of Agnew, situated 23km southwest of the town of Leinster in Western Australia, approximately 1,050km (by road) northeast of Perth. Located approximately at latitude 27°55`S and longitude 120°42`E in the Norseman-Wiluna Greenstone Belt, the nearest major settlement is the town of Leonora situated 128km south. Figure 4.1 shows the geographic location of Agnew in Western Australia.

Figure 4.1 Agnew: Geographic Location in Western Australia



The site extends over 60km and covers an area of approximately 75,000ha. Figure 4.2 shows the extent of the property boundaries and the current and historical working areas and current infrastructure within the property.

4.2 Overview

Gold production from the Agnew area commenced in the early 1900s, and has produced approximately 20.8Mt at 4.4g/t yielding 2.9Mozs from 6 open-pit and 3 underground mining operations.

During 2003, Agnew produced from 1 open-pit (last production February 2003) and 2 underground mining operations in conjunction with the Agnew mill/CIP processing plant of 1.2Mtpa capacity. Agnew is budgeted to produce approximately 196koz of gold in 2004 primarily from underground operations, however the new Songvang Open-pit is due to commence in October 2004.

Mineral Resources and Ore Reserves reported at Agnew were generally reported from evaluations under a standard set of cost assumptions, and at a gold price of AUD650/oz and AUD580/oz, respectively. Mineral Resources for selected projects were reported under strategic cost assumptions, and a further minority were reported above cut-offs without the benefit of evaluations.

Table 4.1 summarises the operational Key Performance Indicators since Agnew was acquired and operated by Gold Fields in December 2001. The table reports in calendar years from January 2002.

Table 4.1 Agnew: Key Performance Indicators

MINING		Units	2002 12mth Act	2003 12mth Act	2004 (1) 6mth Act
Total Mining(2)					
	Ore Tonnes Hoist	(kt)	2,367	599	239
	Head Grade Hoist	(g/t)	2.7	7.8	12.2
	Contained Gold	(koz)	206	150	93
Underground					
	Ore Tonnes Hoist	(kt)	214	363	218
	Head Grade Hoist	(g/t)	9.2	11.5	13.0
	Contained Gold	(koz)	63	135	92
	Waste Development	(m)	6,858	5,396	2,041
	Ore Development	(m)	0	1,288	665
Open-pit					
	Ore Tonnes Mined	(kt)	2,152	236	20
	Head Grade Mined	(g/t)	2.1	2.1	2.9
	Contained Gold	(koz)	143	16	2
	Waste BCM Mined	(bcmk)	4,259	34	0
	Ore BCM Mined	(bcmk)	794	100	10
	Strip Ratio	(bcm _w :bcm _o)	5.4	0.3	0.0
PROCESSING					
Total Processing(3)					
	Tonnes Processed	(kt)	1,206	1,237	582
	Head Grade	(g/t)	3.8	4.6	6.0
	Gold to Process	(koz)	147	182	113
	Gold Recovered	(%)	91.3 %	91.9 %	93.8 %
	Gold Produced	(koz)	134	168	106
	Gold Sold	(koz)	137	169	105
LABOUR					
	Permanents	(No.)	90	96	96
	Temporary / short term	(No.)	21	9	6
	Contractors	(No.)	254	159	172
	TEC	(No.)	365	264	274

MINING	Units	2002 12mth Act	2003 12mth Act	2004 (1) 6mth Act
Terminations/Resignations	(No.)	14	20	13
Annualised Turnover (permanent)	(%)	15 %	21 %	14 %
SAFETY				
Hours worked		99,642	68,229	33,665
Fatalities	(No.)	0	0	0
L.T.I	(i/mmhrs)	1	0	0
M.T.I	(i/mmhrs)	2	1	1
(LTI +MTI) Frequency Rate	(i/mmhrs)	25	13	30
FINANCIAL				
Closing Exchange Rate	(AUD:USD)	0.54	0.66	0.74
Gold Price Received (spot)	(USD/oz)	311	366	400
Gold Price Received (spot)	(AUD/oz)	573	555	543
Revenue	(USDk)	42,581	62,089	42,272
Royalty	(USDk)	987	1,575	1,087
Direct Mining Costs	(USDk)	27,761	19,403	10,950
Surface Cartage Costs	(USDk)	302	753	619
Direct Processing Costs	(USDk)	7,932	9,583	6,002
Direct G&A onsite Costs	(USDk)	976	925	1,290
Direct G&A offside Costs	(USDk)	1,390	934	648
Direct Operating Costs	(USDk)	38,360	31,598	19,509
Unit Operating Costs	(USD/t)	31.80	25.55	33.52
	(USD/oz)	281	187	185
Total Capital	(USDk)	18,124	17,726	10,418
Total Cash Expenditure	USD/oz	413	292	284

- (1) six-months actual results to June 2004.
(2) Sourced from 2 underground operations and 1 open-pit operation.
(3) Processing includes material from stockpiles.Total processing is the combine through using a combination of CIL and Heap Leach processing.

4.3 Tenements and Rights

In Australia, with few exceptions, all onshore mineral rights are reserved to the government of the relevant state or territory. Exploration for and mining of minerals is regulated by the mining legislation of that state or territory and controlled by the relevant state or territory department. Where native title has not been extinguished, native title legislation may apply to the grant of tenure and some subsequent administrative processes. Heritage legislation may operate to preclude or regulate the disturbance of a particular area. In most Australian states, if the holder of an exploration licence establishes indications of an economic mineral deposit and expends a minimum level of investment, it may apply for a mining lease which gives the holder exclusive mining rights with respect to all minerals on the property. It is possible for one person to own the surface of the property and for another to own the mineral rights. The maximum initial term of a mining lease is 21 years and the holder has the right to renew the lease for a further period of 21 years. Subsequent renewals are subject to the minister's discretion and the lease can only be assigned with the consent of the relevant minister. Royalties are payable as specified in the relevant legislation in each state or territory. A general-purpose lease may also be granted for one or more of a number of permitted purposes. These purposes include erecting, placing and operating machinery in connection with mining operations, depositing or treating minerals or tailings and using the land for any other specified purpose directly connected with mining operations.

Table 4.2 list the current (and applied for) tenement holdings for Agnew, Table 4.3 list the current (and applied for) tenements for the Miranda Farm-in and Exploration Joint Venture Agreement between Agnew and BMV Properties Ltd ("BMV").

On 10 September 2002, Agnew and BMV also entered into the Vivien Farm-in and Joint Venture Agreement. Agnew has met the minimum expenditure requirement of AUD0.7m within the specified

period. Agnew is currently completing a feasibility study (also required as part of the JV agreement prior to 10 September 2004), following the outcome of this study Agnew will make the decision to develop the project. Until such time a commitment is made Agnew does not hold any interests in the properties and is limited to a preferential option only.

Table 4.2 Agnew: Tenement Holdings

Summary	No. of Licences	Status	Rent (AUD/annum)	Commitment (AUD)	Ownership	Interest (%)	Area (Ha)	Classification
Exploration Licence								
AGM	2	Granted	990	40,000	AGM	100%	2,800	OR
AGM	3	Granted	396	30,000	AGM	100%	1,400	OL
AGM	4	Granted	4,950	80,000	AGM	100%	14,000	N/A
Subtotal	9		6,336	150,000			18,200	
Exploration Licence								
AGM	1	Application	0	0	AGM	100%	280	OR
AGM	1	Application	0	0	AGM	100%	1,960	N/A
Subtotal	2		0	0			2,240	
Miscellaneous Licence								
AGM	1	Granted	35	0	AGM	100%	2	W
Subtotal	1		35	0			2	
Miscellaneous Licence								
AGM	3	Application	0	0	AGM	100%	122	N/A
Subtotal	3		0	0			122	
Mining Title - AGM								
AGM	14	Granted	86,237	666,600	AGM	100%	6,582	OL
Subtotal	14		86,237	666,600			6,582	
Mining Title - AGM								
AGM	5	Applications	0	0	AGM	100%	3,220	OR
AGM	5	Applications	0	0	AGM	100%	1,880	OL
Subtotal	10		0	0			5,100	
Prospecting Licence								
AGM	2	Granted	613	13,120	AGM	100%	327	OR
AGM	2	Granted	123	4,240	AGM	100%	55	OL
Subtotal	4		737	17,360			383	
Prospecting Licence								
AGM	1	Applications	0	0	AGM	100%	198	N/A
Subtotal	1		0	0			198	
Total	44		93,344	833,960			32,826	

- (1) OR = Nickel Option Tenement: WMC reserves the right in respect to any Nickel Option Tenement to either exercise a right of pre-emption to benefit from the treatment or sale of any form of nickel ore won from any Nickel Option Tenement OR to charge a royalty on nickel won from a Nickel Option Tenement.
- (2) OL = Nickel Reservation: WMC reserves the right to explore for nickel on any Nickel Reservation Tenement and where economically viable mine or process it by such means as WMC chooses.
- (3) W = Miscellaneous Licence.
- (4) N/A = no extraordinary conditions.

Table 4.3 Agnew BMV: JV Tenement Holdings

Summary	No. of Licences	Status	Rent (AUD/annum)	Commitment (AUD)	Ownership	Interest (%)	Area (Ha)	Classification
Exploration Licence								
BMV Agnew JV	5	Granted	2,334	75,000	BMV	60%	6,431	N/A
Subtotal	5		2,334	75,000			6,431	
Exploration Licence								
BMV Agnew JV	1	Application	0	0	BMV	60%	280	N/A
Subtotal	1		0	0			280	
Mining Title - AGM								
BMV Agnew JV	38	Granted	326,268	2,492,500	BMV	60%	24,919	N/A
Subtotal	38		326,268	2,492,500			24,919	
Mining Title - AGM								
BMV Agnew JV	22	Applications	0	0	BMV	60%	10,018	N/A
Subtotal	22		0	0			10,018	
Prospecting Licence								
BMV Agnew JV	7	Granted	1,025	25,520	BMV	60%	544	N/A
Subtotal	7		1,025	25,520			544	
Total	73		329,627	2,593,020			42,192	

(1) N/A = no extraordinary conditions.

In summary, Agnew holds 4 prospecting licences (383ha), 9 exploration licences (18,200ha), 14 Mining titles (6,582ha) and 1 miscellaneous licence (2ha). The total area of these granted licences cover 25,167ha and all reported Mineral Reserves and associated infrastructure required to exploit them are contained within this area.

In addition the tenements at application status cover 7,660ha and in Joint venture there is an additional 31,894ha of granted licences and 10,298ha of applications.

The total site therefore covers an approximate area of 75,000ha, with an additional 1,800ha covering the Vivien JV area.

Figure 4.4 shows the geographic location and extent of the granted tenements listed in Table 4.2.

4.3.1 Licences for Mining Tenements

The Agnew properties are situated on Crown Land which requires that a mining title be obtained from the Department of Industry and Resources before any mining operations may be undertaken. The mining tenements applicable to Agnew under the Mining Act 1976 are:

- **Prospecting Licence (“PL”) (Sections 40-56)** : Maximum area is 200Ha; which must be marked out and an application fee and rental is payable. There are no limits to the number of licences a person or company can hold, but security or bond is required in respect of each licence. The term for a licence is 4 years. Without prior approval the extraction is limited to 500 tonnes of material from the ground;
- **Exploration Licence (“EL”) (Sections 57-69)** : On 28 June 1991 a graticular boundary (block) system was introduced for exploration licences. The minimum size of the licence is one block and the maximum is seventy blocks. Agnew has ELs ranging between 3 and 17 blocks. The exploration is not marked out, however an application fee and rental is payable. The term is five-years (negotiable) and a disturbance bond is retainable. Without prior approval the extraction is limited to 1,000 tonnes of material from the ground;

- **Mining Lease (“ML”)/Mining Licence (“M”) (Sections 71-85)** : The maximum area for a ML/M is 1,000ha and the area must be marked out. Application fees and rental are payable, with no limits on the number of leases held. A term of 21-years is awarded and can be extended. The lessee of a mining lease may work the mine and land, carry out mining operations in, on or under the land, subject to conditions of title;
- **Miscellaneous Licences (“L”) (Sections 91-94)** : No Maximum area, however licence area must be marked out. The licence is for purposes such as roads, pipelines etc. An application fee and rental is applicable, with no limitation on number held. The term is five-years. This licence type can be applied over and co-exist with other licences; and
- **General Purpose Lease (“GPL”) (Sections 86-90)** : A maximum area of 10ha and must be marked out and are limited to a depth of excavations, which unless specified defaults at 15m. A GPL is for purposes such as operating machinery, disposing of tailings etc. There is no limit on the number of licence and the term is for 21-years with an applicable fee and rental.

Agnew use the Geocentric Datum of Australia (GDA94) to set-out all property boundaries and local mine grid system when generating and presenting working plans. SRK considers this system to be appropriate.

Figure 4.2 Agnew: Tenement Areas

4.3.2 Tenement Status

The legal entitlement, tenement type, commitment summaries, grant and renewal dates, rentals and Shire awards are all freely available to the general public on a comprehensive government web site. The tenements can be grouped together as a package, and the current mining expenditure can be apportioned to the package, as opposed to the individual lease boundaries, this allows for the financial commitments to be easily honoured on a package basis.

Agnew holds some 29 individual licences that have expiration dates ranging between 2005 and 2021 therefore Gold Fields has an in house tenement management team to ensure that no potential oversights with the timing of payments, commitments and renewals occur.

As part of the Grant conditions any material changes to the operation, from that submitted at the time of application, has to be re-approved following receipt of a notice of intent (“NoI”) supported by an appropriate level of technical documentation describing the new use of the collective Mining Licence,

A list of the NoIs that have recently been submitted are provided in Table 14.2 in Section 14.

SRK has been informed by and relied upon Gold Field’s legal council, as referenced in Section 3.2, that Agnew has legal entitlement to all its stated Mining Tenements with appropriately granted licences and leases. SRK therefore consider that with timeously presented NoIs, renewal applications and continued financial commitment, there are no material issues identified that relate to tenements that would negatively impact on the projected depletion of the current Mineral Reserves and SBP. In addition SRK has been informed that all rentals and expenditure commitments have been met and that appropriate provision for future commitments is included in the forward projects and presented cash flows in Section 19.

4.4 Property Related Encumbrances

All minerals extracted from the Agnew tenements are subject to a State Royalty of 2.5% of received revenue, payable before any other deductions. Agnew accounts for this front-end royalty in both its cut-off grade estimates and financial provisions.

Aside from this State Royalty, Agnew has one other permitted encumbrance with “a gold royalty payable to Normandy Wiluna Gold Pty Ltd equal to 3% of each ounce of Refined Gold after 25,000 ounces pursuant to an agreement between Normandy Wiluna Gold Pty Ltd and Consolidated Gold Pty Ltd dated 24 April 1997”. This forms part of the Vivien FI and JV agreement, however at this point in time no Mineral Reserves are reported for the Vivien FI and JV agreement.

4.5 Environmental Bonds

As part of the environmental approval process and prior to the granting of licences and permits, a bond amount has to be lodged. The amount reflects the estimated closure liability at the time the approvals are assessed and based on the mining or exploration plan forming part of the application. Agnew has to date lodged some USD2.3m associated with the granted licences summarised in Table 14.4.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

In compliance with Form 43-101F1 Technical Report Item 7, this section provides detail in terms of:

- Topography, elevation and vegetation;
- Access to the property;
- The proximity of the property to a populated centre, and the nature of transport;
- Climate and length of the operating season;
- The surface area available for waste dumps, processing facilities and tailings disposal; and
- Availability of power, water and mining personnel.

5.1 Climate

Agnew lies in an arid region of Western Australia and the weather patterns are determined by synoptic conditions. In the summer, the anticyclones are positioned well south of the area causing predominantly easterly winds with warm to hot conditions prevailing. When a trough forms as the anticyclone moves eastwards, wind directions change and the high and middle level cloud associated with the trough can cause occasional thunderstorms. A few rain bearing cyclonic depressions come from the northwest during the late summer causing widespread rain and occasional flooding. The winter pattern is characterised by the anticyclones being centered further north and the wind direction changes to north to north-westerly. Although frontal activity from southern depressions rarely reach this far north there is some interaction with middle level cloud from the north west resulting in winter rains.

The average rainfall for the area is approximately 230mm per annum and is received in the late summer to middle winter with the driest period of the year occurring between September and December.

The temperatures in the area show marked fluctuations between the seasons, and during the day and night. Due to the low humidity and absence of cloud cover there is little to restrict incoming and outgoing radiation hence the diurnal fluctuations. Summer temperatures reach as high as 45°C but are usually 35°C to 40°C, and in the winter months frosts are experienced on some mornings but on average the temperature is in the range of 10°C to 15°C.

In the summer months evaporation can be as high as 550mm and winter months falls to around 120mm.

There is rarely an occasion when site access is unavailable due to climatic conditions or operations suspended due to adverse weather conditions.

5.2 Landform

Agnew is approximately 380m above sea level with a regional landform that is flat to gently undulating, consisting of rounded stable crests and rocky outcrops with stripped slopes and shallow valleys draining to stony plains.

Occasional breakaway scarps up to 20m high with scree slopes occur as a result of differential stripping of the regolith. Minor drainage channels flow into a chain of salt lakes, which appear to represent ancient river systems. These systems ultimately drain either towards the Nullarbor Plain in the east or the Indian Ocean in the west.

The Agnew region, along with much of the Yilgarn Craton, is covered by a deeply weathered lateritic horizon which has been partly eroded and buried by materials of diverse origins. Plains are generally

dominated by sediments of various ages (Permian to Recent) which have been derived locally or distally, with thicknesses varying up to tens of metres. Some of the earlier sediments have undergone further weathering and ferruginisation and may resemble the underlying residual regolith. The extent of weathering varies from approximately 20m over felsic bedrock to a maximum of 60m to 70m over mafic and ultramafic bedrock.

5.3 Vegetation

Vegetation in the area is sparse and consists of eucalyptus, mulga, halophytic shrubs with few grasses and annual forbs.

5.4 Access Infrastructure , Primary Services and Locality to Settlements

The site is accessed by public tarred roads which are generally well maintained by State road services and as such no material access issues for services and supplies are apparent.

Power is supplied via a long-term (to 2011) a “take-or-pay” contract with WMC. There is more than adequate off-take in this agreement and as such the power is currently costing more than industry average. The situation will however ease once the new plant is in production and the off-take will increase to a point that the unit rates will be more competitive.

All water needed for site activities is supplied by boreholes. Water for the processing plant is supplied directly from boreholes. Any potable drinking water is processed through a Reverse Osmosis Treatment Plant (“ROP”) that processes the water in line with ANZEC Australian Drinking Water Quality Standards. The township at Agnew is supplied with water from the Agnew town borehole, while the township at Leinster is supplied from WMC’s boreholes located within WMC’s borehole license area.

Agnew is required to submit annual water returns to the Water and Rivers Commission. Fines may be imposed on Agnew by this Commission for exceeding the extraction limit on individual licenses, but there is a no material risk of the licence being revoked.

The township at Leinster is owned and operated by WMC. Agnew has a contract in place with WMC, whereby 280 single persons quarters (SPQs) and 40 houses will be made available to Agnew staff, with the option to increase this allocation, subject to availability (at present, Agnew hold 57 houses in the town). In return, Agnew pays a fixed cost for town infrastructure maintenance and a unit rate per SPQ per night (includes accommodation, food and utilities).

The operation is a FIFO operation with only 20% of staff (approx) electing to live in Leinster full time (residential staff). WMC charts a Qantas flight from Perth to Leinster return twice daily on Monday-Thursday, once daily on Friday and Sunday and no flights on Saturday. In addition to the usual rotation flights, each staff member (including residential staff) are offered 4 return flights to Perth per quarter (restricted to low load flights) as part of their package. They can be taken by family or friends (or themselves in the case of residential staff). Agnew currently employs approximately 300 people and is considered adequately resourced.

6 HISTORY

In compliance with Form 43-101F1 Technical Report Item 6, this Section provides detail in terms of:

- the prior ownership of the property and any relevant ownership changes;
- the type, amount, quality and results of explorations and/or development work undertaken by the current and previous owners;
- the historical Mineral Resources and Mineral Reserve Estimates in accordance with Section 2.4 of the Instrument; and
- historical production estimates.

6.1 History of Ownership

Pre 1970 : Gold was first discovered in the region in 1895 at Lawlers, 10km south of the Agnew Township. The Agnew Waroonga area was developed shortly afterwards by Bewick Moreing, with ore being trammed 10km to the existing Great Eastern mine. Waroonga was mined up until 1912, and closed due to poor performance of Bewick Moreing combined operations in the area.

A new company, the Waroonga Gold Mining Co. Ltd., acquired the Waroonga mine from the liquidator in 1913. Mining was mainly limited to tribute works and slimes re-treatment, restricted at the time by a reported lack of investor capital and low gold prices.

Local entrepreneur Claude de Bernales became interested in the area in the early 1930's. He formed the East Murchison United Gold Mines ("EMU") and purchased the Waroonga lease in 1934 for GBP5,500 installing a treatment plant in 1936. The Waroonga mine became known as the Emu mine and produced gold between 1937 until 1948, when mining again ceased due to a reported combination of high groundwater inflows and "*company problems*".

The mine leases were then acquired by Messrs Trundle and Cock of the Kim Syndicate who investigated the northerly extension of the deposit. The WA Mines Department drilled four diamond boreholes with encouraging results, and a 63m shaft was sunk to investigate the potential for a high grade shoot. They undertook minor drive and crosscut development at this level but were unable to raise funds to develop to deeper levels (where the Kim ore body is worked by Gold Fields).

1970 to 2001 : Western Mining Corporation Limited ("WMC") explored the mine leases in 1962 and 1963, and again in the mid-1970s. An option to purchase the Emu mine was exercised in 1976 after mineralisation was intersected below the historical workings. The open-pit potential of the area was tested in 1984 by percussion and diamond drilling. Test pitting commenced in 1985, followed by full scale open-pit bulk mining in 1986.

Exploratory underground development commenced in 1989 from which production was maintained until 1992 at which point all mining was again suspended. The underground operations were reportedly not successful due to inappropriate mine design (specifically development drives at 6m by 6m), limited ore potential due to previous mining, and poor grades in the upper levels of the mine north of the historical stoping. Between 1986 and 1992 WMC mined gold from the open-pit and exploratory underground development. The Emu mine was then closed and allowed to flood.

A new phase of drilling was undertaken leading to open-pit operations recommencing in 2001 with the first ore delivered to the mill in May 2001. The name changed back from Emu to Waroonga at this time.

In other nearby leases to the south, WMC entered into a joint venture with Nord Australex Pty Ltd in

1985 to explore for further Emu style mineralisation. In April of that year the JV discovered the Redeemer ore body through a 4.1ppm gold in a soil sampling anomaly. Successful drilling led to a full purchase of the lease and commencement of an open-pit. The pit produced until 1991.

Underground development commenced in 1989 using sub-level caving methods and these operations were completed in January 2002.

Successful soil sampling exploration led to the discovery of the Deliverer ore body in April 1985. An open-pit was developed to a 50m depth in 1990.

In 1987, the Cox-Crusader ore body was discovered 400m south of Deliverer by Asarco Australia Ltd during exploratory rotary air blast drilling. In the same year, Asarco and Forsayth Mining Services commenced mining of the Cox open-pit before the shallow plunge of the ore body caused the shoot to enter WMC tenements immediately to the north. WMC purchased the Cox leases from Asarco in 1992 and mining on the extended Cox open-pit was completed in 1994. A decline was then developed on the re-named Crusader ore body.

Exploration drilling of the down plunge extensions of the Deliverer ore body led to the discovery of the Pilgrim ore body in the hanging wall of the Deliverer deposit. An open-pit was undertaken at Pilgrim in 2000; however persistent wall failures in the ultramafic host rock hampered mining and led to a premature closure in August 2000.

In 1992, exploration lease, E36/200 (Donegal prospect), was granted to Agnew Gold Operations (“AGO”). The lease area is generally covered by recent lateritic alluvial material, and was tested by two aircore drilling programmes, with 200m and 800m-line spacing and boreholes between 80m and 100m apart. An occurrence of anomalous gold was identified in the west of the exploration lease E36/200 (Donegal prospect). From 1994 to 2000, extensive exploration activities were carried out to test the anomaly, which included:

- conventional and enzyme leach soil geochemical orientation surveys;
- gravity, magnetic, down-hole conductivity and gradient induced polarisation (IP) geophysical surveys; and
- aircore, RC and diamond drilling.

By 2000, several narrow high-grade ore zones were intersected in RC boreholes. Intersections were interpreted as indicating a multiple mineralised system, hosted in sets of steeply east-dipping shear zones. Based on the Emu/Redeemer/Crusader analogues, drilling programmes targeted a north plunging shoot or the favourable line of intersection between west dipping lithologies and a NS striking structure. The initial drilling programmes led to a small non-viable resource of 50koz. The exploration potential of the area was subsequently down graded.

In 2001, exploration lease E36/200 (Donegal prospect) was converted to mining leases M36/450 and M36/352.

Post 2001 : Gold Fields Australia acquired AGO from WMC in December 2001 and formed Agnew Gold Mining Company (“Agnew”).

Agnew continued the cutback on the Waroonga open-pit until closure on the 12th February 2003 with only minor remnant mining occurring since.

In February 2002, an underground decline was commenced to access the Kim and Main Lodes. By September 2002, the first ore in the Kim ore body was intersected. Uphole longhole open stoping was

initially utilised. A primary/secondary mining method was developed using cement aggregate fill to maximise ore body extraction, the first cement fill was poured in December 2003. An exploration drive in the Rajah Lode was completed in February 2004.

Agnew continued to mine the Redeemer Underground mine until closure on the 26th January 2002.

The Crusader complex continues to provide a valuable ore source. Mining in the lower levels in Crusader was completed in March 2002 after the down plunge extension of the Crusader ore shoot was closed off by underground diamond drilling. Remnant mining in the upper levels of this shoot will continue through to at least November 2004.

Underground development to access the Deliverer ore body from the Crusader decline commenced in December 2001 to coincide with the Gold Fields acquisition. Utilising uphole benching and flatback cut and fill as extraction method, the final underground ore from the Deliverer system is planned to be depleted by August 2004.

Waste access development to the Pilgrim ore body, which is located in the hanging wall of both the Crusader and Deliverer ore bodies, commenced in January 2004 and was prematurely suspended in May 2004 after the ore drive roof caved into the Pilgrim pit.

Exploration efforts are currently focussed to the north on the Claudius ore body, on down plunge extensions of the Claudius resource and on depth extensions of the Pilgrim ore body.

The Songvang project has been supported by Agnew, since the acquisition in December 2001, and extensional and infill drilling resumed in 2002. Subsequent interpretation and modelling have recognized that overturned lithologies are steeply dipping to the east. With the assistance of additional geological information, mineralised ore zones were reinterpreted as plunging to the southeast. Extensional drilling to the south and east furthermore identified a larger mineralised shear zone to the east of the Donegal prospect. The northerly striking shear zone is shallowly dipping to the west (approximately 35°) and plunging to the south at 10° to 15°. The prospect was also renamed as Songvang or 'River of Gold' in October 2002, and pre-stripping commenced in September 2004.

7 GEOLOGICAL SETTING, DEPOSIT TYPES AND MINERALISATION

In compliance with Form 43-101F1 Technical Report Item 9, Item 10 and Item 11, this section provides detail in terms of:

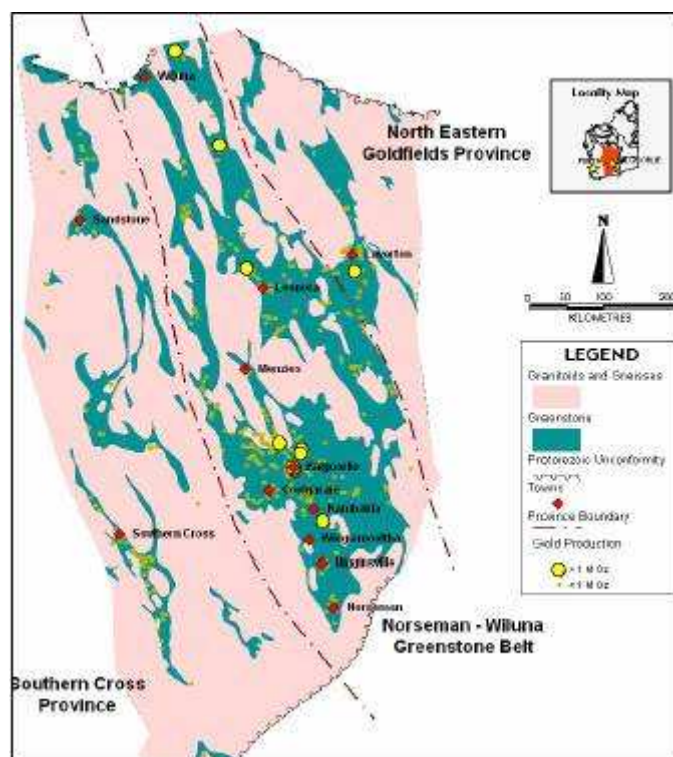
- Concise descriptions of the regional, local and property/deposit geological settings;
- Mineral deposit types being mined, investigated and explored and relationship between the geological models and the influence on exploration and investigation programmes; and
- Mineralised zones encountered on the properties, the surrounding rock-types and relevant geological controls, detailing length, width, depth and continuity, together with a description of the types, character and distribution of mineralisation.

7.1 Regional Geology

The Achaean Norseman-Wiluna Greenstone Belt is a part of the Yilgarn Craton, a 2.6Ga granite-greenstone terrain in Western Australia (Figure 7.1). In comparison to other greenstone belts in the Yilgarn Craton, the Norseman-Wiluna Belt is highly mineralised, particularly in gold and nickel. The rock-types in the belt comprise abundant tholeiitic and komatiitic volcanic rocks, chert, sulphidic and albitic sedimentary rocks, and a chain of discrete felsic volcanic centres. There is relatively little Banded Iron Formation compared with the other greenstone belts of the Yilgarn Craton. The gross structure is markedly linear with NNW-trending strike-slip faults and other tectonic lineaments traceable for hundreds of kilometres which disrupt the greenstone into fault-bound domains. The generalised stratigraphic sequence comprises three mafic-ultramafic units, two felsic volcanic units, and an uppermost epiclastic sequence. It is unclear whether sequences can be correlated between domains, especially as the volcanic-sedimentary sequences are inherently complex and unlikely to be laterally continuous. The nature of the basement on which the greenstone sequence was deposited remains unknown, as does the nature of the basal part of the succession. The oldest rocks appear to be greywackes, shales, tuffs and basalts occurring 130km to the south of Agnew, but all the exposed contacts with adjacent banded gneisses and domal granites are tectonic. The original thickness of the greenstone sequence is uncertain as no complete section is preserved, and the extensive faulting and thrusting has possibly repeated or deleted parts of the sequence.

There were a series of complex and long-lasting structural deformations during and after the metamorphism, during which the majority of the economic gold deposits were formed. Metamorphism has affected all rock-types and ranges from low temperature prehnite-pumpellyite facies to high temperature and pressure amphibolite and granulite facies. Throughout the belt, most of the rocks are low strain and as original igneous textures and structures are well preserved, original rock names are used to describe the geology. Strain is focused in linear shear zones characterised by penetrative planar and linear fabrics and higher metamorphic facies, which are thought to control the location of the majority of economic gold deposits in the belt.

Much of the Yilgarn Craton is deeply weathered and partially covered by Tertiary and Quaternary regolith. Pre-Tertiary lateritic horizons are variably exposed, stripped or buried by later deposits that have in turn been lateritised. The depth of weathering is strongly controlled by original rock-types, with mafic rocks generally being more susceptible to weathering than felsic rocks.

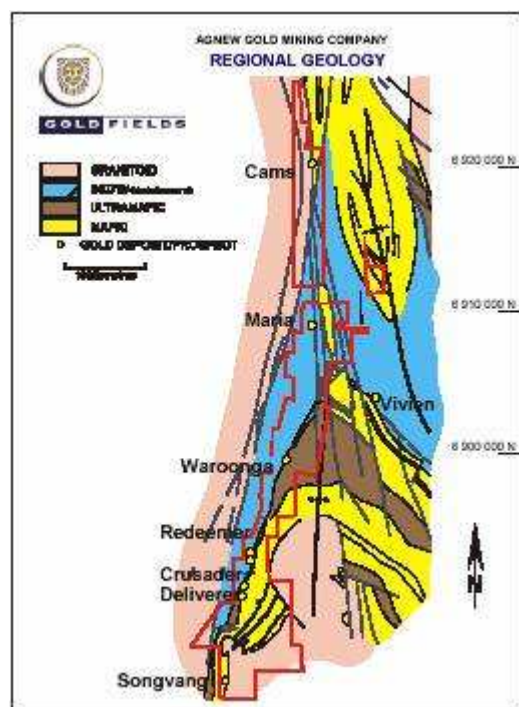
Figure 7.1 Agnew: Simplified geology of the Norseman-Wiluna greenstone belt

7.2 Local Geological Setting

7.2.1 Agnew-Wiluna Geology

The Agnew-Wiluna section of the Norseman-Wiluna Greenstone Belt is bounded by large granitoid bodies and the Ida Fault to the west (Figure 7.2). The Ida Fault, locally termed the Waroonga Shear, is a major regional scale shear zone that defines the western edge of the Kalgoorlie Terrane. The majority of the Agnew orebodies are on the western limb of the Lawlers Anticline, a large open fold, plunging 30° to the north, although economic mineralisation is also formed on the eastern limb (e.g. Vivien), in axial planar positions to the north (e.g. Cams) and in the adjacent Mt White Syncline (e.g. Maria). The greenstones are metamorphosed to upper greenschist-lower amphibolite metamorphic grades.

Archaean rocks within the Agnew mining leases are dominantly covered by transported alluvium, and minor residual soils, or by localised thick accumulations of Permian sedimentary rocks blanketed by more recent clay and sediments.

Figure 7.2 Agnew: Geology of the Agnew Deposits

7.2.2 Stratigraphy

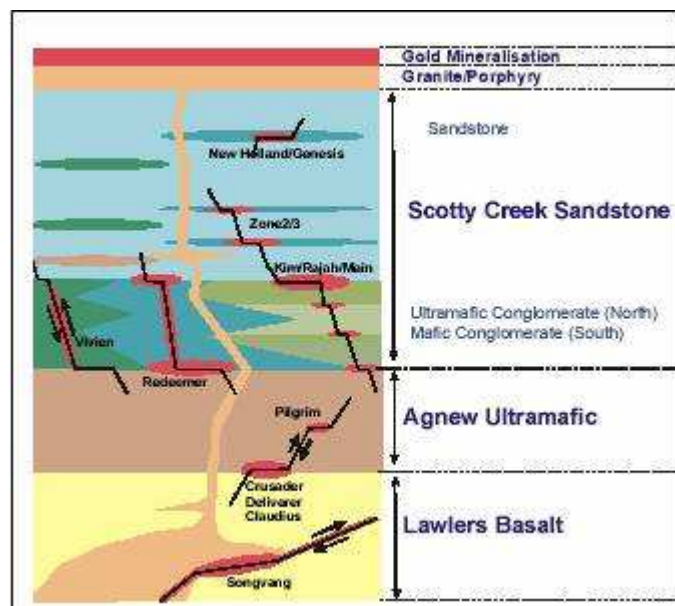
The stratigraphy in the Agnew-Wiluna section is broadly similar to the stratigraphy of the Kambalda Domain, comprising basalt, gabbro, dolerite and ultramafic unconformably overlain by conglomerate, sandstone and greywacke of the Scotty Creek Formation (Table 7.1, Figure 7.3).

Table 7.1 Agnew: General Stratigraphy of the Agnew Deposits ⁽¹⁾

Formation	Member	Description	Deposits	Formation
Permian		Sandstone and conglomerate		
Felsic Porphyry and Volcanics		A flow banded glassy rhyolite breccia or intrusive felsic porphyry occurring locally	Songvang	
Scotty Creek Sandstone		Arenites, quartz mica schists. unconformably overlying ultramafics	Zone 2, Zone 3, New Holland/Genesis (Barrick Corp.)	
	Mafic Conglomerate	Mafic groundmass containing poorly sorted rounded granite, mafic and ultramafic clasts.	Kim, Main Lode, Rajah	Mafic Conglomerate
	Ultramafic Conglomerate (SC3)	Ultramafic conglomerate containing well rounded ultramafic clasts with minor felsic and mafic clasts.		Ultramafic Conglomerate (SC3)
	Ultramafic Conglomerate (SC2)	Ultramafic conglomerate containing high and low MgO ultramafic clasts, minor felsic clasts		Ultramafic Conglomerate (SC2)
	Ultramafic Conglomerate (SC1)	Ultramafic conglomerate containing felsic and low MgO ultramafic clasts	Redeemer	Ultramafic Conglomerate (SC1)
Agnew Ultramafic	Ultramafic Flow Sequence	Multiple Komatiitic flow units with olivine cumulate bases and spinifex textured pyroxene /olivine flow tops.	Pilgrim	Ultramafic Flow Sequence
	Ultramafic Cumulate	Serpentinised cumulate, increasingly carbonated toward the base.	Crusader, Deliverer, Claudius	Ultramafic Cumulate
Lawlers Basalt		Basement tholeiitic basalt flows, siliceous interflow sediments. Gabbro and dolerite	Songvang	

(1) Table supplied by Agnew Gold Mining Company.

Figure 7.3 Agnew: Schematic Agnew stratigraphic column showing structural and lithological controls on major resources (1)

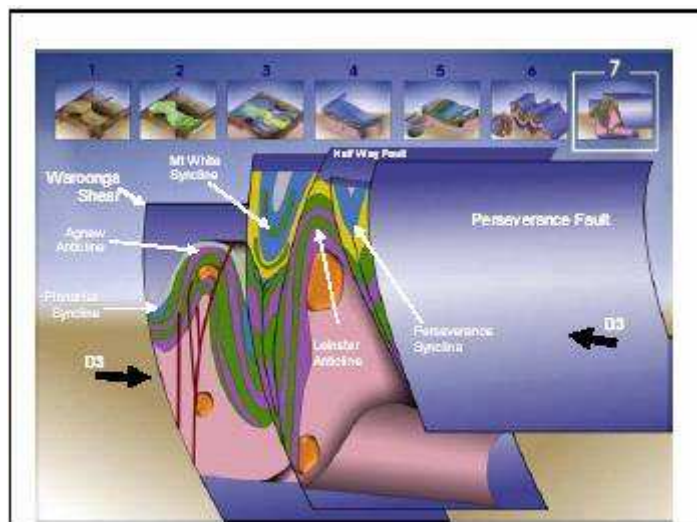


7.2.3 Structure

There were at least three major phases of deformation in the Agnew area. The first was a sub-horizontal shortening that caused isoclinal folding, duplication of stratigraphy by thrusting, and the development of major shear zones such as the Waroonga Shear. The second deformation was an east-west shortening that formed open folds, with the Scotty Creek Sandstone deposited into restricted structurally controlled sedimentary basins. The third deformation was regional wrench faulting with movement on the major thrust faults resulting in the formation of broad anticlines and pinched synforms (Figure 7.4).

The Agnew Anticline and the Mt White Syncline are large scale folds plunging 30° to the north. Dips range from moderate at the nose and shoulders of the folds (e.g. at Waroonga) to steep and slightly overturned along the limbs (e.g. at Songvang).

Aeromagnetics reveal numerous north-south lineaments, interpreted to be axial planar structures, associated with the regional D2 folding, in particular the Lawlers anticline. These structures create flexures at lithological contacts that generate dilational sites for focusing fluid flow. The north-south structures are easily recognised in magnetic images near the ultramafic contacts, but are difficult to identify in sediments and basalts. The plunge of the mineralisation (to the north at the north, to the south at the south) is the intersection lineation between the stratigraphy and these north-south structures. The axial planar structures on a mine scale are defined by closely spaced east dipping foliation planes striking 320° to 330°.

Figure 7.4 Agnew: Schematic Interpretation of the Geology of the Agnew Area at the Time of the Last Deformation (1)

The primary controls on mineralisation are the intersections between north-south axial planar structures and the stratigraphy.

7.2.4 Alteration and Mineralisation

Although all of the Agnew deposits are broadly hosted by the intersections between structures and stratigraphy, there are subtle differences in alteration and mineralisation controlled in part by the local host rock chemistry (Table 7.4). Songvang is unusual in its relatively high lead, silver and fluorine content, possibly reflecting input from tonalite and porphyry intrusions. There also appears to have been a slight decline in mineralisation temperatures from south to north through the Agnew area, associated with the north plunge of the Lawlers Anticline and resultant erosion of the overlying lower temperature rocks to the south. This temperature change is reflected in the changing mineralisation styles from south to north, with biotite +/- garnet assemblages dominating to the south and quartz veining to the north.

Table 7.2 Agnew: Summary of Mineralisation and Alteration of the Agnew Deposits

Deposit	Host Rock	Main Structure	Lode Style	Alteration Assemblage Outer	Alteration Assemblage Inner	Mining
Waroonga	Scotty Creek Sandstone / Ultramafic Conglomerate	Sub-vertical N-S shearing (axial planar to Lawlers anticline. Reverse Sinistral)	West dipping Qtz breccia vein and/or tension veins	SANDSTONE Arsenopyrite-silicification-quartz U/M Conglom actinolite-chlorite-talc-pyrite	SANDSTONE Quartz-silicification-arsenopyrite-U/M Congl Quartz-arsenopyrite-pyrite-actinolite-chlorite-talc	U/G mining pre1948. WMC O/P 1983-93 + minor U/G. Latest pit cut-back started early 2001. U/G portal commenced early 2002.
Redeemer	Mafic Conglomerate	Sub-vertical N-S shearing	Biotite, chlorite altn. along parallel vertical shears	Chlorite, actinolite	Biotite, chlorite, actinolite	Open-pit 1988-1991, UG Sub-level cave 1990-2002
Delivere	Basalt	Sub-vertical NW-SE and N-S shearing	Shear intersection with basalt/ultramafic contact	Chlorite	Chlorite +/- magnetite +/- biotite	Open-pit 1990, UG longhole open stoping late 2001

Deposit	Host Rock	Main Structure	Lode Style	Alteration Assemblage Outer	Alteration Assemblage Inner	Mining
Crusader	Basalt	Sub-vertical NW-SE and N-S shearing	Shear intersection with basalt/ultramafic contact	Chlorite +/- epidote	Chlorite, magnetite +/- biotite +/- epidote	Open-pit Stage 1 1989-90, WMC Stage 2 Open-pit 1993-94, WMC UG modified cut and fill 1995- current
Songvang	Mafic Flow Sequence	Sub-vertical N-S shearing	East dipping sulphide zones	Chlorite, pyrite	Pyrite, quartz, chlorite	OP mine commencing F2004

7.3 Deposit Geological Setting

7.3.1 Waroonga Complex

Gold mineralisation at Waroonga is found in quartz breccia lodes, quartz tensional veining and disseminated arsenopyrite – pyrite – biotite mineralisation developed along the lithological contact between the Scotty Creek Sandstone and SC3 ultramafic conglomerate and on other contacts within the ultramafic conglomerates. High grade ore shoots plunge steeply to the north along these contacts. The controls on mineralisation are dilational zones at the intersection of steeply dipping N-S axial planar structures with the stratigraphy. The stratigraphy steepens and changes strike at these intersections by being dragged towards the axial planar direction. The stronger the contrast in rock competency in these zones, the greater is the potential for mineralisation. Gold mineralisation also occurs west of the mine in the Scotty Creek Sandstone as discrete lodes of stockwork quartz veining with disseminated arsenopyrite. These lodes are discontinuous and sub-economic in the immediate vicinity of the Emu mine but show potential for improvement 200-300m to the West.

Four main ore positions are recognised, all of which were extensively mined in the open-pit. The underground operations mine steeply plunging, higher grade lodes within each of these ore positions.

- The Hanging Wall position at the contact between the Scotty Creek Sediments and Ultramafic Conglomerate (SC3) hosts the best mineralisation at Waroonga, and strikes 1,000m from South Shoot through Main Shoot and Rajah Shoot to Kim Shoot at the north. The mineralisation varies in thickness from 3m to 30m.
- The Footwall position is at the schistose contact between the SC2 and SC3 Ultramafic Conglomerates, and strikes 600m with a thickness of 3m to 20m. The mineralisation is hosted in amphibole-chlorite-talc +/- quartz, pyrite and arsenopyrite alteration, with both barren and mineralised quartz stockworks.
- Hunters Lode is the easternmost gold position, 0m to 35m east of the Footwall position with a strike length of approximately 350m and a width of 5 to 20m. Grades are typically lower than other positions and mostly sub-economic underground. Alteration is relatively weak and quartz is generally absent.
- Cross Lodes are high grade quartz veins identified at the south end of the open-pit trending east-southeast between the Hanging wall and Footwall positions. Little is known about them underground and they have not been identified in deeper drilling.

The three main lodes worked or currently undergoing feasibility studies within the Waroonga Complex are:

- **Kim Lode** : Gold mineralisation in the Kim Lode is a high grade quartz breccia lode ‘core’ between 4m and 9m wide in an alteration halo of quartz stockworks, silicification and disseminated arsenopyrite with variable gold grades, preferentially developed on the hanging wall of the core.

This package is developed on the lithological contact between the Scotty Creek Sandstone and SC3 with Kim shoot plunging steeply to the north. This plunge is thought to reflect the intersection between one or more of the N-S striking, steep west dipping axial planar structures and the slightly flatter, 020° striking stratigraphic contact. The Kim Core Lode is wider and higher grade than any other shoot at the Waroonga mine. Kim Lode is open at depth and yet to be fully closed to the north.

- **Rajah Lode** : The Rajah Lode consists of thin (0.5m to 3m wide) high grade quartz veining with strong silicification and associated arsenopyrite mineralisation plunging NNW at 45° developed along the lithological contact of the Scotty Creek Sandstone and the SC3 conglomerate. Within the sandstone there is a halo of variable arsenopyrite and gold mineralisation between 1 and 10m wide. The plunge of Rajah is interpreted to be the intersection of the steeply west dipping axial planar structures and the shallower dipping lithologies to produce a moderately north-north-west plunging shoot. The lode is open at depth, although drill positions for extensions are limited from current development.
- **Main Lode** : The Main Lode deposit is composed of multiple shoots in the Hanging Wall and Footwall with similar structural and lithological controls as the Kim Lode. The best mineralisation occurs where shoots on the Hanging Wall and Footwall mineralisation almost coalesce.

Main Lode South lies approximately 200 meters to the south. It is part of the same mineralising system, but there are indications that it is not as strongly mineralised. The current drilling program has only extended to this southern section in the last few months.

Gold mineralisation is hosted in quartz breccia lodes, quartz stockwork veining and disseminated arsenopyrite associated with amphibole-chlorite +/- biotite alteration which varies according to the composition of the host lithology. A felsic porphyry is sometimes present in the Footwall contact, and high gold grades are found where stockwork quartz occupies dilatant structures adjacent to or within this unit.

7.3.2 Redeemer Complex

Historical mining and exploration has targeted two main orebodies; the Redeemer Main Lode at the contact between the Mafic Conglomerate and Scotty Creek Sandstone, and the Zone 2 Conglomerate lying 100m to the west within the Scotty Creek sediments. Gold mineralisation occurs primarily as variably north plunging shoots at the intersection of steeply dipping north-south shear structures and the stratigraphy. Because the stratigraphy has been steepened at Redeemer, and in places slightly overturned, plunge orientations vary. Flatter, secondary plunge directions may also be apparent within the primary shoots.

- **Redeemer Main Lode** : The Redeemer Main Lode is 5m to 50 meters wide hosted by a mafic conglomerate unit bounded to the east by the Agnew Ultramafic, and to the west by the Scotty Creek Sandstone, with better grades often at the contacts. The ore was predominantly mined by sub level caving with 25m levels.
- The Redeemer North 1, 2, and 3 Ore Shoots, 100m to the north of the Main Lode, have been identified between the 10,035mRL and the 9,760mRL elevations. They are within the mafic conglomerate unit, and are characterised by a series of narrow northwest trending shears, with ore grade mineralisation in shoots plunging from the hanging wall to the footwall contact with the metasediments.

- The Redeemer Deeps Lode, situated 500m to the north of the Main Lode, is a 2m to 30m wide altered basaltic unit lying between the mafic conglomerate and the ultramafic volcanic rocks.
- **Redeemer Zone 2** : Several mineralised shoots have been identified within the Zone 2 surface associated with biotite-arsenopyrite mineralisation and narrow quartz veins. These shoots plunge steeply north with localised secondary shallower orientations have also been observed. Zone 2 can be divided into three positions: South, Central and North.
 - Zone 2 South is immediately south of the Redeemer pit. In the year 2000 it was mined to a depth of 25m over a strike length of approximately 300m, producing 51,000t at 2.2g/t for 3.6koz. Inside the current resource estimate of 269kt at 2.5g/t to a depth of 125m, there are indications of a higher grade, shallowly southwards plunging shoot that requires further investigation of its future underground potential,
 - Zone 2 Central is adjacent to the Redeemer Main Lode, and has been reasonably well tested by drilling and decline development. However, apart from a few areas of stripping it has been largely overlooked at the time due to the high priority attached to the mining of Redeemer Main Lode. Although appearing fairly patchy overall, the mineralisation tends to form moderately north plunging shoots which may contain economic gold mineralisation,
 - Zone 2 North is immediately north of the Redeemer ore body, and consists of a 500m long sub-vertical orebody, much of which should be retrievable by open-pit. Drill-testing of the Redeemer Deeps, has confirmed the interpreted down plunge projection of Zone 2 North and gives good indications for shoot continuity at depth and potential for underground resources.

7.3.3 Crusader Complex

The Crusader Complex comprises the following sub-deposits

- **Crusader** : The Crusader ore body occurs as a 20 to 30° north plunging shoot associated with a flexure in the ultramafic-basalt contact. Cross sectional width varies from 2m to 30m with a strike length of up to 50m. Mineralisation near the surface is largely contained within three zones parallel to the contact. Below 300m depth, these shoots converge to one higher grade shoot coinciding with a change in plunge of the controlling flexure. This down plunge extension of Crusader is closed off by underground diamond drilling. The lode splits into two discrete zones, an elongate north plunging shoot and to the south a zone decreasing in grade and strike length.

Gold mineralisation is hosted within the basal tholeiitic basalt at, or close to, its contact with the ultramafic hanging wall. In the upper part of the mine, mineralisation is commonly associated with sedimentary interflow units within the basalt. These siliceous interflow units are chlorite rich along sub-vertical north-south sheared surfaces, with secondary alteration assemblages of amphibole-epidote-magnetite and minor pyrrhotite-pyrite-chalcocopyrite. High grade zones of mineralisation are also found between sheared sediment interflow units within high strain zones. In these high grade zones, fine visible gold is associated with magnetite veining and carbonate-epidote-biotite-actinolite alteration in a zone of pervasive chlorite alteration ± garnet. There is a strong geochemical association between gold and bismuth, tellurium and molybdenum.

- **Deliverer** : The Deliverer ore body is comprised of three shoots hosted within tholeiitic basalt at or near a flexure in the ultramafic-basalt contact. The ore bodies plunge 30° to the north and have strike lengths up to 55m. Mineralisation is characterised by alteration comprising varying amounts of chlorite, biotite and magnetite within the basalt; however is generally less intense than alteration

in the main Crusader shoot. In the upper levels, the shoots are up to 15m wide, with the most intense alteration, but in the middle and lower levels the width is typically 2m to 5m.

- **Pilgrim** : The Pilgrim deposit is 200m northwest of the Deliverer deposit, is located at the intersection of an axial planar structure and the sheared contact between a lower ultramafic cumulate and an upper spinifex-textured komatiite. Mineralisation within the shear is confined to two domains. The primary domain occurs at the intersection between the shear and the axial planar structure. The shear is 2m to 7m wide, and has a well developed foliation striking north and dipping 45° to 75° towards the west. The mineralisation plunges shallowly to moderately to the north, and is defined by intense chlorite alteration, acicular amphiboles, euhedral pyrite and magnetite.

The second and lower grade domain occurs to the north and south of the primary zone where the shear is sub-vertical and 0.5m to 2m wide. Mineralisation here is characterised by weak chlorite alteration and coarse amphiboles. East of the Pilgrim Shear is a parallel footwall shear that is weakly mineralised.

7.3.4 Claudius

The Claudius deposit was discovered in 1990, 400m north of the Deliverer open-pit. At surface the mineralisation covers an area of 50m east-west by 75m north-south. The mineralisation style and structural setting of the deposit is similar to both the Crusader and Deliverer ore systems. Claudius plunges 50° to the north and gold mineralisation is strongest within the basalt on the basalt-ultramafic contact and in, or surrounding the sedimentary units and shears.

At the top of the ore zone the shoot averages 18m wide. Down plunge the mineralisation occurs as six or more parallel lodes, each about 3m to 8m meters thick with a lenticular cross section.

7.3.5 Songvang

Songvang is 15km south of Waroonga approximately 4km west of the historic Donegal Mine. The dominant host rock is the Lawlers Basalt with numerous narrow units of dolerite. The sequence is overturned and dips steeply to the east. Much of the area is intruded by tonalite and porphyry associated with a granitic pluton immediately to the east. The lease is covered by recent alluvial and colluvial gravels varying in thickness from 2m at the southern end to over 40m in the north.

The mineralised structures at Songvang are shallowly west-dipping and moderately east-dipping shear zones, interpreted as conjugate reverse shears formed in a compressive environment (Figure 7.5).

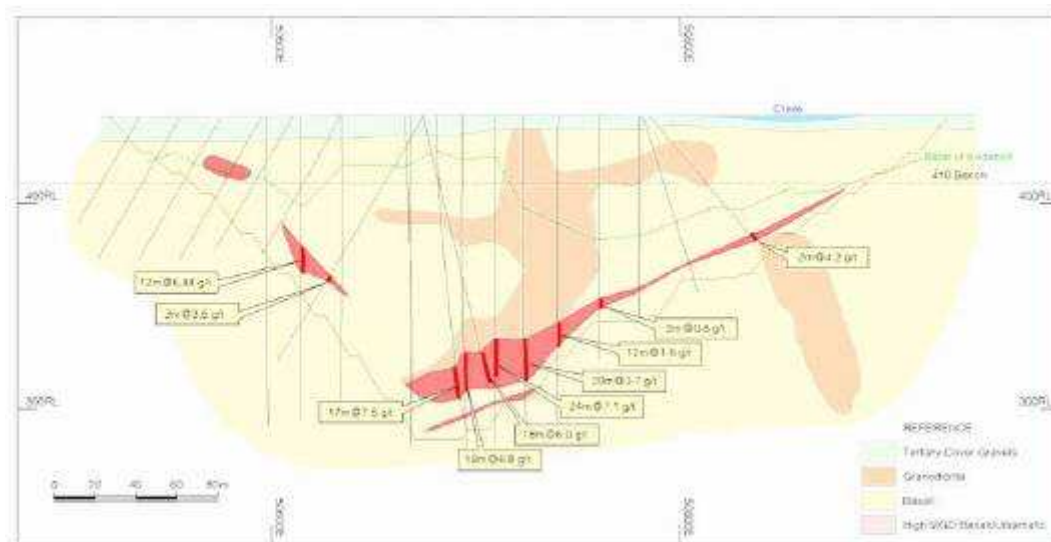
Shallowly west dipping shear zones (Lodes 10, 11 and 12) contain more than 75% of total resources. They consist of intensely foliated host rocks, with silica-biotite-pyrite alteration in basalt and sericite-muscovite/fluorite alteration in porphyry. Thickening of mineralisation at sub-horizontal positions is common in both long and cross sections. The porphyry above the shear zone in the basalt is interpreted to have provided a trap for mineralising fluid.

Moderately east-dipping shear zones (Lodes 1 to 8) comprise several small but high-grade ore shoots, with shallow plunges to the south. They commonly occur near an ultramafic/basalt contact to the west and the basalt/porphyry contact in the south. The alteration within these structures is similar to the west dipping shears but with less pyrite and more chlorite and epidote.

The sheared and altered basalt commonly contains banded zones of abundant quartz veins. Biotite, phlogopite and epidote alteration is common. Sulphides are common in both the altered host rock and

the veins. The main sulphide is pyrite, locally with minor pyrrhotite, chalcopyrite, bismuthinite and galena, which are partly disseminated and partly composited with pyrite. Gold commonly occurs as inclusions in pyrite, chalcopyrite or galena. Titanite and bismuthinite are also common in ore zone. Unlike the other Agnew deposits, Songvang has an elevated silver content, with an Ag:Au ratio of about 3:1.

Figure 7.5 Agnew: Songvang Deposit Cross Section 688 4480mN (1)



(1) Figure supplied by Agnew Gold Mining Company.

7.3.6 Cams Deposit

The Cams Deposit is located 30km north of Agnew, immediately to the west of the Miranda shear zone. The deposit is hosted by basalt with a strongly sheared sericitic alteration zone between 20m and 50m thick. Within this zone, gold mineralisation is associated with north-northeast striking, shallowly southwest dipping, quartz veins that contain variable amounts of pyrite and chalcopyrite. The deposit is covered by 8 to 12m of transported overburden which contains a layer of calcrete up to 5m thick.

7.3.7 The Maria Deposit

The Maria Deposit is located 22km north-northeast of Agnew. Mineralisation is hosted by a 5m wide, 600m long reverse shear zone striking north-northwest and dipping 60° towards the east in a weakly to moderately foliated mafic conglomerate. Gold occurs within massive to laminated quartz veins and in a biotite, chlorite, pyrite and arsenopyrite alteration halo. Much of the area is covered by a thin transported ferruginous soil horizon, and the base of oxidation extends to about 60m vertically within the shear zone.

7.3.8 Vivien

Vivien is located on the eastern flank of Lawlers Antiform, 7km to the east of Waroonga. The stratigraphy in the area is similar to the Agnew area, and the deposit is hosted by a dolerite-gabbro unit 600m thick which dips 55° to 60° towards the north-east. The main Vivien orebody is a large shear

vein in a broad shear zone envelope that strikes north-northeast and dips 60° to 70° towards the southeast. The structure has local flexures and flattening of the dip that appear to coincide with high-grade shoots. In addition to the main ore structure there are subsidiary structures in the footwall and hanging wall. The hanging wall structures are sub-parallel to the main surface and the footwall structure has a flatter dip of 55°.

Ore zones in the shear have a chlorite-carbonate-magnetite-quartz-sericite-biotite-pyrite-pyrrhotite mineralisation with two generations of quartz veining. High-grade ore zones are generally sulphide rich with major amounts of pyrrhotite and arsenopyrite, and accessory chalcopyrite is also present in very low percentages. The alteration halo associated with gold mineralisation is generally narrow, and the boundary between high grade and low grade mineralisation or waste material is often well defined.

8 EXPLORATION

In compliance with Form 43-101F1 Technical Report Item 12, this section provides detail in terms of:

- nature and extent of all relevant exploration work and who has undertaken the work;
- results of surveys and investigations and the procedures undertaken;
- interpretation of exploration information; and
- who has/is undertaking the exploration work.

8.1 Introduction

Annual exploration objectives at Agnew are to replace production as a minimum, and additionally to identify an extra year's production; setting the F2005 annual reserve target at 360koz. To achieve this, three strategies are used

Exploration Strategy 1 : The first strategy is to explore the highly endowed corridor hosting the Waroonga, Redeemer, Crusader/Deliverer and Songvang Complexes. This corridor provides short-term potential for open-pit and underground extensions along strike and down dip of existing resources. Targets include:

- Extensions to Kim Lode, Rajah Lode, Main Lode and 450 South, Waroonga Footwall targets;
- New resources in the Redeemer North Deeps and extensions of the existing Redeemer North and Zone 2 deposits;
- Underground or surface potential of the Pilgrim and Claudius deposits; and
- Underground extensions to the Songvang pit and additional satellite pits along the Songvang structure.

Exploration Strategy 2 : The second strategy is to explore the regional potential of the Agnew and Miranda JV tenements. A structural and geological review by SRK Consulting generated new targets and confirmed the prospectivity of existing targets. Regional potential currently includes:

- The Vivien deposit, historical open-pits at Maria and Cams and extensions;
- Miranda and Waroonga Shear corridor, which contains large gold anomalies; and
- The area to the south of the Songvang corridor including the Fortitude and Pinnacles prospects.

Exploration Strategy 3 : The third strategy is to explore the lowest potential tenements with a view to surrendering these tenements if exploration confirms their low prospectivity.

Targets are designated as being at one of six stages or milestones. Milestone One is when a target is generated and the lease acquired; Milestone Three is when a bedrock drill target has been identified; Milestone Four is an Inferred Resource and Milestone Six an Ore Reserve. Milestones One to Three represent future potential, whereas Milestones Four to Six represent the reported Resources and Reserves.

Targets are ranked by a combination of a geological and economic score, with the highest scoring targets being given priority in exploration. The geological merit of each is scored against numerous conceptual and empirical parameters. The economic potential of each target is assessed by assuming a tonnage and grade from an analogous deposit and applying a set of mining parameters.

8.2 Exploration Summary

There is considerable potential at Agnew to add significantly to current resource and reserves through a combination of extensional and greenfields exploration. In terms of the extent of its tenement holdings and the exploration undertaken thus far, Agnew cannot be considered advanced at this stage, and recent geological studies have identified numerous prospective areas yet to be tested effectively.

9 DRILLING , SAMPLING, PREPARATION, ANALYSIS AND VERIFICATION

In compliance with Form 43-101F1 Technical Report Item 13, Item 14, Item 15 and Item 16, this section provides detail in terms of:

- Drilling: including extent and procedures and interpretation, relationships between sample length and true thickness of mineralisation and orientation of mineralisation;
- Sampling Methods and Approach: describing sampling methods, numbers, type, nature, spacing and density of samples. Sampling recovery and impacts thereof is discussed, together with the representativeness of samples and any bias that may occur. The influence of rock-types, geological controls, mineralisation widths on the sampling interval and spacing; and
- Sample Preparation Procedures: process involved, analytical procedures, laboratories utilised and standards and certifications. In addition quality assurance / quality control (“QA/QC”) measures and check sampling procedures are discussed; and
- Statements of opinion as to the adequacy of the drilling, sampling and analytical procedures at the operations and verification of the results and limitations thereof.

9.1 Drilling

Diamond and RC drilling are the dominant drilling techniques used for resource definition. Other drilling techniques such as air core, used in target definition, are not included in resource estimations.

Open-pit resources are drilled to an Indicated resource status using 5.25” RC drilling with some HQ and NQ diamond drilling. During production, open-pit resources are further refined using RC grade control drilling. Underground resources are defined with a combination of HQ and NQ surface diamond drilling and LTK60 and NQ underground diamond drilling.

The lithology, alteration, and structural characteristics of core and percussion chips are logged to the level of detail required for resource modelling using the standard Agnew geological legend. Diamond core is geotechnically logged.

9.1.1 Drill sample recovery

Very little qualitative recovery data is available for RC drilling, although recently qualitative comments have been recorded in the drilling database. Recovery is anecdotally good.

RC samples are riffle split to 3kg sub-samples by drilling contractors. Two random site duplicates, two standards and one blank are submitted for every 100 samples.

Although diamond core blocks are used to record core length, no analysis of the average recovery has been undertaken.

Drill core is cut to geological intervals between 0.3m and 1m specified by the logging geologist. Each batch of drill core samples submitted for analysis contains at least one standard. Duplicate samples are submitted at the geologist’s discretion.

9.2 Sampling

9.2.1 Face Sampling

Face chip samples are used in the Kim Lode and Crusader resource estimations. Two channels are sampled across every development face, one at 2m above the floor and another at 4m. Individual samples in the channels range from 0.3m to 1m in length depending on geological contacts. On average, at least 10 samples are taken from each face. Duplicate samples are routinely taken from mined ore faces for QA/QC purposes.

9.2.2 Sludge drilling

Underground sludge samples are used in production to define the hanging wall position to the west of the footwall development. Agnew recognises that using these samples are not optimal, but consider the use of sludge samples improves the geological interpretation.

9.3 Sampling and assay techniques

9.3.1 Quality management measures

Procedures for the submission of samples for QA/QC, include standards, blanks, duplicates, and check assays. Sampling of diamond drill core for QA/QC is performed at the geologist's discretion under the guidelines of the AGMC policy. At least one standard is included with each batch of samples submitted for analysis. RC sampling procedures dictate that from every 100 samples submitted, two will be standards, two will be site duplicates and one will be a known blank.

A batch acceptance report is prepared which details the results received for each standard and highlights any standard where the result received differs from the nominal value by more than 10%. Results for any site duplicate samples and lab replicates are also reported. If the results received fall outside acceptable limits, the analyses are repeated. QA/QC data is included in resource model reports. During the year, a programme was undertaken to check standards that returned anomalous results. All standards with a result of more than 20% difference from the nominal value were checked. Additionally, two major audits were conducted by external consultants and staff from Gold Fields' Johannesburg office this year. Agnew staff also periodically visit the laboratory to conduct audits.

9.3.2 Location of data points

All planned drill hole locations are set out by the Survey Department. After drilling, all collars are surveyed, and complete multi-shot down-hole surveys are conducted. In the case of deep boreholes drilled in highly magnetic ultramafic rocks, down-hole gyroscopic surveys are frequently used.

9.3.3 Data density and distribution

Data density is variable across the Agnew deposits. Resource classification is partly based on data density. In general, open-pit and underground Indicated Resources are drilled to at least 20x20m; Inferred Resources may be drilled from 40x40m to 100x100m depending on geological complexity and mining history. Measured Resources must be within mining areas and contain RC grade control or underground face samples. RC grade control drilling is optimized for individual deposits with the drillhole spacing averaging 10x5m.

9.3.4 Database integrity

All assay and logging data is stored in a relational database. Various tools are available to allow geological staff to extract and validate the data. Data entry is monitored by a dedicated database administrator.

Table 9.1 Agnew: Deposit Specific Drilling Information (1)

Resource	Drilling Techniques(2)	Logging	Sample Recovery	Other Sample Techniques
Claudius	Surface RC and core drilling			
Crusader	Underground core LTK60.			All ore development rounds are chip sampled across the lode. Sludge drilling as required.
Deliverer	Surface RC, Underground and Surface core drilling.			All ore development rounds are chip sampled across the lode. Sludge drilling as required.
Songvang	Surface RC Drilling, some surface core.	Logged using standard AGMC logging sheets and legend.	100% sample recovery is assumed unless core loss is recorded	
Pilgrim	Surface RC Drilling, some surface core.			RC grade control drilling
Redeemer North	Surface RC and core drilling. Some underground core drilling.			RC grade control drilling
Vivien	Surface RC and core drilling			
Waroonga	Surface and Underground core.			All ore development rounds are chip sampled across the lode. Sludge drilling as required.
Underground				
Zone 2	Surface RC Drilling, some surface core.			

(1) Table supplied by Agnew Gold Mining Company.

(2) may not be used in estimation

Table 9.2 Agnew: Deposit Specific Assay and QA/QC Protocols (1)

Resource	Sample Preparation	Assay Technique	QA/QC Measures	Sample Survey
Claudius				All collars are set out and picked up after drilling by survey. Surface core drilling is down-hole surveyed.
Crusader				All collars are set out and picked up after drilling by survey. Core drilling down-hole surveyed with a maxibore tool.
Deliverer				All collars are set out and picked up after drilling by survey. Underground core drilling down-hole surveyed with a maxibore tool. All surface drilling gyro surveyed.
Songvang	All core is half cut prior to submission to a laboratory. RC drilling is riffle split at the rig down to a size of 3kg	All samples are fire assayed using a 50g charge	A second sample is taken for 2% of RC drilling intervals. One or more standards are submitted with each batch of samples.	All collars are set out and picked up after drilling by survey. All surface drilling gyro surveyed.
Pilgrim				All collars are set out and picked up after drilling by survey. Surface core drilling is down-hole surveyed.
Redeemer North				All collars are set out and picked up after drilling by survey. Surface core drilling is down-hole surveyed. Recent surface RC down-hole surveyed.

Vivien

All collars are set out and picked up after drilling by survey. Surface core drilling gyro surveyed where boreholes are accessible.

**Waroonga
UG**

All collars are set out and picked up after drilling by survey. Surface core drilling is down-hole surveyed.

Zone 2

All collars are set out and picked up after drilling by survey. Surface core drilling is down-hole surveyed.

(1) Table supplied by Agnew Gold Mining Company.

Sampling and assaying of resource and grade control holes at Agnew is performed at a relatively high standard compared to the general mining industry. There have been improvements since SRK's last site inspection in 2002, although the methods of face and sludge sampling at Agnew are not optimal and require review. There is a stated intention for Agnew to achieve industry best practice standards of sampling and assaying. In SRK's opinion the sampling and assaying are adequate for the intended purposes and there is a low probability of a material shortcoming as a result of sampling or assaying.

10 MINERAL RESOURCE ESTIMATES

In compliance with Form 43-101F1 Technical Report Item 19, this section provides detail in terms of the key assumptions, parameters and methods used to estimate the Mineral Resources together with statements of opinion as to the adequacy of the drilling, sampling and analytical procedures at the operations and verification of the results and limitations thereof.

The extent to which the Mineral Resources may be materially affected by mining, metallurgical, infrastructure and other relevant on mine factors is covered in Section 11 to Section 13, inclusive of this ITR. The extent to which the Mineral Resources may be materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues are covered in Sections 14 to Section 19, inclusive of this ITR.

The Mineral Resources and Mineral Reserves have been generated under the auspices of the reporting code prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (“JORC”), herein referred to as (“the JORC Code”). The JORC code is effective as September 1999, however is currently under revision with a new release anticipated in 2005.

10.1 Geological Modelling

Resource estimates are based on interpretations of rock-types and mineralisation. Controls on mineralisation are generally well understood given the lengthy production history at Agnew. Wireframes of regolith zones and mineral zones and digital surfaces describing topography, base of oxidation, etc, are used to domain and constrain grade interpolation when relevant. In active open-pit and underground resources, surveys of exposed geological features are incorporated into models. All models are constrained by geological boundaries or, when relevant, by previous open-pit surfaces or underground development wireframes. Internal sub-domains are defined where geological understanding is sufficient.

Most of the resource models were generated by kriging after a thorough examination of appropriate composite lengths, top-cutting and variography. Results are validated by comparing section and vertical interval grade estimates with composite data grades. Classification is largely based on the kriging efficiency and the slope of the regression statistics. In SRK’s opinion, issues that require attention are:

- The method of declustering data for the Main Lode data is not optimal; and
- Fire assaying (FA) at Vivien, a coarse gold environment, undervalues gold as compared to screen fire assays. The FA assays have been used in the resource estimate without adjustment.

Notwithstanding these comments, it is the opinion of SRK that no material shortcomings exist in those models reviewed. Agnew has embarked on a continuous improvement process which is now being extended to sampling, assaying and database management; their aim is to employ industry best practices. SRK did not encounter any material issues that warrant any re-estimation or adjustment to the 2004 reported Mineral Resources.

10.2 Estimation and modelling techniques

All resource models are estimated using ordinary kriging except for the Crusader model. Composite lengths are selected with reference to the intended size of the model blocks and maximum reduction in variance and minimum impact on the mean.

Block sizes for models are selected based on sample spacing and proposed mining method. Search

ellipses are selected for each lode based on a combination of geological controls and variogram models.

Top-cuts are selected based on statistical analysis of the assay data for each domain. Reconciliation data is used to refine the top-cut applied to active mining areas.

Data specific to individual deposits are presented in Table 10.1 and Table 10.2.

Table 10.1 Agnew: Model Specific Estimation Information

Resource	Search Neighbourhood	Cell Sizes	Domains	Estimator
Claudius	Based on variogram model and lode orientation.	10m E, 10m N 10 m RL	Domained by lode and lithology.	Ordinary Kriging.
Crusader	Based on variogram model and lode orientation.	5m E, 5m N 5m RL	Domained by lode and lithology.	Inverse distance squared.
Deliverer	Based on variogram model and lode orientation.	10m E, 10m N 10 m RL	Domained by lode and lithology.	Ordinary Kriging.
Songyang	Based on variogram model and lode orientation.	10m E, 10m N 10 m RL	Domained by lode and lithology.	Ordinary Kriging.
Pilgrim	Based on variogram model and lode orientation.	10m E, 10m N 10 m RL	Domained by lode and lithology.	Ordinary Kriging.
Redeemer North	Based on variogram model and lode orientation.	10m E, 10m N 10 m RL	Domained by lode and lithology.	Ordinary Kriging.
Waroonga UG	Based on variogram model and lode orientation.	10m E, 10m N 10 m RL	Domained by lode and lithology.	Ordinary Kriging.
Vivien	Based on variogram model and lode orientation.	25mN, 25mRL (2D model)	Domained by lode and lithology.	Ordinary Kriging of metal accumulation and true thickness
Zone 2	Based on variogram model and lode orientation.	10m E, 10m N 10 m RL	Domained by lode and lithology.	Ordinary Kriging.

Table 10.2 Agnew: Model Specific Estimation Information

Resource	Sample Types	Composite Length	Top-Cuts
Claudius	Surface RC to 100m surface core for underground portion.	2m downhole	Top-cuts based on statistical analysis by lode. 10g/t - 55g/t
Crusader	40% underground core 40% face sampling 20% sludge drilling.	1m downhole	Top-cuts based on statistical analysis by lode. 60g/t – 80g/t
Deliverer	30% surface core 45% underground core 20% surface RC.	2m downhole	Top-cuts based on statistical analysis by lode. from 15g/t to 90g/t.
Songyang	Mainly surface RC some NQ core.	2m downhole	Top-cuts based on statistical analysis by lode. from 30g/t to 80g/t.
Pilgrim	Mainly surface RC some NQ core.	2m downhole	Top-cuts based on statistical analysis by lode. from 10g/t to 55/t.
Redeemer North	Mainly surface RC some NQ core.	2m downhole	Top-cuts based on statistical analysis by lode. from 15g/t to 25g/t.
Waroonga UG	Surface and underground core.	2m downhole	Top-cuts based on statistical analysis by lode. 10g/t - 80g/t
Vivien	Surface RC and core.	Intersections composited to a single interval.	
Zone 2	Mainly surface RC some NQ core.	2m downhole	Top-cuts based on statistical analysis by lode. 25g/t.

10.3 Tonnage Factors

Samples are taken regularly by Mine Geologists to determine appropriate densities for tonnage calculations. On new projects, samples of core may be taken for density determination or known densities from similar lithologies may be used. Densities are generally consistent within lithologies and ore types. A total of 578 density samples were acquired for the Songyang deposit, which reduces density risk to a low level.

10.4 Classification

Classification of resource confidence follows the 1999 JORC guidelines. Generally, resource categories are based on geological

complexity, grade variance, drillhole intersection spacing, and mining development. In general, an Inferred Resource is drilled to a spacing of 100m by 100m, increasing to 40m by 40m on more complex or poorly understood structures. Indicated Resources are drilled to better than 80m by 80m on mined structures and 40m by 40m on unmined structures. Measured Resources are usually drilled on a pattern 10m by 5m in the open-pits and must be fully developed along strike in the underground operations.

10.5 Model Validation

All models are visually inspected in plan and section to compare the interpolated grades with the supporting sample data. Moving average grades and distributions are compared for model and sample populations.

Models are checked to see if they have been efficiently kriged. A block is considered efficiently kriged if the kriging variance is less than the dispersion variance. Where a large portion of the model fails to pass, the interpolation parameters are adjusted and the model re-interpolated. Models are tested for conditional bias by examining the regression slope of the 'actual' block values against the estimated block values. Generally a regression slope of 0.95 or greater is considered acceptable. Interpolation parameters may be adjusted to improve the regression slope.

Under certain circumstances the kriging algorithm generates negative weights. Generally a total of 5% or less is considered acceptable. The interpolation parameters may be adjusted to reduce the impact of negative weights.

Charts are prepared comparing the grade distribution of the block model with the supporting sample data by lode.

The number of composites used to interpolate each cell in the model is examined to test if significant volumes of the model are interpolated with the minimum number of composites. The model cells are interrogated to see if poorly supported areas of the model make significant contributions to the contained metal. The quantity of metal attributable to each sample type is tabulated.

Jack knifing (estimation of sample locations) is also routinely used to test interpolation parameters.

Internal peer reviews are conducted on all new or updated resource models. External reviews using outside consultants are conducted periodically. During major reviews, geologists from other sites are often invited to join the review team. During the year, an external audit was conducted on the Songvang resource by SRK. Reviews of the Songvang and Main Lode resource models were conducted by Gold Fields staff from the Johannesburg office, South Africa.

Model specific classification information is presented in Table 10.3.

Table 10.3 Agnew: Model Specific Classification Information

Resource	Inferred	Indicated	Measured
Claudius	drill spacing of at least 40m sections for pit and at least 80m sections for underground	drill spacing at least 20m x 20m for pit and at least 40m x 40m for underground	No measured resource
Crusader		drill spacing at least 20m x 20m.	Fully developed and sampled
Deliverer	drill spacing at least 50m x 50m.	drill spacing at least 25m x 25m. Model efficiently kriged.	Fully developed and sampled
Songvang	drill spacing on at least 80m sections	drill spacing on at least 40m sections. Model efficiently kriged.	No measured resource
Pilgrim	drill spacing at least 40m x 40m. Proximal to indicated resource.	drill spacing at least 20m x 20m.	Proximal to mining and grade control drilling.
Redeemer North	drill spacing at least 40m x 40m. Proximal to indicated resource.	drill spacing at least 20m x 20m.	No measured resource
Waroonga UG	drill spacing at least 40m x 40m. Proximal to indicated resource.	drill spacing at least 20m x 20m. Model efficiently kriged.	Fully developed and sampled
Vivien	drill spacing at least 40m x 40m. Proximal to indicated resource.	drill spacing at least 20m x 20m.	No measured resource
Zone 2	drill spacing at least 40m x 40m. Proximal to indicated resource.	drill spacing at least 20m x 20m.	No measured resource

10.6 Grade Control

Open-pit grade control is by inclined RC drilling on approximately 5m by 10m centres with assay for gold only by 50g fire assay with AAS finish. Songvang assaying will include Ag, although not on every sample.

Underground grade control is by chip sampling of level development faces and sludge drilling with assay for gold only by 50g fire assay with AAS finish. Infill diamond drilling is carried out where further geological and grade information is required.

10.7 Reconciliation

The two main geological reconciliation measures are the comparisons between the Resource and Actual Hoist and the Reserve and Actual Hoist. The first comparison measures the appropriateness of the sum of resource definition sample density, assay type and modelling procedures; the second indicates the appropriateness of the reserve factors applied to the resource models. Reconciliations for all mines for the 12-month period to June 2004 are presented in Table 10.4. For both measures, the mine significantly outperformed both the resource and reserve. Historic resource estimation models were considered overly conservative; current models are however more realistic and it is unlikely that underestimation will continue in the medium-term. The models have a high-level of uncertainty with regard to local prediction of tonnes and grades which translates to significant differences in the short-term between predictions and actual production; however this situation is common with the style of mineralisation.

In the Kim Lode, production outperformed Resource and Reserve metal by 135% and 138% respectively during F2004. The resource model underestimated the ore widths due mainly to insufficient drilling. As development has advanced, the inclusion of face sampling assays and mapping has improved the prediction of models.

Crusader production outperformed both Resource and Reserve metal by 210% and 243% respectively during F2004. A significant amount of ore was mined from mineralisation outside of the resource model at the beginning of the period and these additional economically mineralised areas were only identified from sludge drilling as production advanced. Additional pillars and hangingwall ore were also mined as unplanned dilution. Some of the other unplanned dilution from previous mullock fill was ore grade, as cut-offs were higher in the past.

Deliverer underground production outperformed Resource and Reserve metal by 130% and 159% respectively during F2004. This was partly caused by the ore being thicker and higher grade than predicted in the resource model and by additional ore positions being discovered during development.

Table 10.4 Agnew: Resource and Reserve Reconciliation for Agnew F2004

Deposit	Hoist to Resource			Hoist to Reserve		
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
Kim	115%	117%	135%	109%	126%	138%
Crusader	270%	77%	210%	224%	109%	243%
Deliverer	160%	81%	130%	140%	113%	159%
Total	139%	103%	135%	127%	114%	146%

10.8 Mineral Resource and Mineral Reserve Estimates

The Mineral Resources and Mineral Reserves have been generated under the auspices of the JORC Code, however can be considered broadly aligned with the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Standards on Mineral Resources and Reserves Definitions and Guidelines adopted by CIM Council on August 20, 2000 (“the CIMM Code”). If generated under the auspices of the CIMM Code these reported estimates would not materially differ.

In terms of the reported Mineral Resources and Mineral Reserves estimates, the following should be noted:

- Effective as of 30 June 2004;
- details of the key assumptions, parameters and methods used to estimate the Mineral Resources have been provided in Section 7 to Section 10 of this ITR and for Mineral Reserves in Section 11;
- a general discussion of the extent to which the estimates of Mineral Resources and Mineral Reserves may be materially affected by any known environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues is discussed in Section 19 of this ITR; and

Table 10.5 summarises Agnew’s June 2004 Mineral Resource and Mineral Reserve estimates. The estimates have been generated by GFL, however audited and where deemed necessary modified by SRK.

Table 10.5 Agnew: Mineral Resource and Mineral Reserve Estimates June 2004

Reserve Classification	(kt)	(g/t)	(kg)	(koz)	Resource Classification(6)	(kt)	(g/t)	(kg)	(koz)
Proved					Measured				
UG - PAI(3)	378	14.8	5,593	180	UG - PAI	639	14.5	9,299	299
UG - UPBI(4)	0	0.0	0	0	UG - UPBI	0	0.0	0	0
OP - PWDP(1)	0	0.0	0	0	OP - PWDP	0	0.0	0	0
OP - UPODP(2)	0	0.0	0	0	OP - UPODP	0	0.0	0	0
SS - P(5)	462	1.4	643	21	SS - P	462	1.4	643	21
Subtotal	839	7.4	6,235	200	Subtotal	1,101	9.0	9,942	320
Probable					Indicated				
UG - PAI	693	7.5	5,220	168	UG - PAI	1,787	6.4	11,352	365
UG - UPBI	0	0.0	0	0	UG - UPBI	2,556	4.9	12,457	401
OP - PWDP	2,763	3.2	8,915	287	OP - PWDP	3,957	3.4	13,592	437
OP - UPODP	0	0.0	0	0	OP - UPODP	700	3.5	2,437	78
SS - P	0	0.0	0	0	SS - P	0	0.0	0	0
Subtotal	3,456	4.1	14,135	454	Subtotal	8,999	4.4	39,838	1,281
TOTAL P + P	4,295	4.7	20,371	655	TOTAL M + I	10,100	4.9	49,780	1,600
					Inferred				
					UG - PAI	0	0.0	0	0
					UG - UPBI	5,594	5.4	30,198	971
					OP - PWDP	0	0.0	0	0
					OP - UPODP	105	3.8	395	13
					SS - P	0	0.0	0	0
					Total Inferred	5,699	5.4	30,593	984

- (1) PWDP = Planned Within Design Pit – Mineral Resources and Mineral Reserves contained within a fully engineered open-pit designed from the final “optimised” Whittle pit.
- (2) UPODP = Unplanned Outside of Design Pit – Mineral Resources identified in the zone between the design pit surface and the Whittle Pit Shell containing the total resource inventory above a potentially economic cut-off grade.
- (3) PAI = Planned Above Infrastructure – Mineral Resources and Mineral Reserves accessible from existing infrastructure where no further material capital development is required to access any resource block
- (4) UPBI = Unplanned Below Infrastructure – Mineral Resources accessible only with significant additional capital

- development
 (5) P = Planned
 (6) UP = Unplanned

Subject to a positive feasibility study and project implementation by 10th September 2004, Agnew may also gain attributable Mineral Resource ounces (60% to Gold Fields) as follows:

- *Underground Sources* : 293kt @9.6g/t containing 90koz of Indicated Resources of which 185kt @ 9.4g/t containing 56koz of gold is above Ore Reserve cut-off and subject to a current feasibility study;
- *Open-pit Sources* : 6kt @ 3.0g/t containing approximately 1koz of Indicated Resource; and
- *Surface Sources* : 27kt @1.8g/t containing 2koz of Measured Resources which would modify directly into Proven Reserves.

The feasibility work completed to date is indicating that the deposit may not be robust enough to justify exploitation at this stage. Notwithstanding this comment, SRK take cognisance of the ongoing work, which includes investigating some alternative extraction methods and re-looking at a large open-pit option.

The Mineral Resources included in Table 10.5 that have not been modified to Mineral Reserves are either not currently economic or are the subject of ongoing technical studies to investigate their viability; no value has been ascribed to these resources in the valuations reported in Section 19.

Figure 10.1 highlights the Grade tonnage relationship for the total resources, including Measured, Indicated and Inferred.

Figure 10.1 Agnew: Grade Tonnage Curve for the Total Mineral Resource Inventory

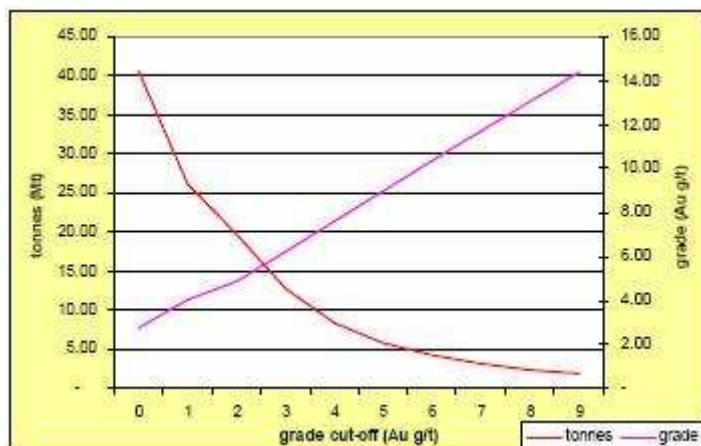


Table 10.6 highlights the Mineral Reserves sensitivity to gold price variation.

Table 10.6 Agnew: Mineral Reserve Sensitivity to Gold Price

	Units	-10%	-5%	0	5%	10%
Gold Price	(USD/oz)	315	332	350	368	385
Ore	(kt)	4,106	4,254	4,295	4,521	4,722
Grade	(g/t)	5.0	4.9	4.7	4.7	4.6
Contained Gold	(koz)	<u>640</u>	<u>654</u>	<u>655</u>	<u>665</u>	<u>679</u>

10.9 Summary of Mineral Resources and Mineral Reserves

SRK considers that no material shortcomings exist in the underlying resource models in terms of the appropriateness of drilling density, sampling, assaying, geological interpretation, estimation techniques and classification.

Further analysis is, however required to better understand the material variance between the resource model estimate and the grade-control model predictions (and actual production) for the Agnew underground operations. During F2004, approximately 27% more tonnes were produced from underground than was estimated in the reserve models, together with a higher than predicted grade (14%) the metal content was up by nearly 50%. This difference has historically been due to a degree of conservatism in the underlying estimates, mainly reflecting the level of data density. The orebodies have also generally being geometrically wider with additional secondary zones of mineralisation being identified during infill drilling which would not have been intersected during exploration drilling.

This issue cannot be addressed by simply applying global correction factors, as the grade and tonnage differences are relative to average mineralisation grade and associated cut-off grade, both of which vary from deposit to deposit. Increased geological knowledge and mapping has improved recent resource modelling and SRK consider that the historical conservatism has to some degree being engineered out; however work is still ongoing to further improve the confidence levels and close the reconciliation gap. The issues discussed are in general more related to the style of mineralisation than site specific operational issues.

11 MINERAL PROCESSING AND METALLURGICAL TESTWORK

In compliance with Form 43-101F1 Technical Report Item 18 and Item 25b, this section provides detail in terms of:

- Metallurgical testwork and analytical procedures;
- Existing and proposed processing facilities; and
- Recoverability, describing all test and operating results relating to the recoverability of the valuable components of the ore processed and methods utilised.

11.1 Current Processing Facilities

Processing of gold ores at the Agnew site commenced in 1986 to treat ore from the Emu mine. The facility comprised a three-stage crushing plant, operated by a contractor, single stage grinding and an air agitated CIL circuit. The plant capacity was then 500Ktpa.

In 1989 following the discovery and development of the Redeemer orebody the plant throughput was increased to 100ktpm by modifications to the crushing section, the addition of grinding capacity and the addition of leaching tanks.

In 1991 an elution plant, using pressure Zadra technology of capacity 3t, and a smelter/goldroom was added. Following these modular expansions, plant throughput was increased to its current operating capacity of 1.2Mtpa.

The current plant configuration is effectively best described as a conventional leach/CIP process flow sheet with a retrofitted gravity gold circuit and subsequent intensive cyanidation circuit to treat the gravity concentrate. The circuit comprises: a PacRim owned and operated three-stage crushing plant feeding to a fine ore stockpile, crushed to P_{80} 8mm; a two-stage closed circuit ball milling circuit (in series) grinding to P_{80} 106 μ m; and a three-stage leaching circuit feeding to the CIL tanks (six-stage Pachuca Tanks).

Nominal total pulp residence time is 30" hours at a mill feed rate of 135tph and approximately 40% solids w/w. Carbon elution is by pressure Zadra with gold being electrowon onto steel wool cathodes. Gold is finally smelted into bars in a fluxed crucible via a gas fired furnace subsequent to leaching of the electrowon cathodes with HCl and drying the residue.

In February 2003 a gravity circuit, comprising a 30" Knelson gravity concentrator in conjunction with an Intensive Leach Reactor ("ILR") for intensive cyanidation of the gravity concentrate, was retrofitted. In FY2004, recovery from the gravity circuit was 39.4% contributing to an overall recovery of 94% for the year.

Ore is hauled to this processing facility using off-highway "road-trains" of 64t capacity (2 by 32t trailers) from the individual mines. Haulage distances from the mines to the plant range between 1km and 15km (Songvang).

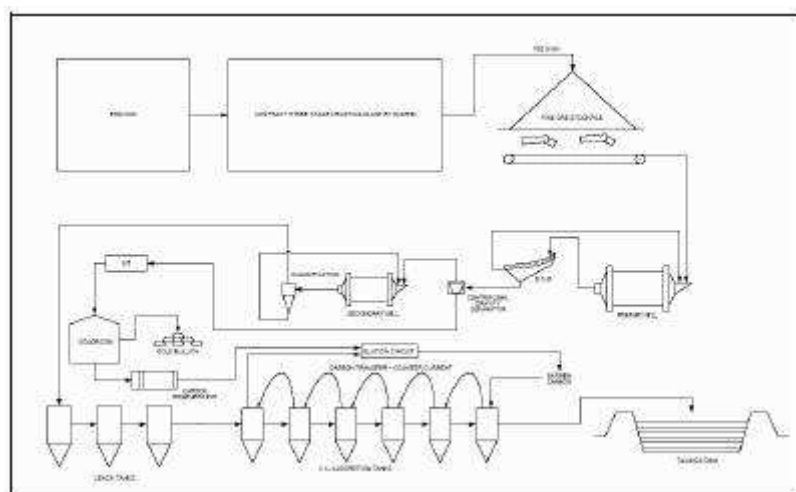
The plant is staffed on a four panel roster fly-in-fly-out system (9 days on and 5 days off). Each twelve-hour shift comprises a shift coordinator plus two process technicians and two gold room operators.

Annual process water requirements amount to 1.8Mm³pa which is sourced from a combination of local bore holes and recycled water from the tailings facility.

Power is supplied on a contract basis by Leinster Nickel Operations via its main power station owned

and operated by TransAlta.

Figure 11.1 Agnew: Schematic Flow Sheet for Agnew 1.2Mtpa Plant



11.2 Metallurgical Testwork

A significant contributor to the LoM plant feed is ore sourced from the Songvang open-pit. Metallurgical testing at the AMMTEC laboratory has demonstrated that the ores are amenable to the current flowsheet, however were tested at a grind P_{80} 75 μ m, which is finer than the current P_{80} 106 μ m grind which may negatively influence the recovery projections.

Milling characteristics BWI ball and rod indices of 15.8kWh/t and 15.9kWh/t respectively are within the range currently being processed from the Kim underground ores (16.7kWh/t and 13.6kWh/t respectively). For other ore types sourced from existing mining operations, future projections are based on historical performance, specifically where the ore make-up does not materially change over the depletion period.

Silver and copper levels in the Songvang ore are estimated at 7.7g/t and 377ppm respectively and are higher than levels contained in the current feed (1g/t and 50ppm respectively). Copper, however is present as chalcopyrite and this is unlikely to be detrimental to the recoveries. The elevated silver may cause carbon loading and desorption difficulties and may necessitate increasing the frequency of stripping.

Reagent consumptions, based on the testwork programme of Songvang ores, are similar to current plant usage with metal recoveries slightly lower than existing ores.

In terms of the current LoM plan Table 11.1 summarises the recovery assumptions and basis thereof.

Table 11.1 Agnew: Key Metallurgical Assumptions

Source	Tonnage	Grade	Recovery	Technical Studies / Based on History
Kim Lode	539	13.1	94.5	Low due to Alteration Zone (80% recovery)
Rajah Lode	57	5.6	94.0	Based on Batch test work
Main Lode	431	7.5	92.0	Test-work and modelling in progress, estimate only
Crusader/Deliverer	43	5.1	97.0	Historical achievement
Claudius(1)	357	6.7	95.0	Estimate no test work
Songvang	2,560	3.4	93.3	Testwork estimate

As highlighted in Table 11.1, there is a significant range of feed material in terms of both grade and mineralogy which influences the combined metallurgical response and ultimately recovery. The LoM projections use this data-set to appropriately model the individual recoveries over the depletion period.

11.3 Sampling, Analysis, Gold Accounting and Security

Sampling takes place by hand on a four hourly basis and mill feed rate and total feed mass is recorded by weightometer.

Access to the gold-room is via a two person tag entry system with a four digit code. All production personnel have access as they are rotated through the gold-room, initial entry is however by Security personnel. Any person with access through the mine gate has access to the plant area including the area adjacent to the gravity gold facilities with little physical impediment. SRK considers that security could be increased at Agnew particularly given the high proportion of coarse gravity recovered gold.

Gold shipment is attended by security, commercial representatives and production personnel.

11.4 Plant Performance and Operating Costs

Table 11.2 Agnew: Historical and Planned Performance

PROCESSING	Units	2002 12mth Act	2003 12mth Act	2004 6mth Act
Total Processing				
Tonnes Processed	(kt)	1,206	1,237	582
Head Grade	(g/t)	3.8	4.6	6.0
Gold to Process	(koz)	147	182	113
Gold Recovered	(%)	91.3%	91.9%	93.8%
Gold Produced	(koz)	134	168	106
Gold Sold	(koz)	137	169	105
Processing Costs				
Employee Expenses	(USDk)	1,700	2,166	1,347
Consumables	(USDk)	1,200	1,568	855
External Services	(USDk)	2,694	2,932	1,580
Energy	(USDk)	1,647	2,076	1,158
Maintenance	(USDk)	1,373	1,576	1,376
Other Cash	(USDk)	-681	-734	-314
Direct Processing Costs	(USDk)	7,932	9,583	6,002
Processing Capital				
Development	(USDk)	9	672	219
Capital Works	(USDk)	456	708	1,456
Capitalised Direct Costs	(USDk)	0	0	0
Direct Processing Capital	(USDk)	465	1,381	1,675
Total Processing Costs	(USDk)	8,397	10,964	7,677
Unit DPC	(USD/t)	6.58	7.75	10.31
Total Processing Costs	(USD/t)	6.96	8.87	13.19

A shift in labour costs impacted on the operating costs in 2003 and again in 2004, however has now stabilised for the LoM projections. High maintenance costs in 2004 also resulted in higher than planned unit costs. The maintenance aspects are likely to be cyclic but should be maintained at current levels for the remaining depletion. The recoveries were low during 2003 and 2004 due to low grade stockpiles being processed. The recovery for the high-grade underground ores currently stands at over 96%, however is expected to drop as the Songvang ore is introduced in October 2004.

11.4.1 Plant Closure and Clean-up

The existing plant will remain for the duration of the LoM period. On closure, it is likely that a certain amount of lock-up gold will be recovered during clean-up and dismantling.

12 TAILINGS DEPOSITION

The metallurgical department's area of responsibility includes the tailings deposition.

Tailings disposal and impoundment has historically been to a conventional dam in an area some 1.5kms south of the processing plant, however deposition to this facility has now ceased. Water is still reclaimed from the dam via a decant tower into a lined pond and recovered for use in the mill. The facility is now available for emergency use only. If required, the dam has a further 10m lift allowed in terms of the license.

The Redeemer orebody has been mined out and the pit has been prepared to receive the tailings arising from the plant for the foreseeable future. Although situated 7kms south of the surface plant the static head is negative and pumping is a relatively simple exercise. Supernatant water will be reclaimed from the pit for reuse in the plant.

The current disposal/water recovery regime will minimise the requirement of make up water from the borefield and minimises reagent addition and operating costs.

No material issues have been identified in terms of the tailing facility and the continued deposition into the worked-out Redeemer orebody. The Redeemer void has sufficient capacity to contain the remaining Mineral Reserves and beyond.

13 MINING

In compliance with Form 43-101F1 Technical Report Item 25a, this section provides detail in terms of:

- Mining operations and assumptions concerning modification from Mineral Resources to Mineral Reserves; and
- Mine planning and technical-economic projections into the LoM Plan.

13.1 Mineral Reserves

Table 13.1 summarises the available Mineral Reserves depleted in the LoM Plan and valuation model.

Table 13.1 Agnew: Mineral Reserves Depleted in LoM Plan

	<u>Status</u> (kt)	<u>Tonnes</u> (g/t)	<u>Grade</u> (koz)	<u>Gold</u> (% oz)	<u>Contribution</u> (% oz)	<u>Contribution</u>
Existing Operations						
Open Pit						
Songvang - Songvang - op - PWDP	Feas/Ongoing	2,560	3.4	276	100%	42%
Subtotal Open Pits		2,560	3.4	276	100%	42%
Underground						
Waroonga - Kim Lode - PAI	Feas/Ongoing	539	13.1	226	67%	35%
Waroonga - Main FW + HW - PAI	Feas/Ongoing	431	7.5	104	31%	16%
Crusader - Pillars - PAI	Feas/Ongoing	43	5.1	7	2%	1%
Subtotal Underground		1,013	10.4	337	100%	52%
Surface Sources						
Mill Stocks		18	3.5	2	10%	0%
Waroonga Green		206	1.5	10	51%	2%
Waroonga Blue		175	0.8	4	22%	1%
Redeemer Green		40	0.9	1	6%	0%
Redeemer Pit Bund		6	2.6	1	3%	0%
Kim Lode		6	7.3	2	8%	0%
Subtotal Surface Sources		450	1.4	20	100%	3%
Total Existing Operations		4,024	4.9	633		97%
Future Projects						
Open Pits						
Crusader - Claudius - op - PWDP	Pre Feas	203	1.7	11	100%	2%
Subtotal Open Pits		203	1.7	11	100%	2%
Underground						
Waroomga - Rajah Lode - PAI	Feas	57	5.6	10	100%	2%
Subtotal Underground		57	5.6	10	100%	2%
Surface Sources						
Cox Green		11	2.8	1	100%	0%
Subtotal Surface Sources		11	2.8	1	100%	0%
Total Future Projects		271	2.5	22		3%
TOTAL MINERAL RESERVES		4,295	4.7	655		100%

(1) Contribution to each subtotal

(2) Contribution to total Mineral Reserves

As reported in Table 13.1, 77% of the Mineral Reserve contained ounces are sourced from the existing Kim Lode underground mine and the Songvang open-pit mine which only commenced pre-strip earthworks in September 2004. The balance is primarily sourced from the Main Lode underground mine which is due to commence production during 2005.

13.2 Competence and Responsibility

Table 13.2 details the Qualified Persons responsible for the mine planning and production at Agnew.

Table 13.2 Agnew: Mining Disciplines - Qualified Persons

Discipline	QP	Qualifications	Experience	Professional Body
Agnew				
Open-pit Production	Dan Baldwin(1)	B Sc (Hons) Geology; Grad. Dip. (Business)	10 years	AusIMM
Open-pit Planning	Louw Smith	B Sc (Hons) Geology; B Comm; MSc Mining (Business Economics)	13 years	AusIMM
Underground Planning - Waroonga Complex	Walter Shamu	B Eng Mining M Eng (Rock Mechanics)	10 years	
Underground Planning- Redeemer Complex	Chris Elliot	B Eng Grad Dip Geosciences, Grad Dip Applied Finance and Investing (Mining)	20 years	AusIMM
Surface Source Production	Dan Baldwin	B Sc (Hons) Geology; Grad. Dip. (Business)	10 years	AusIMM
Surface Source Planning	Louw Smith	B Sc (Hons) Geology; B Comm; MSc Mining (Business Economics)	13 years	AusIMM
Mineral Reserves				
SRK				
Open-pit Mining	Mike Warren	B Sc (Mining), MBA	30 years	AusIMM
Underground Mining	Thomas Schrimpf	Dip. Ing.	19 years	AusIMM
Mineral Reserves	Mike Warren	B Sc (Mining), MBA	30 years	AusIMM

(1) Overall responsibility.

In terms of the mine planning, mining, geotechnical and ventilation engineering disciplines the representatives listed in Table 13.2 take responsibility for the reporting of the economically mineable material derived from Measured and/or Indicated Mineral Resources, and compliantly modified to Mineral Reserves. They have assessed the level of geoscientific confidence in the estimation and classified these estimates into the appropriate Mineral Reserve classification categories (Proved/Probable).

In addition to the reported Mineral Reserves, these representatives take responsibility in their professional capacity for the inclusion of Mineral Resources, not yet modified to Mineral Reserves, in the LoM plan. The contribution of this material and associated impact on the underlying valuation is described in the LoM valuation summaries in Section 19.

13.3 Open-pits

13.3.1 Salient Features

Table 13.3 to Table 13.5 inclusive summarises the salient operating features of the current and planned open-pit operations.

Table 13.3 Agnew OP: Salient Features

Open-pit	Description
General	As at 8 September 2004 there were no open cut mines being operated by AGMC. Stockpiles of ore from previous open pit mining operations exist near the ROM stockpile area. Previously mined open pits at the Agnew operations of AGMC have a number of functions including; 1) providing access to underground mines; 2) awaiting improved economics which may allow future cut-backs; and 3) as voids for potential waste dumps and/or tailings storage facilities. The Songvang open pit project has passed through the Feasibility Study stage and is proposed to commence development and waste stripping in September 2004. Ore production from Songvang is timed to commence in October 2004 and to be completed by June 2007. Open pit mining by AGMC is typically carried out by conventional drill and blast with truck and excavator. The open-pit mines are managed by Agnew staff; however all of the operational functions are outsourced to selected contractors. The current transport of ore to the processing facilities and maintenance of the haul roads is contracted to Hampton Transport Services Pty Ltd, ("Hampton Transport"). The term of the Hampton Transport contract is from 23 August 2004 until 25 January 2005. Surface drilling and blasting is contracted to Ausdrill. The term of the Ausdrill contract is for 33 months from September 2004 to May 2007. The Songvang mining contract has been let to Leighton Contractors Pty Limited ("Leighton"). The term of the Leighton contract for Sonvang is for 33 months commencing in September 2004 (i.e., until May 2007). The three contractors mentioned above are considered by SRK to be well established and experienced. Production drilling patterns range from 4.4m x 5.0m in the oxide through to 2.6m x 3.0m in the lower fresh material using 102mm blast holes. Pre-split in hard rock is done on 10m benches using 89mm to 102mm drill holes. Load-and-haul is by a combination of 90t and 185t dump trucks and 120t or 250t excavators in backhoe configuration. Mining benches vary from 5m (mined in 2 x 3m flitches including heave) in ore / waste blasts to 10m (3 x 4m flitches) in waste only. Gold mineralisation is mined selectively to limiting economic cut-off grades ("c.o.g.") that reflect the combined long term operating strategy at AGMC. Short term tactical variations are made to c.o.g. to balance the ore production profile and processing capacities on site. Limiting economic c.o.g. vary according to haulage distance to processing facilities. The c.o.g. for the Songvang open pit to the Agnew mill/CIP processing plant has been calculated by AGMC as 0.90 g/t Au on an incremental basis. Ore is currently hauled from individual mine ore pad ("MOP") stockpiles to the Emu Gold Plant processing facilities using off-highway 'road trains' of 64t capacity (32t per trailer x 2). Haulage distances range from 0.2km (for run-of-mine ("ROM") stockpiles) to 16.1km (for Songvang) to the Emu Gold Plant. The major equipment provided by Hampton Transport, Ausdrill and Leighton is listed in Table 5.4. None of the listed equipment is owned by AGMC.
Waroonga OP	The Waroonga pit ceased mining of ore and waste in January 2004. Access and infrastructure for the Kim and Main Lode underground mines is located in the Waroonga open pit, including the access portal, the emergency egress and a ventilation shaft. The area of the Waroonga pit adjacent to and above the portal, emergency egress and ventilation shaft is required to be kept in a stable condition to ensure safe and reliable access to the underground mine. AGMC has installed buttresses, steel sets and/or concrete covers to protect the access points to the underground mine. AGMC will also continue to monitor the condition of, and any movement in, the Waroonga pit walls. Bunds above the Waroonga pit rim are well placed to restrict any surface water flows from entering the pit. The base of the Waroonga pit is currently being used for the storage of waste rock from the underground mines.
Songvang OP	The Songvang open pit is a Feasibility Study stage project which was approved by AGMC in May 2004 and received approval of its Notice of Intent ("NOI") in September 2004; Whittle shell optimisation were completed at a gold price of AUD530/oz; The pit design has been completed but will be updated as additional data requires; final depth 160m below surface; average SR 14.5:1; date due to commence 9 September 2004; depletion period 38 months; Peak Annual Production Ore 1,202ktpa in F2007 and Waste 1,494 kbcm in F2007; Batter Angle 45° to 70°deg, overall wall angles 30° to 52°; Distance from ROM pad 16.1km; ore will be hauled from the mining face to the mine ore pad ("MOP"); maximum haul to the MOP will be 1,280m (160m deep @ 1 in 8 grade); Water make: forecast average 2,000kl/day, maximum 3,700kl/day; Operating hours 2 x 12 hour shift/day, 7 days per week, including all public holidays; Workforce: AGMC staff of 14; In pit labour compliment of 62; blast patterns

will vary with material type, five types planned; Explosive planned, ANFO; possible free dig in oxide material.

(1) All depths quoted are in metres below the surface

Table 13.4 Agnew OP: Contractors Mining Equipment

Major Equipment - Leighton	Bucket/tray size	Number in fleet	Effective Work Hours p.a.
Excavator – Hitachi EX2500	15m(3)	1	5,500(1)
Excavator – Hitachi EX1200	7m(3)	1	5,500(1)
Rear dump truck – Komatsu 630E	185t	4	5,000(1)
Rear dump truck –Caterpillar 777D - Hire	90t	4	(1)
Dozer – Cat D10	n.a.	2	5,500(1)
Major Equipment – Hampton Transport			
Loader – Caterpillar 966	3.8	1	
Loader – Caterpillar 980	5.4	1	
Loader – Komatsu WR600	5.6	1	
Prime Movers – Kenworth	n.a.	2	
Trailers/Dolly's	25t or 35t	6	
Major Equipment – Ausdrill(2)			
	Hole Diameter		
	115mm, 102mm,		
Tamrock – CHA1100	89mm	6	
Schramm drill	165mm, RC 136mm	1	

(1) The baseline equipment availability stated in the contract is 85%.

(2) On trial. The selected drill rig will be added to the fleet

Table 13.5 Agnew OP: Drill and Blast Parameters

Material Type	Parameter	Burden, Spacing, Depth	Powder Factor (kg/bcm)
Caprock waste	Hole diameter - 115 mm	4.2m x 4.8m x 5.0m	0.31
Oxide waste	Hole diameter - 115 mm	4.4m x 5.0m x 10.0m	0.30
Fresh waste	Hole diameter - 115 mm	3.5m x 4.1m x 10.0m	0.65
Fresh ore	Hole diameter - 102 mm	3.0m x 3.5m x 5.0m	0.65
Fresh ore	Hole diameter - 89 mm	2.6m x 3.0m x 5.0m	0.65
Explosive Planned	ANFO in dry holes, Emulsion if holes cannot be de-watered		

Explosives are currently purchased by AGMC from Orica Explosives who provide a “down the hole” placement service. AGMC is in the process of tendering for the future supply of its explosives requirements from a number of explosive suppliers. Ausdrill install initiation systems and detonate the blast patterns.

13.3.2 Historical and Planned Performance

Table 13.6 summarises the historical KPIs for the Waroonga open-pit to end June 2004 in calendar years.

Table 13.6 Agnew OP: Waroonga Historical and Planned KPIs

MINING	Units	2002 6mth Act	2003 12mth Act	2004 6mth Act
Open Pits				
OP1 - Waroonga				
Pre-Strip	(bcm)	0	0	0
Internal Waste	(bcm)	1,444,837.0	34,091.0	0.0
Total Waste	(bcm)	1,444,837	34,091	0
Ore	(bcm)	510,630	99,641	9,574
Total Moved	(bcm)	1,955,467	133,732	9,574
SR	(w:o)	2.8	0.3	0.0
Ore Density	(t/m3)	2.72	2.37	2.10
HG Ore Ex Pit	(t)	517,690	152,845	20,106
Allocated Grade	(g/t)	2.9	2.5	2.9
Contained Gold	(oz)	47,447	12,145	1,888
LG Ore Ex Pit	(t)	873,550	83,363	0
Allocated Grade	(g/t)	1.5	1.3	0.0
Contained Gold	(oz)	42,879	3,554	0
HL Ore Ex Pit	(t)	0	0	0
Allocated Grade	(g/t)	0.0	0.0	0.0
Contained Gold	(oz)	0	0	0
Ore Ex Pit	(t)	1,391,240	236,208	20,106
Allocated Grade	(g/t)	2.0	2.1	2.9
Contained Gold	(oz)	90,325	15,699	1,888
Ore to CIL	(t)	530,034	879,145	360,685
Allocated Grade	(g/t)	2.8	1.8	1.7
Contained Gold	(oz)	48,252	49,983	20,064
Ore to HL	(t)	0	0	0
Allocated Grade	(g/t)	0.0	0.0	0.0
Contained Gold	(oz)	0	0	0
Ore to Toll	(t)	0	0	0
Allocated Grade	(g/t)	0.0	0.0	0.0
Contained Gold	(oz)	0	0	0
Ore Processed	(t)	530,034	879,145	360,685
Allocated Grade	(g/t)	2.8	1.8	1.7
Contained Gold	(oz)	48,252	49,983	20,064
ER	(AUD:USD)	0.55	0.66	0.74
Direct + Capital Waste Cost	(USDk)	6,221,838	309,082	0
Direct Costs Normalised	(USDk)	0	0	0
Direct Ore Costs	(USDk)	2,720,036.1	837,428.9	96,011.5
Total Direct Mining Cost	(USDk)	8,941,874	1,146,511	96,011
Haulage Cost to Plant	(USDk)	0	350,793	357,488
Unit Cost				
Direct Waste Cost	(USD/bcm)	4.31	9.07	0.00
Direct Ore Costs	(USD/bcm)	5.33	8.40	10.03
Total Direct Mining Cost	(USD/bcm)	4.57	8.57	10.03

13.3.3 Planning

Agnew employs a number of qualified mining engineers to plan, design and schedule the mining of the open pits, based on the data generated by other technical staff and consultants including geologists, hydro-geologists, geotechnical engineers, metallurgists and environmental scientists. The plans, design and schedules are provided to and communicated to the contractors and form the basis of the contract between the parties. Agnew plan and execute open-pits to a generally accepted industry standard.

Key Planning Assumptions : The Key financial assumptions other than direct mining cost used for project evaluation and Mineral Reserve calculation are provided in Table 13.7

Table 13.7 Agnew OP: Evaluation Inputs

Description	Rate
Administration and Processing costs	AUD11.50/t
Transportation Costs	AUD2.85/t
World Gold Council	AUD2.86/oz
State gold tax	2.50%
Gold Price for cut-off-grade calculation and project evaluation	AUD530/oz
Mineral Reserve gold price	AUD580/oz
Mineral Resource gold price	AUD650/oz

Table 13.1 summarises the Mineral Reserves for the open-pit operations; in support of these estimates the following describes the how the Mineral Reserves have been estimated in terms of the mining related disciplines.

The Songvang open pit project has been studied to Feasibility Study level and used the following parameters:

- **Block sizes** : The Datamine™ block model used a selective mining unit (“SMU”) size of 2.5m by 5.0m by 2.5m to simulate the mining process;
- **Wall Angles** : Overall wall slope angles ranged from 30° to 52° in accordance with the external consultants recommendation;
- **Dilution and Mining Recovery** : Mining dilution was assumed at 18% and mining recovery was assumed at 90%;
- **Economic Assumptions** : Mining costs were based on the Leighton Contracting feasibility cost estimates. Processing costs were based on the AGMC mine planning assumptions as at June, 2003, modified by the use of variable costs. Cartage rates were estimated by Hampton Transport Services Pty Ltd for the feasibility study. Marginal costs of 65% of AGMC administration. Gold Fields Perth administration and Gold Fields International administration costs have been excluded;
- **Viability tests** : Viability tests include the use of Whittle Four-X™ software for pit shell optimisation and spreadsheet models which simulate the mining and processing quantities and costs, which are compared to the simulated gold production and sales revenue. SRK notes that the Songvang project was not viable on a full cost basis and the use of a marginal cost basis has been accepted by AGMC.

Key optimisation considerations include:

- **High-grade ore** : All material above high grade cut-off of 2.4g/t diluted will be fed directly into the Agnew Mill;
- **Pit Rim Stockpiles** : Material above low grade cut-off of 0.9g/t diluted will be stockpiled on the low grade mine ore pad (“MOP”) as future mill feed. These stockpiles will be formed on the Songvang MOP and transported to the Mill ROM pad on a “just in time” basis;
- **Pit associated waste dumps** : Each open pit has an associated waste dump which has been approved in the Environmental Management Plan (“EMP”) by the relevant environmental authorities. Waste dumps are designed to minimise the haulage distance from the pit while also providing sufficient working space and clearance from final design limits. Figure 13.1 shows the layout of the planned waste dumps.

Figure 13.1 Agnew: Shows the Songvang Completed Final Pit Design

Dilution and Mining Widths : Surface mining dilution and recovery factors are applied by one or both of the following methods; 1) Factors in Four-X parameter file, and 2) Amalgamating blocks in the geological resource model. For the Songvang open-pit mining dilution was assumed at 18% and mining recovery was assumed at 90%.

Minimum mining widths for open pit planning are as follows:

- 15m for equipment to turn at the base of pit;
- 20m, consisting of 15m for equipment to turn and 5m for safety window, for high wall cutbacks; and

- Smaller cutback widths with a minimum 15m, consisting of 10m for equipment reversing into place and 5m for safety window, can be used for remedial work with a much lower excavation rate than required by production operations.

The above dimensions reflect the requirements of equipment used in current surface mining operations.

Geotechnical : An external consultant was employed to review and assist with the geotechnical data collection and analysis of the Songvang open-pit project. The work completed included geotechnical logging of exploration drillhole core, data evaluation and construction of 3D block models for rock mass rating (“RMR”), (“MRMR”), and Slope Angle. Twenty-eight (28) geotechnical drill holes were used to provide the representative data. The results from the geotechnical review were reported and recommended pit wall angles used for mine optimisation, design and planning. The geotechnical consultant also made a number of recommendations which were implemented in 2004.

SRK accepts that the geotechnical work completed to date at Songvang has been done to a good standard and is suitable for the confidence levels required for LoM planning. Additional work and monitoring of actual results is planned by AGMC during the mining phase.

Plant and Equipment : All of the open-pit mining equipment will be supplied by contractors who are responsible for the maintenance and replacement of the mining equipment to ensure that it is capable of meeting the performance required under the contract. All major equipment items in the Leighton mining contract are required to have a minimum availability over a two month period of 85% and to be available for work for a stated number of hours per annum (5,500 for excavators and 5,000 for trucks).

Mechanical assessments were not undertaken, however the general appearance of the equipment indicated that maintenance schedules are in place and that the majority of the equipment is relatively new. Agnew staff indicated satisfaction with equipment availability and maintenance standards.

Cut-off grades : The Songvang project was evaluated at a gold price of AUD530/oz (USD400/oz and an exchange rate of 0.75) and using a marginal cut-off grade (off-site administration charges were deleted). The mining and hauling costs used in the cut-off-grade calculation were based on quoted costs from selected contractors. Site processing and administration costs were based on recent history to June 2004. Geotechnical inputs to the optimisation were based on pit slopes initially recommended by an independent consultant. Further geotechnical work was completed and the report in April 2004 recommended changes to slopes in two of the six domains. The updated pit design to be completed in September 2004 will incorporate the latest slope recommendations from the geotechnical consultant, as well as updates to the operating costs.

Grade Control : Grade control at Songvang open-pit will be performed by inclined RC drilling at 135mm diameter on approximately 5m by 10m centres with assay for gold and at time silver by 50g fire assay with AAS finish.

The grade control data will be added to the existing exploration database. As the data density of the grade control drilling will be of a higher density than the exploration drilling, the grade control database will provide improved knowledge of the grade distribution within the pit. The grade control model will therefore be used to discriminate between waste and the two ore categories in use at Agnew. Ore boundaries will be marked out in the pit and mined separately from waste, with care taken to minimise mixing of waste and ore.

The mining of ore zones with the large sized equipment shown in Table 13.4 is likely to cause dilution to be higher than would be the case if smaller, more selective mining equipment were utilised. Smaller equipment would however incur increased cost which would increase the CoG. required for the ore to

be economic.

Mine Capacity : As shown in Table 13.6, Agnew only mined a total of 20kt of open pit ore in F2004 (from remnant broken stocks in the Waroonga Pit via the Kim underground portal), which was down from 1,627t in F2003. Surface ore processed in F2004 totalled 753kt and was largely sourced from stockpiles. The plan for 2004 forecasts the open pit mining of 258kt of high grade ore and 361kt of low grade ore, both from Songvang open-pit. SRK notes the delayed start to the Songvang open pit and considers the 2005 open-pit ore target of 619kt to be optimistic with the currently planned equipment. Additional equipment may be required to achieve the 2005 target production levels from Songvang and Agnew have indicated the possible addition of several scrapers to assist with early waste removal.

Operating Costs : The mining cost forecasts for the Songvang project are based on quotations from selected contractors. SRK notes the differences between the processing and administration costs used in the Songvang feasibility study and the F2004 actual results, as shown in Table 13.8. The processing cost assumed in the Whittle optimisation of Songvang pit is \$7.50/t of ore, this compared to the F2003 actual processing cost of \$12.66/t of ore. The other cost components used in the optimisation are shown in the following table

Table 13.8 Agnew: Songvang Feasibility Cost Assumptions

Item	Unit Cost per Ore Tonnes	Justification (based on F2004 YTD costs)
Processing	\$ 7.50	41.7% of fixed processing cost (\$3.70), plus 100% of variable costs of \$3.80.
Cartage	\$ 2.85	Quote from Hampton Transport
Rock breaking on RoM	\$ 0.30	Estimate
AGMC Administration	\$ 2.00	35% of full administration costs of \$5.80
Perth Administration	\$ 0.00	Not included (marginal cost basis used)
GFI Administration	\$ 0.00	Not included (marginal cost basis used)
Sustaining Capital	\$ 0.29	Estimate
Grade Control	\$ 1.00	GFA “rule of thumb”
Ore Premium	\$ 0.41	Allowance for extra haul, tighter blasting.
Total	\$ 14.35	

13.3.4 Risks and Opportunities

Agnew conducted a risk assessment as part of the Songvang feasibility study. The risk assessment identified operational risks that could impact on the success of the proposed Songvang open-pit mining operations. The risk assessment also identified the controls being proposed to manage those risks.

Tables 13.9 and 13.10 summarise the identified risks and opportunities for the Songvang Open-pit.

Table 13.9 Agnew: Songvang Feasibility Risks

Risks	Risk Reduction Action
NoI delays results in delay to construction and mining	NoI approved 8 Sept 2004. Agnew rescheduling to achieve timing.
Mining contractor unable to source mining equipment in required timeframe	Hire Cat777 trucks to be used for first 4 months, until Komatsu 630E trucks are available.
instability of some parts of open pit walls	Geotechnical study has recommended wall angles. Will be monitored.
groundwater inflows may delay progress	De-watering bores in place and pumps available.
water discharge approval	Approval awaited
rate of extraction is slower than forecast causing periodic ore shortfall	Contractor is committed to the mining schedule.
mill recoveries lower than predicted	further testwork
ore shortfall increases processing and administration unit costs	Mining scheduled to maintain ore production.

Table 13.10 Agnew: Songvang Feasibility Opportunities

Opportunities	Potential
increased reserve tonnage due to higher densities values than in the model	Possible
increased reserves from drilling under Lawlers Creek post NOI approval	Possible. Drilling underway as at 9 Sept 2004
increased silver recoveries	Possible
geotechnical studies may allow scope for steepening batter angles	Geotechnical report did not recommend increased batter angles
reduced blasting costs if oxide is free digging	Not likely
further discussions with mining contactor may reduce mining costs	Possible
underground potential	Possible from further exploration drilling

13.3.5 SRK Comments

SRK has compared the contract rates quoted by Leighton for the Songvang open-pit and the rates as shown in the St Ives “Alliance” contract for SIGM. SRK notes that the rates for comparable equipment are very similar. SRK has also compared the rates quoted by Leighton to other contractor’s rates for open-pit mining in other areas of Australia.

Songvang is planned to be mined at a rate near 5.8Mbcm per annum and the forecast mining costs are AUD5.82/bcm. Considering the relative small-scale compared to other open-pits in Western Australia, SRK accepts that the contract mining costs forecast for Songvang are competitive and in line with industry norms.

13.4 Underground Mining

The Waroonga gold deposit has been mined since the late 19th century, using cut and fill methods and shrinkage stoping. Underground workings consisted of ten levels with shaft access. The old underground workings extended to a depth of about 300m. From 1984 to 1992 WMC operated an open pit to exploit the near surface resources. In 1989 and 1990 WMC undertook exploratory underground development, which ceased due to sub-economic grades.

In March 2001, the open pit mine was reopened and underwent an open pit cut back which was completed in February 2003. In December 2001, Gold Fields acquired the ownership of Agnew Gold Mines.

At Agnew the two producing underground operations (Crusader and Waroonga) together with future resource projects are spatially concentrated over a distance of approximately 11km. Both mines as well as the future underground resource projects are relatively small operations with short mine lives. Common features of the mines and projects are:

- The ore bodies are generally shallow, and underground mines are in principal extensions of open pit mines, with single decline (gradient 1 in 7) portals in the sidewalls of the open pits. The portals are located in unweathered ground and the lowest levels of the pit below the portal provide sumps for precipitation. Depths seldom exceed more than 500m (max. depth at Waroonga 515m);
- Water inflows are low and are handled by staged mono pump mine drainage arrangements;
- In addition to the declines, raises are developed as return airways, and ladder ways as second means of egress;
- Ground support consists in general of 2.4m long galvanised split-sets with 6.5mm by 100mm aperture galvanised weld mesh. The split sets are installed by means of the twin boom development jumbos;

- Haulage trucks are directly loaded by the development or production load-haul-dump trucks (“LHDs”); there are no ore or waste passes;
- Anfo is the explosive used for development and production;
- There is one underground mining contractor for all underground operations. This arrangement provides flexibility in the sharing and allocation of labour and equipment;
- The shared facilities and equipment of the contractor include the central mobile plant workshop, shared mobile plant and site overheads with 27 persons. The mines have only shift fitters and electricians for breakdown maintenance; and
- All underground mines have the same “7 day-shifts followed by 7 night-shifts shift and then 7 days off” roster, working 2 by 12-hour shifts. The mines operate continually during the year.

13.4.1 Waroonga Complex

The Waroonga deposit comprises three mineralised structures, the Main, Kim and Rajah Lodes. The lodes are generally interpreted to occur at the intersection between a lithological contact between sandstone in the hangingwall and ultramafic conglomerate in the footwall and structures that are oriented sympathetic with the axial plane of regional scale folding. Locally, however the lode can be in contact with sandstone in both the hangingwall and footwall.

Only the Kim lode has been mined until now, however access development to the Main lode has commenced. There are only conceptual studies for the mining of the Rajah lode at this stage.

The Kim Lode is the northernmost lode exposed in the Waroonga open pit. The lode dips fairly uniformly at 60° to the west on the mine grid, and has been intersected in diamond drill holes for a down dip length of about 340m. The lode plunges to the north at about 70° and is interpreted to have a horizontal strike length of between about 100m and 150m. The Main Lode deposit is a steeply dipping (75°), steeply plunging (75°) orebody. The Main Lode orebody consists of two lodes, hangingwall and footwall and two shoots, north and south.

The hangingwall lode occurs on the ultramafic/sandstone contact and varies in width from 0.5m to 15m. The lode has a strike of approximately 55m. The footwall lode occurs on the contact between two ultramafic rock types and varies in width between 0.5m and 8m. The lode has a strike length of between 20m and 100m and the distance between the two lodes also varies between 2m and 20m.

The rock mass can be described as “good”, with mean Q values of 25 in the hanging wall, 40 in the Kim lode and 72 in the footwall. The development workings are supported with 2.4m long galvanised split sets in combination with weld mesh (5 mm diameter with 100mm aperture); the split sets in the decline are grouted. Fibre reinforced shotcrete is locally applied in infrequent weak strength shears. Intersections and ore drives are cablebolted. In the ore drives 6m long single strand cables are installed in a pattern of 1.8m spacing between the rings and 3m spacing between the cable bolts in one ring.

A new decline portal in the side wall of the pit has been constructed, as the old exploratory decline portal has been located too deep in the open pit with a high risk of flooding in the event of cyclonic rainfalls. A circular failure in the weathered near surface part of the pit wall caused a slide of about 60,000m³ of material and blocked the portal in April 2003. As a remedial measure the pit wall in the area was cut back by about 100,000m³ of material, the decline portal construction was extended about 30m into the pit and a Geobrugg™ protection fences have been installed to protect the access ramp in the open pit. The surface main substation and compressor station have been relocated.

The main decline and other access development are located in the sandstones of the hanging wall. The dimensions of the main development are 6m x 6m with arched backs in the main decline and 5.5m by 5.5m with rounded shoulders in the Kim lode access.

A crown pillar of 20m is left to the surface and of 30m to the old underground workings of the Waroonga mine. The old mine plan traces have been obtained from the Mines Inspectorate and cover drilling has been conducted. In 2004 the old workings have been drained via drainage holes.

The first stopes in the Kim lode have been mined as longhole open stopes, separated by rib pillars. Following a backfill study by AMC consultants in 2003, cemented aggregate fill (“CAF”) has been introduced and the mining method changed to longhole stoping with primary and secondary stopes.

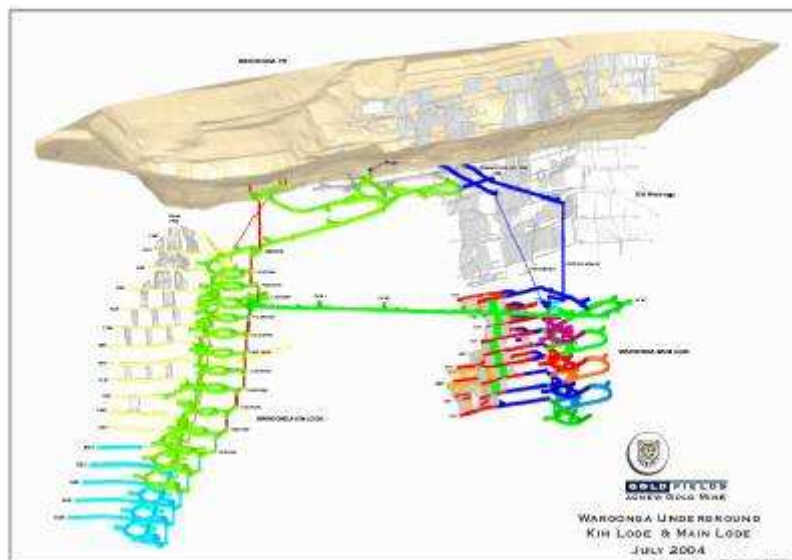
In this method, the lode is mined by 15m long (along the strike) primary stopes, which are separated by 25m long secondary stopes. Boxcut holes are drilled to create the slots for the primary holes. Once a primary stope is mined, it is backfilled from the upper sublevel with CAF. The CAF is batched on a surface batch plant and transported to the stopes in standard on road agitator trucks with standard bowls of 5m³ and 7m³ nominal capacities. Slightly conical shaped rigid ducts are extended and suspended in the open stope next to the adjoining secondary stope prior to backfilling, thus providing the initial slot for the firing of the secondary stope. The lower sublevel is partly backfilled with development waste prior to filling the stope with CAF.

Mining of the secondary stopes starts with the re-establishment of the lower level access by driving through the backfilled primary stopes. The unconsolidated fill is mucked out, before the drive is flat backed to the required height. The drives in the fill are supported by fibre reinforced shotcrete.

The secondary stopes are mined in retreat and in a top down section. These stopes are not backfilled. The vertical sublevel spacing is 25m in the Kim lode and will be 20m in the Main lode.

This mining method does not require the grouping of stopes in panels and avoids sill pillars between such panels. It allows stope production on several levels and sublevels at the same time. The mine capacity is restricted by the haulage capacity, rather than by the number of stopes available.

Figure 13.2 shows the mine layout for the Kim and Main lodes within the Waroonga Complex.

Figure 13.2 Agnew: Shows the Waroonga Complex Final Mine Designs

13.4.2 Crusader Complex

The deposit of the Crusader mine has been mined by an open pit and subsequently an underground mine, employing airleg and longhole stoping, with post-pillar cut and fill stoping in a trial phase. Mining was suspended in 1996 and resumed in 1998.

The Crusader ore body is a shallow dipping, northwest plunging gold mineralisation hosted by tholeiitic basalt. The hanging wall of the deposit is located on the sheared unconformable contact with the ultramafic cumulate and the Lawlers basalt. The basalt host rock of the ore body is a massive, fine grained amphibolite. The overlying ultramafic sequence is a basal serpentinised orthocumulate, which is sheared and carbonated. The ore body is associated with a north plunging flexure. At its widest point the ore body is ellipsoid in cross-section, with narrow extremities. The dip of the mineralisation averages about 40°, with an average plunge of about 20° to the northwest.

The ore body has been mined by cut and fill with rock fill. A typical cut and fill stope consists of five lifts of 5m height each. The 25m high stopes are separated by 5m high sill pillars. 4m wide square stope pillars remain in the wider parts of the stope. These pillars are embedded in the rock fill. The last lift of the stope has not been backfilled and is accessible.

Ore extraction in the Crusader mine is now restricted to the mining of pillars and other remnants in the upper levels of the underground mine. Sill and stope pillars are extracted by a longhole stoping method retreating towards the stope access cross-cut. Remnant ore, not contained in readily accessible sill and stope pillars, requires specific access development.

64mm diameter or and 76mm diameter longholes are used as production blast holes. Typically only one

ring is fired per blast. The blasted ore is mucked by means of tele-remote operated LHDs. High dilution through unplanned overbreak and ore losses in the stope are in the nature of a remnant mining operation like this.

13.4.3 Claudius

The Claudius ore body could be accessed from the workings of the Crusader mine. A conceptual mining study, based on indicated and inferred resources has been carried out to justify the development of an underground exploratory access and a diamond drilling campaign. The conceptual study assumes longhole open stoping as mining method, and operating costs based on current mining contract rates. It does further assume a gold price of AUD530/oz. The development of the exploratory access is in progress and the study will continue, however the resources are not yet classified as Mineral Reserves.

13.4.4 Vivien

The Vivien deposit has previously been exploited by an underground mine in the early 20th century and subsequently during 1997 and 1998 by a 65m deep open pit.

The Vivien deposit comprises essentially a single plane auriferous quartz reef referred to as the Main Lode located in a 5 to 20m wide shear zone trending 030° and dipping to the southeast at 70° to 75°. The Main Lode varies in width from 1m to 8m horizontally with an average of 2.2m. Minor veins with poor continuity and variable grade separate to the Main Lode and occur in the hanging wall and the footwall.

The Vivien underground project is now a joint venture between Agnew and Breakaway Resources NL. A feasibility study for an underground mine has been evaluated below the existing open pit and underground workings. Only the main lode has been considered sufficiently consistent for underground mining. A 20m high crown pillar separates the mine from the old underground workings and the open pit. The study, carried out by AMC Consultants (September 2004), concluded that the project would deliver a negative cash flow at a gold price of AUD550/oz. Actual milling costs and indicative contract mining quotes from the mining contractor at the Agnew operations have been used for the purpose of the study. Inferred Resources have also been converted for the purposes of the study. As such, it is not considered JORC compliant and therefore intended for internal purposes only.

The proposed mining method is uphole retreat stoping (“UHR”), a top down method with 15m vertical level intervals. Ore drives have been designed as 3.5m wide by 4.0m high unless the ore width requires wider development. 12m long 64 mm diameter production blastholes are proposed.

The feasibility study was based on the following design parameters:

- minimum stoping width of 2m;
- unplanned stope dilution factor of 15%;
- planned and unplanned stope dilution was applied using a dilution grade of 0.0g/t;
- pillar recovery factor of 85% to represent rib pillars;
- mining recovery factor of 95%;
- a decline developed from an in-pit portal at a gradient of 1 in 7 and at a size of 5.0m high by 5.0m wide to facilitate the use of up to 40t low profile diesel trucks;
- ore and waste to be trucked from the mine and delivered to the surface ore and waste stockpiles.

Rehandled ore will be transported in road trucks to the Agnew RoM pad.

The cut-off grade used for this study was based on these preliminary design parameters. The operating breakeven cut-off grade was estimated at 6.4g/t Au, covering the mining and ore costs associated with that block of ore. The marginal cut-off grade used for stope design purposes was estimated at 5.9g/t Au, where no cost of development was required.

A maximum production rate of 0.15Mtpa is achievable from the Vivien underground deposit. Ore from stope development would be available approximately 8 months from the start of the decline development however, the maximum production rate would not be achieved until 11 months after development commences. Steady state production was assumed at 12ktpm.

Table 13.11 summarises the salient operating features of the current and planned underground operations.

Table 13.11 Agnew: Underground Operations – Summary of Salient Features

Underground	Description
Waroonga U/G	Existing operation; Mine Design Gold Price 580/oz; Final Design completed; final depth 515m below surface; date commenced 02/2001; depletion period 79 months; Peak Annual Production Ore 240ktpa planned (2005) and Development 4500mpa (2004); Access point (RL 10430), Access type decline portal in open pit; Decline dimensions 6m x 6m with arched backs in Main Decline and 5.5m x 5.5m with rounded shoulders in Kim Lode Decline, ore drive dimensions 4.5 to 6m wide by 5m high; General Stope Dimensions Strike Length 10 to 15m for primary stopes and max. 25m for secondary stopes, vertical inter level spacing 25m in Kim Lode and 20m in Main Lode; Primary ore extraction method sublevel stoping with primary and secondary stopes; RoM pad at mill, max. planned haulage distance from stope to mill 6km; pumping rate in (in F2004) 180m ³ /h including dewatering of old Waroonga u/g workings; total labour compliments 17 operators and shift maintenance personnel per shift + 13 persons in site overheads and supervision; Development round with burn cut are 3.8m to 4.0 m long, Production blast pattern is 76mm diameter holes at 1.8m burden and 2.2m spacing, Anfo is used as explosive in development and production; 4 to 6.5 tonnes/drillmetre, backfill of primary stopes with cemented aggregate fill (4% cement content by weight) ; Mining equipment: One (1) development twin boom jumbo Sandvik Axera D 07, one (1) development twin boom jumbo Sandvik Powerclass H205D, one (1) LHD Elphinstone R2900 (shared with Crusader), one (1) LHD Elphinstone R1700, one (1) haulage trucks Cat 69 D (30 tonnes payload)(shared with Crusader), two (2) low profile haulage trucks Elphinstone AD 55 (50 tonnes payload), one (1) longhole production jumbo Sandvik Solo 7020 (shared with Crusader), one (1) charge-up vehicle Normet Charmec, one (1) shotcrete unit Normet Spraymec, two (2) Hino agitator trucks (7m ³), one (1) Hino agitator trucks (5m ³), one (1) water truck Ford LTN 8000, two (2) integrated tool carriers Cat IT 28, one (1) integrated tool carrier IT 18, one (1) grader Cat 12h (shared with Crusader).
Crusader	Existing operation at end of life time, recovery of remnants only; Mine Design Gold Price 580/oz; depth of deepest remnant to be recovered 250m below surface; Peak Annual Production Ore from Remnants 217ktpa (2004); Access point (RL 10411) decline portal in open pit Decline dimensions 5.5m width x 5.5m height, ore drive dimensions 4.5m width by 5m height; Recovery of remnants and pillars by uphole retreat stoping; Distance from portal to MoP pad 1.4km; Distance from MoP Pad to RoM pad 9.5km; max. ore haul from u/g stockpile to MoP pad 2km, total labour compliments 8 operators and fitters per shift + 7 persons in mine overheads and supervision; 64mm dia. and 76mm dia. blastholes, patterns to suit geometry of remnants, Anfo used as explosives; Mining equipment: One (1) development twin boom Tamrock 205 D, one (1) LHD Elphinstone R2900 (shared with Waroonga), one (1) LHD Elphinstone R1700, one (1) haulage trucks Cat 69 D (30 tonnes payload)(shared with Waroonga), one (1) haulage trucks Cat 69 D with ejector tray (30 tonnes payload), one (1) longhole production jumbo Sandvik Solo 7020 (shared with Waroonga), (1) integrated tool carrier IT 28, one (1) grader Cat 12h (shared with Waroonga).
Claudius	Conceptual Study, access development for u/g exploration drilling in progress; Mine Design Gold Price 530/oz; final depth 485m below surface; Underground access from Crusader; Decline dimensions 5.5m width x 5.5m height, ore drive dimensions 5m width x 4.5m height, General Stope Dimensions Strike Length 15 to 25m and vertical inter level spacing 15m; Primary ore extraction method longhole open stoping;

(1) u/g = underground

13.4.5 Historical Performance

Waroonga Complex : The start up of the Waroonga mine in F2003 has been plagued by delays and a low development performance of the mining contractor. Ore production achieved only 55% of the budget target due to the delayed commencement of production. However, in F2004 the contractor achieved an ore production 17% above the budget target and the combined development for the Kim and Main lode with 4,635m a production 47% above the target. This represents a jumbo performance of 185m/month. These recently achieved rates are considered good compared to industry standards. Based on recent performance and from the lessons of the past, SRK considers that the forecasted development rates are both achievable and sustainable.

The achievable mine production in the Kim Lode has, historically, been driven by the development. With improved mine development rates, more areas are available for concurrent stoping on different levels. SRK considers that the planned production level of 240ktpa in the Kim lode is now achievable.

Crusader Complex : In F2003, production at Crusader achieved only 71% of the budget. In F2004, the production at Crusader mine has been significantly above budget, with gold production far exceeding

expectations. The increased gold content also confirms that the increase in tonnage is not a result of uncontrolled dilution as may be expected from areas of pillar collapse. The mining of the remnants is, however, based on short-term decisions, which do not necessarily reflect the original budget plan. Remnant mining at Crusader is planned to cease in November 2004, however may continue beyond this date if new areas are identified that are not currently in the resource base.

Table 13.12 summarises the historical production and cost performance (key performance indicators (“KPIs”) of the Crusader underground mine and highlights the latest forecast for the first six-months of 2005 and the average over the LoM period.

Table 13.12 Agnew UP: Crusader Historical and Planned KPIs

MINING	Units	2002 6mth Act	2003 12mth Act	2004 6mth Act
Underground				
UG2 - Crusader				
Capital Development	(m)	479	0	0
Normal Development	(m)	2,143	1,765	374
Total Waste	(m)	2,623	1,765	374
Ore	(m)	0	556	168
Total Development	(m)	2,623	2,321	542
Dev Ratio	(%w:o)	4%	1%	1%
Waste Hoisted	(t)	142,417	148,586	38,402
HG Ore Ex Pit	(t)	74,536	224,428	103,259
Allocated Grade	(g/t)	9.8	9.0	7.3
Contained Gold	(oz)	23,514	64,742	24,307
LG Ore Ex Pit	(t)	0	0	0
Allocated Grade	(g/t)	0.0	0.0	0.0
Contained Gold	(oz)	0	0	0
HL Ore Ex Pit	(t)	0	0	0
Allocated Grade	(g/t)	0.0	0.0	0.0
Contained Gold	(oz)	0	0	0
Ore Ex underground	(t)	74,536	224,428	103,259
Allocated Grade	(g/t)	9.8	9.0	7.3
Contained Gold	(oz)	23,514	64,742	24,307
Ore to CIL	(t)	73,898	222,614	103,405
Allocated Grade	(g/t)	9.4	8.9	7.5
Contained Gold	(oz)	22,332	63,645	25,030
Ore to HL	(t)	0	0	0
Allocated Grade	(g/t)	0.0	0.0	0.0
Contained Gold	(oz)	0	0	0
Ore to Toll	(t)	0	0	0
Allocated Grade	(g/t)	0.0	0.0	0.0
Contained Gold	(oz)	0	0	0
Ore Processed	(t)	73,898	222,614	103,405
Allocated Grade	(g/t)	9.4	8.9	7.5
Contained Gold	(oz)	22,332	63,645	25,030
ER	(AUD:USD)	0.55	0.66	0.74
Direct + Capital Waste Cost	(USDk)	4,132,085	3,959,936	1,265,059
Direct Costs Normalised	(USDk)	0	0	0
Direct Ore Costs	(USDk)	2,781,962.9	8,010,075.1	3,588,785.3
Total Direct Mining Cost	(USDk)	6,914,048	11,970,011	4,853,844
Haulage Cost to Plant	(USDk)	115,915	396,193	261,968
Unit Cost				
Direct Waste Cost	(USD/m)	1,575.51	2,244.23	3,384.32
Direct Ore Costs	(USD/t)	37.32	35.69	34.76
Total Direct Mining Cost	(USD/t)	92.76	53.34	47.01

Table 13.13 summarises the historical production and cost performance of the Kim underground mine and highlights the latest forecast for first six-months of 2005 and the average over the LoM period.

Table 13.13 Agnew UG: Kim Historical and Planned KPIs

MINING	Units	2002	2003	2004 6mth Act
Underground				
UG3 - Kim				
Capital Development	(m)	1,236	2,915	1,188
Normal Development	(m)	381	423	141
Total Waste	(m)	1,616	3,338	1,329
Ore	(m)	0	732	497
Total Development	(m)	1,616	4,069	1,825
Dev Ratio	(%w:o)	6%	3%	2%
Waste Hoisted	(t)	113,216	257,187	112,648
HG Ore Ex Pit	(t)	28,127	138,427	115,231
Allocated Grade	(g/t)	9.5	15.7	18.2
Contained Gold	(oz)	8,596	69,920	67,290
LG Ore Ex Pit	(t)	0	0	0
Allocated Grade	(g/t)	0.0	0.0	0.0
Contained Gold	(oz)	0	0	0
HL Ore Ex Pit	(t)	0	0	0
Allocated Grade	(g/t)	0.0	0.0	0.0
Contained Gold	(oz)	0	0	0
Ore Ex underground	(t)	28,127	138,427	115,231
Allocated Grade	(g/t)	9.5	15.7	18.2
Contained Gold	(oz)	8,596	69,920	67,290
Ore to CIL	(t)	23,824	134,848	117,922
Allocated Grade	(g/t)	10.4	15.9	17.8
Contained Gold	(oz)	7,973	68,834	67,406
Ore to HL	(t)	0	0	0
Allocated Grade	(g/t)	0.0	0.0	0.0
Contained Gold	(oz)	0	0	0
Ore to Toll	(t)	0	0	0
Allocated Grade	(g/t)	0.0	0.0	0.0
Contained Gold	(oz)	0	0	0
Ore Processed	(t)	23,824	134,848	117,922
Allocated Grade	(g/t)	10.4	15.9	17.8
Contained Gold	(oz)	7,973	68,834	67,406
ER	(AUD:USD)	0.55	0.66	0.74
Direct + Capital Waste Cost	(USDk)	3,608,432	10,065,823	5,125,414
Direct Costs Normalised	(USDk)	183,590	34,846	0
Direct Ore Costs	(USDk)	749,856.3	5,862,155.7	5,520,879.2
Total Direct Mining Cost	(USDk)	4,541,879	15,962,825	10,646,293
Haulage Cost to Plant	(USDk)	1,467	5,776	0
Unit Cost				
Direct Waste Cost	(USD/m)	2,346.11	3,026.28	3,857.76
Direct Ore Costs	(USD/t)	26.66	42.35	47.91
Total Direct Mining Cost	(USD/t)	161.48	115.32	92.39

13.4.6 Mineral Reserves

Table 13.1 summarises the Mineral Reserves for the underground operations. In support of these estimates, the following describes how the Mineral Reserves have been estimated in terms of the mining related parameters.

Mine Planning : Ore reserves are estimated from conceptual to final stope designs. The stope design takes practical stope layouts into consideration, as well as planned mining losses in pillars or other parts

of the ore excluded from the extraction for technical reasons. Dilution material included in the stope design is planned. Further unplanned dilution is added, which includes stope over-break or contamination with backfill material. Further ore losses can occur with material, which cannot practically be mucked from the stopes.

In general, unplanned dilution factors are based on personal experience or historical performances and are applied as percentage factors.

Table 13.14 Agnew UG: Modification Factors

Mine	Unplanned Dilution	Ore Loss
Crusader		
Claudius	n/a in conceptual state only	n/a in conceptual state only
Waroonga – Kim Lode	15%	5%
Waroonga – Main Lode	HW production dilution 10% FW production dilution 20%	5%
Vivien U/G	15% for feasibility study only	5% for feasibility study only

As far as practicable, the actual stope excavations in the Kim lode have been surveyed by CMS. The results indicate that an assumption of 15% unplanned dilution is reasonable.

Marginal valuation cut-off grades are calculated to Agnew standards including ore development, stoping, haulage, indirect and overhead costs. The marginal cut-offs are used to define potential stoping areas, which are subject to preliminary stope designs.

Following the design of the access development and infrastructure capital works, a hurdle cut-off grade is calculated for each stoping area. Stoping areas above the hurdle grade are economically viable and can be considered for inclusion into the reserves.

Indirect fixed costs such as site and corporate overheads are excluded, when part of the resource is mined concurrent to other parts of the reserve and the incremental nature of the reserve under consideration.

Geotechnical : The geotechnical investigation, design and management practices applied at Agnew represent good industry practice. There are two geotechnical engineers employed by Agnew and expert advice has also been sought in the form of geotechnical studies and the review of feasibility studies.

The studies, which have been commissioned by either Agnew or WMC, are summarised in Table 13.15.

Table 13.15 Agnew UG: Geotechnical Studies

Mine	Study	Consultant	Year
Waroonga	Review of Waroonga Feasibility Study	AMC Consultants	2001
Waroonga	Backfill Study for Kim Lode	AMC Consultants	2003
Crusader	Crusader Mine Long Term Mine Plan	Snowden Mining Consultants	1999
Vivien U/G	Vivien Project Geotechnical Assessment	Dempers & Seymour	2003
Vivien U/G	Vivien Underground Feasibility Study	AMC Consultants	2004

The major source of data used for determining design parameters is geotechnical logging of diamond drill core. Stress measurements have been taken by WMC Resources at Redeemer Mine and at Crusader Mine. Although no measurements have been carried out at Waroonga or Vivien, the results

give an indication of the values to be expected.

The direction of these principal stresses will vary considerably from mine to mine and even within individual mines, and this will have a controlling effect on the impact of these stresses on mining excavations.

The variation in both stress magnitude and direction can be considerable over short distances and depths, and should only be extrapolated to different mines if there are no local measurements. High horizontal stresses and severely deviatoric stress regimes have been measured in other mines in the region, such as Perseverance, but such a stress regime is not evident at the Agnew operations. However, minor incidents of strain burst and seismic activity have been reported in the Kim Lode of Waroonga. A monitoring system is planned to be installed.

The rock mass qualities for the orebody and the country rock are classified using data from diamond drill cores. The rock mass is calculated in terms of Q, or Q' in cases where there is minimal evidence of water and high stresses.

The ground support design in main development, access and ore drives is based on Grimstad's Q-system rock reinforcement design chart, which relates the rock quality, excavation span and life to support requirements.

It is Agnew's practice to standardise ground support schemes with preference given to split set bolts, which are grouted in main development workings to increase the stiffness of the bolts. Headings are generally meshed to meet the MOSHAB code of practice for surface rock support from underground excavations, which require a surface support of heading heights exceeding 3.5m.

Stable stope dimensions have been estimated using the modified stability method. This empirical design method utilises geotechnical data from the diamond drill core logging, and relates Q' to the modified stability number, N', which is in turn related to limits for hydraulic radii of stope hangingwall and back stability via a database of failed, transitional and stable case histories. N' does take into account the intact rock strength relative to the induced stress, joint orientation relative to the excavation surface, and the influence of gravity on the stope surface.

The Modified Stability method relates the values of N' to estimates of stable limits for excavation Hydraulic Radii. The critical Hydraulic Radius (HR) is taken as the intercept of the expected value of N' with the stable/transition zone boundary on the Stability Graph, which is based on empirical studies of mines around the world. The HR is defined as the area over the perimeter of a given surface.

The mining method at Waroonga involves the exposure of the backfilled primary stope as well developing through and undercutting of the fill. Potential failures are shear sliding for exposed fill and flexural, crushing, caving shear and rotational failure for undercut fill. AMC Consultants have determined the required backfill strength with their software AMC Backfill Design Strength Estimator V2.5. A factor of safety of 1.6 has been applied.

Plant and Equipment : The underground operations of Agnew are operated by Perth based Byrnecut Mining, which provides the mobile mining equipment, the concrete batch plant and the light vehicles for their own demand. Agnew as the mine owner provides fixed installations (services and communication, mine drainage, main fans, etc.).

The July 2004 availability/utilisation plant report shows for the reported period industry standard availabilities, but low utilisation figures. In the view of SRK this indicates, that there might be a potential to rationalise the equipment pool.

Operating Costs : Byrnecut Mining is the main underground contractor, with the subcontractors Positron Pty Ltd. (Electrical maintenance), RUC (Raisedrilling), Metres Down Under (ITH drilling) and Downhole Surveys (Uphole surveying). Other contractors to Agnew are Boart Longyear (Diamond drilling) and Hampton Transport (Surface haulage).

The major mining contract (Contract No. AGMT20067) between Agnew and Byrnecut Mining is in principle a schedule of rate contract with performance adjustments. It has in practice a three-year term, with 23rd May 2006 the date for major works completion. The schedule of rates includes fixed and variable costs. Fixed costs are labour, provision of mining plant, as well as overhead, travel and accommodation costs.

Variable costs include mobilisation and demobilisation, jumbo development and support, raise development, longhole drilling and charging, mucking, backfilling and underground haulage, cablebolting and shotcreting.

The monthly payment consists of the fixed and variable components and a performance payment. However, should the actual performance in the period be below the performance rates, as directed by Agnew in the contract program, the fixed cost payment may be reduced pro-rata (e.g. 90% of the production and 90% of the development target have been achieved, 0.81 % of the fixed cost component will be paid). Should the contractor be able to catch up within two months, they can claim the shortfall in his next claim.

The contractor can earn a performance payment of maximum 5.5% of the fixed and variable cost payments.

The performance payment is subject to the achievement of Contractor's Management Performance Scores, which considers safety, human resources, environmental, planning and innovation management.

The contractor supplies labour, consumables, materials and fuel. Agnew provides electrical power, including distribution. There is a rise and fall clause in the contract, with an annual escalation of the rates. The escalation for fuel is reviewed on a monthly basis because of the volatility.

SRK is of the opinion, that the budget, mine planning, design and feasibility studies are based on the contract schedules and to an appropriate level of accuracy.

14 ENVIRONMENTAL

14.1 Introduction

In compliance with Form 43-101F1 Technical Report Items 6h and 6i, Item 19g and Item 25e, this section provides detail in terms of:

- environmental setting and regulatory framework;
- the company's policies and procedures and compliance;
- the environmental issues, quantifiable and unquantifiable risk; and
- an assessment of the quantifiable environmental liabilities.

14.2 Environmental Policy and Management Commitment

Although Gold Fields has developed a Group Environmental Policy, the Australian Operations are currently guided by their own individual policies which have been developed within the Group Policy framework, however tailored to suite the site specific environmental conditions. Environmental policy statements and commitments for Agnew were reviewed at an operational level and deemed to be well structured and effective guiding policy documents. Both sites have developed and implemented an environmental management system certified to the international standard ISO14001 and the site policies broadly conform to the standards requirements. These requirements include management commitment to continuous environmental improvement and the periodic review and implementation of the operations' Environmental Policy.

Where non-compliances were observed in terms of environmental legislation and approval documentation commitments, management are aware of the issues and appear to be taking appropriate measures to address the situation in line with their policies.

Competence and Responsibility : Table 14.1 details the Qualified Persons responsible for the environmental planning and management at Agnew.

Table 14.1 Environmental Disciplines - Qualified Persons

Discipline	QP	Qualifications	Experience	Professional Body
Agnew				
	Robyn Taylor(1)	BSc (Env Mngt)	3 yr - Agnew	Environment Institute of Australia and New Zealand (EIANZ)
	Environmental Coordinator	BSC (Arch / Geog)	4 yr - BP Proj Scientist	
	Liz May		1 yr - Agnew	
	Environmental Advisor		1 yr - Env Consultant	
	Debbie Hill	Dip Sml Bus Mngt	1 yr - Agnew	
	EHS Administrator		1 yr - Pacrim Met. Dept 1.5 yr - Legal Sec.	
SRK				
	Ed Clerk(1)	BSc (Env Sci / Plant Sci)	0.3 yr Env Consultant	
	Senior Environmental Scientist	BSc Hons (1st Class)	4.5 yr - Env Supt Barrick Gold Tanzania	
			2 yr - Env Supt Anaconda Murrin Murrin Nickel Cobalt Project	
			2 yr - Env Coordinator - Gold Mines of Australia	
			2 yr - Snr Env Inspector Qld Dept of Env.	
			2 yr - Env Consultant	

In terms of environmental planning and management, site representatives listed in Table 14.1 take responsibility for all environmental related disciplines and liaising with the relevant authorities. They have assessed the level of geoscientific confidence in estimation of identified liabilities and have ensured that required permits and authorisations are in place and complied with adequately to support

the projected Mineral Reserve.

SRK has reviewed the environmental aspects and reported their findings and opinions within this section.

Agnew renewed its Environmental Policy in May 2004. The Policy commits Agnew to effective environmental management, and considers environmental protection to be an integral part of overall site planning, culture and management strategies. It also requires Agnew to continually improve its EMS by establishing, communicating and reviewing specific objectives and targets that may have significant impact on the environment. Specifically, the Environmental Policy commits the operation to:

- comply with relevant environmental legislation and regulations as a minimum environmental standard;
- apply the Australian Minerals Industry Code for Environmental Management, and the principles consistent with ISO 14001 series of Environmental Management System standards;
- actively conduct appropriate environmental research, encouraging innovative environmental solutions, and applying economic environmental practices;
- take all measures to prevent pollution and minimise the impact of its operations on the surrounding environment;
- integrate social and economic considerations into decision making and management consistent with the objectives of sustainable development;
- liaise with employees, business partners and the regional community regarding environmental issues and land management; and
- maintain an effective and appropriate environmental monitoring program.

Observations made and interviews conducted confirmed awareness among the workforce and management of the Environmental Policy and its effective implementation.

14.3 Western Australian and Commonwealth Legislative Environment

Mining operations on tenements in Western Australia must be developed and operated in compliance with the following key environmental legislative requirements:

Commonwealth :

- Environmental Protection and Biodiversity Conservation (“EPBC”) Act 1999.

State :

- Environmental Protection Act 1986;
- Mining Act 1978;
- Conservation and Land Management Act 1984;
- Wildlife Conservation Act 1950;
- Rights in Water and Irrigation Act 1914;
- Country Areas Water Supply Act 1947;
- Aboriginal Heritage Act 1972;

- Heritage of Western Australia Act 1990; and
- Contaminated Sites Act 2003.

Agnew is subject to the statutory approvals process described in the following subsections.

14.3.1 Commonwealth Approvals

Commonwealth approval is required if matters of national significance, as defined in the Environmental Protection and Biodiversity Conservation Act 1999, are triggered. The Department of the Environment and Heritage (“DEH”) is responsible for administering the Act. Matters of national significance include presence of migratory birds, federally listed rare flora or fauna, Commonwealth land, nuclear actions and marine areas.

14.3.2 State Approvals

Before commencement of any mining operation, the proponent is required, under provisions of the Mining Act 1978, to submit a Notice of Intent (“NoI”) to the Department of Industry and Resources (“DoIR”). The NoI describes the project, surrounding environment, potential environmental impacts and proposed prevention and mitigation measures. Commitments made within the NoI are binding for any future operations on these tenements unless a request for an amendment to the relevant government authorities is accepted. Commitments typically relate to:

- rehabilitation practices (topsoil removal and spreading);
- closure criteria (waste dump slope angles, vegetation establishment success);
- environmental management practices (dust control, chemical storage and handling); and
- environmental monitoring.

DoIR, as the decision making authority for mining projects is required under Part IV of the Environment Protection Act 1986 to refer mining projects to the Environment Protection Authority (“EPA”) if they consider them likely to have a significant effect on the environment.

A Memorandum of Understanding exists between DoIR and the EPA whereby projects are considered automatically to have significant effects on the environment if they satisfy the criteria listed in Part IV (Environmental Impact Assessment) of the Environmental Protection Act.

Recent changes in vegetation clearance legislation have seen authority for granting clearing activities for mining projects change from DoIR to Department of Environment (“DoE”). As such, proposals involving vegetation removal are being assessed by the Native Vegetation Protection section of DoE.

The Contaminated Sites Act 2003 was passed by State Parliament in November 2003, however, the proclamation of these laws is not expected until late in 2004. Once proclaimed new environmental investigation and reporting requirements will be required by mining operations.

Referral to the EPA and Approval : All projects referred to the EPA under Part IV of the Environmental Protection Act 1986 are assessed on a case-by-case basis. Once the EPA has received a referral, they assume responsibility for determining the appropriate level of assessment for the project. The DoE provides technical assistance to the EPA.

The level of assessment set by the EPA will depend on environmental effects and the level of public interest associated with the operation. The levels of assessment available to the EPA include non-assessment, informal review or formal assessment. The differences between these levels of assessment

relate to the public review period and the detail of documentation required.

The EPA may determine that no assessment is necessary if the referred proposal is considered to have environmentally insignificant effects. Proposals that are considered not to warrant assessment under the Environment Protection Act 1986 are referred back to DoIR, who assess and assign environmental conditions to the proposal's tenement conditions upon approval of the environmental documentation.

The Water and Rivers Commission ("WRC") (a department within the DoE) administers the statutory processes of the Rights in Water Irrigation Act (1914). Groundwater Licences ("GWLs") and Licences to construct or alter wells ("CAWs") are issued by the WRC.

- **Environmental Assessment Document** : An environmental assessment document will be prepared in accordance with EPA guidelines (Environmental Impact Assessment, Part IV Division 1: Administrative Procedures 2002) and environmental guidelines issued to the proponent following setting of the formal level of assessment by the EPA.

A consultation program with key stakeholders and interested parties will be carried out to identify concerns and incorporate any suggestions in developing the proposal. These consultations and responses must be recorded and described in the environmental assessment document.

The results of environmental and social studies required for assessment of the project (such as hydrogeological investigations, flora and fauna surveys, and Aboriginal heritage work and land administration issues) will be incorporated into the documentation.

- **Public Review of Assessment Document** : If the project is formally assessed at a Public Environmental Review level or above, then the assessment document must be publicly reviewed, for a period typically between eight and ten weeks. Responses to all public comments received must be prepared and submitted to the EPA. The period for advertising, public review and preparation of responses may take between four and six months, depending on the complexity of issues and objections to the project proposal.

The EPA will then assess the assessment document and proponent response to any public submissions. An EPA bulletin is prepared and submitted to the Minister for Environment for approval and issue of a Ministerial Statement. The Agnew Project was approved at a Public Environmental Review level in 1999 and as such a Ministerial Statement (No 458) approving the project was issued subject to a number of conditions.

- **Works Approval and Environmental Licence** : Once environmental approval is received, if activities to take place during operations are listed as Scheduled Activities under the Environmental Protection Act, a Works Approval will be required to be obtained from DoE to allow construction of infrastructure associated with these activities. Typically, Works Approval documentation is submitted concurrently with the NoI.

On completion of construction of such infrastructure, completion certificates are required to be submitted to DoE to confirm the infrastructure has been constructed in accordance with approved design criteria. Subsequent to this, an Environmental Licence is required to be obtained prior to operation of such infrastructure. Environmental licences are typically renewed on an annual basis.

DoIR Approval : If no formal assessment is made by the DoE, DoIR will issue approval on receipt of NoI documentation. If a formal assessment has been made by the DoE, DoIR will accept the assessment document without the need for NoI documentation, although tenement conditions are likely to reference the document and unconditional performance bond levels increased.

14.4 Operating Licences and Approval Documents

Approvals for the mining and processing operations conducted on the mining leases were obtained from DoIR using the NoI process. Table 14.2 lists the approvals issued by DoIR and DoE.

Table 14.2 Agnew: Environmental Approvals

<u>Approval Type</u>	<u>Approval Subject</u>	<u>Approval Date</u>	<u>Approval Authority</u>
Agnew			
Letter of Intent	Letter of Intent - Realignment of Haul Road Mining Leases 36/55 and 36/150	30 December 2004	DoIR
Notice of Intent	Agnew Gold Mining Company Pty Ltd Notice of Intent Songvang Open-pits Proposal M36/450, 89, 65 and 248.	June 2004	DoIR
Notice of Intent	Raising of Tailings Storage Facility No. 2 Addendum to Notice of Intent Agnew Gold Mine	1 May 2003	DoIR
Letter of Intent	Letter of Intent, Proposed Gravel Pit on Mining Lease 36/53	4 September 2002	DoIR
Notice of Intent	Tailings Storage Facility - Redeemer Pit Notice of Intent	28 August 2002	DoIR
Letter of Intent	Letter of Intent - Re-establishment of Zone 2 Access Road	9 August 2001	DoIR
Notice of Intent	Addendum Notice of Intent Waroonga Underground Mining Recommencement	June 2001	DoIR
Notice of Intent	Addendum Notice of Intention - North Redeemer Open-pit - Mining Lease 36/55	10 April 2001	DoIR
Notice of Intent	Notice of Intent North Redeemer Pit	February 2001	DoIR
Notice of Intent	Addendum Notice of Intent Emu Pit Expansion	August 2000	DoIR
Letter of Intent	Pilgrim Claudius and Zone Two Project - Agnew Gold Operations	31 January 2000	DoIR
Notice of Intent	Notice of Intent Pilgrim Claudius and Zone Two Project	November 1999	DoIR
Notice of Intent	Notice of Intent Emu Gold Pit Expansion Project	18 March 1999	DoIR
Works Approval	Agnew Gold Operations Tailings Storage Facility No. 2 Raising to 10520mRL. Addendum to Works Approval Application	13 October 1998	DoE
Notice of Intent	Notice of Intent to Mine the Claudius Creek Pit	December 1995	DoIR
Notice of Intent	Notice of Intent to Mine the Claudius Creek Pit	December 1995	DoIR
Notice of Intent	Addendum to the NOI for the Raising of Tailings Dam No. 2 Agnew Gold Operations	15 May 1995	DoIR
Notice of Intent	Upstream Raising of Tailings Dam No. 2 Agnew Gold Operation Works Approval Application	10 February 1995	DoIR
Notice of Intent	Notice of Intent for Pilgrim Open-pit and Extension to Cox Open-pit	2 October 1992	DoIR

Notice of Intent	Notice of Intent for Emu Gold Project Deliverer Open-pit	31 March 1989	DoIR
Notice of Intent	Notice of Intent for EMU Gold Project Deliverer Open-pit	31 March 1989	DoIR
Notice of Intent	Notice of Intent, Development of Open-pit Resource (Cox Lode)	March 1989	DoIR
Notice of Intent	Notice of Intent	12 November 1987	DoIR
Vivien Joint Venture			
Notice of Intent	Wiluna Gold Pty Ltd - Notice of Intent, Mining Lease M36/34. Vivien Pit	November 1996	DoIR
Miranda Joint Venture			
Notice of Intent	Consolidated Gold Mines Limited, Australian Gold Fields NL: Notice of Intent - Maria	September 1997	DoIR
Notice of Intent	Notice of Intent - CAMS	December 1977	DoIR

14.5 Department of Environment Environmental Licence to Operate

The Agnew operations are licensed by the DoE in accordance with the Environmental Protection Act 1986. The licence (Licence Number 4611/8) is renewed each October and allows Agnew to operate the following prescribed activities:

- Category 05 - Processing or beneficiation of metallic or non metallic ore;
- Category 63 - Inert Landfill Site; and

- Category 64 - Putrescible Landfill Site.

14.6 Groundwater Well Licences

Agnew holds three Groundwater Well Licences (GWL) and two Construction or Alteration Well Licences (Table 14.3).

The licences stipulate allocation, use and conditions for abstraction, monitoring and mitigation of adverse effects of abstraction. Agnew provides an operating strategy for each GWL, which is binding. An aquifer review is prepared annually for the GWLs.

Table 14.3 Agnew: Groundwater Well Licences

Groundwater Well Licence Number	Purpose	Expiry Date	Tenement	Maximum Annual Extraction Volume (kilolitres)
GWL 64335(2)	Dewatering	31 March 2008	M36/27, 53, 55 and 248	1,235,000
GWL 64338(2)	Borefield abstraction	31 March 2008	M36/27, 53, 55 and 150	1,900,000
GWL 151059(1)	Domestic abstraction	23 Aug 2012	M36/27	1,500
CAW 150924 (1)	Exploratory drilling		Pastoral lease 3114/775	
CAW 151194 (1)			M36/27, 32, 53, 55, 65, 66, 149, 150, 248, 315, 316, 352, 353 and 450, E36/196, 197, 200, 305 and 349, P36/1286, 1360 and 1381.	

14.7 Compliance Overview

Agnew appears to be complying with all key environmental approval documentation excluding the observed non-compliances detailed below:

- Potable water produced within Agnew's Reverse Osmosis Treatment Plant (RO Plant) is extracted under Water and Rivers Commission Licence to Take Water No. GWL64338(2) to supply the Redeemer and Waroonga area. Conditions attached to the licence require the licensee to ensure that any water supplied for drinking purposes shall not constitute a hazard to the health of those supplied.

Water samples of the Reverse Osmosis Plant taken on 17 Dec 2003 and 27 June 2004 revealed levels of boron at Redeemer (0.34 and 0.41 mg/L) and Waroonga (0.35 and 0.51 mg/L) exceed ANZEC Australian Drinking Water Quality Standard for boron (0.3 mg/L). Agnew needs to ascertain whether the boron levels within the drinking water constitute a hazard to the health of those supplied and advise the WRC.
- Groundwater extraction under GWL151059(1) is used to supply non-potable water to the Agnew Hotel. Water usage has exceeded the extraction limit over the past year, although the combined groundwater extraction volume under the three licenses does not exceed the sum of individual limits. Agnew has advised WRC within each annual report and will need to apply to combine licenses for the borefield (GWL64338(2)) and Agnew Hotel (GWL151059(1)) to prevent non-compliance.
- Condition W1 within DoE Licence Number 4611/8 requires the licensee to retain all matter containing saline, alkaline or cyanide constituents within holding facilities in a manner which prevents pollution. The License defines pollution as including the constituents of tailings damaging vegetation, contaminating surface waters or contaminating underground waters. Groundwater monitoring around TSF2 has indicated a saline plume originating from the facility. TSF2 is no longer in operation. Both Agnew and DoE are aware of the issue and it is reported on an annual

basis within Agnew's AER submitted each June. The June 2003 report recommended Agnew install five new bores to further delineate the extent of the saline plume and provide relevant data for those areas. The plume is a long-term environmental issue, but it is considered unlikely that the plume is sufficiently substantial to threaten closure or suspension of operations to Agnew continuing to define the extent of the saline plume and agreeing on a plan to restrict and eventually reduce the plume.

- Condition W4(a) of DoE Licence Number 4611/8 requires the licensee to maintain a minimum embankment freeboard of 300 millimetres within all storage facilities containing saline, alkaline or cyanide constituents to prevent overtopping due to extreme rainfall events. A survey conducted in early 2004 by Agnew showed sections of dam with insufficient freeboard due to a delay in commissioning the Redeemer in-pit tails disposal facility. Agnew plans to revise their closure plans late in 2004 and address decommissioning of TSF2.
- Condition W7(a) within DoE Licence Number 4611/8 requires hydrocarbon storages to be stored within low permeability (10⁻⁹ metres per second or less) compound(s). The above ground diesel storage tank of Agnew's Store is situated within secondary containment of compacted earth that does not meet permeability requirements.
- Annual reporting requirements under DoE Licence 4611/7 are not fully met within current annual reports. Reporting requirements relating to 'characteristics, volume and effects of its discharges to the environment and on the characteristics of the receiving environment within the vicinity of the premises (e.g. air quality, water quality, health of vegetation)' are incomplete or absent. The AER of 2003 details water monitoring aspects, but lacks information relating to other aspects of the environment and waste types. It should be noted that previous AERs with similar shortcomings have been accepted by the DoE.

Environmental management procedures at Agnew are in place and generally functioning effectively.

Identifying environmental commitments and obligations and tracking the status of compliance requires further attention.

14.8 Environmental Issues and Associated Risks

In addition to non-compliances noted above which can attract substantial penalties, other key environmental issues and associated risks at Agnew include:

- **Reclamation of disturbance areas in accordance DoIR guidelines to promote a self-sustaining vegetative cover** : Agnew has invested considerable effort into rehabilitation and several areas with self sustaining and diverse native species were noted. Earlier rehabilitation appears to require follow-up to meet DoIR guideline requirements due to poor regeneration, steep slope angles and badly designed berms. These areas include Redeemer Waste Dump, southern side of Pilgrim waste dump and western side of Waroonga waste dump.
- **Waste characterisation and implications on long term management** : Little information was able on waste characterisation for material within waste rock dumps and TSFs. This work is necessary to determine the long term chemical stability of the facilities and ensure adequate provision is made for closure. Discussions indicate that the net acid potential of materials stored in the TSFs is potentially low. Despite this, acid generating potentials of wastes should be reviewed to determine if further work is required and to ensure long term chemical stability. This is necessary to develop appropriate closure designs and costs.

- **Dewatering** : Agnew is dewatering and discharging underground mine water into a pit located adjacent to Agnew's property, owned by Barrick Gold. Discharge takes place under an informal agreement between the two companies. Approximately 88,000m³ is dewatered and discharged into the pit annually. This water has elevated levels of arsenic which may cause a contamination liability for future closure certificates. Water balance problems would result for Agnew if alternative disposal options were sought assuming approvals.

The volume of dewatering is classified as a prescribed activity under the Environmental Protection Act and is required to be included in Agnew's Environmental Licence. Agnew sought permission to dewater and discharge into the pit from the DoE initially for six weeks and then a further three months. Agnew has submitted requests to include the activity in their existing Licence, but DoE have not yet given approval. Agnew needs clarification on this issue.

- **Contaminated site assessment** : Agnew has a contaminated sites register that identifies locations of incidents that have resulted in identified spills or leaks of hazardous materials requiring cleanup. Proclamation of the Contaminated Sites Act 2003 will require Agnew to undertake a more detailed contaminated sites assessment to determine the extent of contamination across the site. Depending on the level of contamination noted, substantial assessment and remediation costs may be incurred. Agnew's Environmental staff is aware of the implications under the Act and are well place to fulfil the necessary requirements.

14.9 Environmental Liabilities

SRK has identified non-compliances, issues and associated risks, which cannot be realistically quantified. In such cases, SRK has drawn attention to it in reporting without including specific provision in the financial modelling. Potential future requirements for water treatment during continued operations or following decommissioning is the single most material risk and the most technically and economically difficult to estimate. Whilst water treatment at Agnew is not currently needed, the potential for future requirements will be dependent upon:

- Execution of both recently passed legislation and more stringent future legislation which imposes more costly water management requirements;
- Discharge criteria demanding potable water standards as opposed to more lenient general standards; and
- Tacit acceptance by various organisations of the concept of desalination and its increasing cost effectiveness as technology improves.

Closure Planning : Closure costs for Agnew are still based on closure estimates by WMC. Based on this estimate, provisions are currently in place for a liability of AUD7.7m. This amount is indexed monthly against inflation. Confidence in this amount is high as disturbances have been relatively stable since the initial calculation.

In late 2004, Agnew is planning to revise all closure plans and provisioning for total liability. The revision will incorporate disturbance associated with the recently approved Songvang Project.

Unconditional Performance Bonds : Current bond levels for Agnew are AUD3.1m, in addition to this bond amount Table 14.4 summarises the assessed closure liabilities as at 30 June 2004.

Table 14.4 Agnew: Assessed Environmental Liabilities

<u>Mine</u>	<u>Estimated Liability(1)</u> (USDm)	<u>Performance Bond(2)</u> (USDm)	<u>Net Surplus/Shortfall</u> (USDm)	<u>Depletion Period(3)</u> (Years)
Total	5.4	2.3	3.1	5

(1) In June 2004 money terms

(2) Depletion period and Cash Flow is for Mineral Reserves only

(3) LoM period and Cash Flow is for Mineral Reserves and unmodified Mineral Resources included into the SBP

15 HUMAN RESOURCES

All employment contracts for Gold Fields staff at Agnew are negotiated in line with Australian Workplace Agreements (“AWA”) or Common Law Contracts, negating the need for union involvement.

Agnew is adequately resourced with the appropriate levels of technically qualified and experienced personnel in production and related support functions. Table 15.1 gives the historical and the projected manpower requirements.

There are two significant changes coming up in the next 12 months that may materially affect employment conditions. Firstly, the WA State Government has proposed to establish a new State-wide code of practice to set limits on working hours. If approved, the new code will come into effect in July 2005, and will result in major shift restructuring at Agnew operations.

15.1 Employment Statistics

Staff attrition is an industry-wide issue. Table 15.1 gives the historical statistics on staff termination at Agnew. In the past three-years Agnew has turned over 61 staff, on average this represented nearly 22% of the employees. Of the staff turnover it is estimated that 50% were classed as professional staff, and the remaining 50% were administration staff.

Table 15.1 Agnew: Manpower Statistics(1)

Employment Status	2002 12mth Act	2003 12mth Act	2004(2) 6mths Act
Permanents (No.)	90	96	96
Temporary / short-term (No.)	21	9	6
Contractors (No.)	254	159	172
TEC (No.)	365	264	274
Terminations/Resignations (No.)	14	20	13
Annualised Turnover (permanent) (%)	15%	21%	14%

(1) Calendar Years.

(2) 6 months Actual to June 2004.

Table 15.2 summarise the productivity indicators for Agnew.

Table 15.2 Agnew: Productivity Indicators

Employment Status	2002 12mth Act	2003 12mth Act	2004(2) 6mths Act
Total Ore Tonnes Mined (kt)	2,367	599	239
Total Gold Sold (oz)	137	169	105
TEC (No.)	365	264	274
Mining Productivity (t/TEC/mth)	540	189	145
Gold Productivity (oz/TEC/mth)	31	53	64

(1) Calendar Years.

(2) 6 months actual to June 2004.

The statistic highlighted in Table 15.2 show that despite a high turn-over in employees, the productivity levels, in tonnage mined terms, appear to be sustainable. The mining productivity dropped in 2003 due to closure of the open-pit operations. The projected productivity increases again in 2005 with Songvang open-pit commencing. The gold produced indicator is more a reflection on grade than productivity, however does highlight the impact on unit cost per ounce, considering labour contributes

a significant portion of the total operating costs.

The start-up of the Songvang Operation will result in the need for 100 additional staff members (including an estimated 90 contractors and 10 Agnew staff members). The majority of the additional Agnew staff will be sourced internally as the Redeemer and Crusader underground operations tail off.

15.2 Employment Conditions

The township at Leinster is owned and operated by WMC. Agnew has a contract in place with WMC, whereby 280 single persons quarters (SPQs) and 40 houses will be made available to Agnew staff, with the option to increase this allocation, subject to availability (at present, Agnew hold 57 houses in the town). In return, Agnew pays a fixed cost for town infrastructure maintenance and a unit rate per SPQ per night (includes accommodation, food and utilities).

The operation is a FIFO operation with only 20% of staff (approx) electing to live in Leinster full time (residential staff). WMC charts a Qantas flight from Perth to Leinster return twice daily on Monday-Thursday, once daily on Friday and Sunday and no flights on Saturday. On top of the usual rotation flights, each staff member (including residential staff) are offered 4 return flights to Perth per quarter (restricted to low load flights) as part of their package. They can be taken by family or friends (or themselves in the case of residential staff).

16 OCCUPATIONAL HEALTH AND SAFETY

Health and Safety in Australia is governed by various regulatory bodies and mining and labour legislation. In particular, the mining industry is governed by the Mines Safety and Inspection Acts 1994 and the Mine Safety and Inspection Regulation 1995. Employers and employees are bound by a “Duty of Care” (p 17 and 19 respectively in the Mines Safety and Inspection Act) that outlines rights and responsibilities of the various parties with respect to the safety of both themselves and others. At State level, Safety and Health in Western Australia is regulated by the Occupational Safety and Health Act 1984, and the Occupation Safety and Health Regulations of 1996, which is supported by the “Codes of practice” and “Guideline notes”.

In compliance with these Acts and Regulations, mine management have:

- Developed and made available a site specific safety policy and manual at Agnew. The Broad philosophy of this document is summarised as follows: “ *Gold Fields is committed to maintaining best practice in occupational health and safety and to ensure continual improvement of our performance by attainment of targets and objectives set by our people through consultative processes. Gold Fields will provide a safe workplace for all employees, business partners, visitors, neighbours and customers. No business objective will take precedence over safety and health. Gold Fields employees, business partners and visitors have a legal responsibility to actively contribute towards maintaining a safe and healthy workplace* ”;
- Implemented a site induction programme for all new employees, in which each undergo a general induction, as well as a department specific induction with the relevant safety advisors and representatives; and
- Established a network of safety advisors (full time safety professionals) and safety representatives (elected members of Gold Field’s staff) in each department, and employ 3 designated Emergency Services Officers at Agnew. These officers are responsible for medically treated injuries, and there is at least one on site at all times.

Table 16.1 presents safety statistics (calendar) for Agnew and includes the total number of fatalities, total number of injuries from which time was lost (“LTI”), total number of medically treated injuries (“MTI”), the sum of which is summarised in the total number of serious injuries (“SITI”) and the associated frequency rate of SITIs, related to the total hours worked of all Gold Fields’ employees and contractors on site.

Table 16.1 Agnew: Safety Statistics

	Units	2002 12mth Act	2003 12mth Act	2004(3) 6mth Act
Hours worked		99,642	68,229	33,665
Fatalities	(No.)	0	0	0
L.T.I	(i/mmhrs)	1	0	0
M.T.I	(i/mmhrs)	2	1	1
(LTI +MTI) Frequency Rate	(i/mmhrs)	25	13	30

(1) mmhrs = million man hours – based on total hours worked by Gold Fields’ staff and all contractors.

Agnew has achieved a SIFR record fluctuated around 13-30 per million man hours. Management previously targeted a 10% improvement in the SIFR per annum. For 2004, the SIFR benchmark was 24 per million man hours, which Agnew is aiming to achieve, however have exceeded this rate for the first six-months of the year. In the same time period, the site achieved 1 million man hours without an

LTI. As a recent commitment to Occupational Health and Safety, Gold Fields Australia has recently committed to target 0 severe injuries (SIFR) per annum.

Operations at Agnew will continue to be exposed to commonplace mining hazards such as water, dust, fire, falls of ground (“FoG”), explosions, occupational hygiene issues and materials handling and transportation. SRK do however consider that Agnew by way of its policies and management strategies operate to international best practice in terms of occupational health and safety.

17 TECHNICAL ECONOMIC INPUT PARAMETERS

17.1 Introduction

The following section includes discussion and comment on the technical-economic aspects of the LoM plan associated with the Agnew Tax Entity. Specifically, comment is included on the basis of projections, production schedules, operating costs and capital expenditures. These have been compiled into detailed TEPs on an annual basis to derive the revenue and cost inputs necessary to generate the FMs. Key aspects associated with the generation of the TEPs and their derivations are discussed.

17.2 Basis of the Technical-Economic Input Parameters

The valuation of the Agnew Tax Entity as presented in Section 18, has inter-alia been based on the LoM plan and the resulting production profile and associated revenue stream from gold sales, by product credits, operating costs and capital expenditure profiles as provided to SRK by Agnew, and reviewed and adjusted by SRK where deemed appropriate. The generation of a LoM plan requires substantial technical input and detailed analysis and is critically dependent upon assumptions of the long-term commodity prices and the respective impact on cut-off grades, potential expansion and/or reduction in the Mineral Resource and Mineral Reserve and the return on capital expenditure programmes.

The basis of forward projections of operating costs for mature mining operations are generally based on the previous financial year's performance, with certain modifications for inflation, projected improvements in productivity and other cost-reduction initiatives. In the case of the Kim-Lode underground mine all future costs are based on the historical operating results for the 18-month period ending 30 June 2004, which have subsequently been inflated to establish fixed and variable activity based costs in 1 July 2004 money terms. In respect of Songvang, costs are largely based on St Ives's forecasts and contract rates used for the feasibility study and reflect the current project status.

Where warranted, following its independent review and post discussions with management at Agnew, SRK has adjusted the assumed operating costs to account for future operating conditions (i.e.) tonnage contribution from various ore sources and mining method(s) and taking cognisance of its view on any productivity initiatives as considered by Agnew.

Unless otherwise stated, operating expenditures comprise:

- **Cash Cost Components** : namely direct mining costs, direct processing costs, direct general and administration costs, consulting fees, management fees, transportation, and realisation charges;
- the incremental components, including royalties but excluding taxes paid, required to yield **Total Cash Costs** . Royalties in this regard include the amount of 2.5% paid on gross revue to the State of Western Australia and is payable for all gold sold;
- the incremental components, including terminal separation liabilities, reclamation and mine closure costs (the net difference between the total environmental liability and the current bond amount) but excluding non-cash items such as depreciation and amortisation. Incrementally these cash expenditures summate to yield **Total Working Costs** ; and
- **Total Costs** : the summation of total working costs, net movement in working capital and capital expenditure.

In addition to long-term capital projects, the LoM capital expenditure programmes generally include significant detail based on approved expenditure programmes (typically two-years). Where warranted,

SRK has made provision over and above these expenditures, specifically, for example, where no detail is available beyond this two-year period to cater for normal on-going capital expenditure requirements. In general capital provisioning over and above that classified as project capital is not provided for during the first two periods and the final two periods of the LoM Plan.

Environmental provisions have been included in the operating costs as they are confirmed as necessary contributions to fund ongoing environmental cost and closure provisions. Notwithstanding this approach, the most likely scenario will result in expenditures from such provisions being expended on commencement of the closure programme. SRK considers that there are potential opportunities to realise salvage value on closure, although owing to the indeterminate nature of estimating such values and the requirements of the Rules and Companion Policies, these have been excluded from the LoM projections included herein.

17.3 Technical-Economic Parameters

The TEPs include:

- Commodity sales profiles derived from all ore sources;
- Total Working Cost profiles as previously defined; and
- Capital Expenditure Profiles.

The TEPs are detailed in Table 17.1 for the Agnew Tax Entity. All expenditures are stated in calendar years and in 01 July 2004 money terms. Note that in all instances Total Working Costs are inclusive of by-product credits, specifically silver. Such by-product credits are however not considered material and are included for completeness.

Table 17.1 Agnew: TEPs

YE Dec	Tonnage (Kt)	Gold Grade (g/t)	Gold (Koz)	Total Working Costs(2) (USDk)	Net Change in Working Capital (USDk)	Capital Expenditure (USDk)	Total Expenditures (USDk)
2004 (1)	635	4.5	91	-21,810	2,703	-14,866	-33,973
2005	1,270	5.1	210	-56,546	93	-14,784	-71,237
2006	1,270	5.3	215	-51,794	-957	-6,664	-59,414
2007	1,120	2.6	93	-29,821	-3,876	-412	-34,109
2008	0	0.0	0	0	0	0	0
LoM Total	4,295	4.4	609	-159,970	-2,037	-36,726	-198,733

(1) 6 months only July 2004 to December 2004.

(2) Real Money Terms as at 01 July 2004.

17.4 LoM Production Profiles

Figure 17.1 Agnew: Gold Production Profile

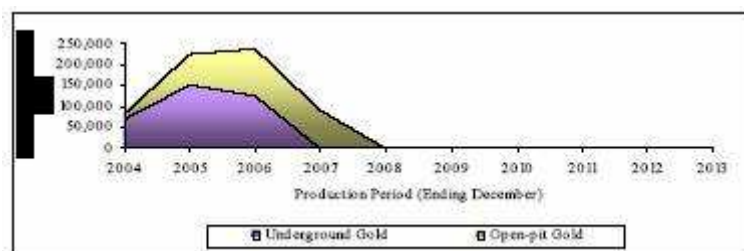
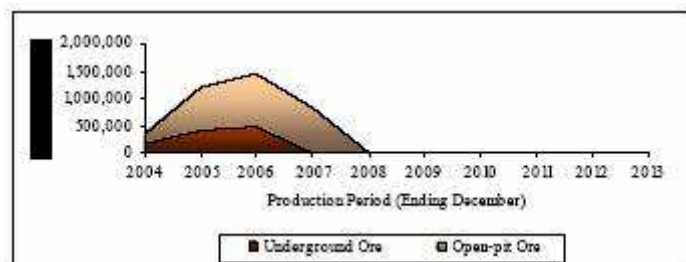


Figure 17.2 Agnew: LoM Milling Profile

17.5 Special Factors and Operational Risks

SRK has included its view on the achievement of the LoM plans and the appropriateness of the Mineral Reserve statements when presenting the data reported within this ITR. At the time of writing, SRK considered these projections to be both technically and economically achievable.

In all likelihood many of the identified risks and/or opportunities will have an impact on the cash flows as presented in Section 18, some positive and some negative. The impact of one or a combination of risks and opportunities occurring cannot be specifically quantified to present a meaningful assessment. SRK has however provided sensitivity tables for single and multi parameters. The sensitivity range covers the anticipated range of accuracy in respect of commodity prices, operating expenditures and capital expenditure projections.

Where specific technical issues have arisen as part of the review process, SRK has given an indication of the likely impact on the resulting NPV's and other financial criteria accordingly.

17.5.1 General Risks and Opportunities

Agnew operations are subject to certain inherent risks, which apply to some degree to all participants of the Australian gold mining industry. These include:

- **Commodity Price Fluctuations** : These may be influenced inter alia, by demand for gold in industry and jewellery, actual or expected sales by central banks, sales by gold producers in forward transactions and production and cost levels for gold in major producing countries. In the period between 01 January 2002 and 30 June 2004 the gold price in USD terms has ranged between 307USD/oz and 415USD/oz. As at 30 June 2004 the USD gold price was USD397/oz;
- **Exchange Rate Fluctuations** : Specifically related to the relative strength of the USD, the currency in which commodity prices are generally quoted. During the period between 01 January 2002 and 30 June 2004 the USD:AUD exchange rate ranged between 0.54:1 USD:AUD and 0.77:1 USD:AUD. As at 30 June 2004 the USD:AUD exchange rate was 0.7:1 USD:AUD;
- **Legislative Risk** : Specifically changes to future legislation (tenure, mining activity, labour, health and safety and environmental) within Australia;
- **Exploration Risk** : Resulting from the elapsed time between discovery of deposits, development of economic feasibility studies to bankable standards and associated uncertainty of outcome;
- **Environmental Liability Risk** : The inability of Agnew to fund the balance of their environmental liabilities from estimated operating cash flows, should operations cease prior to the stated LoM Period. This would result in an outstanding liability since the estimated rehabilitation expenditure

exceeds the amounts available in the respective rehabilitation trust funds as at 30 June 2004. As at 01 July 2004 the total outstanding liability remaining to be funded is estimated at USD6m; and

- **Mining Risks** : Specifically Mineral Reserve estimate risks, uninsured risks, industrial accidents, labour disputes, unanticipated ground water conditions, human resource management, and safety performance.

In contrast, whilst certain of the above also reflect opportunities, SRK recognise that as of yet, an unquantified opportunity is the beneficial application of new technology.

In addition to those stated above, the individual operations are subject to certain specific risks and opportunities, which independently may not be classified to have material impact (i.e. likely to affect more than 10% of the Agnew Tax Entities' annual pre-tax profits), but in combination may do so.

17.5.2 Operational Specific Risks

In addition to those stated above, Agnew is subject to certain specific risks and opportunities, which independently may not be classified to have a material impact (i.e. likely to affect more than 10% of the annual pre-tax profits), but in combination may do so.

The most material operational risks are summarised as follows:

- **Open-pits** : The Songvang pit has only just commenced and as yet no ore production has taken place. The primary risk to the production profile, as projected, is the consistency of grade and dilution control measures. The nature of mineralisation at this deposit is such that highly variable grades can be encountered over short distances as the geological controls vary across the pit. As such the grade control model needs to appropriately account for this likelihood within the various geological domains. The potential impact could result in more ore tonnes, at a lower grade with the contained ounce remaining close to target. The economic impact would result in a reduced operating margin. SRK consider the risk to be of a medium level that the RoM grade will be lower than projected.

The decision to advance the Songvang feasibility study into an operation was based on marginal costing, allocating a reduced fixed component of the processing cost and no external administration costs. This further emphasises the importance of grade control and maintaining the target grade, specifically considering the long haulage distance of +14km to the processing facilities;

- **Underground** : The Kim Lode is the hub of the high-grade ore sources, being on average some 5g/t higher than the Main Lode which is in turn approximately 2g/t higher than the Rajah lode. The consistency and continuity of this high-grade ore supply is critical to meet the projected cash flows. To maintain this consistency an increased flexibility is required by advancing development which is planned accordingly. Any deviations or unplanned delays in stoping activities at the Kim mine will material impact on the cash flows in any given period. SRK consider the risk to ore supply shortfall from the Kim Lode to be low based on a good understanding of the orebody gained over the past two-years and an improved extraction plan. The mine is however working at increased depths and the rock engineering aspects are becoming more challenging and will need to be diligently managed to prevent any seismic related stoping delays;
- **Processing** : The current processing facilities require ongoing maintenance to ensure its long-term viability and prevent the unit costs rising above current levels and during 2005 ongoing refurbishment of the adsorption tanks (as committed by the approved AFE), ongoing replacement of structural steel and general maintenance is planned.

Mitigation of the risk of major failures of fixed plant is managed by timely non-destructive testing, adequate critical spares of major items of plant & the ongoing commitment to the tank refurbishment program. The Ball Mill 1 girth gear has been extensively tested to determine whether the identified cracks are worsening, all indications are that the cracks may have been a casting defect, however it has not shown any signs of deterioration in 2005.

The mill control has been replaced with a PLC/SCADA system utilising Citect. A focus on value adding automation will be maintained throughout the strategic planning cycle, as Agnew aim to incorporate automated reagent control & additional field instrumentation & Citect programming to allow trending of performance, monitoring of fixed plant operational run hours and electronic data capture of metallurgy physicals for daily/weekly/monthly reporting;

- **Human Resources** : High attrition rates are typical with FIFO remote sites in Australia, driven not only by social, family pressures and shift work fatigue, but predominantly by a migrant culture that has developed in the industry and has become the norm rather than the exception. 'Long service' is now regarded as continuous service for more than 2 to 3 years at any particular FIFO site, the average stay is seldom more than 3 years at Agnew. Whilst difficult to quantify, the impact on the unit operating costs, the time and money needed to retrain new employees; together the site experience factor certainly has a cost effect, and not just related to wage increases to attract new people.

Initiatives implemented to date include, the streamlining of rosters to be predominantly no more onerous than 9/5, the formation of a multi-functional leadership team and functional adjustment to the service orientated organisation. This includes a functional Human Resource department, development and implementation of an incentive scheme, quarterly family flights and exploring opportunities to make our packages more tax efficient. The custodians of these initiatives are both management and employees; and

- **Environmental** : In depth understanding of the site water management issues at Agnew require further attention. Two ground & surface water engineering companies have put forward proposals to deliver a comprehensive site water management plan with a live site water balance model. This will provide a holistic approach to Agnew's water management needs incorporating processing and mining.

The Redeemer in-pit tails storage facility was commissioned in 2004; this successfully addressed the immediate tailings storage requirement. This facility provides in excess of 10 years capacity for tailings deposition.

17.5.3 Operational Specific Opportunities

The most material operational opportunities are summarised as follows:

- **Exploration** : There is considerable potential at Agnew to add significantly to current resource and reserves through a combination of extensional and greenfields exploration. In terms of the extent of its tenement holdings and the exploration undertaken thus far, Agnew cannot be considered advanced at this stage, and recent geological studies have identified numerous prospective areas yet to be tested effectively.

This aspect is by far the single biggest opportunity at Agnew and Gold Fields has a firm exploration expenditure commitment to fund current and future exploration plans.

- **Mineral Resources** : Agnew currently has Inferred Mineral Resources which are being

investigated further at various levels of technical-economic studies in order to test viability and prior to funding further work sufficient to increase to Indicated Resources and into Probable Reserves. No value has been assigned to these Resources and this offers a significant potential in addition to the continued exploration.

18 MACRO-ECONOMICS AND COMMODITY PRICES

18.1 Introduction

The following section includes historical and forecast data in respect of the macro-economic and commodity price environments within which the Agnew Tax Entity operates. Historical data has been sourced from various sources and is generally presented in calendar years up to and including 30 June 2004. Forecast data is based on Gold Fields' projections of the various commodity prices and the country specific macro-economic parameters and is generally presented in financial years ending 30 June and commencing from 01 July 2004.

18.2 Historical and Forecast data

Figure 18.1 and Figure 18.2 presents the relevant macro-economic parameters (exchange rates and CPI) for Australia.

Figure 18.1 Exchange Rate Profile

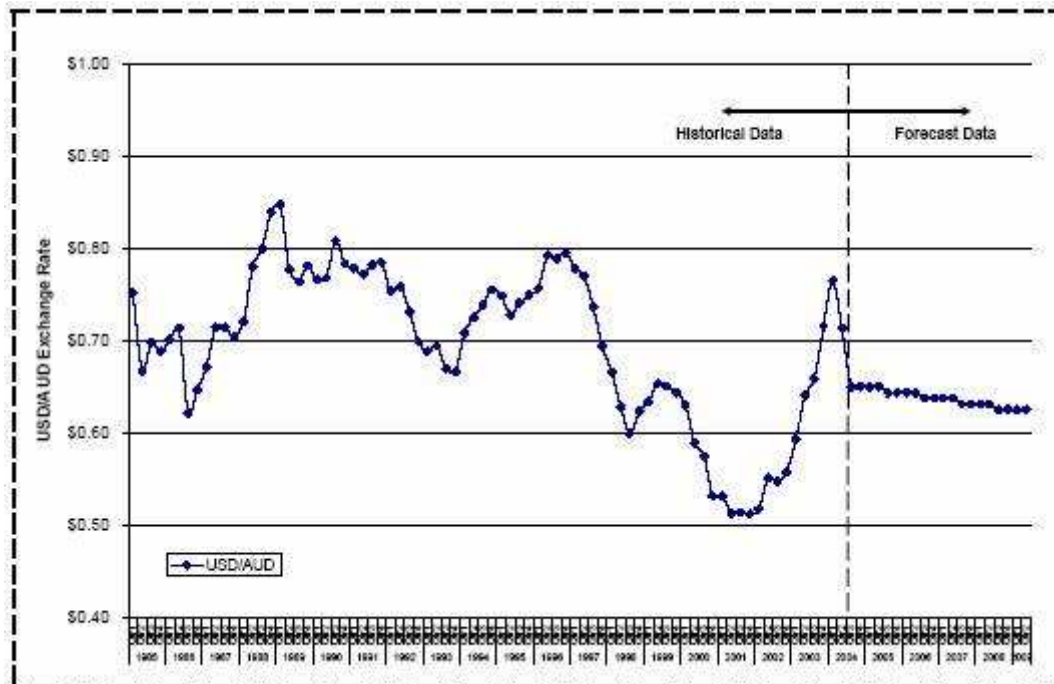


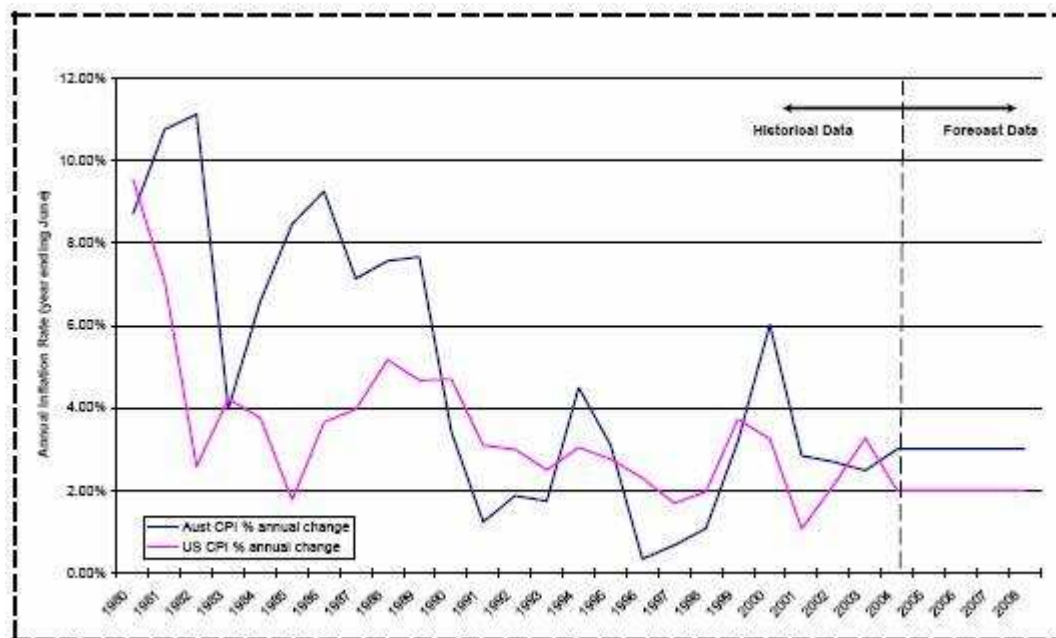
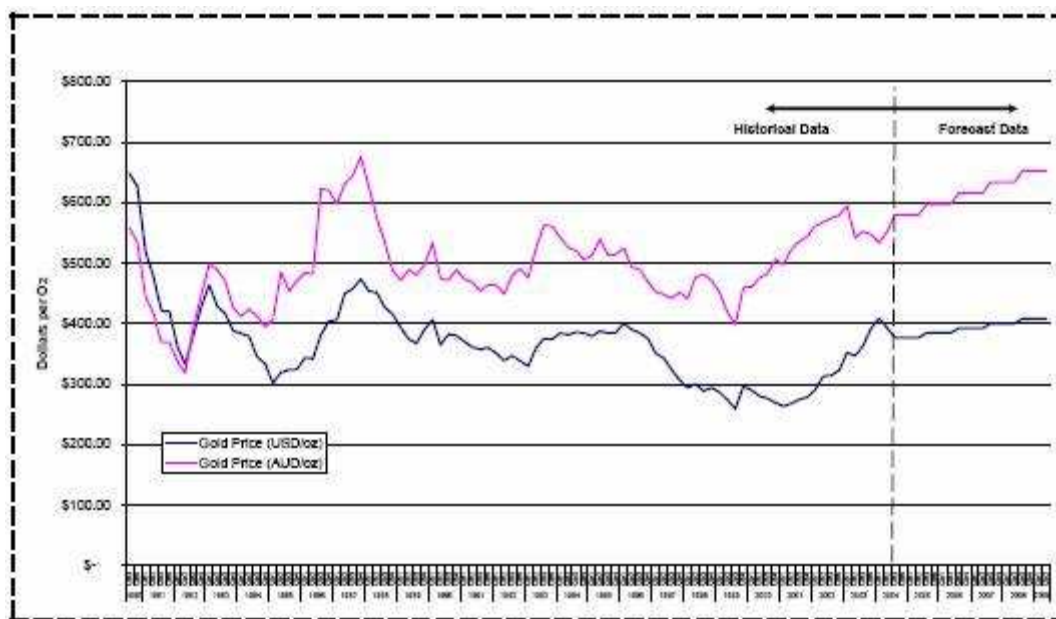
Figure 18.2 Inflation Profile

Figure 18.3 presents the historical and forecast commodity prices for gold in USD and AUD.

Figure 18.3 Commodity Price Profile

19 ASSET VALUATION

19.1 Introduction

The following section presents discussion and comment on the valuation of the Agnew Tax Entity. Specifically, comment is included on the methodology used to generate the FM including basis of valuation, valuation techniques and valuation results.

In complying with certain requirements to generate post-tax pre-finance cash flows for the purpose of valuation, SRK has relied upon Gold Fields for certain inputs to the FMs. These inputs are duly acknowledged by SRK. Further, in reproducing the results of the FM in this ITR, SRK provides assurances to the Directors of Gold Fields, that the technical-economic inputs including operating costs, capital expenditure and saleable product profiles of the Agnew Tax Entity, as provided to and reviewed by SRK, are accurately incorporated into the FM. SRK also duly acknowledge Gold Fields' opinion that the remaining inputs to the FM required in respect of working capital determination and taxation are accurately reflected in the FM.

19.2 Basis of Valuation

In generating the FM and deriving the valuations, SRK has:

- Incorporated certain macro-economic parameters (Table 3.3) as provided by Gold Fields;
- Incorporated the commodity price forecasts (Table 3.3) as provided by Gold Fields;
- Incorporated the accounting opening balances for working capital calculation (Table 3.4) as provided by Gold Fields;
- Assumed a nominal discount factor of 7.46% for all assets to establish a base case. Note that this does not necessarily reflect the nominal WACC assuming Gold Field's expected average tax rate; country inflation rate and debt/capital ratio;
- Relied upon Gold Fields for all accounting inputs as required for the generation of the FM as detailed in Table 19.1.

Relied upon Gold Fields that for the purpose of valuation the assumption that 100% of the sales revenue as derived from the quantum of gold production sold, the forecast USD gold price and the forecast exchange rate is available to the Agnew Tax Entity;

- Relied upon Gold Fields that the calculation of nominal cash flows is in accordance with the fiscal regime within which the Agnew Tax Entity operates and are accurately reflected in the FM;
- SRK has been informed by Gold Fields that an additional revenue stream derived from hedging gains is attributable to the Australian assets of St Ives and Agnew. The total additional revenue for Agnew as at 01 July 2004 is USD11.7m for the six-months to December 2004 and USD10.1m during calendar year 2005;
- Reported a DCF valuation, dated 01 July 2004, which includes Mineral Reserves only;
- Performed sensitivity analyses to ascertain the impact of discount factors, commodity prices, total working costs and capital expenditures;
- No salvage value has been included for plant and equipment on cessation of operations;
- The valuation of the Agnew Tax Entity is on a stand alone basis only;

- Items excluded:
 - the net cash position of the Agnew Tax Entity as at 30 June 2004 is USD4.2m,
 - an unallocated extensional exploration expenditure as incurred by Agnew Tax Entity of USD9.3m. These amounts are based on detailed provided to SRK by Gold Fields and are provisioned in their Strategic Business Plan but excluded from the cash flow as reported herein,
 - Corporate allocation at Gold Fields Level amounted to USD0.2m in the last financial year, future allocations have been excluded from the cash reported herein as the new company structure may not allocated corporate expenses in the same fashion or magnitude,
 - In terms of the “potential” statements and the comments that Gold Fields are committed to continued exploration, an amount of USD3.7m is budgeted to fund exploration activities for financial year ending June 2005, it is likely that this amount will be funded on an annual basis, however has been excluded from the cash flows because no resource potential has been ascribed any value.

19.3 Limitations and Reliance on Information

The cash flows reported for the Agnew Tax Entity are contingent upon the current and anticipated performance of mine management, as well as the expected achievement of the operating parameters as provided to and reviewed by SRK and set out in this ITR.

SRK has relied upon Gold Fields that such projections and forecasts as indicated, will be realised in the amounts and time periods contemplated.

The cash flow projections and valuation is based upon the anticipated operating performance as well as information provided to SRK by Gold Fields at the date hereof. It should be understood that unforeseen developments might affect our opinion, or the reasonableness of any assumptions or basis used.

The LoM plans and the FM include forward-looking statements that are not historical facts. These forward-looking statements are necessarily estimates and involve a number of risks and uncertainties that could cause actual results to differ materially. Notwithstanding the aforementioned comments, SRK considers that at the time of compilation, the Mineral Reserves and associated depletion resulting in cash flow projections are appropriate and technically and economically achievable, however it must be noted that SRK does consider that a certain amount of upside potential is already built into the projections that fundamentally rely on the existing management performance to implement and sustain recent initiatives to ensure that the projected cash flows are realised within the anticipated timeframe.

19.4 Valuation Methodology

The valuation methodology for the Agnew Tax Entity is based on a sum of the parts approach comprising NPV for the ring-fenced mining asset and supplemental information as provided by Gold Fields (balance sheet items) to arrive at the Net Asset Value (“NAV”) for Agnew.

The NPV has been derived using DCF techniques applied on a post-tax pre-finance basis for the ring-fenced Agnew Tax Entity. These are based on the various LoM production plans, including the resulting TEPs (Section 17), and are solely based on Mineral Reserves.

In respect of non-LoM Mineral Resources and the EPs no valuation is presented, and discussion is

limited to technical disclosure in accordance with the requirements of the Rules and Companion Policies.

The post-tax pre-finance cash flow is developed on the basis of the commodity price and macroeconomic projections as presented in Table 3.3. SRK has developed a FM which is based on: annual cash flow projections ending 31 December; and TEPs stated in 01 July 2004 money terms. As the valuation date is 01 July 2004, the cash flow projection for the first period includes projections for the 6 months to December only.

Variances in commodity prices exist between those used to derive Mineral Reserves, the current spot market prices and that used for the financial valuation. The impacts on the individual Mineral Reserve statements are presented in the Mineral Reserve and Mineral Resource sensitivity tables as included in Section 10.0 of this ITR. Further, as the generation of LoM plans is constrained by the annual planning process SRK has based its review on the latest available information as presented by Gold Fields.

19.5 Post-Tax – Pre-Finance Cash Flows

Table 19.1 present the post-tax pre-finance cash flows for Agnew Tax Entity. Note that this table is not representative of a financial statement as may be customary for determining the consolidated cash flow positions for a company. Further, no account is taken of movements in working capital at the Gold Fields level, or deferrals of tax liabilities between accounting periods, as may be the case in the generation of such Company level financial statements. The first period 2004 reports the forecast six-month projections from 01 July 2004 to 31 December 2004, thereafter projections are annual ending 31 December. Actual results for the six-month period ending 30 June 2004 are reported in Section 4 of this ITR. The Agnew Tax Entity valuation is derived from the reported cash flows commencing 01 July 2004.

Table 19.1 Agnew Tax Entity: TEM in USD (nominal terms)

Calendar Year Project Year	Units	Totals/Averages	2004 1	2005 2	2006 3	2007 4
Mining						
RoM Tonnage	(kt)	3,833	357	1,197	1,448	832
Head Grade	(g/t)	5.1	7.2	5.8	5.1	3.4
Contained Gold	(koz)	634	83	222	237	92
Processing						
Milled Tonnage	(kt)	4,295	635	1,270	1,270	1,120
Milled Grade	(g/t)	4.7	4.8	5.5	5.6	2.9
Milled Gold	(koz)	655	99	224	228	104
Metallurgical Recovery	(%)	93.1 %	92.5 %	93.7 %	94.3 %	89.5 %
Recovered Gold	(koz)	609	91	210	215	93
Clean-up Gold	(koz)					
Saleable Metal	(koz)	609	91	210	215	93
Commodity Sales						
Gold	(koz)	609	91	210	215	93
Silver	(koz)					
Commodity Prices						
Gold Price	(USD/oz)		404	412	420	429
	(AUSD/oz)		580	598	616	634
Macro Economics						
AUS PPI	(%)		1.5 %	3.0 %	3.0 %	3.0 %
AUS CPI	(%)		1.5 %	3.0 %	3.0 %	3.0 %
US PPI	(%)		1.0 %	2.0 %	2.0 %	2.0 %
US CPI	(%)		1.0 %	2.0 %	2.0 %	2.0 %
(USD:AUSD)			1.44	1.45	1.47	1.48
Financial - Nominal						
Sales Revenue - Gold	(USDm)	253.0	36.8	87.0	90.0	39.3
Operating Expenditures	(USDm)	(146.1)	(3.2)	(46.3)	(58.9)	(37.7)
Mining	(USDm)	(99.0)	(12.7)	(40.0)	(35.7)	(10.7)
Processing	(USDm)	(42.7)	(5.8)	(12.3)	(12.5)	(12.1)
Overheads	(USDm)	(22.0)	(3.0)	(6.3)	(6.4)	(6.2)
Other Revenue	(USDm)	32.1	16.9	15.1	—	—
Mineral Royalty	(USDm)	(6.3)	(0.9)	(2.2)	(2.3)	(1.0)
Environmental	(USDm)	(3.3)	(0.5)	(1.1)	(1.2)	(0.5)
Terminal Benefits	(USDm)	(3.0)	—	—	—	(3.0)
Net Change in Working Capital	(USDm)	(1.9)	2.7	0.4	(0.9)	(4.1)
Operating Profit	(USDm)	106.9	33.5	40.7	31.1	1.6
Tax Liability	(USDm)	—	—	—	—	—
Capital Expenditure	(USDm)	(37.8)	(14.8)	(15.5)	(7.1)	(0.4)
Project	(USDm)	(37.8)	(14.8)	(15.5)	(7.1)	(0.4)
Sustaining	(USDm)	—	—	—	—	—
Final Net Free Cash	(USDm)	69.1	18.7	25.2	24.0	1.1
Reporting Statistics - Real						
Cash Operating Costs	(USD/oz)	226	60	217	264	323
Total Cash Costs	(USD/oz)	226	60	217	264	323
Total Working Costs	(USD/oz)	237	65	222	270	361
Total Costs	(USD/oz)	302	197	294	307	411

19.6 NPV Sensitivities

The following tables present the NPVs of the nominal cash flows as derived from the FM. In summary they include:

- The variation in NPV with discount factors;
- The variation in NPV based on single parameter sensitivities; and
- The variation in NPV based on twin (revenue and operating expenditure) sensitivities.

Table 19.2 Agnew Tax Entity: variation of NPV with discount factors

Discount Factor (%)	NPV (USDm)
0.00%	69.1
5.00%	57.8
7.46%	56.8
10.00%	55.7
12.00%	54.9
14.85%	53.8

Table 19.3 Agnew Tax Entity: NPV – single parameter sensitivity

Sensitivity Range - Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range - Operating Expenditures	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range - Capital Expenditures	-30%	-20%	-10%	0%	10%	20%	30%
Currency	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)	(USDm)
Variation in NPV @ 0% DCF							
Revenue	(14.8)	10.2	35.2	69.1	85.2	110.2	133.9
Operating Expenditures	111.8	94.6	77.4	69.1	43.0	25.8	8.7
Capital Expenditures	71.7	67.9	64.0	69.1	56.4	52.6	48.7
Variation in NPV @ 7.46% DCF							
Revenue	(12.5)	10.6	33.7	56.8	79.9	103.0	125.0
Operating Expenditures	104.0	88.3	72.5	56.8	41.0	25.2	9.5
Capital Expenditures	67.8	64.1	60.4	56.8	53.1	49.4	45.7

Table 19.4 Agnew Tax Entity: NPV – twin parameters sensitivity at 7.46% discount factor

NPV (USDm) Operating Expenditure Sensitivity	Revenue Sensitivity						
	-30%	-20%	-10%	0%	10%	20%	30%
-30%	34.7	57.8	80.9	104.0	125.7	142.4	158.8
-20%	19.0	42.1	65.2	88.3	111.4	131.0	147.6
-10%	3.2	26.3	49.4	72.5	95.6	118.7	136.4
0%	(12.5)	10.6	33.7	56.8	79.9	103.0	125.0
10%	(28.3)	(5.2)	17.9	41.0	64.1	87.2	110.3
20%	(44.1)	(21.0)	2.1	25.2	48.3	71.4	94.5
30%	(59.8)	(36.7)	(13.6)	9.5	32.6	55.7	78.8

20 CONCLUDING REMARKS

The views expressed in this ITR have been based on the fundamental assumption that the required management resources and pro-active management skills to access the adequate capital necessary to achieve the LoM plan projections for the Mining Assets are sustained.

SRK has conducted a comprehensive review and assessment of all material issues likely to influence the future operations at Agnew. The LoM plan, as provided to and taken in good faith by SRK, has been reviewed in detail for appropriateness, reasonableness and viability, including the existence of and justification for departure from historical performance. Where material differences were found, these were discussed with Agnew and adjusted where considered appropriate. SRK consider that the resulting TEPs and FM are based on sound reasoning, engineering judgement and technically achievable mine plans, within the context of the risks associated with the Australian gold mining industry.

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GLOSSARY, ABBREVIATIONS AND UNITS**GLOSSARY**

acicular	needle-shaped
actinolite greenstone:	an amphibole mineral commonly found in metamorphosed $\text{Ca}_2(\text{Mg,Fe})_5\text{Si}_8\text{O}_{22}(\text{OH})_2$
aeolian	pertaining to wind-driven processes
aircore	target generation drilling technique used in the weathered zone
albite	a sodium bearing feldspar mineral: $\text{NaAlSi}_3\text{O}_8$
alluvial	pertaining to a sedimentary deposit deposited by a river
alluvium	an unconsolidated sedimentary deposit deposited by a river
alternation	a change in a rock's mineral composition
amphibole	a group of ferromagnesian minerals characterised by a molecular structure of a double chain of silica tetrahedra
amphibolite	a metamorphic facies formed under moderate to high temperature and pressure
ankerite	a calcium –iron carbonate mineral: $\text{CaFe}(\text{CO}_3)_2$
anticline	a convex fold in rock, the central part of which contains the oldest rock.
antiform	a convex fold in rock where the relative ages of the constituent rocks are unknown.
Archaean	that period of geological time prior to 2.5 million years before present; the earlier part of the Precambrian Era
argillaceous	applied to rocks or substances composed of clay minerals, or having a notable portion of clay in their composition
argillite	a sedimentary rock composed mainly of argillaceous material; the term includes shale, mudstone and siltstone
arsenopyrite	an iron-arsenic sulphide mineral: FeAsS
assay	the chemical analysis of mineral samples to determine the metal content
auriferous	bearing gold
axial planar	subparallel to the axial plane of a fold
backfill	material generally sourced from mine residues and utilised for the filling of mined voids, to ensure long terms stability of excavations and minimize the effects of seismic activity
Banded Iron formation	a rock that consists of alternating bands of iron-rich minerals,

	generally hematite, and chert or fine grained quartz
basalt	a dark-coloured igneous rock, commonly extrusive, composed primarily of calcic plagioclase and pyroxene; the fine-grained equivalent of gabbro
batter angle	slope from bottom to top of the face of a wall
bedrock	the solid rock that underlies gravel, soil, or other superficial material
biotite	a common brown mica mineral: $K(Mg,Fe)_3AlSi_3O_{10}(OH,F)_2$
bismuthinite	a bismuth sulphide mineral: Bi_2S_3
blasthole	a drill hole in a mine that is filled with explosives in order to blast loose a quantity of rock
breccia	a coarse-grained clastic rock, composed of angular broken rock fragments held together by a mineral cement or a fine-grained matrix
bulk mining	any large-scale, mechanised method of mining involving many thousands of tonnes of ore being brought to surface each day
BWI	ball and rod indices
Cainozoic	the youngest era comprising the Tertiary to Quaternary, 65Ma to 0Ma
calcite	a calcium carbonate mineral: $CaCO_3$
capital expenditure	specific project or ongoing expenditure for replacement or additional equipment, materials or infrastructure
carbonaceous	rich in carbon
carbon-in-leach	(“CIL”) the recovery process in which gold is leached from gold ore pulp by cyanide and simultaneously adsorbed onto activated carbon granules in the same vessel. The loaded carbon is then separated from the pulp for subsequent gold removal by elution. The process is typically employed where there is a naturally occurring gold adsorbent in the ore
carbon-in-pulp	(“CIP”) the recovery process in which gold is first leached from gold ore pulp by cyanide and then adsorbed onto activated carbon granules in separate vessels. The loaded carbon is then separated from the pulp for subsequent gold removal by elution
cash costs	namely direct mining costs, direct processing costs, direct general and administration costs, consulting fees, management fees, bullion transport and refining charges
cataclasite	rock containing angular fragments formed by cataclasis
chalcopyrite	a copper-iron sulphide mineral: $CuFeS_2$

chert	a hard, dense microcrystalline sedimentary rock, consisting chiefly of interlocking crystals of quartz
chip-sample	a method of sampling a rock exposure whereby a regular series of small chips of rock is broken off along a line across the face
chlorite	$\text{Mg,Fe}_3(\text{Si,Al})_4\text{O}_{10}(\text{OH}_2) \cdot (\text{Mg,Fe})_3(\text{OH})_6$ an important group of sheet silicates found in metamorphic, sedimentary and altered igneous rocks
clast	a particle of rock or single crystal which has been derived by weathering and erosion
cleavage	splitting or the tendency to split, along parallel, closely positioned planes in a rock
composite	combining more than one sample result to give an average result over a larger distance
concentrate	a metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore.
conglomerate	a detrital sedimentary rock composed of rounded or sub-angular pebbles or cobbles in a finer grained matrix of siltstone or sandstone.
craton	a part of the earth's crust that has attained stability and has been little deformed for a long period of geological time
crenulation	a microscopic-scale cleavage formed by the folding of an existing fabric
crosscut	a horizontal underground drive developed perpendicular to the strike direction of the stratigraphy
crushing	initial process of reducing ore particle size to render it more amenable for further processing
cummingtonite	$(\text{Mg,Fe})_7\text{Si}_8\text{O}_{22}(\text{OH}_2)$ an amphibole
cumulate	any igneous rock formed by the accumulation of crystals settling out of a magma
cut-off-grade	("CoG") the grade of mineralised rock which determines as to whether or not it is economic to recover its gold content by further concentration
cyanidation	extraction of gold or silver from crushed ore by dissolving the metal in a weak solutions of sodium cyanide
decline	a surface or sub-surface excavation in the form of a tunnel which is developed from the uppermost point downwards
desorption	the reverse process of adsorption whereby adsorbed matter is

	removed from the adsorbent.
development	underground work carried out for the purpose of opening up a mineral deposit, includes shaft sinking, crosscutting, drifting and raising
dewatering	the removal of water from a drowned shaft, waterlogged workings or an aquifer to allow the commencement or sustainment of mining
diamond drill	a rotary type of rock drill that cuts a core of rock that is recovered in long cylindrical sections
differentiated	separated magma into two or more fractions
dilution	waste which is unavoidably mined with ore
dip	angle of inclination of a geological feature/rock from the horizontal
dolerite	a medium grained intrusive mafic igneous rock similar in composition to basalt
dolomite	a calcium-magnesium carbonate mineral: $\text{CaMg}(\text{CO}_3)_2$
doré	unrefined gold, usually in bar form and consisting primarily of gold with smaller amounts of other precious and base metals, which will be further refined to high purity gold bullion
drill-hole	method of sampling rock that has not been exposed
dyke	a tabular, vertical to sub-vertical body of igneous rock formed by the injection of magma into planar zones of weakness
elution	the chemical process of desorbing gold from activated carbon
eocene	an epoch of the Palaeogene, 56.5Ma – 35.4 Ma
epiclastic	descriptive of sedimentary material redeposited from an existing sediment
epidote	a group of minerals commonly formed by low temperature metamorphism of igneous or sedimentary rocks: $\text{Ca}_2(\text{Fe,Al})_3(\text{SiO}_4)_3(\text{OH})$
erosion	the wearing-away of soil and rock by weathering, mass wasting, and the action of streams, glaciers, waves, wind and underground water
euhedral	descriptive of a grain with a fully developed crystal form
face	the end of a drift, crosscut or stope at which work is taking place
facies	a rock unit defined by its composition, internal geometry and formation environment
fall of ground	a partial or complete collapse of rock hosting underground mine workings
fault	a discontinuity surface across which there has been shear

	displacement
felsic	term used to describe the amount of light-coloured minerals in an igneous rock
flotation	the process by which the surface chemistry of the desired mineral particles is chemically modified such that they preferentially attach themselves to bubbles and float to the pulp surface in specially designed machines. The gangue or waste minerals are chemically depressed and do not float, thus allowing the valuable minerals to be concentrated and separated from the undesired material
fluorite	an uncommon calcium-fluoride mineral: CaF_2
fluvial	pertaining to the processes and actions of a river or stream
fold	plastic deformation of previously horizontal rock strata
foliation	a repeated or penetrative planar feature in a rock
footwall	the underlying side of an orebody or stope
fuchsite	a green chrome bearing variety of muscovite: $\text{KAl}_2(\text{Si}_3\text{Al})\text{O}_{10}(\text{OH},\text{F})_2$
gabbro	a coarse grained intrusive mafic igneous rock similar in composition to basalt
galena	a lead sulphide mineral: PbS
gangue	Non-valuable mineral components of the ore
Garnet	cubic mineral with the general formula $\text{A}_{32} + \text{B}_{23} + \text{Si}_3\text{O}_{12}$ where A = magnesium, iron, manganese or calcium and B = aluminum, iron or, rarely, chromium
grade	the measure of concentration of gold or other valuable metal within mineralised rock
granite	a coarse grained igneous rock composed of quartz and alkali feldspar with small amounts of plagioclase, biotite and hornblende
granitoida	term for any granitic rock
granodiorite	a coarse grained igneous rock composed dominantly of sodic plagioclase, alkali feldspar, quartz and small amounts of dark-coloured minerals
granophyre	a quartz porphyry or fine-grained porphyritic granite
granulite	a metamorphic facies found at great depths and temperatures $>650^\circ\text{C}$
greenschist	a metamorphic facies of low-grade regional metamorphism of temperature range $300\text{--}500^\circ\text{C}$
greenstone	a field term for any compact dark-green altered or metamorphosed basic igneous rock that owes its colour to chlorite

greywacke	term for an immature sandstone with <15% clay minerals
gyroscopic survey	a survey conducted using a non-magnetic
hanging wall	the overlying side of an orebody of stope
haulage	a horizontal underground excavation which is used to transport mined ore
head-grade	the average grade of ore fed to a mill/plant
hedging	taking a buy or sell position in futures market opposite to a position held in the cash/spot market to minimise the risk of financial loss from an adverse price change
hornblende	$(\text{Ca}, \text{Na})_{2-3} (\text{Mg}, \text{Fe}, \text{Al})_5 \text{Si}_6 (\text{Si}, \text{Al})_2 \text{O}_{22} (\text{OH})_2$] a calcium rich amphibole
hydrothermal	process of injection of hot, aqueous, generally mineral-rich solutions into existing rocks or fractures
igneous	a primary crystalline rock formed by the solidification of magma
Indicated Mineral Resource	that part of a Mineral Resource for which tonnage, densities, shape, estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill-holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed
Inferred Mineral Resource	that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill-holes which may be limited or of uncertain quality and reliability
intermediate	a rock with <10% quartz plus alkali and plagioclase feldspars
intrusive	pertaining to rocks formed by the injection of magma into pre-existing rock and solidified by cooling beneath the surface
inverse distance	interpolation method of assigning values from samples to blocks based on the distance of the samples to the block centroid
isoclinal	descriptive of a fold where the adjacent limbs are parallel
Jurassic	the middle period of the Mesozoic, 208Ma –145.6Ma
Komatiite	a mantle-derived igneous rock rich in magnesium oxide
komatiite	an igneous suite of basaltic and ultramafic lavas and associated rocks

kriging	an interpolation method of assigning values from samples to blocks that minimises the estimation error
lacustrine	referring to a lake
lag (bed load deposit)	a residual accumulation of coarse particles from which the fine material has been removed by wind and water currents
lamprophyre	any group of igneous rocks characterised by a porphyritic texture with abundant dark-coloured minerals in microscopic matrix
lateritised	rock that has become highly concentrated in iron and aluminum oxides due to the removal of silica and alkalies during weathering
leaching	dissolution of gold from crushed and ground material
lenticular	resembling in shape the cross-section of a lens
level (mining level)	horizontal tunnel the primary purpose is the transportation of personnel and materials
lignite	low-grade coal, with about 70% carbon and 20% oxygen, intermediate between peat and bituminous coal
lineament	a major, linear, topographic feature of regional extent of structural or volcanic origin
lineation	a repeated of penetrative linear structure in a rock mass
lithological	geological description pertaining to different rock-types
lock-up gold	gold locked as a temporary inventory within a processing plant, or sections thereof, typically milling circuits
LoM plans	Life-of-Mine plans
mafic	an igneous rock composed chiefly of ferromagnesian minerals and feldspars
magnetite	an iron oxide mineral of the spinel group: Fe_3O_4
massive	does not have a fabric
Measured Mineral Resource	that part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill-holes. The locations are spaced closely enough to confirm geological and grade continuity
metamorphism	structural and/or chemical alteration of rocks and minerals by heat, pressure and/or chemical processes

mill lock-up	the inventory of gold which has accumulated within milling circuits over a defined period
milling	a general term used to describe the process in which the ore is crushed and ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product
Mineral Reserve	the economically mineable material derived from a Measured and/or Indicated Mineral Resource. It is inclusive of diluting materials and allows for losses that may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out, including consideration of and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified. Mineral Reserves are sub-divided in order of increasing confidence into Probable Mineral Reserves and Proved Mineral Reserve
Mineral Resource	a concentration [or occurrence] of material of economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, estimated from specific geological evidence and knowledge, or interpreted from a well constrained and portrayed geological model. Mineral Resources are sub-divided in order of increasing confidence, in respect of geoscientific evidence, into Inferred, Indicated and Measured categories
mineralised	rock in which minerals have been introduced to the point of a potential ore deposit
modified stability number	(N')
muscovite	a common white mica mineral: $\text{KAl}_2(\text{Si}_3\text{Al})\text{O}_{10}(\text{OH},\text{F})_2$
mylonite	a compact chertlike rock with a streaky or banded structure
normal fault	a fault in which the hangingwall moves downward relative to the footwall
nugget effect	the measure of the inherent randomness of a grade distribution
oligocene	the youngest epoch of the Palaeogene, 35.4Ma to 23.3Ma
olivine	a group of common ferromagnesian minerals characterised by a molecular structure of isolated silica tetrahedra: $(\text{Mg},\text{Fe})\text{SiO}_4$
open-pit	a mine working or excavation open to the surface
open	a fold with an interlimb angle between 70° and 120°

ordinary kriging	a common type of kriging used when sampling information is relatively dense
ore	a mixture of minerals, host rock and waste material which is expected to be mineable at a profit
Permian	the youngest period of the Palaeozoic, 290Ma –245Ma
pillar	rock left behind to help support the excavations in an underground mine
pillowed	formed when lava flows come into contact with water
placer	a concentration of heavy minerals in a fluvial system
plunge	the inclination of a fold axis or other linear feature, measured in the vertical plane
porphyry	igneous rock with phenocrysts in fine-grained or glassy matrix
prehnite-pumpellyite	a metamorphic facies formed under moderate pressure and low temperature
Probable Mineral Reserve	the economically mineable material derived from a Measured and/or Indicated Mineral Resource. It is estimated with a lower level of confidence than a Proved Mineral Reserve. It is inclusive of diluting materials and allows for losses that may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out and including consideration of and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified
project capital	capital expenditure which is associated with specific projects of a non-routine nature
Proterozoic	the era of geological time between 2.5 billion and 570 million years ago
Proved Mineral Reserve	the economically mineable material derived from a Measured Mineral Resource. It is estimated with a high level of confidence. It is inclusive of diluting materials and allows for losses that may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out, including consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified
pyrite	an iron sulphide mineral: FeS ₂
pyroxene	a group of common ferromagnesian minerals characterised by a molecular structure of a chain of silica tetrahedral.

pyrrhotite	an iron sulphide mineral: Fe_{1-x}S
quartz	crystalline silica, one of the commonest minerals: SiO_2
Quaternary	the most recent subperiod of the Cainozoic 1.64Ma–present
range (of a variogram)	The distance at which the variogram model becomes a constant
reclined	a fold whose hinge line plunges steeply
recovery	the percentage of valuable constituent derived from an ore; a measure of mining or extraction efficiency
recumbent	a fold whose hinge line and axial surface are both horizontal
regolith	the superficial layer of loose, unconsolidated material which overlies bedrock over much of the land surface
retrogressive	metamorphism which produces a lower grade from a higher grade
reverse / thrust fault	fault in which hangingwall moves upwards relative to the footwall
reverse circulation	drilling technique
rheological	flow and deformation of materials
rhyolite	an extrusive igneous rock, typically porphyritic and commonly exhibiting flow texture
sedimentary	pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks
seismic	earthquake or earth vibration including those artificially induced
selvage	the marginal zone of an igneous mass, characterised by a fine-grained or glassy texture
semi-variogram	a semi-variogram is a graph that measures the change of the differences of grade as the separation between samples increases; also known as a variogram; a necessary input for kriging
sericite	a white, fine grained variety of muscovite: $\text{KAl}_2(\text{Si}_3\text{Al})\text{O}_{10}(\text{OH},\text{F})_2$
shaft	an opening cut downwards from the surface for transporting personnel, equipment, supplies, ore and waste
shale	a fine grained detrital sedimentary rock formed by the compaction of clay, silt or mud which splits easily along its bedding planes
shear	a fault that developed with a significant amount of ductile deformation of the rock mass it transgresses.
sigmoidal	curved in two directions
siliceous	rich in silica
sill	a tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness
sinistral	left hand displacement on a fault plane

spinifex	a lacy mesh of acicular olivine crystals, typical of extrusive komatiite rocks
stockwork	a mineral deposit consisting of a three-dimensional network of planar to irregular veinlets closely enough spaced that the whole mass can be mined
stope	underground void created by mining
strain	change of dimensions of matter in response to stress
stratigraphy	the science of rock strata
strike	direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction
stripping ratio	the unit amount of overburden that must be removed to gain access to a unit amount of ore or mineral material
stripping	in chemical extraction of minerals, treatment of pregnant solution to remove dissolved values
sulphide	sulphur bearing mineral
supergene	referring to mineral deposits or enrichments formed by descending solutions
surface sources	ore sources, usually dumps, tailings dams and stockpiles, located at the surface
sustaining capital	capital estimates of a routine nature which are necessary for sustaining operations such as replacement or additional equipment, materials or infrastructure
syncline	a concave fold in rock, the central part of which contains the youngest rock.
synform	a concave fold in rock where the relative ages of the constituent rocks are unknown.
tailings	processed waste material left after extraction of most of the economic components
talc	a sheet silicate mineral commonly found in metamorphosed ultramafic rock: $\text{Mg}_3\text{Si}_4\text{O}_{10}(\text{OH})_2$
tectonic	descriptive of a structure produced by deformation or relating to a major Earth structure and its formation
terrane	a region of the crust with well-defined margins, which differs significantly in tectonic evolution from neighbouring regions
Tertiary	a period of the Cainozoic comprising the Palaeocene to Pliocene, 65.0Ma – 1.64Ma
tholeiite	a basalt or related igneous rock comprising plagioclase and orthopyroxene

thrust	overriding movement
tight (fold)	a fold with a small angle between its limbs
titanite	an uncommon titanium bearing mineral found in metamorphosed igneous rocks: CaTiSiO_5
trondhjemite	an igneous intrusive rock; a variety of granodiorite with low levels of potassium feldspar and ferromagnesian minerals
tuff	a general term for all consolidated pyroclastic rocks
ultramafic	an igneous rock composed of ferromagnesian minerals to the exclusion of quartz and feldspars.
variogram	see semi-variogram
vein	a sheet-like or tabular, discordant, mineralised body formed by complete or partial infilling of a fracture within a rock
volcaniclastic	containing volcanic material
waste	the part of an ore deposit that is too low in grade to be of economic value at the time of mining, but which may be stored separately for possible treatment later
xenolith	rock fragment foreign to igneous rock in which it occurs
Yilgarn Craton	stable interior of the continental plate, unaffected by plate margin activity since the Precambrian

ABBREVIATIONS AND UNITS

Ag	Silver
ANFO	Ammonium Nitrate Fuel Oil
Au	Gold
AusIMM	Australian Institute of Mining and Metallurgy
CIL	Carbon-in-leach
CIP	Carbon-in-pulp
CoG	Cut-off Grade
CPI	Consumer Price Index
CPR	Competent Persons' Report
DCF	Discounted Cash Flow
DEH	Department of the Environment and Heritage
DOE	Department of Environment
DoIR	Department of Industry and Resources
DME	Department of Minerals and Energy
EIA	Environmental Impact Assessment
EMP	Environmental Management Programme
FIFO	Fly-In-Fly-Out
FM	Financial Model
FoG	Fall of Ground
FY	Financial Year
ILR	Intensive Leach Reactor
ITR	Independent Technical Report
JORC Code	1999 Australasian Code for Reporting of Mineral Resources and Mineral Reserves
JSE	JSE Securities Exchange South Africa
JV	Joint Venture
KPI	Key Performance Indicator
LHD	Load Haul Dump (underground mechanised mining machine)
LoM plan	Life-of-Mine plan
SIFR	Serious Injury Frequency Rate, quoted in Mmhrs
MCF	Mine Call Factor

Mmhrs	Million man hours
NAV	Net Asset Value
NoI	Notice of Intent
NPV	Net Present Value
op	Open-pit
PWDP	Planned Within Design Pit
P	Planned
P ₈₀	80% Probability
PAI	Planned Above Infrastructure
QA/QC	Quality assurance / quality control
QP	Qualified Person
RC	Reverse Circulation
RoM	Run-of-Mine
RMR	Rock Mass Rating
SAG	Semi-autogenous grinding
SAMREC	South African code for Reporting of Mineral Resources and Mineral Reserves
SBP	Strategic Business Plan
SEC	United States Securities and Exchange Commission
SPQ	Single Persons' Quarters
SRK	Steffen, Robertson and Kirsten (South Africa) (Pty) Limited
SS	Surface Sources
TEC	Total Employees Costed
TEP	Technical Economic Projection
TSF	Tailings Facility
TSX	Toronto Stock Exchange
ug	underground
UHR	Uphole Retreat Stopping
UP	Unplanned
UPBI	Unplanned Below Infrastructure
UPODP	Unplanned Outside of Design Pit
WACC	Weighted Average Cost of Capital
WRC	Water and Rivers Commission

WRD Waste Rock Dump

YTD Year to Date

UNITS

AUD Australian Dollar

bcm bank cubic metres (insitu volume)

Mbcm Million bank cubic meters

cm a centimetre

g grams

g/t grams per metric tonne – gold concentration

GBP Great Britain Pound

Ha a Hectare

kg a kilogram

km a kilometre

km² a square kilometre

koz a thousand ounces

kt a thousand metric tonnes

ktpa a thousand metric tonnes per annum

ktpm a thousand tonnes per month

m a metre

m² a square meter

m³ a cubic meter

ML a million litres

mm a millimetre

Moz a million ounces

oz a fine troy ounce equalling 31.10348 grams

ppm parts per million

t a metric tonne

° degrees

‘ minutes

% percentage

USD United States Dollar

USDk	thousand United States Dollar
USDm	million United States Dollar
USD/oz	United Sates Dollar per ounce
ZAR	South African Rands

App. 1 Certificates of Qualification

CERTIFICATE of QUALIFICATION**To Accompany the Report entitled
“Independent Technical Report on Agnew Gold Mine, Western Australia.”
dated, 01 July 2004.**

I, Philip Edward Jankowski, do hereby certify that:

1. I reside at 44 King Street, East Fremantle, WA 6058, AUSTRALIA.
2. I am a graduate from the Australian National University, Canberra, Australia, with a Bachelor of Science degree in Geology in 1986, and a Graduate Diploma in Science in 1988; and a graduate from the University of Western Australia, Perth, Australia with a Masters of Science in 2003. I have continually practiced my profession since 1988.
3. I am a Member of The Australasian Institute of Mining and Metallurgy.
4. I am a Senior Resource Evaluation Consultant with SRK (Australasia) Pty Ltd, a firm of consulting geologists and engineers which has been practicing in this profession since 1974. I hold office at 1064 Hay Street, WEST PERTH, WA 6005, AUSTRALIA and have been employed as such since 2004.
5. With 16 years mining industry experience, including on-site and head office roles and, I have worked as a geologist in open cut and underground gold mines, mineral exploration and resource estimation as well as provided technical skills to underground and open cut gold and tantalum-tin mines.
6. I have read the definition of “qualified person” as set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfil the requirements to be a qualified person for the purpose of NI43-101.
7. I have prepared parts of the Independent Technical Assessment Report (the ‘Report’) concerning the Agnew Gold Mine, mainly those related to the geology and Mineral Resource estimates.
8. I have visited the site of Agnew Gold Mine, most recently between the 6th and 10th September, 2004.
9. I have no personal knowledge, as of the date of this Certificate, of any material fact or change, which is not reflected in this report, the omission to disclose that would make this report misleading.
10. Neither I, nor any affiliated entity of mine is at present, or under an agreement, arrangement or understanding expects to become, an insider, associate, affiliated entity or employee of Agnew Gold Mine and/or Gold Fields Limited, and/or any associated or affiliated entities.
11. Neither I nor any affiliated persons or entity of mine, own, directly or indirectly, nor expect to receive, any interest in the properties or securities of Agnew Gold Mine and/or Gold Fields Limited, or any associated or affiliated companies.
12. I am independent of Agnew Gold Mine and/or Gold Fields Limited Ltd, in accordance with the application of Section 1.5 of (NI) 43-101.
13. I have not had any involvement with the Agnew Gold Mine property prior to the review commissioned by Gold Fields Limited.
14. I have read the NI 43-101 and Form 43-101F1, and CIM Standards on Mineral Resources and Reserves, and have prepared the technical report in compliance with NI 43-101 and Form 43-101F1.

15. I consent to the filing of this Report with the relevant securities commission, stock exchange and other regulatory authorities as may be determined, including general publication in hardcopy and electronic formats to shareholders and to the public.

/s/ Phil Jankowski

Phil Jankowski, MSc, MAusIMM

Dated at West Perth, Australia this 2nd day of November 2004

CERTIFICATE of QUALIFICATION**To Accompany the Report entitled
“Independent Technical Report on Agnew Gold Mine, Western Australia.”
dated, 01 July 2004.**

I, Michael John Warren, do hereby certify that:

1. I am responsible for the technical report titled “Independent Technical Report on Agnew Gold Mine, Western Australia.” dated, 01 July 2004 (the “Technical Report”) relating to the property and was responsible for the preparation of Section 13 of the Technical Report. For the balance of the Technical Report, I relied upon the work completed by QPs listed in Section 3.6.
2. I reside at 97 Monteith Street, Warrawee, NSW 2074, AUSTRALIA.
3. I am a graduate from the University of New South Wales, Sydney, Australia in 1979, with a BSc degree in Mining Engineering, and a graduate from Macquarie University, Sydney with an Masters of Business Administration (1991). I also hold a First Class Mine Managers Certificate, Queensland and a Mine Managers Certificate, NSW. I have continually practiced my profession since 1979.
4. I am a Member of The Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Company Directors.
5. I am a Principal Consultant in Mining Engineering with SRK (Australasia) Pty Ltd, a firm of consulting geologists and engineers which has been practicing in this profession since 1974 . I hold office at Level 9, 1 York St SYDNEY, NSW 2000, AUSTRALIA and have been employed as such since 2000.
6. With over 25 years mining industry experience, including on-site and head office roles and 5 years in investment banking for mining projects, I have worked in underground metal mines, open cut uranium mines and open cut coal mines, as well as provided technical skills to underground and open cut copper/gold mines, underground coal mines and open cut gold mines.
7. I have read the definition of “qualified person” as set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfil the requirements to be a qualified person for the purpose of NI43-101.
8. I have prepared parts of the Independent Technical Assessment Report (the ‘Report’) concerning the Agnew Gold Mine, mainly those related to the mining and Mineral Reserves aspect of the report.
9. My work in this Report also involved peer review and editing of the Report.
10. I have visited the site of Agnew Gold Mine most recently, between the 6th and 10th September, 2004.
11. I have no personal knowledge, as of the date of this Certificate, of any material fact or change, which is not reflected in this report, the omission to disclose that would make this report misleading.
12. Neither I, nor any affiliated entity of mine is at present, or under an agreement, arrangement or understanding expects to become, an insider, associate, affiliated entity or employee of Agnew Gold Mine and/or Gold Fields Limited, and/or any associated or affiliated entities.
13. Neither I nor any affiliated persons or entity of mine, own, directly or indirectly, nor expect to receive, any interest in the properties or securities of Agnew Gold Mine and/or Gold Fields Limited, or any associated or affiliated companies.

14. I am independent of Agnew Gold Mine and/or Gold Fields Limited Ltd, in accordance with the application of Section 1.5 of (NI) 43-101.
15. I have not had any involvement with the Agnew Gold Mine property prior to the review commissioned by Gold Fields Limited.
16. I have read the NI 43-101 and Form 43-101F1, and CIM Standards on Mineral Resources and Reserves, and have prepared the technical report in compliance with NI 43-101 and Form 43-101F1.
17. I consent to the filing of this Report with the relevant securities commission, stock exchange and other regulatory authorities as may be determined, including general publication in hardcopy and electronic formats to shareholders and to the public.

/s/ Michael Warren

Michael Warren BSc, MBA, MAusIMM, FAICD

Dated at Sydney, Australia this 2nd day of November 2004

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Exhibit 99.5

SNOWDEN

Gold Fields and IAMGold: Technical Report
Project No. 4896

The Konttjarvi, Ahmavaara, and SK deposits, Finland
October 2004

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This report has been prepared by Snowden Mining Industry Consultants ('Snowden') on behalf of Gold Fields and IAMGold.

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1 Summary

Gold Fields Arctic Platinum ('GFAP') is exploring and developing the Konttijärvi, Ahmavaara, and Narkaus (SK horizon) deposits in the Rovaniemi region, northern Finland. As part of the formation of Gold Fields International ('GFI') from the non-South African assets of Gold Fields and the assets of IAMGold, an independent technical report for the Konttijärvi, Ahmavaara, and SK deposits has been compiled. This report has been jointly commissioned by Gold Fields and IAMGold.

The Konttijärvi and Ahmavaara deposits form part of the Suhanko project, and the SK and footwall horizons at the Kuohunki, Nutturampi, and Siika Kama deposits are termed, along with other prospects, the Narkaus project. Both the Suhanko and Narkaus projects were discovered by Outokumpu Oy, who then formed a joint venture with Gold Fields (the Arctic Platinum Project) before Gold Fields elected to acquire 100% of the project in September 2003.

Both the Suhanko and Narkaus projects comprise PGE, gold, copper and nickel mineralisation hosted in various blocks of the Portimo complex, a Palaeoproterozoic layered intrusion. Mineralisation is hosted both in magmatic and in hydrothermal/structural settings in the various deposits.

GFAP and its precursor companies have carried out substantial amounts of drilling at both the Suhanko and Narkaus projects. This is predominantly diamond drilling, and has been subject to rigorous collar and downhole survey control. In addition to drilling, the project areas have been explored by a large number of traditional geophysical and geochemical techniques.

GFAP has state of the art core processing facilities in Rovaniemi. Assays are submitted primarily to the GTK (Finnish Geological Survey) laboratory in Rovaniemi, with the Genalysis laboratory in Perth, Western Australia, acting as an umpire laboratory. QAQC analysis and review carried out by both Smee and Associates and by Snowden Mining Industry Consultants ('Snowden') reveals that there are no material issues with GFAP QAQC which would affect resource estimation.

A number of Mineral Resource estimates, classified to NI 43-101 standards, have been carried out. The most recent for Konttijärvi and Ahmavaara were done in 2004 by Snowden, based upon geological models created by GFAP. A Mineral Resource estimate of the Kuohunki prospect, Narkaus, was carried out by Steffen, Robertson, and Kirsten in June 2004, and the Mineral Resource estimates for the Nutturampi and Siika Kama prospects were carried out by Snowden in 2002 and 2003 respectively.

As of October 2004, the combined Measured and Indicated (M&I) Mineral Resource for the Suhanko deposits, at a cut-off of 1 g/t 2PGE+Au, was 86.6 Mt at a grade of 2.06 g/t 2PGE+Au, 0.24% Cu, and 0.09% Ni. The combined M&I Mineral Resource for the SK Horizons, above a cut-off of 1 g/t 2PGE+Au above 100 m depth and above a cut-off of 2 g/t 2PGE+Au below 100 m depth was 6.1 Mt at 3.56 g/t 2PGE+Au, 0.1% Cu, and 0.10% Ni. Additional Inferred resources are reported at Suhanko (32.4 Mt at 1.73 g/t 2PGE+Au, 0.21% Cu, 0.07% Ni) and SK Reefs (43.3 Mt at 3.14 g/t 2PGE+Au, 0.1% Cu, 0.08% Ni). GFAP is currently undergoing a study to examine the feasibility of mining the mineralisation at Konttijärvi and Ahmavaara.

2 Introduction and Terms of Reference

The non - South African assets of Gold Fields Limited are being merged with the assets of IAMGold Corporation to form a new venture, Gold Fields International ('GFI'). This merged entity will be listed on the Toronto Stock Exchange ('TSE'). Those Gold Fields assets which are being incorporated into the GFI entity are to be reported on the TSE for the first time, and as such are subject to the regulatory framework laid out in National Instrument 43-101 ('NI 43-101'), which is administered by the Canadian Securities Association ('CSA'). One of the requirements of NI 43-101 is that any issuer disclosing Mineral Resources on a property material to the issuer for the first time must generate an independent technical report covering those resources. This independent technical report has therefore been jointly commissioned by Gold Fields Limited and IAMGold Corporation.

One of the Gold Fields properties which forms part of the GFI portfolio is the Gold Fields Arctic Platinum Project ('GFAP') in Finland. Gold Fields has reported Mineral Resources on this property in 2003 and an updated Mineral Resource statement will soon be issued by GFI. GFI has commissioned Snowden Mining Industry Consultants ('Snowden') to produce an independent technical report on three of the properties which form the Arctic Platinum Project, namely the Konttijärvi, Ahmavaara, and SK platinum group elements ('PGE') – nickel – copper deposits at Suhanko and Narkaus in northern Finland. This report compiles information generated by a number of parties, including GFAP, Snowden, Steffen, Robertson, and Kirsten ('SRK'), and other technical experts. The report has been produced by Ian Glacken, Group Manager–Resources of Snowden, who is deemed to be an independent Qualified Person ('QP') under the definitions set out in NI 43-101, and who takes responsibility for the information set out below.

Mr Glacken visited the Konttijärvi and Ahmavaara properties between the 16th and 21st September, 2004, and in addition to carrying out geological site visits, reviewed the geological models, data capture and processing, sample preparation, and quality assurance and security procedures established by GFAP. Dr Mike Harley of SRK, who is responsible for the resource estimate at the Kuohunki deposit (which forms the majority of the SK resource), has made a site visit to that property during 2004.

This report compiles and summarises the following sources of information with respect to the Konttijärvi and Ahmavaara deposits, with responsibility as noted:

- exploration – GFAP;
- assay quality assurance review and reporting – GFAP, Barry Smee (Smee and Associates Consulting Limited), and Snowden;
- geological modelling and interpretation – GFAP, other independent individuals, and Snowden;
- data verification – Snowden; and
- mineral resource estimation – GFAP, SRK and Snowden.

At the time of compilation of the report (October 2004), GFAP (and its consultants) was carrying out a feasibility study on the Konttijärvi and Ahmavaara deposits, addressing mineral resources, mineral reserves, mine design and scheduling, processing, and project engineering and infrastructure. Since this is incomplete and no mineral reserves have yet been defined or reported, the report is limited to descriptions of the mineral resources and supporting information. All mineral resources reported below comply fully with the standards set out in NI 43-101 and the associated CIM guidelines, which have been adopted by the CSA and the TSE.

3 Disclaimer

Snowden has reviewed and analysed data provided by GFAP, its consultants, and previous owners of the Konttijärvi, Ahmavaara and SK properties, in addition to Snowden's own direct field examination of the properties. The PGE-Cu-Ni mineralisation at Konttijärvi and Ahmavaara is visible both in trial excavations and in drill core, and is substantiated by drill core assays. Moreover, the presence of PGE, copper, and nickel mineralisation has been confirmed by the results of processing of the trial mining parcels of ore. Although Snowden has not itself carried out independent exploration or check sampling of the mineralisation, Snowden has visited both the primary and the umpire laboratories used by GFAP for assaying and quality control of the mineralisation, and is happy that there is sufficient custody and security of data such that the results reported by GFAP are valid. Independent sampling of Konttijärvi, Ahmavaara, and SK mineralisation has been carried out by other GFAP consultants for the purposes of metallurgical and geomechanical testing, and Snowden has no reason to doubt the veracity of their results. Thus, while exercising all reasonable due diligence in checking and confirming the data, Snowden has relied upon the information supplied by GFAP in formulating its opinion.

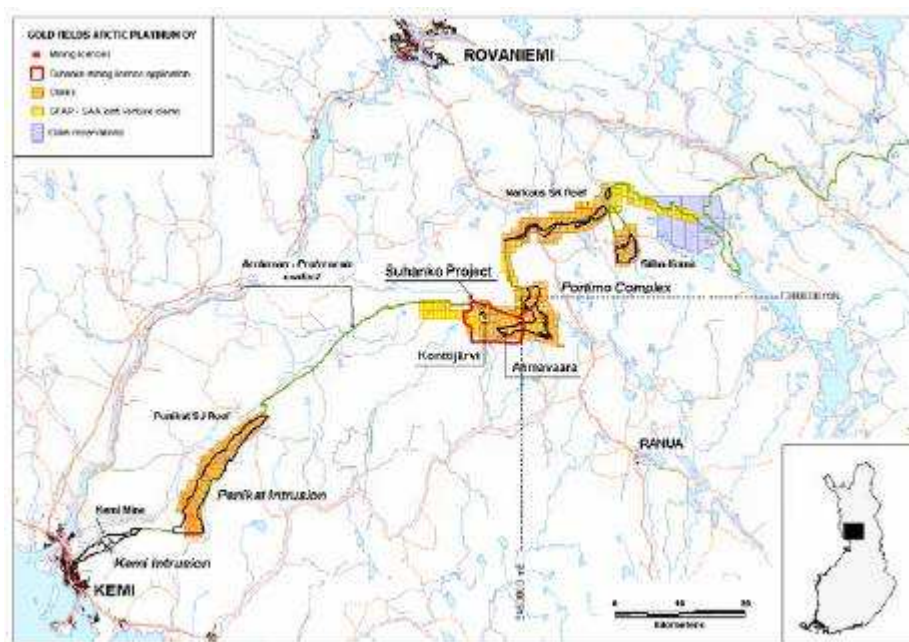
In a similar manner, Snowden has not independently verified the legal status of the ownership of the GFAP leases, but believes the statements and the evidence of ownership shown by GFAP to be accurate.

4 Property Description and Location

4.1 Location of the project area

The Suhanko project, which contains the Konttijärvi and Ahmavaara deposits, is situated in Northern Finland, as shown in Figure 4.1. Gold Fields acquired 100% of this project on September 10, 2003, by purchasing Outokumpu's 49% share of the Arctic Platinum Partnership for US\$ 31.0 million. The full history of the project is provided in Section 6. It is intended that the entire project will be incorporated into the assets of GFI. The Suhanko project is one of a number of project areas within the GFAP area of interest, but that which has the most advanced exploration. The other project which has a reported mineral resource estimate is the Narkaus project, which contains the SK deposits of Kuohunki, Nutturalampi, and Siika-Kama upon which a mineral resource to NI 43-101 standards has been reported.

Figure 4.1 Location of the GFAP Suhanko and Narkaus projects and tenement holdings



4.2 Tenement details and expenditure obligations

The geographic distribution of GFAP tenements is shown in Figure 4.1, and details listed in Tables 4.1 and 4.2. Currently the company holds three mining licences (concessions) with a total area of 110.8 hectares and has submitted one mining licence application for a total area of 4,420.5 hectares, which secures the entire Suhanko project area. GFAP holds 341 claims with a total area of 30,448.4 hectares, out of which 66 claims (6,176.8 hectares) are under joint venture agreement with South Atlantic Resources Ltd. The validities for these claims range from 27 March 2005 to 20 August 2008 with an option to apply for a three-year extension, otherwise they will remain valid because of the Suhanko mining licence application. GFAP has also eight reservations for claim which cover an area of 7015 hectares. All properties have been legally surveyed, using the UTM Finnish KKJ Zone 3 grid.

For the claim rights GFAP must pay annual claim compensations to the private landowners and annual claim fees to the State as per surface area each calendar year. The total annual amount for current claim cover is €511,643.05. For the current mining concession rights GFAP must pay annual concession fees to landowners, which amount a total of €2,216.60. Payments relating to the applied Suhanko mining district will become determined in the execution of the concession during the first half of 2005 and will depend on extent of the land acquisition and on mining fee to be agreed on.

Table 4.1 Gold Fields Arctic Platinum Tenement List – Mining Licences and Mining Licence Applications

Licence name	Licence No.	Project	Date applied	Valid until	Status	Area (ha)	Comments
							Extension time granted 15.01.2002
Konttijärvi	4691/1a	Suhanko	24/09/1996	8/10/2006	Valid	56.40	
Kilvenjärvi	3556/1a	Narkaus	28/11/1991	28/11/2006	Valid	20.21	
Sompuoja	4689/1a	Penikat	8/10/1996	8/10/2006	Valid	34.22	
Konttijärvi-Ahmavaara		Suhanko	23/04/2001	31/05/2004	Application	6105.85	
Totals:	3 valid mining licences 1 mining licence application (= Konttijärvi licence extension)					110.83 6105.85	ha - annual cost EUR 2,217 ha

Table 4.2 Gold Fields Arctic Platinum Tenement List – Claims

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
Ahma 1	7022/1	Suhanko	18/04/2000	18/04/2005	Valid	83.10	Covered by APP mining licence applic.
Ahma 2	7022/2	Suhanko	18/04/2000	18/04/2005	Valid	95.40	Covered by APP mining licence applic.
Ahma 3	7022/3	Suhanko	18/04/2000	18/04/2005	Valid	74.30	Covered by APP mining licence applic.
Ahma 4	7022/4	Suhanko	18/04/2000	18/04/2005	Valid	99.60	Covered by APP mining licence applic.
Ahma 5	7022/5	Suhanko	18/04/2000	18/04/2005	Valid	94.80	Covered by APP mining licence applic.
Ahma 6	7022/6	Suhanko	18/04/2000	18/04/2005	Valid	54.10	Covered by APP mining licence applic.
Ahma 7	7022/7	Suhanko	18/04/2000	18/04/2005	Valid	95.10	Covered by APP mining licence applic.
Ahma 8	7022/8	Suhanko	18/04/2000	18/04/2005	Valid	89.50	Covered by APP mining licence applic.

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
Kilkkä 1	6998/1	Penikat	27/03/2000	27/03/2005	Valid	94.90	
Kilkkä 2	6998/2	Penikat	27/03/2000	27/03/2005	Valid	92.20	
Kontti 1	7107/1	Suhanko	15/11/2000	15/11/2005	Valid	82.70	Covered by APP mining licence applic.
Kontti 2	7107/2	Suhanko	15/11/2000	15/11/2005	Valid	86.00	Covered by APP mining licence applic.
KPP 100	7201/8	Narkaus E	4/09/2001	4/09/2006	Valid	99.7	
KPP 101	7201/9	Narkaus E	4/09/2001	4/09/2006	Valid	98.9	
KPP 104	7201/12	Narkaus E	4/09/2001	4/09/2006	Valid	99.0	
KPP 107	7201/15	Narkaus E	4/09/2001	4/09/2006	Valid	87.4	
KPP 110	7201/18	Narkaus E	4/09/2001	4/09/2006	Valid	99.9	
KPP 114	7202/4	Narkaus E	4/09/2001	4/09/2006	Valid	100.0	
KPP 116	7202/6	Narkaus E	4/09/2001	4/09/2006	Valid	99.4	
KPP 117	7202/7	Narkaus E	4/09/2001	4/09/2006	Valid	99.9	
KPP 119	7202/9	Narkaus E	4/09/2001	4/09/2006	Valid	98.8	
KPP 120	7202/10	Narkaus E	4/09/2001	4/09/2006	Valid	82.7	
KPP 122	7202/12	Narkaus E	4/09/2001	4/09/2006	Valid	100.0	
KPP 123	7202/13	Narkaus E	4/09/2001	4/09/2006	Valid	60.3	
KPP 125	7202/15	Narkaus E	4/09/2001	4/09/2006	Valid	99.8	
KPP 168	7213/3	Konttijärvi W	10/08/2001	10/08/2006	Valid	97.1	
KPP 169	7213/4	Konttijärvi W	10/08/2001	10/08/2006	Valid	100.0	
KPP 170	7213/5	Konttijärvi W	10/08/2001	10/08/2006	Valid	99.5	
KPP 171	7213/6	Konttijärvi W	10/08/2001	10/08/2006	Valid	96.9	
KPP 172	7213/7	Konttijärvi W	10/08/2001	10/08/2006	Valid	99.6	
KPP 173	7213/8	Konttijärvi W	10/08/2001	10/08/2006	Valid	98.7	
KPP 176	7213/11	Konttijärvi W	10/08/2001	10/08/2006	Valid	98.6	
KPP 177	7213/12	Konttijärvi W	10/08/2001	10/08/2006	Valid	97.2	
KPP 178	7213/13	Konttijärvi W	10/08/2001	10/08/2006	Valid	96.2	
KPP 179	7213/14	Konttijärvi W	10/08/2001	10/08/2006	Valid	98.5	
KPP 180	7213/15	Konttijärvi W	10/08/2001	10/08/2006	Valid	97.5	

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
KPP 181	7214/1	Konttijärvi W	10/08/2001	10/08/2006	Valid	99.5	
KPP 182	7214/2	Konttijärvi W	10/08/2001	10/08/2006	Valid	99.4	
KPP 187	7214/7	Konttijärvi W	10/08/2001	10/08/2006	Valid	100.0	
KPP 188	7214/8	Konttijärvi W	10/08/2001	10/06/2006	Valid	99.3	
KPP 189	7214/9	Konttijärvi W	10/08/2001	10/08/2006	Valid	100.0	
KPP 190	7214/10	Konttijärvi W	10/08/2001	10/08/2006	Valid	97.4	
KPP 191	7214/11	Konttijärvi W	10/08/2001	10/08/2006	Valid	97.0	
KPP 195	7215/2	Konttijärvi W	10/08/2001	30/11/2002	Valid	99.4	Partly under APP mining licence applic.
KPP 196	7215/3	Konttijärvi W	10/08/2001	30/11/2002	Valid	92.3	Partly under APP mining licence applic.
KPP 197	7215/4	Konttijärvi W	10/08/2001	30/11/2002	Valid	68.3	Covered by APP mining licence applic.
KPP 198	7215/5	Konttijärvi W	10/08/2001	30/11/2002	Valid	94.4	Partly under APP mining licence applic.
KPP 199	7215/6	Konttijärvi W	10/08/2001	30/11/2002	Valid	33.5	Covered by APP mining licence applic.
KPP 200	7215/7	Konttijärvi W	10/08/2001	30/11/2002	Valid	95.6	Covered by APP mining licence applic.
KPP 38	7197/1	Suhanko N	28/08/2001	28/08/2006	Valid	90.5	
KPP 39	7197/2	Suhanko N	28/08/2001	28/08/2006	Valid	97.8	
KPP 40	7197/3	Suhanko N	28/08/2001	28/08/2006	Valid	98.3	
KPP 60	7198/3	Suhanko N	28/08/2001	28/08/2006	Valid	72.2	
KPP 61	7198/4	Suhanko N	28/08/2001	28/08/2006	Valid	79.5	
KPP 71	7199/6	Konttijärvi W	10/08/2001	30/11/2002	Valid	86.9	Covered by APP mining licence applic.
KPP 72	7199/7	Konttijärvi W	10/08/2001	30/11/2002	Valid	95.6	Covered by APP mining licence applic.
KPP 73	7199/8	Konttijärvi W	10/08/2001	30/11/2002	Valid	82.7	Covered by APP mining licence applic.
KPP 74	7199/9	Konttijärvi W	10/08/2001	30/11/2002	Valid	95.0	Covered by APP mining licence applic.

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
KPP 75	7199/10	Konttijärvi W	10/08/2001	30/11/2002	Valid	86.9	Covered by APP mining licence applic.
KPP 76	7200/1	Narkaus E	28/08/2001	28/08/2006	Valid	97.6	
KPP 77	7200/2	Narkaus E	28/08/2001	28/08/2006	Valid	99.0	
KPP 78	7200/3	Narkaus E	28/08/2001	28/08/2006	Valid	99.2	
KPP 79	7200/4	Narkaus E	28/08/2001	28/08/2006	Valid	99.0	
KPP 80	7200/5	Narkaus E	28/08/2001	28/08/2006	Valid	64.3	
KPP 81	7200/6	Narkaus E	28/08/2001	28/08/2006	Valid	98.0	
KPP 82	7200/7	Narkaus E	28/08/2001	28/08/2006	Valid	99.8	
KPP 83	7200/8	Narkaus E	28/08/2001	28/08/2006	Valid	99.7	
KPP 84	7200/9	Narkaus E	28/08/2001	28/08/2006	Valid	99.6	
KPP 85	7200/10	Narkaus E	28/08/2001	28/08/2006	Valid	93.6	
KPP 86	7200/11	Narkaus E	28/08/2001	28/08/2006	Valid	98.6	
KPP 87	7200/12	Narkaus E	28/08/2001	28/08/2006	Valid	99.9	
KPP 90	7200/15	Narkaus E	28/08/2001	28/08/2006	Valid	99.8	
KPP 91	7200/16	Narkaus E	28/08/2001	28/08/2006	Valid	99.8	
KPP 92	7200/17	Narkaus E	28/08/2001	28/08/2006	Valid	87.0	
KPP 94	7201/2	Narkaus E	4/09/2001	4/09/2006	Valid	99.9	
KPP 95	7201/3	Narkaus E	4/09/2001	4/09/2006	Valid	84.8	
KPP 97	7201/5	Narkaus E	4/09/2001	4/09/2006	Valid	99.8	
KPP 98	7201/6	Narkaus E	4/09/2001	4/09/2006	Valid	90.3	
Kuohunki 1	7060/1	Narkaus	22/08/2000	22/08/2005	Valid	77.10	
Kuohunki 1	7119/31	Narkaus	3/10/2001	3/10/2006	Valid	35.60	
Kuohunki 2	7060/2	Narkaus	22/08/2000	22/05/2005	Valid	84.00	
Kuohunki 3	7060/3	Narkaus	22/08/2000	22/08/2005	Valid	95.40	
Kuohunki 4	7060/4	Narkaus	22/08/2000	22/08/2005	Valid	57.90	
Kämä 1	7044/1	Narkaus	4/07/2000	4/07/2005	Valid	99.10	
Kämä 10	7106/4	Narkaus	15/11/2000	15/11/2005	Valid	100.00	
Kämä 11	7106/5	Narkaus	15/11/2000	15/11/2005	Valid	62.00	
Kämä 12	7106/6	Narkaus	15/11/2000	15/11/2005	Valid	98.10	
Kämä 13	7106/7	Narkaus	15/11/2000	15/11/2005	Valid	94.80	
Kämä 14	7106/8	Narkaus	15/11/2000	15/11/2005	Valid	100.00	
Kämä 15	7106/9	Narkaus	15/11/2000	15/11/2005	Valid	95.20	
Kämä 16	7106/10	Narkaus	15/11/2000	15/11/2005	Valid	99.10	
Kämä 17	7106/11	Narkaus	15/11/2000	15/11/2005	Valid	87.00	
Kämä 18	7106/12	Narkaus	15/11/2000	15/11/2005	Valid	55.90	
Kämä 19	7106/13	Narkaus	15/11/2000	15/11/2005	Valid	95.10	

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
Kämä 2	7044/2	Narkaus	4/07/2000	4/07/2005	Valid	74.30	
Kämä 3	7044/3	Narkaus	4/07/2000	4/07/2005	Valid	37.30	
Kämä 4	7044/4	Narkaus	4/07/2000	4/07/2005	Valid	66.20	
Kämä 5	7044/5	Narkaus	4/07/2000	4/07/2005	Valid	90.84	
Kämä 6	7044/6	Narkaus	4/07/2000	4/07/2005	Valid	97.01	
Kämä 7	7106/1	Narkaus	15/11/2000	15/11/2005	Valid	76.70	
Kämä 8	7106/2	Narkaus	15/11/2000	15/11/2005	Valid	54.80	
Kämä 9	7106/3	Narkaus	15/11/2000	15/11/2005	Valid	93.80	
Narkaus 1	7045/1	Narkaus	4/07/2000	4/07/2005	Valid	99.23	
Narkaus 10	7045/10	Narkaus	4/07/2000	4/07/2005	Valid	99.70	
Narkaus 11	7045/11	Narkaus	4/07/2000	4/07/2005	Valid	98.70	
Narkaus 12	7045/12	Narkaus	4/07/2000	4/07/2005	Valid	85.00	
Narkaus 13	7045/13	Narkaus	4/07/2000	4/07/2005	Valid	99.60	
Narkaus 14	7045/14	Narkaus	4/07/2000	4/07/2005	Valid	99.40	
Narkaus 15	7045/15	Narkaus	4/07/2000	4/07/2005	Valid	98.30	
Narkaus 16	7045/16	Narkaus	4/07/2000	4/07/2005	Valid	94.70	
Narkaus 17	7045/17	Narkaus	4/07/2000	4/07/2005	Valid	95.40	
Narkaus 18	7045/18	Narkaus	4/07/2000	4/07/2005	Valid	98.40	
Narkaus 19	7045/19	Narkaus	4/07/2000	4/07/2005	Valid	43.20	
Narkaus 2	7045/2	Narkaus	4/07/2000	4/07/2005	Valid	99.30	
Narkaus 3	7045/3	Narkaus	4/07/2000	4/07/2005	Valid	97.90	
Narkaus 4	7045/4	Narkaus	4/07/2000	4/07/2005	Valid	93.80	
Narkaus 5	7045/5	Narkaus	4/07/2000	4/07/2005	Valid	96.50	
Narkaus 6	7045/6	Narkaus	4/07/2000	4/07/2005	Valid	95.10	
Narkaus 7	7045/7	Narkaus	4/07/2000	4/07/2005	Valid	100.00	
Narkaus 8	7045/8	Narkaus	4/07/2000	4/07/2005	Valid	99.90	
Narkaus 9	7045/9	Narkaus	4/07/2000	4/07/2005	Valid	99.90	
Penikat 1	7019/1	Penikat	11/05/2000	11/05/2005	Valid	92.50	
Penikat 10	7019/10	Penikat	11/05/2000	11/05/2005	Valid	89.10	
Penikat 100	7208/12	Penikat	21/09/2001	21/09/2006	Valid	79.70	
Penikat 105	7208/13	Penikat	21/09/2001	21/09/2006	Valid	94.30	
Penikat 106	7208/14	Penikat	21/09/2001	21/09/2006	Valid	97.00	
Penikat 11	7019/11	Penikat	11/05/2000	11/05/2005	Valid	94.20	
Penikat 110	7208/15	Penikat	21/09/2001	21/09/2006	Valid	100.00	
Penikat 111	7208/16	Penikat	21/09/2001	21/09/2006	Valid	97.70	
Penikat 116	7208/17	Penikat	21/09/2001	21/09/2006	Valid	70.30	
Penikat 117	7208/18	Penikat	21/09/2001	21/09/2006	Valid	69.70	
Penikat 12	7019/12	Penikat	11/05/2000	11/05/2005	Valid	52.00	
Penikat 123	7208/19	Penikat	21/09/2001	21/09/2006	Valid	98.80	

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
Penikat 13	7019/13	Penikat	11/05/2000	11/05/2005	Valid	18.30	
Penikat 14	7019/14	Penikat	11/05/2000	11/05/2005	Valid	78.70	
Penikat 15	7019/15	Penikat	11/05/2000	11/05/2005	Valid	29.10	
Penikat 16	7019/16	Penikat	11/05/2000	11/05/2005	Valid	98.60	
Penikat 165	7208/20	Penikat	21/09/2001	21/09/2006	Valid	42.60	
Penikat 17	7019/17	Penikat	11/05/2000	11/05/2005	Valid	100.00	
Penikat 18	7019/18	Penikat	11/05/2000	11/05/2005	Valid	92.80	
Penikat 19	7019/19	Penikat	11/05/2000	11/05/2005	Valid	99.70	
Penikat 2	7019/2	Penikat	11/05/2000	11/05/2005	Valid	98.80	
Penikat 20	7019/20	Penikat	11/05/2000	11/05/2005	Valid	82.20	
Penikat 21	7019/21	Penikat	11/05/2000	11/05/2005	Valid	93.10	
Penikat 22	7019/22	Penikat	11/05/2000	11/05/2005	Valid	58.00	
Penikat 23	7019/23	Penikat	11/05/2000	11/05/2005	Valid	100.00	
Penikat 24	7019/24	Penikat	11/05/2000	11/05/2005	Valid	93.20	
Penikat 25	7019/25	Penikat	11/05/2000	11/05/2005	Valid	96.40	
Penikat 26	7019/26	Penikat	11/05/2000	11/05/2005	Valid	97.90	
Penikat 27	7019/27	Penikat	11/05/2000	11/05/2005	Valid	93.40	
Penikat 28	7019/28	Penikat	11/05/2000	11/05/2005	Valid	98.00	
Penikat 29	7019/29	Penikat	11/05/2000	11/05/2005	Valid	100.00	
Penikat 3	7019/3	Penikat	11/05/2000	11/05/2005	Valid	97.20	
Penikat 30	7019/30	Penikat	11/05/2000	11/05/2005	Valid	93.50	
Penikat 31	7019/31	Penikat	11/05/2000	11/05/2005	Valid	100.00	
Penikat 32	7019/32	Penikat	11/05/2000	11/05/2005	Valid	100.00	
Penikat 33	7019/33	Penikat	11/05/2000	11/05/2005	Valid	91.70	
Penikat 34	7019/34	Penikat	11/05/2000	11/05/2005	Valid	100.00	
Penikat 35	7019/35	Penikat	11/05/2000	11/05/2005	Valid	94.20	
Penikat 36	7019/36	Penikat	11/05/2000	11/05/2005	Valid	100.00	
Penikat 37	7019/37	Penikat	11/05/2000	11/05/2005	Valid	100.00	
Penikat 38	7019/38	Penikat	11/05/2000	11/05/2005	Valid	97.30	
Penikat 39	7019/39	Penikat	11/05/2000	11/05/2005	Valid	100.00	
Penikat 4	7019/4	Penikat	11/05/2000	11/05/2005	Valid	72.80	
Penikat 40	7019/40	Penikat	11/05/2000	11/05/2005	Valid	91.50	
Penikat 41	7019/41	Penikat	11/05/2000	11/05/2005	Valid	97.50	
Penikat 42	7019/42	Penikat	11/05/2000	11/05/2005	Valid	92.10	
Penikat 43	7019/43	Penikat	11/05/2000	11/05/2005	Valid	96.40	
Penikat 44	7019/44	Penikat	11/05/2000	11/05/2005	Valid	80.60	
Penikat 45	7019/45	Penikat	11/05/2000	11/05/2005	Valid	85.80	
Penikat 46	7019/46	Penikat	11/05/2000	11/05/2005	Valid	100.00	
Penikat 47	7019/47	Penikat	11/05/2000	11/05/2005	Valid	95.00	

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
Penikat 48	7019/48	Penikat	11/05/2000	11/05/2005	Valid	96.50	
Penikat 49	7019/49	Penikat	11/05/2000	11/05/2005	Valid	99.10	
Penikat 5	7019/5	Penikat	11/05/2000	11/05/2005	Valid	64.00	
Penikat 50	7019/50	Penikat	11/05/2000	11/05/2005	Valid	92.90	
Penikat 51	7019/51	Penikat	11/05/2000	11/05/2005	Valid	93.30	
Penikat 52	7019/52	Penikat	11/05/2000	11/05/2005	Valid	99.60	
Penikat 53	7019/53	Penikat	11/05/2000	11/05/2005	Valid	77.50	
Penikat 57	7208/1	Penikat	21/09/2001	21/09/2006	Valid	98.00	
Penikat 6	7019/6	Penikat	11/05/2000	11/05/2005	Valid	72.60	
Penikat 65	7208/2	Penikat	30/01/2002	31/12/2006	Valid	91.60	
Penikat 66	7208/3	Penikat	30/01/2002	31/12/2006	Valid	85.90	
Penikat 67	7208/4	Penikat	21/09/2001	21/09/2006	Valid	100.00	
Penikat 7	7019/7	Penikat	11/05/2000	11/05/2005	Valid	91.60	
Penikat 72	7208/5	Penikat	30/01/2002	31/12/2006	Valid	83.10	
Penikat 8	7019/8	Penikat	11/05/2000	11/05/2005	Valid	57.10	
Penikat 80	7208/6	Penikat	30/01/2002	31/12/2006	Valid	92.90	
Penikat 81	7208/7	Penikat	21/09/2001	21/09/2006	Valid	99.80	
Penikat 82	7208/8	Penikat	21/09/2001	21/09/2006	Valid	99.60	
Penikat 9	7019/9	Penikat	11/05/2000	11/05/2005	Valid	56.60	
Penikat 93	7208/9	Penikat	21/09/2001	21/09/2006	Valid	98.10	
Penikat 94	7208/10	Penikat	21/09/2001	21/09/2006	Valid	99.80	
Penikat 99	7208/11	Penikat	21/09/2001	21/09/2006	Valid	95.90	
Peräjärvi 1	7105/1	Narkaus	3/11/2000	3/11/2005	Valid	43.40	
Peräjärvi 2	7105/2	Narkaus	3/11/2000	3/11/2005	Valid	92.60	
Peräjärvi 3	7105/3	Narkaus	3/11/2000	3/11/2005	Valid	92.60	
Peräjärvi 4	7105/4	Narkaus	3/11/2000	3/11/2005	Valid	100.00	
Peräjärvi 5	7105/5	Narkaus	3/11/2000	3/11/2005	Valid	99.30	
Peräjärvi 6	7105/6	Narkaus	3/11/2000	3/11/2005	Valid	91.20	
Portimo -1	7206/1	Suhanko	22/10/2001	22/10/2006	Valid	45.90	
Portimo - 10	7206/10	Suhanko	22/10/2001	22/10/2006	Valid	12.20	Covered by APP mining licence applic.
Portimo - 11	7206/11	Suhanko	22/10/2001	22/10/2006	Valid	99.90	Covered by APP mining licence applic.
Portimo - 12	7206/12	Suhanko	22/10/2001	22/10/2006	Valid	98.70	Covered by APP mining licence applic.
Portimo - 14	7206/13	Suhanko	22/10/2001	22/10/2006	Valid	99.90	Covered by APP mining licence applic.

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
Portimo - 15	7206/14	Suhanko	22/10/2001	22/10/2006	Valid	97.60	Covered by APP mining licence applic.
Portimo - 16	7206/15	Suhanko	22/10/2001	22/10/2006	Valid	97.20	Covered by APP mining licence applic.
Portimo - 160	7206/60	Suhanko	22/10/2001	22/10/2006	Valid	38.20	
Portimo - 161	7206/61	Suhanko	22/10/2001	22/10/2006	Valid	35.00	
Portimo - 17	7206/16	Suhanko	22/10/2001	22/10/2006	Valid	86.60	Partly under APP mining licence applic.
Portimo - 18	7206/17	Suhanko	22/10/2001	22/10/2006	Valid	60.30	
Portimo - 19	7206/18	Suhanko	22/10/2001	22/10/2006	Valid	77.60	Partly under APP mining licence applic.
Portimo - 2	7206/2	Suhanko	22/10/2001	22/10/2006	Valid	99.10	Covered by APP mining licence applic.
Portimo - 20	7206/19	Suhanko	22/10/2001	22/10/2006	Valid	90.60	Covered by APP mining licence applic.
Portimo - 21	7206/20	Suhanko	22/10/2001	22/10/2006	Valid	82.50	Covered by APP mining licence applic.
Portimo - 22	7206/21	Suhanko	22/10/2001	22/10/2006	Valid	99.40	Covered by APP mining licence applic.
Portimo - 23	7206/22	Suhanko	22/10/2001	22/10/2006	Valid	97.70	Covered by APP mining licence applic.
Portimo - 24	7206/23	Suhanko	22/10/2001	22/10/2006	Valid	79.60	Partly under APP mining licence applic.
Portimo - 25	7206/24	Suhanko	22/10/2001	22/10/2006	Valid	99.00	Covered by APP mining licence applic.
Portimo - 26	7206/25	Suhanko	22/10/2001	22/10/2006	Valid	99.90	Covered by APP mining licence applic.
Portimo - 27	7206/26	Suhanko	22/10/2001	22/10/2006	Valid	99.90	Covered by APP mining licence applic.
Portimo - 28	7206/27	Suhanko	22/10/2001	22/10/2006	Valid	100.00	Covered by APP mining licence applic.
Portimo - 29	7206/28	Suhanko	22/10/2001	22/10/2006	Valid	99.40	Covered by APP mining licence applic.

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
Portimo -3	7206/3	Suhanko	22/10/2001	22/10/2006	Valid	99.00	Covered by APP mining licence applic.
Portimo - 30	7206/29	Suhanko	22/10/2001	22/10/2006	Valid	99.70	Partly under APP mining licence applic.
Portimo - 31	7206/30	Suhanko	22/10/2001	22/10/2006	Valid	94.70	
Portimo - 32	7206/31	Suhanko	22/10/2001	22/10/2006	Valid	36.20	
Portimo - 33	7206/32	Suhanko	22/10/2001	22/10/2006	Valid	100.00	Partly under APP mining licence applic.
Portimo - 38	7206/33	Suhanko	22/10/2001	22/10/2006	Valid	93.60	Partly under APP mining licence applic.
Portimo -4	7206/4	Suhanko	22/10/2001	22/10/2006	Valid	76.00	Covered by APP mining licence applic.
Portimo - 40	7206/34	Suhanko	22/10/2001	22/10/2006	Valid	48.50	Partly under APP mining licence applic.
Portimo - 41	7206/35	Suhanko	22/10/2001	22/10/2006	Valid	94.60	Partly under APP mining licence applic.
Portimo - 42	7206/36	Suhanko	22/10/2001	22/10/2006	Valid	93.30	
Portimo - 43	7206/37	Suhanko	22/10/2001	22/10/2006	Valid	92.90	
Portimo - 44	7206/38	Suhanko	22/10/2001	22/10/2006	Valid	61.40	
Portimo - 45	7206/39	Suhanko	22/10/2001	22/10/2006	Valid	81.80	Partly under APP mining licence applic.
Portimo - 47	7206/40	Suhanko	22/10/2001	22/10/2006	Valid	96.20	
Portimo - 48	7206/41	Suhanko	22/10/2001	22/10/2006	Valid	91.60	
Portimo - 49	7206/42	Suhanko	22/10/2001	22/10/2006	Valid	96.20	
Portimo -5	7206/5	Suhanko	22/10/2001	22/10/2006	Valid	100.00	Covered by APP mining licence applic.
Portimo - 50	7206/43	Suhanko	22/10/2001	22/10/2006	Valid	89.90	
Portimo - 51	7206/44	Suhanko	22/10/2001	22/10/2006	Valid	95.70	
Portimo - 53	7206/45	Suhanko	22/10/2001	22/10/2006	Valid	95.10	
Portimo - 54	7206/46	Suhanko	22/10/2001	22/10/2006	Valid	98.20	
Portimo - 55	7206/47	Suhanko	22/10/2001	22/10/2006	Valid	91.70	
Portimo - 56	7206/48	Suhanko	22/10/2001	22/10/2006	Valid	95.70	
Portimo - 57	7206/49	Suhanko	22/10/2001	22/10/2006	Valid	98.10	
Portimo - 58	7206/50	Suhanko	22/10/2001	22/10/2006	Valid	91.40	
Portimo - 59	7206/51	Suhanko	22/10/2001	22/10/2006	Valid	91.10	
Portimo -6	7206/6	Suhanko	22/10/2001	22/10/2006	Valid	99.50	Covered by APP mining licence applic.

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
Portimo - 60	7206/52	Suhanko	22/10/2001	22/10/2006	Valid	100.00	
Portimo - 61	7206/53	Suhanko	22/10/2001	22/10/2006	Valid	90.50	
Portimo - 62	7206/54	Suhanko	22/10/2001	22/10/2006	Valid	64.70	
Portimo - 63	7206/55	Suhanko	22/10/2001	22/10/2006	Valid	37.70	
Portimo - 65	7206/56	Suhanko	22/10/2001	22/10/2006	Valid	97.70	
Portimo - 67	7206/57	Suhanko	22/10/2001	22/10/2006	Valid	96.90	
Portimo - 69	7206/58	Suhanko	22/10/2001	22/10/2006	Valid	100.00	
Portimo -7	7206/7	Suhanko	22/10/2001	22/10/2006	Valid	98.70	Covered by APP mining licence applic.
Portimo - 70	7206/59	Suhanko	22/10/2001	22/10/2006	Valid	95.60	
Portimo -8	7206/8	Suhanko	22/10/2001	22/10/2006	Valid	100.00	Covered by APP mining licence applic.
Portimo -9	7206/9	Suhanko	22/10/2001	22/10/2006	Valid	100.00	Covered by APP mining licence applic.
Portimo 101	7119/6	Narkaus	3/10/2001	3/10/2006	Valid	99.00	
Portimo 102	7119/7	Narkaus	3/10/2001	3/10/2006	Valid	98.80	
Portimo 105	7119/8	Narkaus	3/10/2001	3/10/2006	Valid	100.00	
Portimo 106	7119/9	Narkaus	3/10/2001	3/10/2006	Valid	98.70	
Portimo 107	7119/10	Narkaus	3/10/2001	3/10/2006	Valid	58.30	
Portimo 108	7119/11	Narkaus	3/10/2001	3/10/2006	Valid	99.40	
Portimo 115	7119/12	Narkaus	3/10/2001	3/10/2006	Valid	100.00	
Portimo 116	7119/13	Narkaus	3/10/2001	3/10/2006	Valid	99.00	
Portimo 117	7119/14	Narkaus	3/10/2001	3/10/2006	Valid	99.10	
Portimo 121	7119/15	Narkaus	3/10/2001	3/10/2006	Valid	99.40	
Portimo 122	7119/16	Narkaus	3/10/2001	3/10/2006	Valid	99.30	
Portimo 123	7119/17	Narkaus	3/10/2001	3/10/2006	Valid	99.20	
Portimo 124	7119/18	Narkaus	3/10/2001	3/10/2006	Valid	100.00	
Portimo 128	7119/19	Narkaus	3/10/2001	3/10/2006	Valid	100.00	
Portimo 129	7119/20	Narkaus	3/10/2001	3/10/2006	Valid	99.70	
Portimo 130	7119/21	Narkaus	3/10/2001	3/10/2006	Valid	100.00	
Portimo 135	7119/23	Narkaus	3/10/2001	3/10/2006	Valid	96.60	
Portimo 141	7119/24	Narkaus	3/10/2001	3/10/2006	Valid	34.60	
Portimo 145	7119/25	Narkaus	3/10/2001	3/10/2006	Valid	98.70	
Portimo 146	7119/26	Narkaus	3/10/2001	3/10/2006	Valid	100.00	
Portimo 148	7119/27	Narkaus	3/10/2001	3/10/2006	Valid	100.00	
Portimo 162	7119/29	Narkaus	3/10/2001	3/10/2006	Valid	46.60	

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
Portimo 163	7119/30	Narkaus	3/10/2001	3/10/2006	Valid	10.99	
Portimo 164	7409/1	Narkaus	7/05/2002	7/05/2007	Valid	100.00	
Portimo 165	7409/2	Narkaus	7/05/2002	7/05/2007	Valid	99.90	
Portimo 80	7119/1	Narkaus	3/10/2001	3/10/2006	Valid	80.20	
Portimo 81	7119/2	Narkaus	3/10/2001	3/10/2006	Valid	97.20	
Portimo 82	7119/3	Narkaus	3/10/2001	3/10/2006	Valid	99.40	
Portimo 89	7119/4	Narkaus	3/10/2001	3/10/2006	Valid	99.80	
Portimo 90	7119/5	Narkaus	3/10/2001	3/10/2006	Valid	98.80	
Ristiaapa 1	7545/1	Narkaus	20/01/2003	31/12/2007	Valid	99.00	
Ristiaapa 2	7545/2	Narkaus	20/01/2003	31/12/2007	Valid	98.50	
Saariaapa 1	7518/1	Narkaus	20/01/2003	31/12/2007	Valid	96.70	
Saariaapa 2	7518/2	Narkaus	20/01/2003	31/12/2007	Valid	98.20	
Saariaapa 3	7518/3	Narkaus	20/01/2003	31/12/2007	Valid	97.80	
Saukkosuo	5426/1	Suhanko	23/08/1994	31/12/2001	Valid	98.00	Covered by APP mining licence applic.
Saunakivalo 1	7104/1	Narkaus	3/11/2000	3/11/2005	Valid	100.00	
Saunakivalo 10	7104/10	Narkaus	3/11/2000	3/11/2005	Valid	100.00	
Saunakivalo 11	7104/11	Narkaus	3/11/2000	3/11/2005	Valid	99.40	
Saunakivalo 12	7104/12	Narkaus	3/11/2000	3/11/2005	Valid	99.90	
Saunakivalo 13	7104/13	Narkaus	3/11/2000	3/11/2005	Valid	92.70	
Saunakivalo 14	7104/14	Narkaus	3/11/2000	3/11/2005	Valid	85.40	
Saunakivalo 15	7104/15	Narkaus	3/11/2000	3/11/2005	Valid	99.50	
Saunakivalo 16	7104/16	Narkaus	3/11/2000	3/11/2005	Valid	31.00	
Saunakivalo 2	7104/2	Narkaus	3/11/2000	3/11/2005	Valid	100.00	
Saunakivalo 3	7104/3	Narkaus	3/11/2000	3/11/2005	Valid	100.00	
Saunakivalo 4	7104/4	Narkaus	3/11/2000	3/11/2005	Valid	99.80	
Saunakivalo 5	7104/5	Narkaus	3/11/2000	3/11/2005	Valid	100.00	
Saunakivalo 6	7104/6	Narkaus	3/11/2000	3/11/2005	Valid	99.40	
Saunakivalo 7	7104/7	Narkaus	3/11/2000	3/11/2005	Valid	100.00	

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
Saunakivalo 8	7104/8	Narkaus	3/11/2000	3/11/2005	Valid	100.00	
Takakangas 2	7631/1	Penikat	20/08/2003	20/08/2008	Valid	44.40	
Vihvilöjämä 2	7631/2	Penikat	20/08/2003	20/08/2008	Valid	42.70	
Yliportimo 1	7103/1	Suhanko	15/11/2000	15/11/2005	Valid	94.20	
Yliportimo 10	7103/10	Suhanko	15/11/2000	15/11/2005	Valid	100.00	
Yliportimo 11	7103/11	Suhanko	15/11/2000	15/11/2005	Valid	98.20	
Yliportimo 12	7103/12	Suhanko	15/11/2000	15/11/2005	Valid	100.00	
Yliportimo 13	7103/13	Suhanko	15/11/2000	15/11/2005	Valid	100.00	
Yliportimo 14	7103/14	Suhanko	15/11/2000	15/11/2005	Valid	93.30	
Yliportimo 15	7103/15	Suhanko	15/11/2000	15/11/2005	Valid	94.20	
Yliportimo 16	7103/16	Suhanko	15/11/2000	15/11/2005	Valid	100.00	
Yliportimo 17	7103/17	Suhanko	15/11/2000	15/11/2005	Valid	100.00	
Yliportimo 18	7103/18	Suhanko	15/11/2000	15/11/2005	Valid	100.00	
Yliportimo 19	7103/19	Suhanko	15/11/2000	15/11/2005	Valid	100.00	
Yliportimo 2	7103/2	Suhanko	15/11/2000	15/11/2005	Valid	87.10	
Yliportimo 20	7103/20	Suhanko	15/11/2000	15/11/2005	Valid	91.80	
Yliportimo 21	7103/21	Suhanko	15/11/2000	15/11/2005	Valid	93.10	
Yliportimo 22	7103/22	Suhanko	15/11/2000	15/11/2005	Valid	92.80	
Yliportimo 23	7103/23	Suhanko	15/11/2000	15/11/2005	Valid	100.00	
Yliportimo 24	7103/24	Suhanko	15/11/2000	15/11/2005	Valid	69.60	
Yliportimo 25	7103/25	Suhanko	15/11/2000	15/11/2005	Valid	82.00	
Yliportimo 26	7103/26	Suhanko	15/11/2000	15/11/2005	Valid	83.00	
Yliportimo 27	7103/27	Suhanko	15/11/2000	15/11/2005	Valid	40.50	
Yliportimo 3	7103/3	Suhanko	15/11/2000	15/11/2005	Valid	92.00	
Yliportimo 4	7103/4	Suhanko	15/11/2000	15/11/2005	Valid	88.70	

Claim name	Claim No.	Project	Date granted	Date of expiry	Status	Area (ha)	Comments
Yliportimo 5	7103/5	Suhanko	15/11/2000	15/11/2005	Valid	95.60	
Yliportimo 6	7103/6	Suhanko	15/11/2000	15/11/2005	Valid	95.80	
Yliportimo 7	7103/7	Suhanko	15/11/2000	15/11/2005	Valid	95.80	
Yliportimo 8	7103/8	Suhanko	15/11/2000	15/11/2005	Valid	96.00	
Yliportimo 9	7103/9	Suhanko	15/11/2000	15/11/2005	Valid	93.40	

4.3 Location of mineralisation

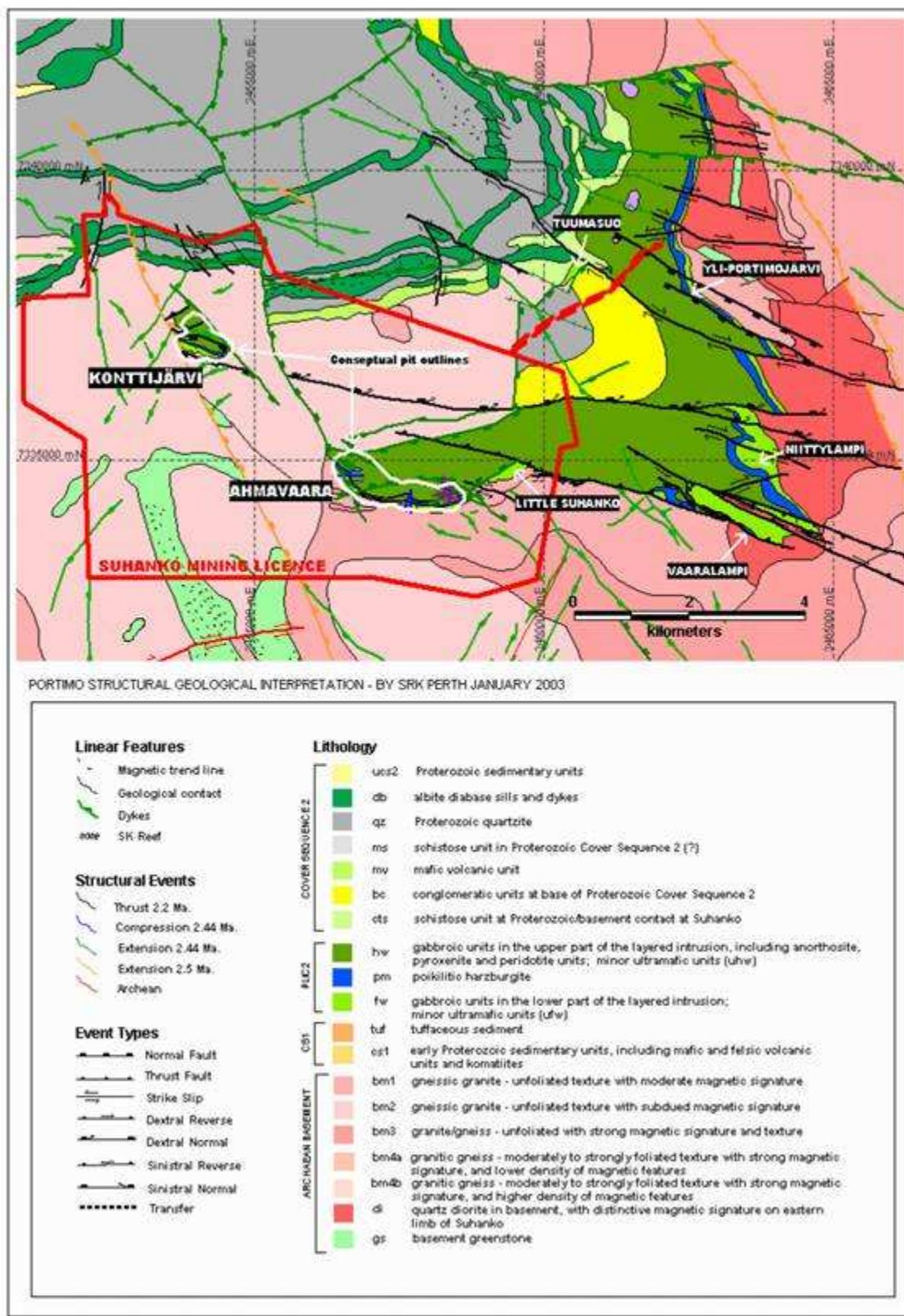
Within the Suhanko project area, mineralisation occurs in the areas shown in Figure 4.2. Note that only the first three below are within the mining lease.

In summary, these are:

- Ahmavaara;
- Konttijärvi;
- Little Suhanko;
- Vaaralampi;
- Tuumasuo;
- Nittylampi; and
- Yli Portimo.

Gold Fields has reported Mineral Resources at Konttijärvi and Ahmavaara – these are detailed in 15. Drilling has defined potentially economic mineralisation at all other prospects.

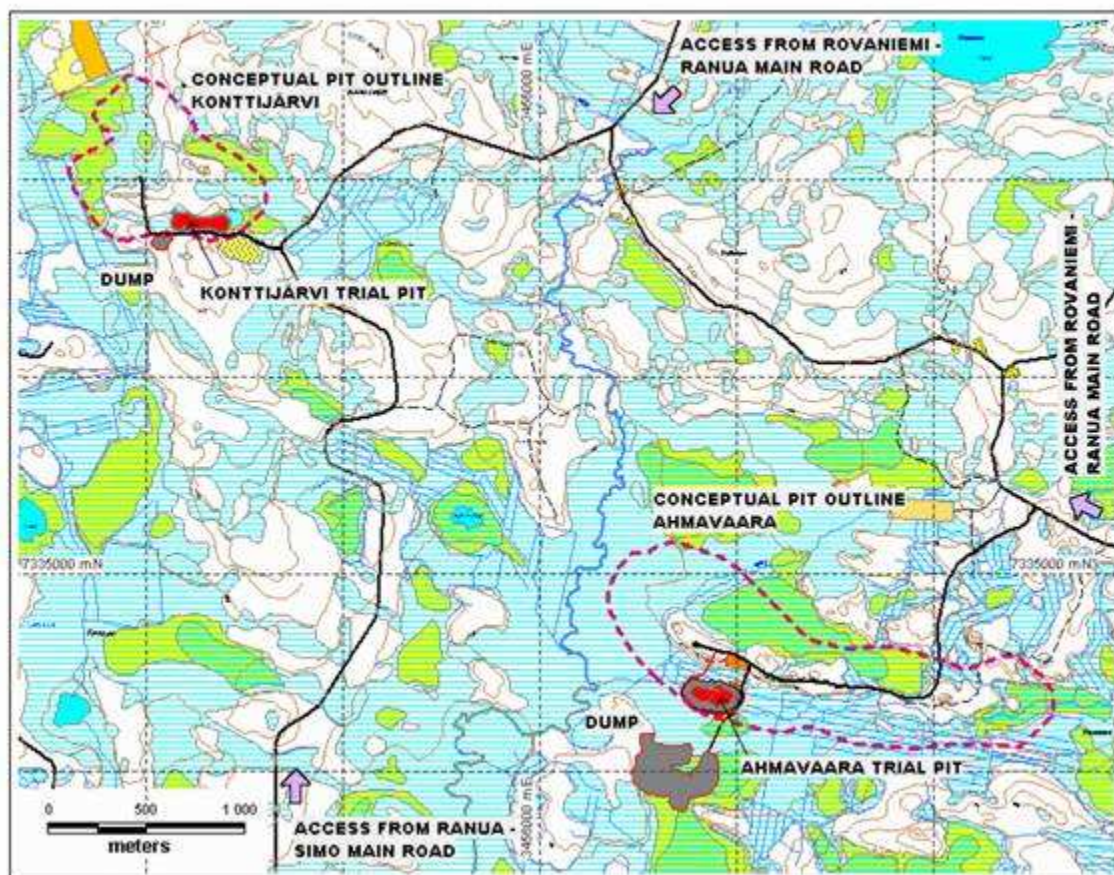
Figure 4.2 Suhanko area geology and location of deposits



4.4 Location of mine workings

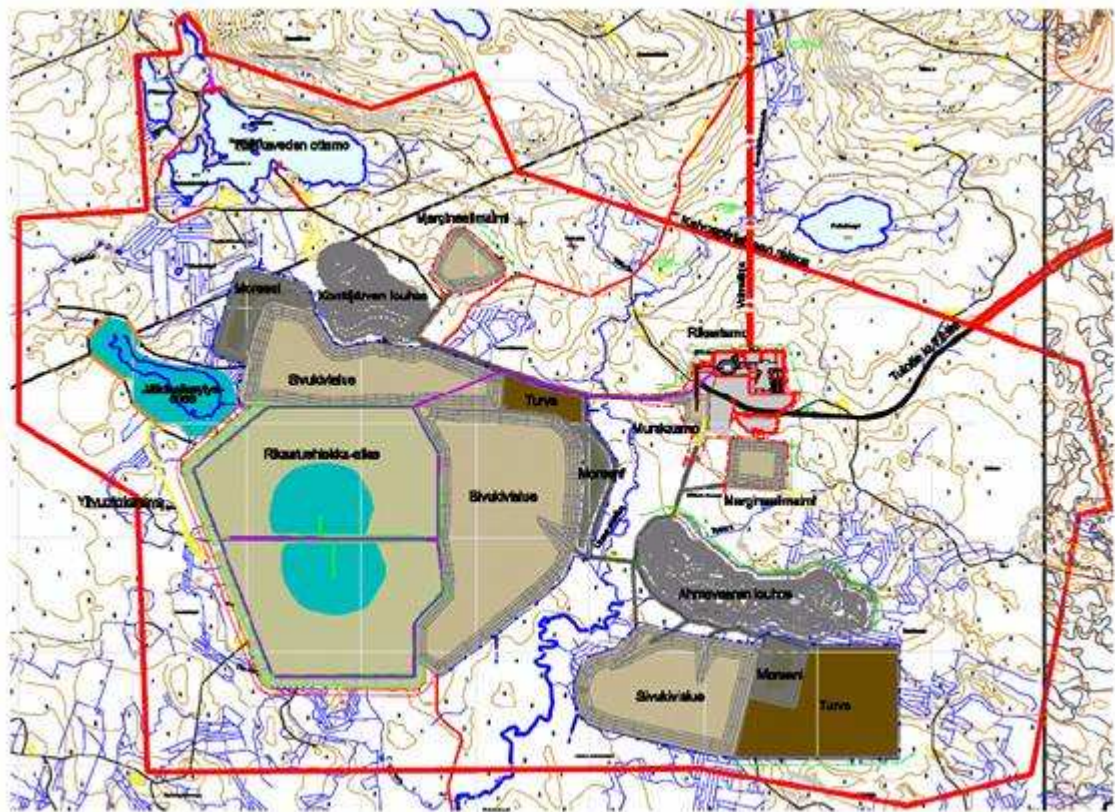
The Suhanko project area contains two trial mining areas, at Konttijärvi and Ahmavaara respectively. These areas have been subject to several phases of trial mining, with the most recent phase of mining (by GFAP) taking place between March and April 2004. The trial pits are illustrated in Figure 4.3. There has been no trial mining on the

Figure 4.3 Suhanko area plan showing location of trial mine areas



The Environmental Permit application for the Suhanko Project has been submitted (see Section 4.5). A proposed site layout (Figure 4.4) for the Suhanko Project was included in this application highlighting possible positions of offices, processing facilities, mine excavations, waste dumps and tailings storage facilities.

Figure 4.4 Possible Suhanko Project Site Plan submitted with Environmental Permit Application, North to top of page



4.5 Environmental obligations

There are no current environmental obligations of significance outstanding. At the Ahmavaara trial mine the pumping waters and their impact on local surface waters are required to be monitored until the year end or as long as dewatering is continued. In case the Suhanko Project stops, the pit can be left to flood to ground water level. Rehabilitation of other test pits has been completed.

The Environmental Permit application for Suhanko Project and mining licence has been submitted to the Northern Finland Environmental Permit Authority and the rehabilitation bond for the Suhanko Mine will be determined during the course of the application process.

4.6 Permitting

The renewed Suhanko mining licence (mining concession) application was submitted to the Ministry of Trade and Industry on 27 May 2004. According to current schedule the Ministry of Trade and Industry is expected to issue a concession certificate before May 2005. When granted, the concession certificate will give GFAP the right to process and utilise all extractable minerals within the concession and to use the area for any mining and processing activities.

The Environmental Permit application for Suhanko Project and mining licence was submitted to Northern Finland Environmental Permit Authority on 18 June 2004. The decision on the application is expected in May 2005.

The Energy Market Authority issued a construction permit for the Petäjäsoski – Konttijärvi 110 kV overhead transmission line on 12th August 2004. Yet to be applied for are the acceptance for general plan for mining (KTM 1975/921) from the Safety Technology Authority, the construction licence for buildings and workshops, the environmental permit for fuel storage as well as a number of other minor permits.

5 Accessibility, Climate, and Physiography

5.1 Access ibility

The Suhanko and Narkaus areas are located 60 km and 45km to the southeast of Rovaniemi respectively. The city of Rovaniemi, the major regional centre for northern Lappi Finland, is situated immediately south of the Arctic Circle. With a population of 35,000, and a regional population of approximately 55,000, the city provides all major and modern amenities expected of a capital city. Transportation services include road, rail and air, with multiple flights daily from Helsinki. The port of Kemi, 120km to the south at the head of the Gulf of Bothnia, provides modern facilities and year round open water access.

Access to both Konttijärvi and Ahmavaara is via a sealed road to within 15 kilometres of the project location, and thence by a well-maintained track. All-weather access on the non-sealed roads will be guaranteed by the use of snowploughs during the autumn and winter months. No power or water is currently reticulated to site.

Access to the Narkaus Project is via a sealed road to within 10 kilometres to 15 kilometres of the project location, and thence by a well-maintained track. All-weather access on the non-sealed roads will be guaranteed by the use of snowploughs during the autumn and winter months. No power or water is currently reticulated to site,

5.2 Physiography

5.2.1 Climate and Vegetation

The Suhanko and Narkaus project areas are situated immediately south of the Arctic Circle. The climate in the region is typically Arctic, and is characterised by extreme seasonal changes in temperatures and sunlight. The influence of the Gulf Stream acts to moderate the climatic conditions in comparison to similar latitudes in northern Canada. General climatic data for the project area is shown in Table 5.1 (Lycopodium, 2002). It is expected that mining will take place all year round.

Table 5.1 General Climatic Data for the Suhanko and Narkaus Project Areas (Lycopodium, 2002)

Data	Parameter	Units	Value
Altitude	Height Range	MAMSL	150-160
	Mean	°C	0.2
Temperature	Maximum Recorded	°C	30.6
	Maximum Mean (July)	°C	19.7
	Minimum Recorded	°C	-45.3
	Minimum Mean (Dec)	°C	-20.0
	Effective Total (rainfall plus snowmelt equivalent)	mm/yr	564
Precipitation	Rainfall (May to September)	mm/yr	292
	Snowfall (October to April) #	mm/yr	272
	Snow stays on the ground	days/yr	183
Lake Evaporation	Annual Total (May to September)	mm/yr	417
Relative Humidity	Design	%	80-90
Prevailing Wind	Speed	m/sec	1-5 240 °
	Direction		
Solar Radiation	December	hrs/month	5
	June	hrs/month	300

Snowmelt equivalents are calculated at a 10:1 snow to water ratio

The local vegetation comprises pine forest and marshland. There is one large lake within the Suhanko site area, Palolampi, and there are several lakes surrounding the site, i.e. Konttijärvi, Takalampi and Pitkälampi.

The nearest watercourse is the River Ruonajoki, approximately 4 km from the proposed open pit locations.

The Siika Kama deposit is covered approximately 30% by permanent lakes in the east and a smaller one in the central part. Nutturalampi has two small permanent lakes covering the deposit area, while there are no substantial water bodies or courses in the Kuohunki area.

5.2.2 Topography

The topography of the Suhanko project area comprises a gently sloping valley at the northern end, which flattens out at the southern end. The terrain in the vicinity of the Konttijärvi and Ahmavaara deposits slopes gently towards the southeast from a high point of 165 mRL in the south-eastern corner of the Konttijärvi area, to a low point of 140 mRL at Ahmavaara. The distance between the two deposits is approximately 3.5 km. The main waterway in the area, the Ruonajoki stream, flows through the middle of the site in an approximately north-south direction and has a catchment area of approximately 1,355 hectares (13.55 km²).

The topography of the Narkaus project comprises a generally flat terrain with low hills in the Kuohunki – Nutturalampi area. The Siika Kama area is covered in a great part by lake and swamps. Access for drilling has traditionally been during winter.

periods when frozen swampy ground and snow permit easier access. The average elevation over the area is approximately 185 mRL. The land rises gradually from Siika Kama in the south to Kouhunki in the north, to an average elevation for Kuohunki – Nutturalampi of 200 mRL.

5.2.3 Weathering

The advance of glaciers and ice sheets during glacial periods has removed any residual solid and weathered rock. As a result, a weathered profile does not exist within the Suhanko or Narkaus project areas. The overburden, or glacial till, directly overlies fresh to slightly weathered rock. The glacial till consists of angular to slightly rounded boulders in a predominantly sandy matrix, which ranges between clay and gravel. The depth is variable. Thicknesses range between 0 m and 40 m (average 5 m) at Konttijarvi, 2 m and 30 m (average 8 m) at Ahmavaara, and between 5 m and 30 m (average 15 m) at the Narkaus SK deposits.

5.2.4 Groundwater

Based upon limited groundwater within the bedrock as well as the low pump rates achieved during pump testing, it is anticipated that once the primary dewatering of the rock mass has occurred, pit groundwater inflows will be low (Knight Piésold, 2002a, 2002b, 2002c). An analysis of the pump test data that assumes the bedrock acts as an isotropic mass, indicates that groundwater inflows in the order of $80 \text{ m}^3/\text{hr}$ can be anticipated for the Konttijarvi pit. Quantification of inflows from individual structural features cannot be conducted at this time, however it is recommended that identification and testing of these features and flow estimates can be made in further studies.

Minimum pumping requirements are anticipated to be on the order of $120 \text{ m}^3/\text{hr}$ for the Ahmavaara pit. This flow rate may be exceeded during the spring thaw period depending on the volume of snow and ice present within the pit.

In addition to groundwater inflows, additional water will report to the pits due to precipitation. Based upon average monthly precipitation values, resultant inflows will range from zero in the winter months (assuming all precipitation occurs as snow and is removed with ore/waste rock) to a peak in August.

No groundwater test programs have been completed at Narkaus. Initial indications derived from observations during drilling are that conditions are similar to those observed at Suhanko.

6 History of exploration

6.1 Early exploration

The earliest recorded exploration of the Suhanko project area describes bedrock mapping in the Portimo area by Hackman in 1910 (Hackman, 1914). More recently, mineralisation was noted in boulders found by a local farmer in the early 1960s on the eastern shore of Lake Yli-Portimojärvi, which is located in the Portimo Complex area.

Outokumpu Oy commenced a Cu-Ni exploration program in the Suhanko area using magnetic and electro-magnetic ground geophysical survey methods in conjunction with extensive geological mapping and drilling in 1964. The discovery hole, RN/YP-1, drilled on Lake Yli-Portimojärvi, intersected the first Marginal series mineralization in the Suhanko-Konttijärvi intrusion. Exploration continued until 1981, focused on the disseminated and massive sulphide mineralization in the basal part of the Suhanko Intrusion. Exploration of the Marginal series mineralization was extended to other prospective areas, which included Niittylampi and Suhanko. The smaller Konttijärvi intrusion block was discovered following geological mapping and assaying, which led to the first observations of platinum group elements (PGE) from sulphidic samples.

6.2 Konttijärvi

Further work by Outokumpu Oy in 1981 that checked historical PGE assays of outcrop samples taken in the 1970s determined that true values were three to four times higher than first reported. This motivated a small drilling campaign and the first drillhole, RN/KOJ-1, drilled in September 1981 intersected significant sulphidic PGE mineralization. A further four drillholes were completed, and all intersected significant mineralization. Thus Konttijärvi became the first significant PGE discovery in Finland.

Following these successful results, the area was covered by a ground magnetic survey and also by a small number of geochemical till sampling lines. The magnetic survey detected the location of the Peridotite Marker and the geochemical sampling confirmed the existence of a significant width of PGE mineralization within the intrusion block.

During the next phase of exploration, Outokumpu Oy drilled 14 drillholes with the objective of infilling the mineralized area. The results obtained confirmed the regular and continuous character of the deposit.

The Mining Services department of Outokumpu Oy organised the next exploration phase, which was designed to collect data for an economic evaluation of the Konttijärvi and Kilvenjärvi deposits. In addition, an area at the eastern end of the deposit was pre-stripped and a pilot size metallurgical sample was collected.

The final exploration phase by Outokumpu included the drilling and sampling of drillholes RN/KOJ-160 to 161 (two drillholes) to test some outcrops to the south of pre-stripped area in rocks that stratigraphically form the basement of the Marginal series mineralisation. Sulphides and PGE values were recorded within these basement rocks at some distance from the known basal contact of the intrusion.

The total amount of drilling at Konttijärvi before the formation of GFAP was 160 holes for 10,295 m.

6.3 Ahmavaara

The Ahmavaara deposit was discovered by applying the exploration model developed from the Konttijärvi data. Based on this model, and a ground magnetic survey, which identified the location of the all-important peridotite marker, the first seven drillholes, RN/YP-138 to 144 were completed. Laboratory-scale metallurgical test results, supported by a microscopic study of the later drillholes, showed that Ni,Cu and PGE could be concentrated at fairly good recovery rates at Ahmavaara. An additional 12 holes, RN/YP-172 to 183, were drilled in Ahmavaara in 1995 to search for nickel.

The total amount of drilling at Ahmavaara before the formation of GFAP was 29 holes for 3,322 m.

6.4 APP - GFAP Activity

Arctic Platinum Partnership ('APP') was a joint venture company formed by partnership agreement between Gold Fields and Outokumpu. APP's objective was to explore for, and produce, platinum group metals in northern Finland. The partnership agreement was signed on 17 March 2000, with Gold Fields as operator. Gold Fields earned its planned ownership threshold of 51% in January 2002 when project expenditure reached an aggregate amount of US\$13 million. Gold Fields acquired 100% of the project on September 10, 2003 by purchasing Outokumpu's 49% share for US\$ 31.0 million. In July 2004 the company was transferred from partnership status to a limited liability company – Gold Fields Arctic Platinum Oy, 'GFAP' – which is a 100% owned subsidiary of Gold Fields Limited.

Since inception, APP - GFAP has carried out both exploration and sterilisation drilling, and has also used a variety of other exploration techniques to develop and explore the Konttijärvi and Ahmavaara deposits. These include airborne magnetic, electro-magnetic and ground induced polarization (IP) surveys. Drilling by GFAP is summarized in Table 6.1, by year and deposit.

Table 6.1 GFAP drilling since inception to June 2004

Area	2000		2001		2002		2003		2004	
	#	(m)	#	(m)	#	(m)	#	(m)	#	(m)
Konttijärvi	66	6,238	118	16,491	78	11,065	116	5,437	92	9,607
Ahmavaara	17	2,190	144	18,157	99	14,332	44	5,699	103	12,528
Sterilisation drilling	—	—	13	477	85	5807	—	—	11	251
SK Reef	11	1,147	87	16,092	88	16,638	74	11,865	—	—

All drilling by Outokumpu, APP and GFAP, excluding some blastholes in the test pits, has been by diamond core. Core diameter is typically 57.5mm. Of 260 drill holes drilled at the SK deposits there have been 23 deflection holes.

6.5 Historical Mineral Resource Estimates

There was no publication of Mineral Resource estimates by Outokumpu. There was no publication of Mineral Resource estimates by Outokumpu. The first published resource estimate was by APP in August 2000. Updates have been reported annually since then. Details of the current resource estimate are provided in Section 15.

6.6 Production

The only mining by GFAP from Konttijärvi and Ahmavaara was via the excavation of a test pit at each prospect in April 2004. The objective of the mining exercise was twofold;

- to collect a bulk sample for metallurgical test work at the GTK (or Finland Geological Survey) owned concentrator in the town of Outokumpu; and
- to undertake material properties testwork for drillability and blasting of the various rock types present within the Suhanko mine environment.

The results from mining demonstrated largely that the grades of the elements of interest (palladium, platinum, gold, copper and nickel) matched both the exploratory diamond drilling and the blasthole grade control drilling for the trial pit.

Geological details of the test mining are provided in BMGS (2004). There has been no production from any of the SK deposits.

7 Geological Setting

7.1 General geological setting

The Suhanko project area is located in northern Finland, about 40 km south of Rovaniemi, and comprises the 2.4 Ga-old Suhanko-Konttijärvi layered intrusion rock types and adjacent areas. The Suhanko-Konttijärvi, Narkaus and Siika-Kamaintrusions form part of a group of Palaeoproterozoic layered intrusions, which are exposed as an east-west oriented, widespread band extending from northeastern Sweden to the Kola region in Russia. All known intrusions are located along the northern margin of the Archaean basement, close to or in contact with the Palaeoproterozoic supracrustal rocks. These mafic rocks have been interpreted as representing the initial stage of the continental rifting. Many of the intrusions are located close to each other, thus forming igneous complexes in which the individual intrusions were probably connected by dykes or intermediate magma chambers at the time of emplacement. The current distribution of layered intrusions suggests that they are remnants of larger bodies preserved within folds and faulted structures.

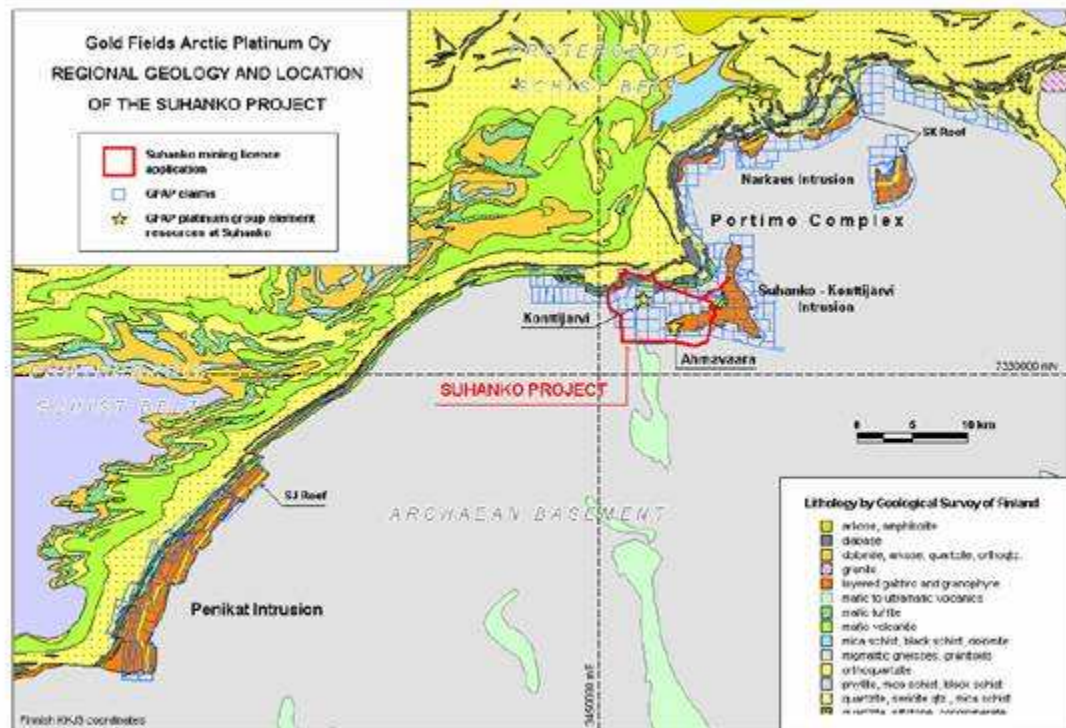
Archaean and early Proterozoic rocks underwent amphibolite facies metamorphism during the Sveco-Fennian deformation some 1850-1800 Ma ago. The Archaean basement is mainly composed of tonalite-trondhjemite-granodiorite series, granitoid gneisses and migmatitic gneisses with mafic and felsic enclaves. Palaeoproterozoic supracrustal rocks consist of metamorphosed sedimentary and volcanic rocks, which presently are amphibolites, schists and gneisses. Conglomerates containing clasts of layered mafic rocks are exposed along the roof contact of Kemi, Penikat and Narkaus intrusions attesting to erosion of basement and layered intrusions during early Proterozoic times.

7.2 Regional Geology

The Suhanko-Konttijärvi layered intrusion comprises the south-western parts of the Portimo layered intrusion complex, which consists of the Suhanko-Konttijärvi, Narkaus and Siika Kämä intrusions and dykes of approximately the same age, named Portimo dykes. The Portimo complex resembles the nearby Penikat intrusion in many respects. Both are composed of several megacyclic units and have crystallized from two distinct parental magma types. The first intruded magma type was a high Cr-high MgO magma, which was followed by intrusion of low Cr-low MgO magma. Hangingwall gabbroic cumulates exposed at the present erosion level in the Suhanko-intrusion belong to the third, low Cr-low MgO megacyclic unit. Northeastern parts of the Portimo complex were uplifted higher by the tectonic movements after crystallization, and are more deeply eroded. In spite of the regional amphibolite facies metamorphism and mineral alteration, igneous textures are generally well preserved in the Suhanko-Konttijärvi layered series rocks. Figure 7.1 shows the regional geology and highlights the location of the Suhanko project. Basement rocks are mainly banded gneisses and late Archaean granitoids, which are mostly comprised of diorite and granodiorite. Granitoids contain varying amounts of oriented mafic enclaves, some having more gneissose texture than the others. In addition, granite types occur in the area. Some of the granites are pinkish in color, indicating the presence of potash feldspar, and some are plagioclase-rich. Amphibolites are encountered alongside granitoids, with their banding merging with that of gneisses.

To the southwest of the Suhanko project, quartzites and impure meta-sediments belonging to the north-south oriented volcanic rock dominated Archaean Oijärvi greenstone belt are encountered.

Figure 7.1 Regional geology of the Suhanko and Narkaus Projects



Present roof rocks, in addition to the Archaean granitoids, are Palaeoproterozoic supracrustal meta-volcanites and metasediments, which consist of different kinds of schists and gneisses. These supracrustal rocks belong to the Karelia Supergroup and cover a rather small area in the central part of Suhanko intrusion. The present Archaean-Proterozoic contact zone occurs north of the Suhanko-Konttijärvi intrusion. Younger albite diabase dykes and sills cut Archaean basement and Proterozoic rocks. Sills crosscutting Proterozoic rocks occur somewhat parallel to bedding. Basement granitoids at Suhanko-Konttijärvi region are also cross-cut by mafic to ultramafic sills and veins, which are co-magmatic with layered intrusion rocks, and by granite pegmatite veins.

Outcrop in the Suhanko area is infrequent and scattered. Slightly weathered to fresh rocks are overlain by glacial till, limiting the presence of surface outcrop to elevated ground or areas with steep relief. The thickness of overburden varies from under one meter to more than fifty meters. Low-lying areas are dominantly marsh.

The Suhanko-Konttijärvi intrusion consists of two bodies separated by Archaean basement rocks. The small Konttijärvi deposit is situated 3.5 km northwest of the larger Suhanko body. The Ahmavaara deposit, is located at the western edge of Suhanko. Konttijärvi is regarded as a faulted offset and subsequent erosion of the Suhanko intrusion, because of the similar stratigraphic succession and style of mineralization as Ahmavaara.

The Konttijärvi deposit has a strike length of approximately 1000 m. The orebody dips north at between 10° and 20° in the eastern part, to between 30° and 40° in the central and western parts. The northern part of the orebody, Konttijärvi North, is divided from the main orebody by the Konttijärvi fault (N1-fault), which brings the mineralized succession back to surface on the northern side of the fault. Konttijärvi North is divided into two fault blocks, by a reverse fault (R1-fault). The northern extent of Konttijärvi North is terminated against a second normal fault (N2-fault). Both normal faults are inclined towards the south at approximately 50°, although local variations and a faulted zone are present. The subcrop of the Konttijärvi

mineralisation, along with the drill collars present as of September 2004, is shown in Figure 7.2. A typical cross section through Konttijärvi is shown in Figure 7.3.

Figure 7.2 Outline of Subcrop Mineralisation and drill hole collars - Konttijärvi

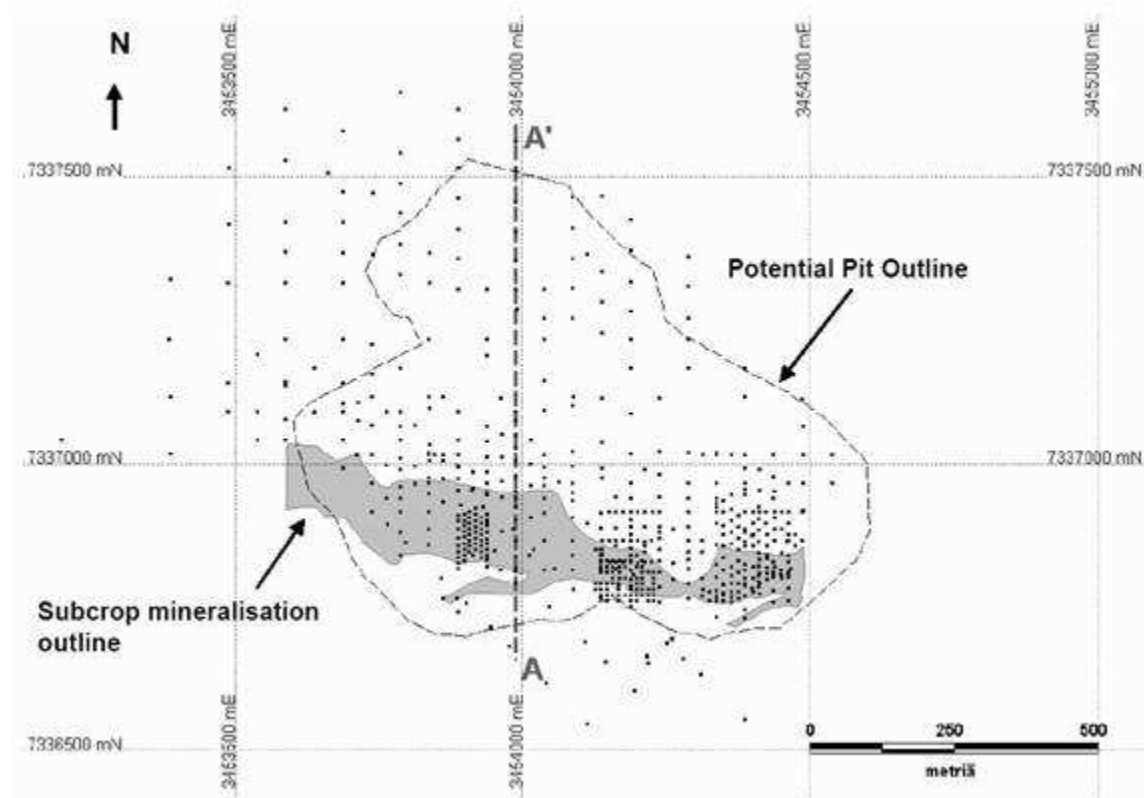
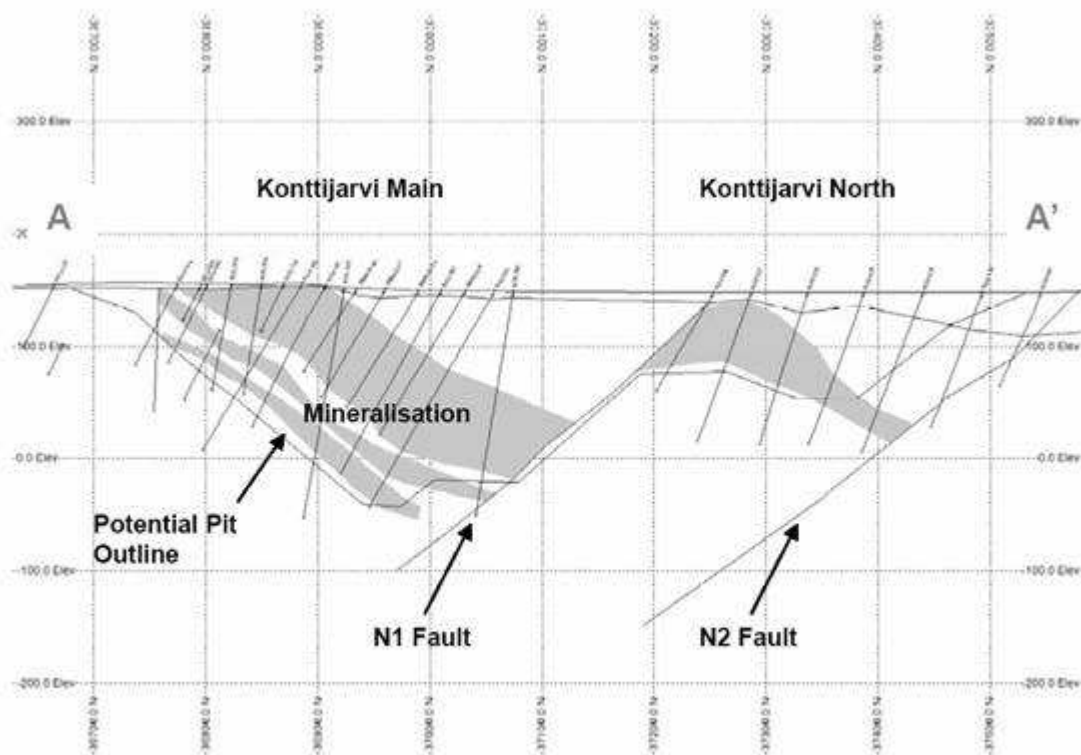


Figure 7.3 Cross section Konttijärvi showing Fault Blocks



A reverse fault (R1-fault) in the west of Konttijärvi results in fault block 1, which hosts the deepest known mineralization present. The deepest known layered series mineralization is approximately 250 m below surface.

The Ahmavaara deposit has a strike length of 2,700 meters, of which the easternmost 1000 m is termed Ahmavaara East. The western part of the deposit dips to the northeast with dips ranging from 70° along the southwestern margin to 5° in the northeastern side of the deposit. Ahmavaara East dips north with fairly constant 10-25° dips. The deposits' western and southern limits are defined by fault-disrupted lithological contacts with Archaean basement rocks. The northern extent is limited by a normal fault (N5-fault), and the northeastern part is currently terminated against a smaller reverse fault (R3-fault). The deepest known layered series mineralization at Ahmavaara is approximately 500 m below surface. The subcrop of the Ahmavaara mineralisation is given in Figure 7.4, and a typical crosssection is presented in Figure 7.5.

Figure 7.4 Outline of Subcrop Mineralisation and drill hole collars - Ahmavaara

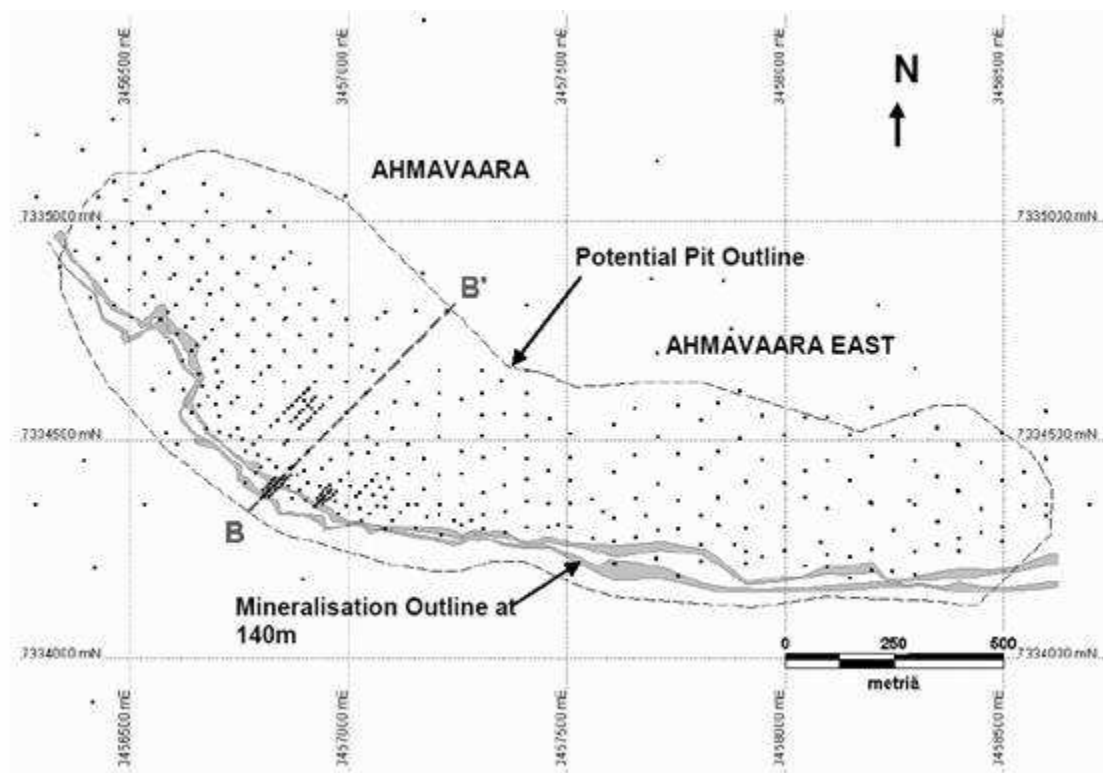
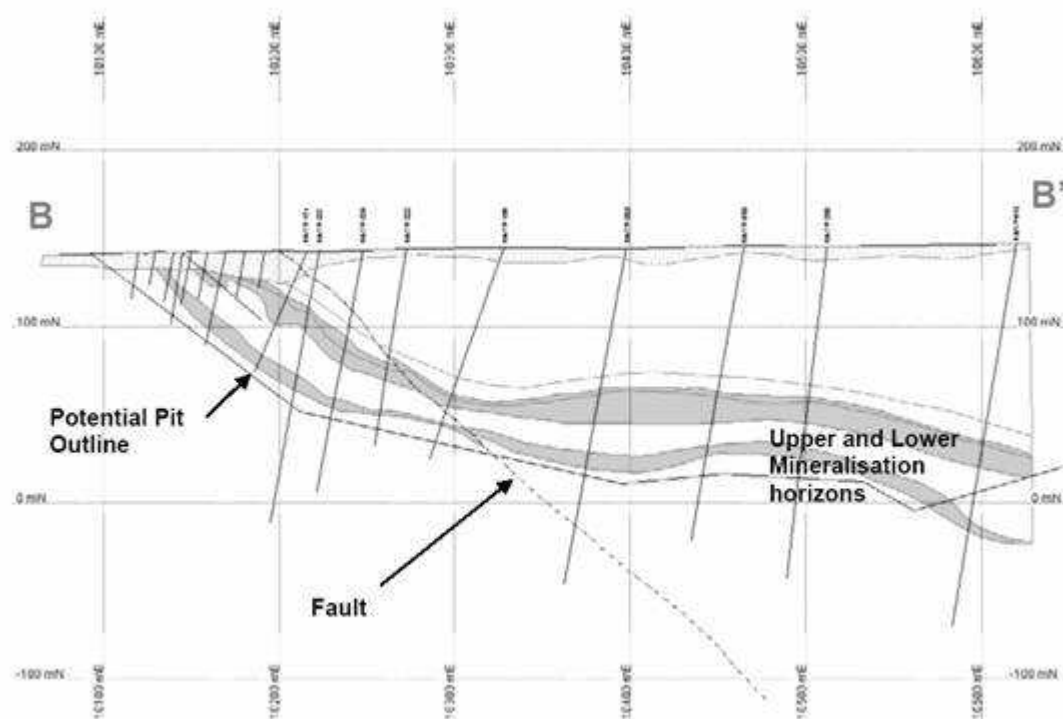


Figure 7.5 **Cross section Ahmavaara**

7.3 Konttijärvi – local geology

The stratigraphy of the Suhanko-Konttijärvi intrusion consists of a thick layered series sequence dominated by gabbroic rocks with nearly horizontal layering, and of a marginal series with a mineralized unit at the base, extending into the basement. Note that the marginal series described in this section refers only to the lower part of this mineralized unit.

The stratigraphy of Ahmavaara and Konttijärvi is described separately because of distinct differences in the stratigraphic units.

The following stratigraphic domains are present at Konttijärvi and are shown in Figure 7.6.

Figure 7.6 Konttijärvi Stratigraphic Column

Stratigraphic Unit	Average Thickness	Description
Hangingwall	Up to 70 m	Gabbroic rocks, ranging from melanocratic to leucocratic varieties, with thinner or minor units of pyroxenites and olivine pyroxenites, dominate the Konttijärvi hangingwall rocks. Not mineralised.
Peridotite Marker	15 – 50 m, ave. 25 m	Pyroxenites and olivine Pyroxenites at the top, through peridotite in the middle to olivine pyroxenites at the bottom. Highly magnetic. Sulphide content (mainly pyrrhotite and chalcopyrite) increases towards the base
Konttijärvi Pyroxenite	2 – 7 m, ave. 5 m	Olivine pyroxenite at the top and pyroxenite at the base. Shows a decrease in magnetic susceptibility compared to PM. Fine sulphides.
“Chlorite Schist”	0.2 – 1.0 m	Narrow, irregular/anastomosing chloritic shear zone. Generally defines the contact between Pyroxenite and Marginal Series. Marker horizon.
Marginal Series Gabbro	0 – 20 m, ave 10 m	Gabbroic rocks, feldspathic pyroxenites, pyroxenites and assimilated hybrid gabbros. Assimilation features very common. Well mineralized with disseminated chalcopyrite and pyrrhotite, strong hydrothermal overprint.
Transitional Zone	0 – 60 m, ave 10 m	Comprises assimilated Marginal Series rocks, mainly hybrid gabbros, and contaminated and mineralized basement rocks. The unit is well mineralized with chalcopyrite and disseminated pyrrhotite.
Basement		Variable Archaean rocks, i.e. diorites, banded gneisses and amphibolites, interlayered with hybrid gabbros and mafic dykes/sills (Portimo dykes). Massive hydrothermal and structural alteration evident. The basement rocks host approximately 45% of the mineralization at Konttijärvi.

7.3.1 Overburden

The overburden consists of till, muskeg and peat .

7.3.2 Hangingwall

Gabbroic rocks, ranging from melanocratic to leucocratic varieties, with thinner or minor units of pyroxenites and olivine pyroxenites, dominate the Konttijärvi hangingwall rocks.

7.3.3 Peridotite Marker

The Peridotite Marker resembles the upper peridotite, with lithologies grading from pyroxenites and olivine pyroxenites at the top, through peridotite in the middle, to olivine pyroxenites at the bottom. The MgO content is characteristically high (generally greater than 20%) in the Peridotite Marker. The constituent mineralogy is dominated by talc-chlorite-carbonate assemblages with varying amounts of amphibole. The unit is highly magnetic.

The quantity of sulphides, mainly pyrrhotite and chalcopyrite, increases towards the base of the peridotite marker.

7.3.4 Konttijärvi Pyroxenite

The Konttijärvi Pyroxenite has an upper gradational contact with the overlying Peridotite Marker. The lithological change is marked by a decrease in average MgO (average of 8-15%) and magnetic susceptibility, and an increase in hardness and chromium content. Lithologies range between olivine pyroxenite at the top and pyroxenite at the base. The constituent mineralogy is dominated by amphiboles and chlorite, with lesser amounts of talc. Chloritic schist is seen on the contact between the Konttijärvi pyroxenite and the underlying marginal series. The unit is highly mineralized, with disseminated chalcopyrite and pyrrhotite present.

7.3.5 Marginal Series Gabbro

The Marginal Series Gabbro is a mixed unit of gabbro-norites, feldspathic pyroxenites, pyroxenites and assimilated hybrid gabbros. The unit is usually much thinner than at Ahmavaara or absent. Assimilation is also more evident than at Ahmavaara. The Konttijärvi marginal series is well mineralized with disseminated chalcopyrite and pyrrhotite.

7.3.6 Transition zone

The transition zone comprises assimilated Marginal Series rocks, mainly hybrid gabbros, and contaminated and mineralized basement rocks. The unit is well mineralized with chalcopyrite and disseminated pyrrhotite.

7.3.7 Basement

The Basement consists of Archaean rocks, dominated by altered diorites, banded gneisses and amphibolites, interlayered with hybrid gabbros and mafic dykes/sills (Portimo dykes). The Basement hosts approximately 45% of the Mineral Resource at Konttijärvi. Mineralisation typically occurs as a fine, chalcopyrite-pyrrhotite dissemination throughout variably altered basement rocks. Alteration is dominantly epidote-biotite-sericite, which produces a pale to banded appearance in all lithologies.

7.3.8 Portimo dykes

The Portimo dykes consist of feldspathic pyroxenites, pyroxenites and gabbro-norites, grading into hybrid gabbros.

7.4 Ahmavaara – local geology

The following stratigraphic domains are present at the Ahmavaara deposit and are shown in Figure 7.7.

Figure 7.7 Ahmavaara Stratigraphic Column

Stratigraphic Unit	Average Thickness	Description
Hangingwall 2	>50 m	Gabbroic rocks, varying between melanocratic to leucocratic varieties with narrower units of pyroxenites and olivine pyroxenites. Not mineralised.
Upper Peridotite	10 m	
Hangingwall 1	10 – 20 m, ave. 15 m	Gabbroic rocks, varying between melanocratic to leucocratic varieties with narrower units of pyroxenites and olivine pyroxenites. Not mineralised.
Peridotite Marker	15 – 50 m, ave. 25 m	Pyroxenites and olivine Pyroxenites at the top, through peridotite in the middle to olivine pyroxenites at the bottom. Highly magnetic. Sulphide content, mainly pyrrhotite and chalcopyrite, increases towards the base
Ahmavaara Pyroxenite	2 – 7 m, ave. 5 m	Olivine pyroxenite at the top and pyroxenite at the base. Lower magnetic susceptibility than PM. Fine sulphides
“Chlorite Schist”	0.2 - 1.0 m	Narrow, irregular/anastomosing chloritic shear zone. Generally defines the contact between Pyroxenite and Marginal Series. Marker horizon.
Marginal Upper Gabbro	0 – 30 m, ave. 15 m	Gabbros and gabbro-norites. Feldspathic pyroxenites are also present at the top contact. The unit is well-mineralized with disseminated chalcopyrite and pyrrhotite. Common xenoliths of Marginal central in lower parts.
Marginal Central Microgabbro	0 – 50 m, ave. 25 m	Fine-grained, micro-gabbro-norites ranging to feldspathic pyroxenites, with thin veins of coarser-grained marginal lower and/or upper, near the top and bottom contacts. The marginal central zone is poorly mineralized. Interpreted as a precursor to the main intrusive.
Marginal Lower Gabbro	0 – 30 m, ave. 20 m	Skeletal gabbro-norites, evidence of assimilation near basement. The contact with the basement may be gradational. Common xenoliths of Marginal central in upper parts. The unit is well-mineralized, with matrix-disseminated and blotchy chalcopyrite and pyrrhotite, occasional massive sulphide lenses.
Basement		Archaean gneisses, diorites, banded gneisses, amphibolites and, in the western part of Ahmavaara, quartz-sericite schists

7.4.1 Over burden

The overburden consists of till, muskeg and peat .

7.4.2 Hanging wall

Gabbroic rocks, varying between melanocratic to leucocratic varieties with narrower units of pyroxenites and olivine pyroxenites, dominate the hangingwall at Ahmavaara.

7.4.3 Upper Peridotite

The Upper Peridotite is an ultramafic and magnetic unit present in the hangingwall sequence. The unit is often present as an olivine-poor pyroxenite. Lithologies vary

sharply from chlorite schist at the top contact, pyroxenites and olivine pyroxenites at the top to a central peridotite. The basal part of the unit consists of olivine pyroxenites.

7.4.4 Peridotite Marker

The Peridotite Marker at Ahmavaara resembles the upper peridotite, with lithologies grading from pyroxenites and olivine pyroxenites at the top, through peridotite in the middle to olivine pyroxenites at the bottom. The MgO content is characteristically high (generally greater than 20%) in the Peridotite Marker. Constituent mineralogy is dominated by talc-chlorite-carbonate assemblages with varying amounts of amphibole. The unit is highly magnetic. The quantity of sulphides, mainly pyrrhotite and chalcopyrite, increases towards the base of the unit, but a distinctive mineralized layer is also observed also in the upper portion.

7.4.5 Ahmavaara Pyroxenite

The Ahmavaara Pyroxenite has an upper gradational contact with the overlying peridotite marker. The lithological change is marked by a decrease in average MgO content (average of 8-15%) and magnetic susceptibility, and an increase in hardness and chromium content. Lithologies range between olivine pyroxenite at the top and pyroxenite at the base. The constituent mineralogy is dominated by amphiboles and chlorite, with lesser amounts of talc.. Chloritic schist forms the contact between the Ahmavaara Pyroxenite and the marginal series below. The unit is well mineralized with chalcopyrite and disseminated pyrrhotite.

7.4.6 Marginal Upper Gabbro

The Marginal Upper Gabbro unit is present below the Ahmavaara Pyroxenite; however, the unit may be absent or often duplicated. The contact with the Marginal Central Microgabbro is gradational, with an increase in fine-grained xenoliths of Marginal Central towards the base. The Marginal Upper consists of gabbro-norites. Feldspathic pyroxenites are also present at the top contact. The unit is well-mineralized with disseminated chalcopyrite and pyrrhotite.

7.4.7 Marginal Central Microgabbro

The Marginal Central zone is present between the Marginal Upper above and Marginal Lower below. Often the unit is absent or duplicated. It comprises fine-grained, micro-gabbro-norites ranging to feldspathic pyroxenites, with thin veins of coarser-grained marginal lower and/or upper, near the top and bottom contacts. The Marginal Central zone is poorly mineralized, with sulphides mainly related to coarser gabbro-norite veins.

7.4.8 Marginal Lower Gabbro

Marginal Lower Gabbro is present between the Marginal Central and Basement, and as with the other marginal units it may be absent or duplicated. It consists of skeletal gabbro-norites, which, especially near the basement contact, bear evidence of assimilation. The contact with the Basement may be gradational. On the contact with the marginal central unit fine-grained, micro gabbro-norite xenoliths are encountered. The unit is well-mineralized, with disseminated and blotchy chalcopyrite and pyrrhotite. Steep dipping massive sulphide veins have been defined in recent drilling and sub-crop exposed in the trial mine area. These veins have a definite structural association and are interpreted to represent localized structural remobilization in existing matrix-sulphide zones.

7.4.9 Base ment

The Basement comprises Archaean gneisses, quartz diorites, banded gneisses, amphibolites and, in the western part of Ahmavaara, quartz-sericite schists. The

basement is usually poorly mineralized, with pyrite and pyrrhotite as the dominant sulphides.

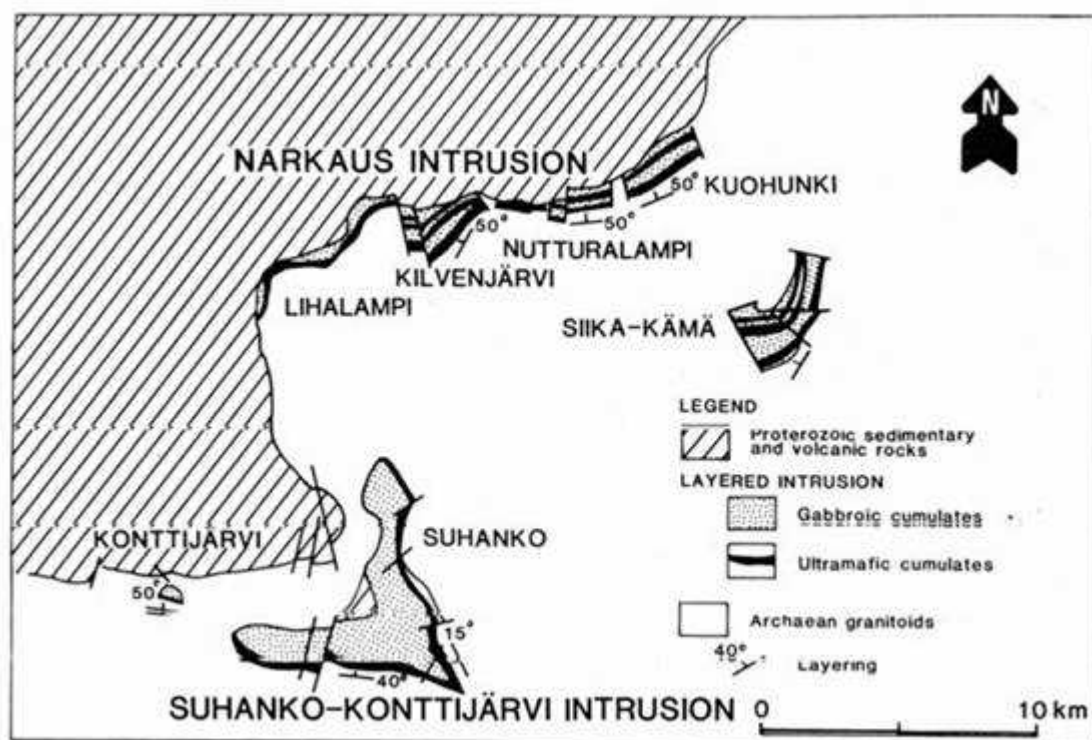
7.4.10 Basement Xenoliths

Basement xenoliths are described above, with contamination from hangingwall and marginal series lithologies present.

7.5 SK geology

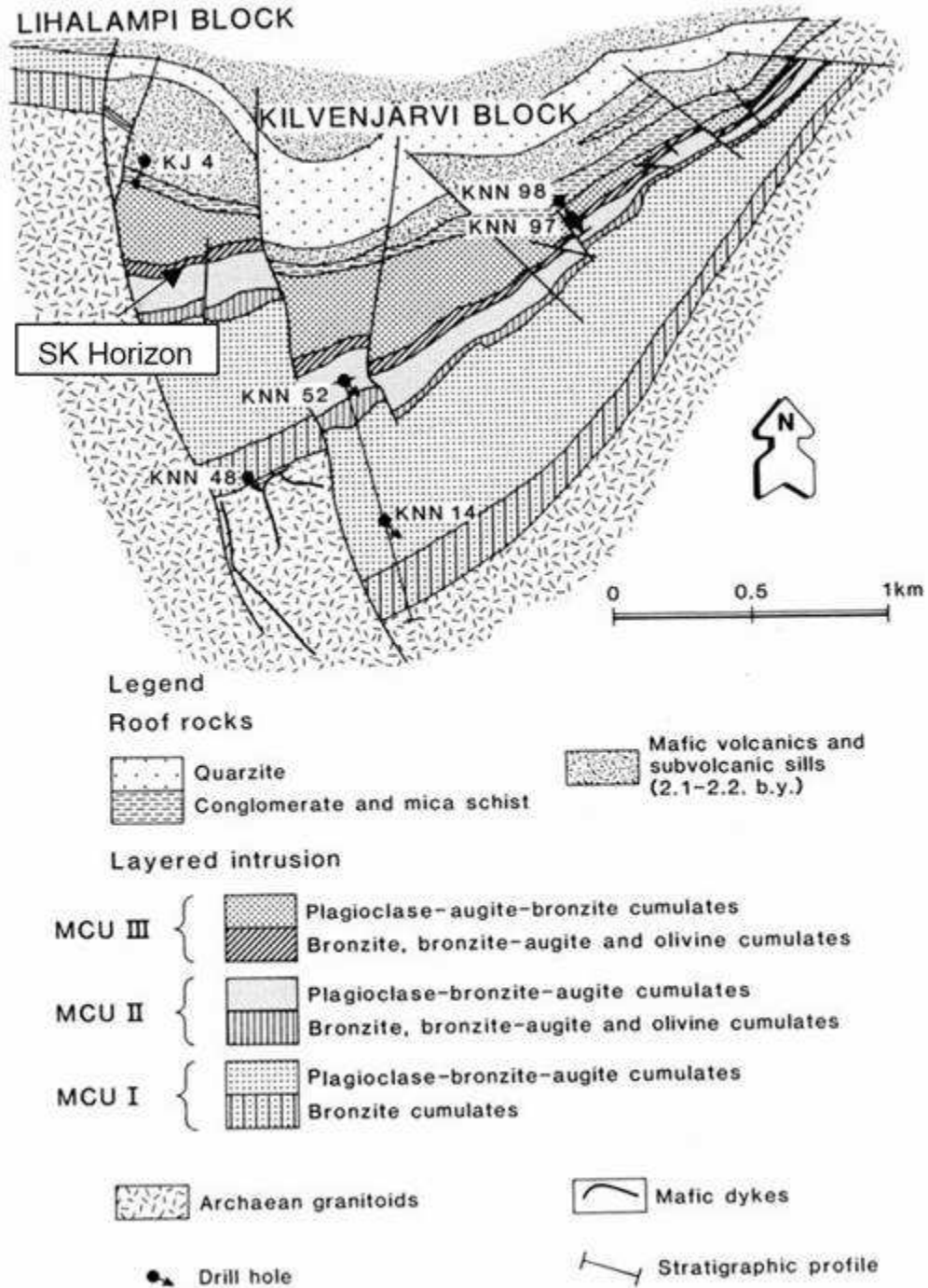
The Narkaus blocks of the Portimo complex are situated to the east of the Suhanko Intrusion. The general geology and location of the Narkaus intrusion is shown in Figure 7.8.

Figure 7.8 General geology and location of the Narkaus intrusion



Onlapping relationships with irregular late – Archaean floor topography have resulted in variations in the internal stratigraphy of the various blocks. Truncation of the upper portions due to differential erosion prior to deposition of the unconformably overlying Proterozoic volcano-sedimentary sequence has resulted in variable degrees of preservation of the layered sequence in the different blocks. The Siika-Kämä, followed by the Kuohunki blocks reflect the thickest structural remnants within the Narkaus intrusion, and can thus be expected to contain the most complete stratigraphic succession. The broad stratigraphic subdivision of the Narkaus Intrusion is illustrated in Figure 7.9, using the Kilvenjärvi block as an example. The intrusion comprises 3 megacyclic units overlying a thin marginal zone. Each unit commences with a thin ultramafic unit at the base, grading upwards into gabbroic cumulates. Internal widths of the constituent stratigraphic units can vary significantly. The SK horizon is located at the interface between the top of Megacyclic Unit II (MCUII) and the peridotitic base of Megacyclic Unit III (MCUIII). The setting is similar to that of the SJ horizon of the Penikat Intrusion. MCUII is enriched in Cr relative to the overlying MCUIII, indicating a similar scenario to the MCUIII/IV relationships that bracket the SJ horizon at Penikat, thought to reflect two different magma types.

Figure 7.9 Local geology of the Narkaus intrusion, Kilvenjarvi block



8 Mineralisation

8.1 Overview and base metal sulphides

The platinum-group element (PGE) mineralization at both Ahmavaara and Konttijärvi is associated with Cu and Ni mineralization in the form of base metal sulphides. The typical sulphide assemblage is pyrrhotite-chalcopyrite-pentlandite, and accessory sulphides include pyrite, sphalerite, galena and molybdenite. The main oxides are magnetite and ilmenite, with chromite in trace amounts. The grades of PGE mineralization roughly correspond with the abundance of sulphides, particularly chalcopyrite, and are generally higher at Konttijärvi than at Ahmavaara. PGEs and associated sulphides are classified as marginal series type and four principal types of PGE mineralization have been identified

- sulphide mineralization in the basal parts of the layered series (Peridotite Marker, Konttijärvi and Ahmavaara Pyroxenite) ;
- sulphide mineralization in the marginal series (Marginal Gabbro, Marginal Upper Gabbro);
- sulphide mineralization in the Konttijärvi basement; and
- predominantly massive pyrrhotite mineralization located close to the basal contact of the Ahmavaara intrusion. Mineralization occurs parallel to the intrusion layers.

Sulphides present in the Peridotite Marker are pyrrhotite-dominated and weak in abundance. Sulphides in this horizon generally occur as fine-grained disseminations or as trace amounts. Sulphide grains are interstitial to former cumulate olivine grains in an assemblage now dominated by talc-carbonate-chlorite after olivine. PGE grades vary from weak to moderate in the basal 2 to 8 meters of the Peridotite Marker, while the abundance of sulphides is higher compared with the upper parts. In the underlying pyroxenites, sulphides are finely intergrown with amphibole (tremolite-actinolite) and chlorite, with minor talc. Sulphide assemblages in pyroxenites are dominated by fine-grained chalcopyrite, with PGE grades generally higher than in the Peridotite Marker.

Sulphides in the Ahmavaara and Konttijärvi marginal sequences are dominated by an assemblage of pyrrhotite-chalcopyrite-pentlandite and occur as medium grained (in Ahmavaara also coarse grained), disseminated aggregations. Generally the abundances of pyrrhotite and chalcopyrite in Ahmavaara are about equal, though with increasing sulphide abundance the ratio of pyrrhotite to chalcopyrite increases. PGE grades in the Ahmavaara Marginal Series vary, being moderate to high in the Marginal Upper and Marginal Lower units. In the Marginal Central unit both the abundance of sulphides and associated PGE grades are generally low. At Konttijärvi, in the Marginal Series and Transition Zone, chalcopyrite is generally dominant over pyrrhotite and pentlandite. PGE grades usually vary from moderate to high.

Massive sulphide concentrations occur as veins or lenses close to the basal contact of the Ahmavaara intrusion, within both the Marginal Lower and the Basement. These units comprise dominantly pyrrhotite, with chalcopyrite lamellae and lenses within the units. PGE grades are high, with individual assays up to 80g/t 2PGE+Au being recorded. In the Marginal Series and Basement of the Konttijärvi intrusion the sulphides rarely become concentrated into massive sulphide veins or large patches.

The thickness of the Basement mineralization at Konttijärvi varies, reaching widths of 30 to 40 meters. Sulphides usually occur as fine-medium grained chalcopyrite and pyrrhotite disseminations in the Basement and cross-cutting gabbroic-pyroxenitic intrusives. Pyrite is also present. Platinum-group elements are associated with sulphides, and the highest values occur in chalcopyrite-rich domains. Upon moving deeper in the Basement, pyrite becomes a dominant sulphide and PGE values decrease to below detection limits. At Ahmavaara the Basement mineralization occurs as fine-grained disseminations or in medium-grained sulphide veins. In contrast to the Konttijärvi basement, the sulphides have relatively high pyrrhotite to chalcopyrite ratios and the PGE ratio is usually low.

8.2 Platinum group minerals

Most of the platinum-group minerals at Ahmavaara and Konttijärvi are arsenides, bismutotellurides and arsenoantimonides. Native forms and alloys are absent. PGM are included in base metal sulphides, magnetite and silicates and also occur along gangue mineral grain boundaries. Pd-bearing minerals include isomertieite ($\text{Pd}_{11}\text{Sb}_2\text{As}_2$), members of the kotulskite-sobolevskite solid-solution ($\text{Pd}_2(\text{Te,Bi})$), palladoarsenide (Pd_2As), majakite (PdNiAs), paolovite ($\text{Pd}_2(\text{Sn,As})$), and fengluanite ($\text{Pd}_3(\text{Sb,As})$). The principal platinum-bearing mineral is sperrylite, PtAs_2 . Other platinum carriers include moncheite ($(\text{Pt,Pd})(\text{Te,Bi})_2$), merenskyite ($(\text{Pd,Pt})(\text{Te,Bi})_2$), michenerite ($(\text{Pd,Pt})\text{BiTe}$), platarsite ($\text{Pt}_{0.46}\text{Ir}_{0.38}\text{Rh}_{0.16}(\text{As,S})_{1.85}$), hollingworthite ($(\text{Rh,Pt,Pd})\text{AsS}$) and atokite ($(\text{Pd,Pt})_3\text{Sn}$).

Platinum-group sulphides are rare in the Suhanko-Konttijärvi intrusion and those that have been identified belong to the vysotskite ($(\text{Pd,Ni})\text{S}$) - braggite (PtS) series.

8.3 SK mineralisation

In the Suhanko Intrusion, PGE mineralization is hosted within the lower portion of the Layered Series and extensively within the underlying metamorphic rocks beneath the Layered Series. Within the Narkaus Intrusion PGE mineralization is spatially associated with a distinct stratigraphic unit that is located within the igneous layered sequence. PGE mineralization is hosted within the SK unit, a stratiform chlorite schist unit that underlies the Peridotite Marker, a distinct ultramafic unit within the Narkaus intrusion. The footwall lithologies beneath the SK consist dominantly of gabbros, with intercalated ultramafic lithologies. Within the Kuohunki block, detailed logging of the drill data shows that the SK Unit locally truncates its footwall and may transgress the immediate gabbro footwall beneath the SK Unit, as well as the UM1 ultramafic unit. Podiform to lensiform PGM mineralization is present within the footwall lithologies beneath the SK, as well as within the UM1 ultramafic unit beneath the SK. The highest grade footwall mineralization appears to be located adjacent to areas where the SK unit truncates its footwall. The footwall mineralization thus appears analogous to mineralization identified within the footwall of orebodies such as the Merensky Reef within the Bushveld Complex. The most dense drill spacing within the Narkaus block is of the order of 100 m. With this data distribution there are limitations to understanding the geometry of the lensoid mineralization within the footwall units. There are also profound limitations to establishing the short range structures of variograms with the present data. DTM surfaces defining these surfaces have been developed by GFAP geologists.

9 Exploration

9.1 Introduction

A variety of exploration techniques have been used to discover and delineate the PGE-Cu-Ni mineralization in the Suhanko and Narkaus projects. These include the following:

- geological mapping of outcrop and subcrop and associated mineralogical and petrological research;
- ground-penetrating radar (GPR) surveys for depth to bedrock determination;
- aerial photography, both black and white and colour;
- induced polarization (IP) surveys
- electromagnetic surveys;
- gravity surveys;
- ground and aeromagnetic surveys;
- airborne magnetic and radiometric surveys;
- boulder train mapping and sampling;
- basal till geochemistry; and
- diamond drilling.

Details are provided below .

9.2 Geological Research

Geological research conducted on the Konttijärvi and Ahmavaara deposits has been done in collaboration with the Department of Geology and Mineralogy, University of Oulu, and Outokumpu Mining (earlier Lapin Malmi). The objectives of geological research work have been to resolve issues related to the genetic history of the layered intrusion complexes and associated PGE mineralization.

Research has been based on geological mapping, drilling and geophysical surveys and included analytical, microprobe and microscopic studies on relevant samples.

Whole rock geochemical compositions of major rock types have been measured, as well as the composition of sulphide minerals and PGEs. The local stratigraphy has been determined by the interpretation of cumulus and intercumulus phases from microscopic studies.

Geophysical research includes the interpretation of magnetic, electromagnetic and gravimetric surveys.

The following geological research reports refer to the Konttijärvi and Ahmavaara Deposits of the Portimo Complex:

- Alapieti, T.T., Lahtinen, J.J., Hänninen, E., Piirainen, T.A. and Sivonen, S.J., 1989. Platinum-group mineralization in the marginal series of the early Proterozoic Suhanko-Konttijärvi layered intrusion, northern Finland. *In* Magmatic sulphides - the Zimbabwe volume. *Edited by* M.D. Prendergast and M.J. Jones. The Institution of Mining and Metallurgy, London, p.177- 187.

- Iljina, M., 1994. The Portimo Layered Igneous Complex, with emphasis on diverse sulphide and platinum-group element deposits. *Acta Universitatis Ouluensis. Series A, Scientiae Rerum Naturalium* 258, p.1-158.
- Iljina, M.J., Alapieti, T.T., Lahtinen, J.J. and Lerssi, J.M., 1989. The Suhanko-Konttijärvi Intrusion and related sulphide and PGE mineralization. *In* 5th International Platinum Symposium. Guide to the post-symposium field trip, August 4-11, 1989. *Edited by* T.T. Alapieti. Geological Survey of Finland, Guide 29, p.163-187.
- Lerssi, J., Pernu, T., Keränen, T. and Iljina, M (1991). A geophysical study of the Suhanko-Konttijärvi layered intrusion in connection with PGE investigations. *Geol. Fören. Stockholm Förh.* 113; 55-56.
- Rekola, T. (1986). Results of electrical and electromagnetic measurements in Vaaralampi – Niittylampi, Ranua. In Eskola, L. & Fokin, A. (eds.) *Electrical prospecting for deposits in the Baltic Shield, issue 1: Galvanic methods*. Geological Survey of Finland, Rep. Invest. 73: 73-84.
- Vuorelainen, Y., Häkli, T.A., Hänninen, E., Papunen, H., Reino, J. and Törnroos, R., 1982. Isomertieite and other platinum-group minerals from the Konttijärvi Layered Mafic Intrusion, Northern Finland. *Economic Geology*, 77, p.1511-1518.

9.3 Other exploration

9.3.1 Ground Penetrating Radar (GPR)

A ground penetrating radar (GPR) survey was conducted in the project area to improve the understanding of the thickness and stratigraphy of the overlying glacial till and glaciofluvial deposits. The overburden thickness was determined to be highly variable due to irregular subcrop topography. GPR is reliable to a depth of 10 meters and therefore the thickness of overburden is defined by drillholes in areas exceeding 10 meters.

The GPR survey was completed and interpreted by Geo-Work Oy. Survey lines were laid in the field by GPS on a grid line spacing varying between 250 m and 500 m. The survey equipment consisted of a SIR-2 type GPR. Several antennas were used for the survey depending on the overburden thickness (100, 80 and 40 Mhz). The 40 Mhz antenna was used where the overburden was thickest. Some 7,990 m of a total 93,743 m were surveyed with the 40 Mhz antenna due to greater overburden thicknesses. All data was collated on PC and interpretations were completed using Haescan software.

The GPR survey was completed in two stages. In April 2001, 29,800 m of grid lines were completed in the Tailings Storage Facility 4 (TSF-4) option area and within proposed waste rock stockpile areas around both Konttijärvi and Ahmavaara. The overburden in these areas was interpreted to consist of glacial tills and overlying peat.

The second phase GPR survey was completed in January and February 2002. The area around and between Ahmavaara and Konttijärvi was completed with an additional 37,820 m of GPR lines. The Tailings Storage Facility-1 (TSF-1) area was covered by 26,123 m of GPR profiles. The general interpretation consists of a subcrop of bedrock with a sedimentary cover of post-ice age till and overlying peat.

West of Ahmavaara and north of Konttijärvi, overburden thicknesses exceed 25 m. A maximum overburden thickness of 49 m was encountered in drillhole KOJ-430. In the project area, the average overburden thickness based on 874 diamond

drillholes is 11.3 m. Overburden thickness is greater than 10 m in 371 of the 874 drillholes and averages 20 m.

9.3.2 Aerial Photography

The area has black and white aerial photography coverage from the year 1998 at a scale of 1:60,000. The data is available as photographs and as scanned images

9.3.3 Induced Polarization (IP) Surveying

Induced Polarization (IP) is a current-stimulated electrical phenomenon observed as a voltage response in earth material. The IP method is capable of detecting less than 1% by volume of sulphides in a rock mass.

Outokumpu carried out systematic IP surveys at Konttijärvi during 1983 and 1986 using a dipole-dipole array geometry. The line separation was 25 m with point intervals of 20 m. The depth extent of this survey was limited to between 20 m and 30 m below surface.

APP carried out IP surveys over the Konttijärvi and Ahmavaara deposits in autumn 2000 and spring 2002, using dipole-dipole arrays. The survey of autumn 2000 used a 400 m line spacing with 50 m point separations. The depth extent of this system was 150 m below surface. The spring 2002 survey was an extension of the earlier IP survey and used line separations varying between 250 m and 400 m, while point separation was maintained at 40 m. The depth extent of the system was 60 m below surface.

In spring 2003 APP carried out additional IP surveys over the Konttijärvi area at 200m line spacing. The survey system utilised gradient array IP configuration with survey blocks of 1000m x 1200m in size and an ELLIOT 45A motor generator powered transmitter with maximum 4.5kW output power. The potential electrode separation was 50m and the station interval 25. The depth extent of the system was more than 100m below surface.

9.3.4 Gravity Surveying

Outokumpu carried out gravity surveys from 1983 to 1984. The surveys cover an area extending from Konttijärvi to Ahmavaara with a nominal line spacing of 200 m (Konttijärvi deposit 100 m) and a point interval of 20m. The gravity survey delineated the extent of intrusion bodies, basement lithologies and Proterozoic rocks.

9.3.5 Ground Magnetic Surveying

Outokumpu conducted magnetic surveys over Konttijärvi in 1982. The line separation was 25 m with a point interval of 10 m.

The Ahmavaara deposit was surveyed in 1986 and 1990. The line spacing for the first survey was 50 m with a station interval of 10 m. The second, more detailed survey used a line spacing of 25 m with station intervals of 10 m. APP continued the Konttijärvi magnetic survey to the west, north and east during 2002. The magnetic survey delineated the presence and location of the peridotite marker present in the Ahmavaara and Konttijärvi deposits.

9.3.6 Very Low Frequency EM (VLF) Surveying

GFAP carried out Very Low Frequency EM (VLF) surveys over the Ahmavaara and Little Suhanko and Kuohunki deposits in summer 2004 with 25 m line spacing and 20 m station intervals, covering an area of 1.9 km². The survey system utilised a Scintrex VLF-3 receiver system and two transmitter stations, which were Hegeland in Norway (16.4 kHz) and Burlage in Germany (28.4 kHz). The surveys were carried out to delineate zones of massive to semi-massive sulphide mineralisation as well as fractures.

9.3.7 Other Surveying

Outokumpu has carried out a number of specialised geophysical surveys in the study area since 1980, including electrical mise-a-la-masse, Transient Domain Electromagnetic (TEM), horizontal loop frequency domain EM (Slingram), frequency domain EM soundings (Gefinex) and Very Low Frequency EM (VLF). Frequency domain EM delineated the occurrence and orientation of the Ahmavaara deposit semi-massive Marginal Lower series.

Trial surveys using the down-hole mise-a-la-masse technique were completed at Ahmavaara and Siika Kama in late 2003. These surveys were aimed at defining offhole continuity of sulphide ore bodies. Good continuity was identified at Siika Kama for the SK Reef horizon, but the signature of the footwall mineralisation was poorly developed.

Additional geochemical surveys have been completed in the GFAP project areas. These surveys include Boulder Train Mapping, Basal Till geochemical surveys, and Hydrogeochemical surveys.

9.3.8 Airborne Geophysical Surveying

The Geological Survey of Finland (GTK) surveyed the study area in 1986 as a part of ‘The Second National Aerogeophysical Mapping Program’. The line spacing was 200 m (EW orientation) and the flight altitude between 30 m and 40 m. The measurement systems consisted of two wingtip magnetometers, a wingtip electromagnetic system (frequency 3113Hz) and a spectrometer for radiometrics (K, U, Th, total counts). The aircraft was a DHC Twin-Otter.

GTK was also contracted to carry out a second airborne survey for APP to cover the Portimo layered complex in the summer of 2002 (Geological Survey of Finland, 2002). This survey was flown using 30 m main terrain clearance and a 50 m line spacing. The entire area was flown in a NS direction with EW-oriented tie lines at 500 m spacings. The measurement system consisted of one magnetometer on the tail boom, two frequency EM (3.1 kHz and 14.36 kHz) on the wing tips and a spectrometer for radiometrics (K, U, Th, total counts). The aircraft was a singleengine high wing turboprop Cessna Caravan I (C 208) (GTK Report, High Resolution 3-in-one Aerogeophysical Survey in Portimo, Ranua, 2002).

9.4 Data quality

GFAP considers that all previous exploration on the Konttijärvi, Ahmavaara and SK properties has been carried out using methods which comply with industry best practice. To a large extent the regional exploration information has been superseded by the large quantity of high-quality diamond drilling carried out at Konttijärvi, Ahmavaara, and on the SK properties.

10 Drilling

10.1 Downhole geophysics

10.1.1 History

Physical rock properties have been measured in-situ at Konttijärvi in four drillholes and in 15 Ahmavaara drillholes. Suomen Malmi Oy was contracted to survey ten drillholes in 1995. Astrock Oy surveyed three drillholes in 1996, and a further eight drillholes in 2002 .

At Konttijärvi, drillholes KOJ-249, 284, 297 and 345 (total 595 m) were surveyed . The survey methods included were Magnetic Susceptibility (MS), density, resistivity and IP. In the Ahmavaara deposit, MS, density and resistivity were measured in drillholes RN/YP-141, 175 and 177 (total 481 m). In drillholes RN/YP-172 to 180, 182 and 183, MS and resistivity was measured (total 1,171 m).

10.1.2 Magnetic Susceptibility

Magnetic susceptibility probes are designed to measure the magnetic tendency of rocks in a drillhole. Downhole magnetic susceptibility is mainly used at Suhanko for determining stratigraphic domains, i.e .

- the presence of magnetite in the peridotite marker;
- pyrrhotite in the marginal series gabbros; and
- magnetite in basement rocks.

10.1.3 Density

Density was measured downhole using a gamma-gamma probe. The downhole probe provides a continuous measurement of density; however, results were not extensively collected and therefore the density values are not used in mineral resource estimation .

10.1.4 Resistivity

Resistivity identifies conductive minerals such as sulphides, oxides and graphite content in rocks, which assists in the identification of mineralized domain boundaries .

10.2 Diamond drilling

Since 1981, Outokumpu has completed 189 diamond drillholes with a total length of 13,617 m at the Konttijärvi and Ahmavaara deposits. This drilling was conducted during three phases, from 1981 to 1983, 1986 to 1989 and finally in 1995. APP - GFAP completed a further 986 diamond drillholes during the period from 2000 to June 2004, for a total length of 108,285m .

Up to June 2004, 1175 drillholes with a total length of 121,902m have been completed in the Suhanko project area. Some 121 drillholes, with a total length of 8,502m (6.97% of the total Suhanko drilling) were drilled for geotechnical, metallurgical and site investigation requirements .

These statistics are detailed in Table 6.1 .

10.2.1 Drilling Techniques

APP used diamond-drilling techniques exclusively within the bedrock. In areas of thick till overburden, diamond drillholes were pre-collared with a percussion down -

hole hammer. A casing is placed within the total thickness of the overburden and remains after completion of the drillhole. Outokumpu used a similar approach .

Four percussion drillholes were completed during 2001 for water pump testing by Knight Piésold. Two drillholes were located at Konttijärvi, totaling 240 m and two at Ahmavaara totalling 206m .

10.2.2 Drillhole Diameters

Outokumpu completed 160 diamond drillholes at Konttijärvi using 32 mm or 42 mm diameter drill core with a total length of 10,295 m (RN/KOJ-1 to 161, excluding RN/KOJ-48). Drillholes were inclined at dips of between 37° and 76°. The core was not oriented. The drilling programmes were split into the phases detailed below:

- RN/KOJ-1 to 5 drilled in 1981;
- RN/KOJ-6 to 19 drilled in 1983;
- RN/KOJ-20 to 66 drilled in 1986 excluding RN/KOJ-48;
- RN/KOJ-67 to 159 drilled in 1987; and
- RN/KOJ-160 to 161 drilled in 1989.

Outokumpu completed 29 diamond drillholes at Ahmavaara with a total of 3,322 m using 32 mm or 42 mm diameter drill core. These drillholes include RN/YP-44, 46, 138 to 149, RN/YP-167 to 169 and RN/YP-172 to 183. All holes were inclined at dips of between 45° and 77°. The core was not oriented. The drilling programmes were split into the phases detailed below:

- RN/YP-44 and 46 drilled in 1982 at Ahmavaara East;
- RN/YP-138 to 149 drilled in 1986;
- RN/YP-167 to 169 drilled in 1989 (targeted at HW mineralization RK Reef); and
- RN/YP-172 to 183 drilled in 1995

APP introduced wireline drilling methods to the project and drilled 81% of the total number of drillholes using core diameter of either 57.5mm or 61.7mm .

Drilling and sampling procedures are described in Section 10.2 .

11 Sampling Method and Approach

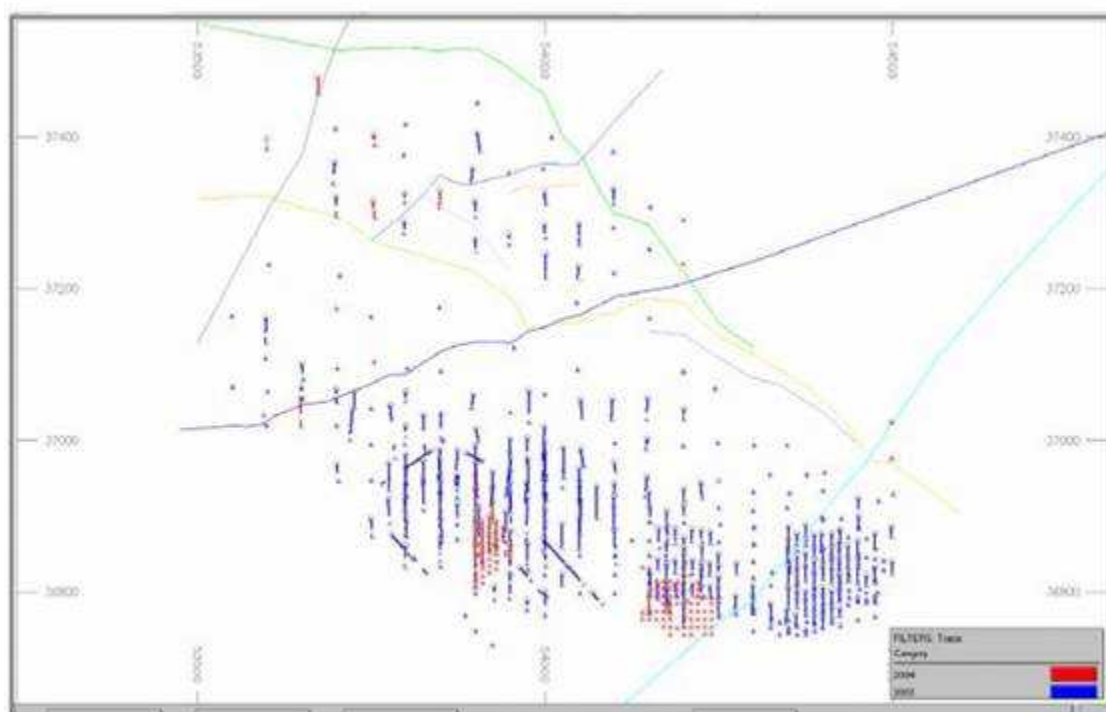
11.1 Introduction

The Konttijärvi, Ahmavaara, and SK deposits have been characterised for mineral resource estimation almost entirely by diamond drilling. The quantities of the drilling (number of holes and meterage) at Konttijärvi, Ahmavaara, and on the SK deposits are detailed in Table 6.1 .

11.2 Drilling Density – Konttijärvi

A drill status plan for Konttijärvi at the time of calculation of the July 2004 resource estimate is shown in Figure 11.1. This shows the 2004 drilling (in red) and the pre-2004 drilling (in blue). The vertical ticks are 200 m and the horizontal ticks 500 m .

Figure 11.1 Konttijärvi drill status plan – July 2004, North to top of page

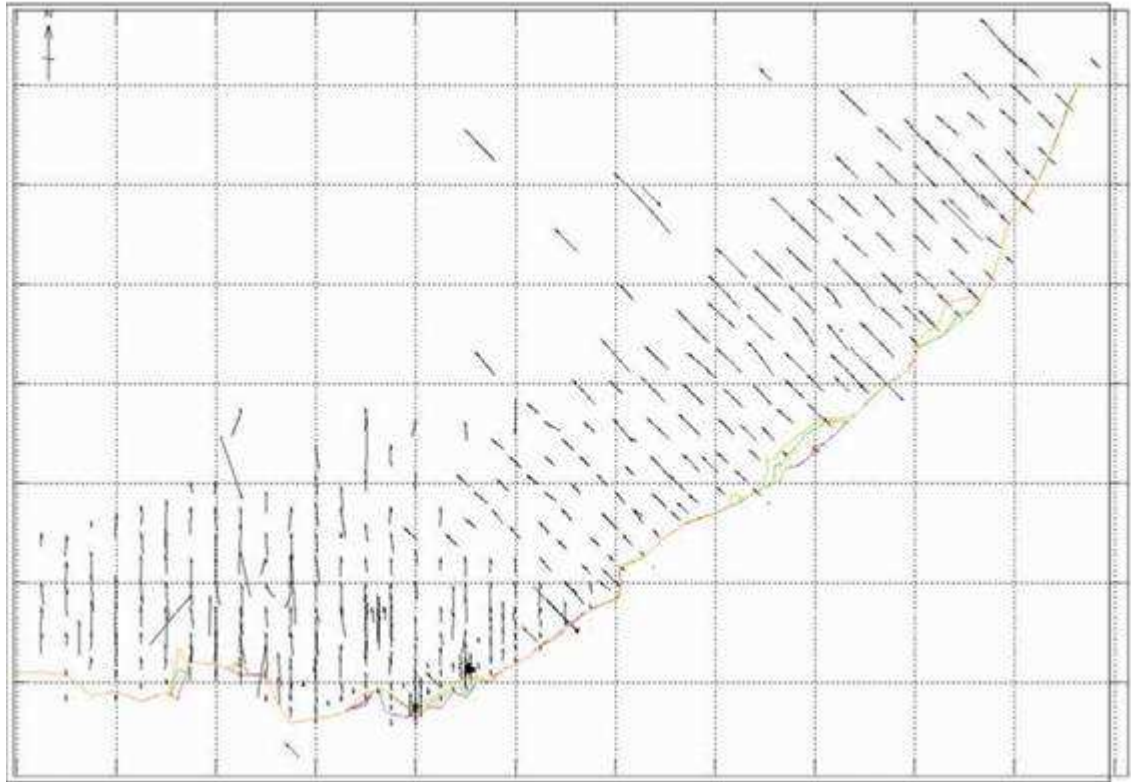


Drilling at Konttijärvi is generally on 25 m sections, with holes separated by 25 m on section to 100 m depth, although there are some areas of 12.5 m sections, and some areas drilled in even more detail for the purposes of simulating grade control conditions .

11.3 Drilling density – Ahmavaara

The drilling density at Ahmavaara at the time of the July 2004 resource estimate is shown in Figure 11.2. This figure shows drill traces for all bore holes completed to July 2004, with the outline of sub-cropping mineralisation for reference. The grid illustrated is at 200m spacing. This shows that the average drill spacing at Ahmavaara is 50 m sections, with holes at 25 – 50 m on section. There are two densely-drilled areas with spacings at 25 by 15 m .

Figure 11.2 Ahmavaara drill status plan, 200 m grid for scale – July 2004



11.4 Drilling density – SK deposits

The drill status plans for the SK deposits are shown in Figures 11.3 to 11.5.

Average drill densities for the deposits are as follows:

- Siika Kama to 100 m below surface – 100 m x 50 m to 100 m x 100 m in east;
- Siika Kama greater than 100 m below surface – 100 m x 200 m;
- Kuohunki to 100 m below surface – 100 m x 50 m;
- Kuohunki greater than 100 m below surface – 100 m x 100 m;
- Nutturalampi to 100 m below surface – 100 m x 100 m; and
- Nutturalampi greater than 100 m below surface – 100 m x 500 m.

Figure 11.3 Siika Kama drill status plan, 250 m grid for scale – July 2004

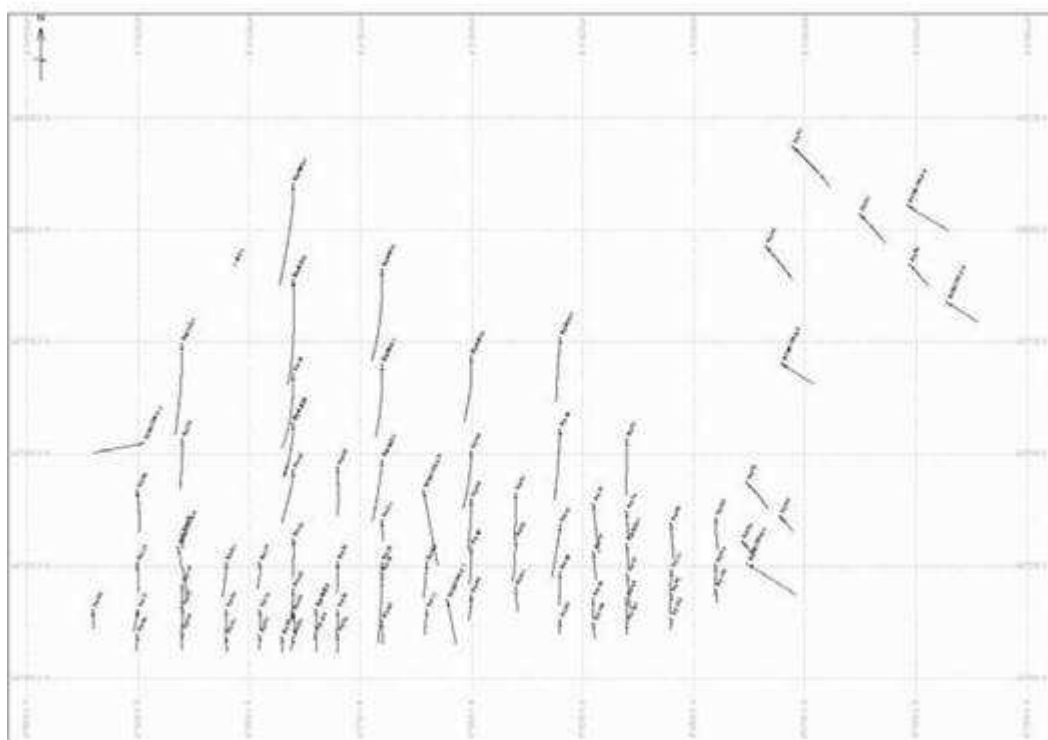


Figure 11.4 Kuohunki drill status plan, 250 m grid for scale – July 2004

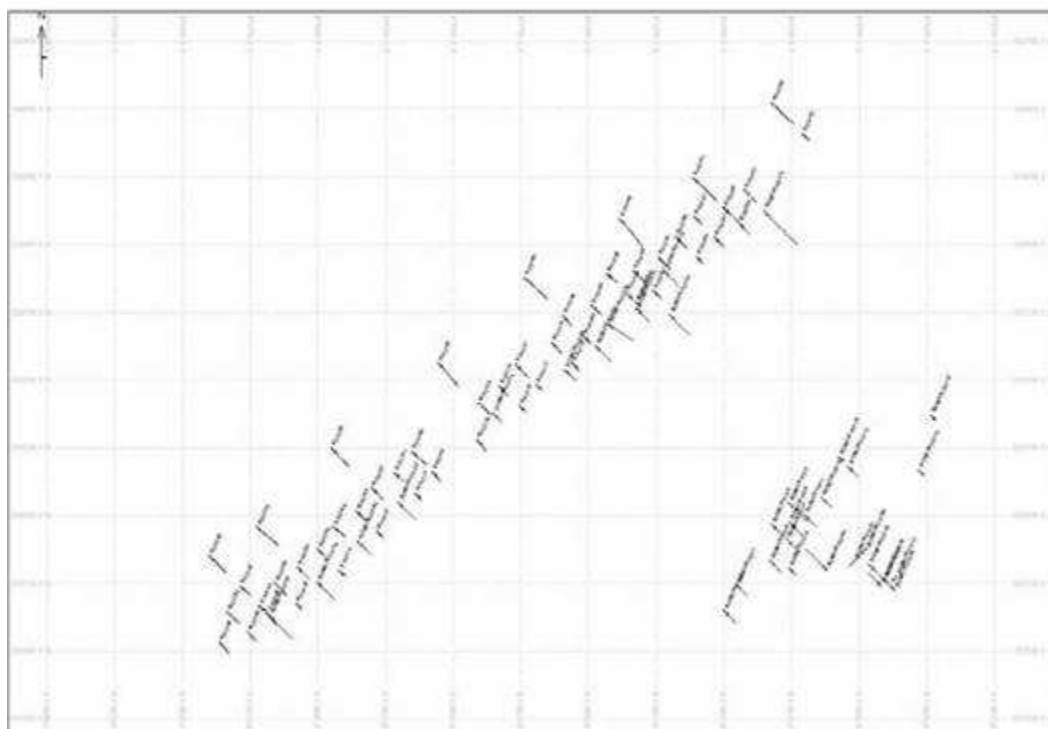
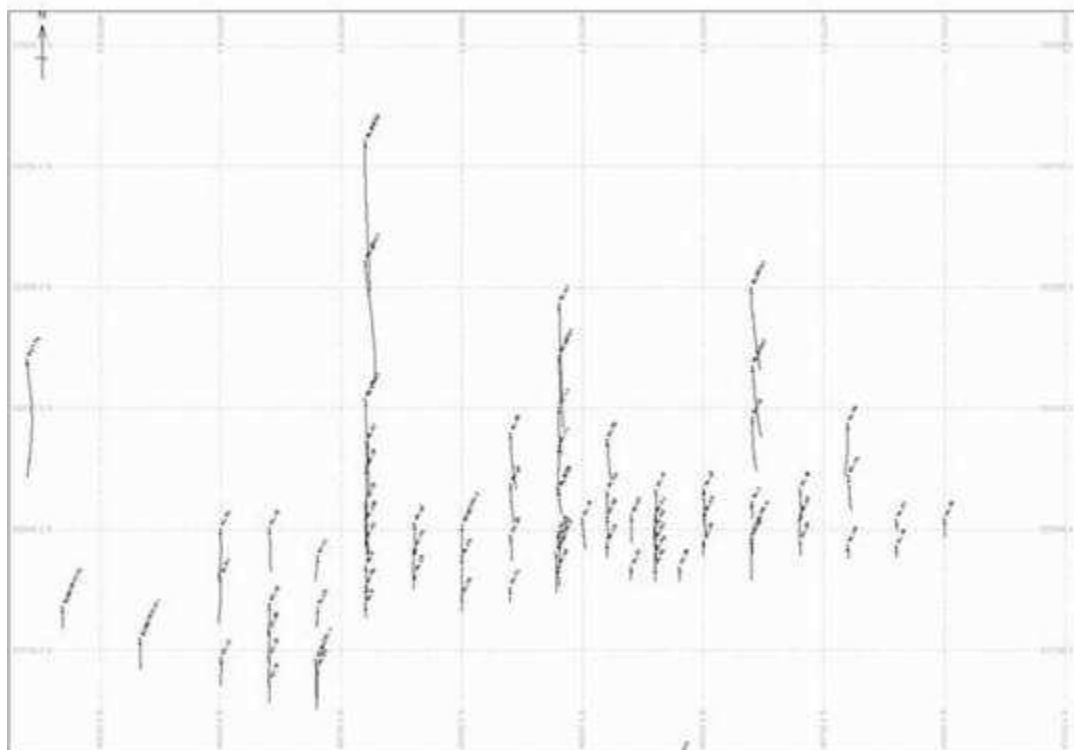


Figure 11.5 Nutturalampi drill status plan, 250m grid for scale – July 2004**11.5 Drill core recovery**

All pre-collar drill chips are discarded. Core losses are recorded in the log table of the database and marked as “no core”. Core recovery is generally close to 100% except for minor losses near the till to bedrock interface, within zones of fracturing and in areas of faulting. Core recovery in both deposits is high, with >99% of the meters drilled have a measured core recovery between 90% and 100%. Core recovery statistics for Konttijärvi and Ahmavaara are presented for the drilling completed by GFAP (to 2002) and Outokumpu in Table 11.1, Table 11.2 and Table 11.3. The core recovery statistics for diamond drilling completed at Konttijärvi by Outokumpu are not available .

Table 11.1 Konttijärvi GFAP Diamond Drilling Core Recovery Statistics

Recovery %-int.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Meters	4	2	0	4	5	8	9	12	15	33925
% of total meters	0.01	0.01	0.00	0.01	0.01	0.02	0.03	0.04	0.04	99.83

Table 11.2 Ahmavaara GFAP Diamond Drilling Core Recovery Statistics

Recovery %-int.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Meters	38	5	6	6	19	9	21	29	56	35068
% of total meters	0.11	0.01	0.02	0.02	0.05	0.03	0.06	0.08	0.16	99.46

Table 11.3 Ahmavaara Outokumpu Diamond Drilling Core Recovery Statistics

Recovery %-int.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Meters	21	1	0	0	2	1	0	2	0	3295
% of total meters	0.63	0.03	0.00	0.00	0.06	0.03	0.00	0.06	0.00	99.19

Snowden has personally inspected a selection of drill core and can confirm that the recoveries as observed appear to be as stated .

11.6 Downhole Deviation Surveys

Downhole Surveying statistics for drillhole deviation are tabulated below. Current GFAP exploration practice is to use Maxibor downhole surveys to measure downhole dip and azimuth. Maxibor measurements have been collected for 922 of a total of 1421 drillholes (79.1% of the total meters drilled at Suhanko and SK Reefs).

Deposit	Number Holes	DH Survey Method	Metres DH Surveyed	Average Hole Depth	Holes >150 m	% Meters Surveyed	% Holes Surveyed
	647		61001				
	322	Maxibor	43315			71.01	49.77
Konttijärvi	292	Clinometer	14295	48	5	23.43	45.13
	4	ReflexIT	809	202	4	1.33	0.62
	29	None	2581	89	9	4.23	4.48
	512		60043				
	364	Maxibor	51239			85.34	71.09
Ahmavaara	81	Clinometer	5420	66	7	9.03	15.82
	3	ReflexIT	694	231	3	1.16	0.59
	64	None	2688	42	3	4.48	12.50
	312		58949				
SK	236	Maxibor	47907			81.27	75.64
	44	Clinometer	6789	154	21	11.52	14.10
	32	None	4252	132	14	7.21	10.26

Table 11.4 Downhole Deviation Survey Statistics – Suhanko and SK deposits

Maxibor measurements have been collected for 922 of a total of 1421 drillholes (79.1% of the total meters drilled at Suhanko and SK Reefs) .

Maxibor surveys are normally measured at 3 m station intervals using a 6 m probe length. In heavily deviated drillholes, the station interval is reduced to 1.5 m and a 3 m probe length is used instead. The collar dip is measured with a digital level. Collar azimuth is measured with a tachometer. Maxibor raw data is processed and checked by GFAP before entering the data into drillhole database .

Some 424 drillholes have only partial orientation data, which was measured either with a clinometer or ReflexIT tool. The average length of the affected drillholes is 62m for clinometer surveyed holes and 214 for ReflexIT holes .

There is no downhole survey data for 125 drillholes. These are mostly shallow (<25 m) drillholes, which have been assigned the orientation measured at the drillhole collar. Many of these are recent holes that were drilled within the cleared trial mine areas at Suhanko .

Analysis of the deviations of those drillholes surveyed with Maxibor indicates that the drillholes are generally straight for lengths of up to 150 m. It was thus

concluded that using the collar azimuth and measured dip for the drillholes without surveys is acceptable. Analysis further shows that the average dip change is positive and upwards, while the azimuth change is positive and clockwise .

GFAP used a Maxibor tool to downhole survey 322 out of 647 Konttijärvi drillholes (or 50.0% of the total drillholes 71% of the total meters). Four drillholes (KOJ-306, 361, 362, 364) were measured by the ReflexIT technique. Due to the magnetic nature of the rock, the down-hole azimuth deviations measured using ReflexIT were not used and the collar azimuth of the affected drillholes was used as an alternative . Deviations were not measured for drillholes that were shorter than 43 m . A further 29 drillholes were not surveyed for various reasons (short holes, historic holes, blocked holes). These represent 4.5% of the total meters drilled at Konttijärvi.

At Ahmavaara, downhole surveys and deviations were measured by Maxibor for 236 out of 312 drillholes or 75.6% of the total drillholes (81.3% of the total meters). A total of 81 drillholes or 15.8% of the total drillholes (9% of the total meters) were measured by clinometer. These were mostly short holes drilled without appropriate casing to allow Maxibor survey. Drillholes RN/YP-383, 384 and 388 were measured by ReflexIT. Due to the magnetic nature of the rock, the downhole azimuth deviations measured using ReflexIT have not been used. A further 64 drillholes were not surveyed which represent 4.5% of the total meters drilled at Ahmavaara .

In the Narkaus SK deposits, downhole surveys and deviations were measured by Maxibor for 364 out of 512 drillholes or 71% of the total drillholes (85.3% of the total meters). A total of 44 drillholes or 14% of the total drillholes (11.5% of the total meters) were measured by clinometer. A further 32 drillholes were not surveyed, which represent 7.2% of the total meters drilled at the SK deposits .

11.7 Core orientation

Current GFAP practice is to orient all diamond drill core for the collection of structural and geomechanical measurements .

11.8 Drillhole database

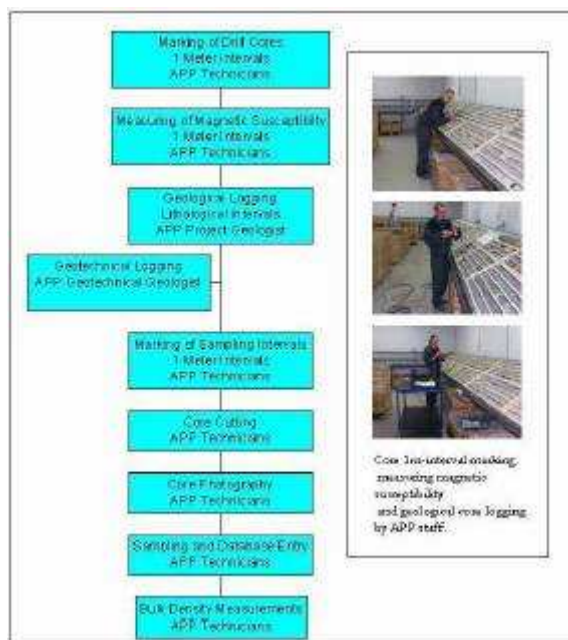
All the drilling and associated geological data for Suhanko, Narkaus, and other regional prospects is housed in a custom-designed SQL relational database, with Datashed software used as the front-end management tool. The database was designed and built by Maxwell Geoservices (Australia) based on similar systems in operation at the St Ives Gold Mine (owned and operated by Gold Fields). The database has built-in validation systems to prevent geological overlapping and incorrect sample intervals, and many other data control features. The database utilizes user security levels to prevent unauthorized access to data as well as data corruption through simultaneous multiple users. The database is audited from time to time by both GFAP staff and by external parties.

12 Sample Preparation , Analysis, and Security

12.1 Core management

GFAP has a well-defined core processing system for the Suhanko and Narkaus projects. Figure 12.1 illustrates in flowchart form the logging and cutting procedures which are undertaken. The core storage and logging facility is indoors, allowing safe and efficient logging and processing year-round .

Figure 12.1 Core management flowchart and illustration of procedures



Core is processed in the following order:

- meter marking of drill cores;
- magnetic susceptibility measuring;
- geological logging;
- geotechnical logging;
- marking of the samples for assaying;
- core photographing;
- core cutting;
- sampling;
- bulk density measuring; and
- storage

All activities in the above flowchart are carried out by GFAP employees. However, Snowden has reviewed the logging and core processing procedures and considers them to be commensurate with industry best practice .

12.2 Bulk density determination

12.2.1 Introduction

The GFAP geological database contains bulk density ('BD') measurements from three different laboratories and determinations by two different techniques. The "source laboratory" and "method" are recorded in the database, although currently this data is missing from some older APP data and some regional exploration drill-holes .

BD measurements completed by Genalysis, a commercial laboratory located in Perth, Western Australia, were undertaken with a Pycnometer (marked in the database as "Pycnometer" and "Genalysis"). BD measurements by GTK, a commercial laboratory located in Rovaniemi, used the weight in water and weight in air method (water displacement) .

12.2.2 Historical Measurements

APP traditionally utilised the weight in water method for BD determination. An independent audit was commissioned in 2001 to check on the GTK method. A selection of samples was sent to Genalysis for determination by Pycnometer. The initial results showed the difference could be as much as 10% (this was not expected as the samples are non-porous and should not show such a large difference). Additional samples were sent to Genalysis for further test work and subsequent analysis suggested the difference between methods was closer to 2-3%. This was considered to be acceptable and APP decided to continue with GTK's BD measurements.

At the request of Arctic Platinum the June 2001 resource modelling (Snowden, 2001b) project included a detailed statistical validation of the existing BD data . Initial analysis confirmed that average BD values at Konttijärvi had increased by around 2% to 3% since the completion of the June 2000 resource model (Table 12.1).

Table 12.1 Comparison between total 2001 and 2000 bulk density values, Konttijärvi

Domain	Samples	2001					2000	
		Min t/m ³	Mean t/m ³	Max t/m ³	Std Dev.	COV	Sample s	Mean t/m ³
Hangingwall	248	2.77	2.97	3.21	0.05	0.02		
Peridotite marker	799	2.80	2.95	3.15	0.07	0.02	20	2.89
Konttijärvi Pyroxenite	620	2.68	3.00	3.20	0.08	0.03	41	2.94
Marginal gabbro	821	2.64	3.00	3.21	0.10	0.03	58	2.91
Hybrid gabbro	1999	2.62	2.94	3.27	0.12	0.04	144	2.92
Basement	4118	2.58	2.81	4.74	0.11	0.04	139	2.79
Portimo dykes	45	2.90	3.10	3.26	0.07	0.02		
Basement outside faults	35	2.64	2.76	2.83	0.04	0.01		

Further analysis of the BD population distribution within stratigraphic domains showed a consistent pattern of bimodality in the Konttijärvi data. A comparison of the measurements obtained from the two methods showed that the pycnometer measurements were consistently higher than the water displacement method results, thus causing the bimodality noted in the initial analysis (Table 12.2). The conclusion of APP and Snowden was that the weight in water method was most accurate and APP directed Snowden to utilise only the GTK data for resource estimation from that point forward.

Table 12.2 Comparison Between Bulk Density Results Derived From Different Measurement Techniques

Homogeneous domain	GTK		Genalysis	
	Samples	Mean (t/m ³)	Samples	Mean (g/cc)
Hangingwall	52	2.93	196	2.98
Peridotite marker	382	2.89	417	3.01
Konttijärvi pyroxenite	307	2.94	314	3.05
Marginal gabbro	503	2.98	318	3.04
Hybrid gabbro	1,114	2.90	886	2.99
Basement	2,529	2.77	1,589	2.87
Portimo dykes	4	2.96	41	3.11
Basement beyond boundary Faults	16	2.74	19	2.76
Total	4,907	2.85	3,780	2.95

Currently all bulk density measurements are done by GFAP, at the GFAP core logging facility in Rovaniemi, using the water displacement technique. The database contains a total of 24,924 bulk density measurements completed on half core samples using the water displacement technique, and 6,542 pycnometer measurements made on pulverized material.

12.2.3 Density Determination Procedure

Density Measurement Equipment Calibration

GFAP uses an A&D-3000 balance to weigh BD samples. The GFAP standard sample is a 511.39 g (weight in air) sample of lacquered granitoid. The GFAP standard sample was weighed 20 times to check any variation caused by the balance. The measurement accuracy achieved was equivalent to a BD variation of 0.001 t/m³, which is well within acceptable limits of analytical error.

Two drillholes previously measured by GTK (KOJ-202 and RN/YP-212) were selected for control measurement tests. These tests demonstrated a very strong correlation between APP and GTK results, even though it was not possible to identify exactly the same core pieces in every case.

Density Measurement Procedure

The following procedure applies:

- two to three pieces of half-core (approximately 1000 g) are selected from each 1m-sampled interval;
- samples are marked with a permanent ink marker as 1, 2 and 3;
- samples are then weighed together in air and water (first air, then water). Samples are not coated; and

- data is collected by a dedicated computer program and automatically written to the GFAP database.

QA-QC on bulk density

Standards are repeated after approximately every 20 samples and plotted on a density measurement quality control sheet. A technician checks standard repeats and, in the case of unacceptable variation, the samples are inspected by the geologist and repeated. Repeats are written to the database for future references .

12.3 Assay QA-QC

12.3.1 Current practice

Core samples from the Konttijärvi, Ahmavaara, and Narkaus projects are subject to a variety of quality assurance – quality control (QA-QC) measures. These measures are built into the sample preparation and analysis scheme, which is detailed in flowchart form in Figure 12.2. GFAP currently uses two main laboratories for assays from the Suhanko project – the GTK (Finnish Geological Survey) laboratory in Rovaniemi, and Genalysis in Perth. All sample preparation is being carried out at GTK and pulps are then shipped to Perth for umpire sampling. Currently, PGE (effectively Pd and Pt) and gold are determined by conventional fire assay, using a standard lead flux at both GTK and at Genalysis. The analysis is carried out by ICP at both laboratories – GTK uses an optical emission spectrometer (ICP-AES) and Genalysis uses a mass spectrometer (ICP-MS). Base metal assays are also carried out at both laboratories on a second split of the pulp. Both laboratories use an aqua regia digest followed by ICP-OES finish. It is noted that the aqua regia only provides a partial digest – in other words, base metals in sulphide and sulphate form are extracted, but not silicate-hosted species. Snowden has carried out a number of analyses of QA-QC data (Snowden, 2002, Snowden, 2004). In the latter report it is noted that one of the check base metal batches assayed at Genalysis was (mistakenly) carried out using a total digest in contrast to the partial aqua regia digest mentioned above. The corresponding Ni, Cu, and Pb assays were correspondingly higher than their GTK counterparts. The other check batches, digested using aqua regia, show good correspondence to the original GTK samples. These enhanced base metal values are only of importance if non-sulphide (and sulphate) base metals are to be won from Suhanko concentrates at the smelters .

Ian Glacken of Snowden carried out inspections at both of these laboratories during 2004 and is happy that sample preparation and assaying are being carried out to industry standards. A small issue relating to blind submission of standards to the GTK laboratory was rectified. Both the Snowden 2002 and 2004 studies note that, overall, the QA-QC data shows that the primary (GTK) laboratory is preparing and assaying for PGEs, Au, and base metals diligently. Snowden has also reviewed GFAP's internal core handling, data processing and QA-QC procedures and notes that these are of a very high standard .

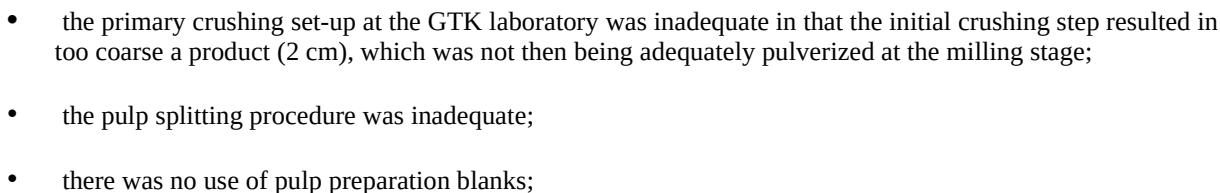
12.3.2 2003 review – Smee and Associates

APP commissioned a review of QAQC by Barry Smee of Smee and Associates (Vancouver, Canada) in February 2003. Mr. Smee is acknowledged as a leader in the field of assay QAQC practices. APP retained Smee and Associates to:

- Audit the GTK Laboratory in Rovaniemi and give recommendations as to the best course of action for the next round of exploration.
- Give a seminar to the APP exploration staff regarding laboratory protocol and exploration “Best Practices”.

- The conclusions are presented in Smee (2003), but are summarized below:

Figure 12.2 **GFAP current core sampling protocol**



- the PGE standards used internally at the GTK laboratory should be certified using a round robin testing procedure;
- a 30-pot fire assay furnace should be obtained;
- a new, lower-grade certified base metal standard is required; and
- the current 15g sample weight for high-sulphide fire assay samples should be verified by experimentation.

Snowden has verified that almost all of these recommendations have been implemented, either by GFAP or by GTK. The outstanding items are the lack of a pulp splitting device and the analysis of the 15g charge for high Sulphide fire assay samples. GFAP has informed Snowden that a pilot test of direct scooping from the pulveriser bowl versus mat rolling showed no appreciable difference; however, Snowden has yet to view these results .

12.3.3 Snowden analysis of GFAP QA-QC data – 2002 and 2004

Snowden carried out two studies of the assay quality assurance data generated by GFAP (Snowden 2002, Snowden 2004). The 2002 report covered the historical QA-QC data up to July 2002, and made the following conclusions:

- Overall analysis of quality control data for platinum, palladium and gold, relating to duplicates, blanks and standards submitted with routine exploration diamond drillhole samples from Narkaus and Suhanko prospects has not identified any critical issues which would adversely affect the material outcome of current resource estimation.
- Routine evaluation of quality control data is a “best practice” approach which Snowden highly recommends, enabling problems to be identified sooner rather than later, when they can be far more easily dealt with and corrected. Snowden understands that routine quality control assay data checking and action procedures have now been put in place by Arctic Platinum, which is to be commended.
- Snowden recommends that preparation of standards based on directly relevant prospect rock types is routinely undertaken at a commercial laboratory familiar with the requirements of such procedures, rather than on site. It is understood that GFAP is currently acting on this. It will improve the quality of standards used in routine quality control analyses.
- The quality of analytical work carried out at Genalysis Laboratories appears superior to that at GTK Laboratories.
- Repeatability characteristics for platinum and palladium at Suhanko are consistently very good through all datasets and for both laboratories.
- Gold assay repeatability at Suhanko is consistently poor throughout the various sets of duplicate data, and has precision levels of the same order across the various sets and for both laboratories. This shows that it is a characteristic of the mineralisation, and not a function of subsampling or assaying technique.
- Overall, analysis of the QC data relating to blanks submitted with routine samples from (Narkaus and) Suhanko has not identified any problems which would materially affect the outcome of current resource estimation. Reassay work would, however, improve the reliability and quality of the resource estimate.

- Overall analysis of the quality control data relating to standards submitted with routine samples from Narkaus and Suhanko has not identified any critical problems which would materially affect the outcome of current resource estimation. However, suggested follow-up work would improve the reliability and quality of the resource estimate, and highlights the merit of having such follow up work carried out on a routine basis.
- Snowden is of the opinion that the precious metals assays used in current resource estimation are validated by umpire assay comparison with Genalysis nickel-sulphide fire assay work, and by satisfactory routine standard reference material analyses at GTK. Nevertheless, there is a discrepancy of approximately 10% between GTK's original platinum and palladium work, and lower grade umpire assays by XRAL laboratories.
- With respect to check assays on second halves of core, all dataset comparisons show an acceptable degree of scatter and no significant bias. For all three precious metals at Ahmavaara and Konttijärvi, the percent of data with precision worse than +/-10% is around 35 - 45%, while the percent of data with precision worse than +/-20% is 10 – 13% at Ahmavaara and 14 – 18% at Konttijärvi. These figures are quite acceptable for precious metal "field duplicates".

Since the 2002 report, GFAP has made changes to its standards preparation procedure. GFAP collects pulps at specific grade ranges, and sends these pulps to CDN Laboratories in BC. They produce certified standards from the Suhanko and Narkaus material. A round robin is carried out at 5 labs, with certification by B Smee. CDN currently produces a range of high quality CRM's for PGE and Au. GTK uses one of their commercial standards.

The 2004 Snowden study made the following conclusions:

- Overall analysis of quality control data for platinum, palladium and gold, relating to duplicates submitted with routine exploration diamond drill hole samples from the Suhanko prospects has not identified any critical issues which would adversely affect the material outcome of current resource estimation.
- The analysis of base metals has not identified any critical issues which would adversely affect the material outcome of current resource estimation.
- Routine evaluation of quality control data is a "best practice" approach which Snowden highly recommends, enabling problems to be identified sooner rather than later, when they can be far more easily dealt with and corrected. Snowden understands that routine quality control assay data checking and action procedures have now been put in place by GFAP, which is to be commended.
- Snowden recommends that preparation of standards based on directly relevant prospect rock types is routinely undertaken at a commercial laboratory familiar with the requirements of such procedures, rather than on site.
- The quality of analytical work carried out at Genalysis Laboratories appears to be superior to that at GTK.

- Quality control data shows that gold behaves differently to platinum and palladium at the Suhanko prospects. This probably reflects a less even distribution of gold.
- Of the base metals Zn performs universally badly but this is likely to be due to the majority of samples being at, or very close to, the detection limit of the GTK laboratory.
- The base metals, Cu, Ni, S, Pb, Co and Zn, show good repeatability at GTK; however, there are variable biases evident when the pulps have been repeated at Genalysis. Ahmavaara Cu, Ni and S repeats report approximately 10% higher when assayed at GTK; however, there is a weak to 10% bias lower at Konttijärvi.
- Co shows no bias with good repeatability and Zn shows a weak to approximately 10% higher bias from GTK for elevated (>40 ppm) values for samples from Konttijärvi.
- The variable nature and relatively minor magnitude of the biases evident when umpire assaying has been completed leads Snowden to conclude that inherent differences in laboratory techniques are the cause and are therefore unavoidable.

12.4 Sample security

In Snowden's opinion, GFAP takes reasonable steps to ensure the security of samples from the drill site through to the database. These include

- careful boxing of core at the drill rigs and transport to ensure that core jumbling does not occur;
- annotation of hole ID and depth both on the core trays and as in-core markers;
- piecing together and orientation of each core run prior to core photography (wet and dry);
- double-bagging of half core samples and securing of the bags with permanent quick-ties during transport to the GTK laboratory;
- retention of both coarse rejects and pulps in secure locked storage; and
- retention of half core in secure storage.

These measures do not guarantee that the samples are totally immune from tampering, but the secure storage of the remaining half core, the coarse rejects, and the pulps means that any suspicion of fraudulent behaviour can always be resolved by reference to the original sample, which has been retained .

13 Data Verification

Snowden has not taken independent samples from Konttijärvi, Ahmavaara, or the SK Reef deposits. However, on site visits to the Konttijärvi and Ahmavaara trial excavations it was noted that sulphide-rich PGE-base metal mineralisation was plainly visible in situ. It is also noted that the reconciliation of the trial mining parcels through the GTK pilot plant (BMGS, 2004) demonstrates a reasonable correspondence with both diamond drill assays and blasthole grade control assays. The nature of the mineralisation is such that there is generally a good correlation between the presence of visible sulphides (chalcopyrite, pyrrhotite, and pentlandite), copper assays, nickel assays, and PGE values. As such the mineralisation is partly visible in nature.

Sampling independent of GFAP from both Ahmavaara and Konttijärvi has been carried out by Lycopodium for the purposes of metallurgical test work. Summary details of all metallurgical testwork are tabulated in Section 14. This largely confirms the PGE, Ni and Cu grades as detailed in the 2004 Mineral Resource estimate.

Bulk samples for the SK Reefs have not been taken. In 2002 APP selected composite drill core composite samples by mineralisation and grade categories for preliminary metallurgical test work. This work was completed by Process Research Associates in Canada.

14 Metallurgical Test Work

A considerable number of metallurgical test programs have been completed since December 2000. These are summarised below. In the majority of cases sample selection was completed by APP – GFAP personnel and the test programs were managed by Lycopodium Pty Ltd .

Table 14.1 Summary Details of Metallurgical Test Work completed since 2000

Test Stage	Laboratory	Location	Testing Period	Samples	Tests Conducted
Stage 1	Mintek	Johannesburg, RSA	August to December 2000	21 samples from 4 drill holes from the Konttijärvi and Ahmavaara deposits were prepared as well as 4 lithological composites.	Preliminary grind size, grind strategy and flotation review.
Stage 2	Process Research Associates(PRA)	Canada	reported November 2001	53 individual drill hole samples were tested. These were from the 11 lithologies representing the Konttijärvi and the Ahmavaara orebodies.	Preliminary grind size and flotation variability review.
Stage 3	VTT – Laboratory Bench Testing	Outokumpu, Finland	August – December 2001	Drill core samples of the 11 different Konttijärvi and Ahmavaara lithologies were prepared.	5 individual lithologies were tested at different grind sizes in Rougher/Scavenger tests. Composites of Konttijärvi and Ahmavaara were subjected to open circuit cleaning tests.
Stage 3	VTT – Mini Pilot Plant	Outokumpu, Finland	August to December 2001	2 Konttijärvi and 2 Ahmavaara composites and an Konttijärvi-Ahmavaara composite were prepared from the drill core samples supplied for the bench testing referred above.	The mini-pilot plant was operated to develop grade recovery relationships and prepare concentrate samples for testing. Various flotation parameters were evaluated.
Stage 3	VTT – Pilot Plant	Outokumpu, Finland	February to March 2002	Samples from the Outokumpu Trial Pits were tested. Blends of Konttijärvi Peridotite Marker, Pyroxenite, Gabbros and Basement ores were evaluated.	The pilot plant was operated to develop grade recovery relationships with different grind sizes and circuits, including gravity recovery. Concentrate samples were prepared for downstream testwork.
Phase 1	SGS, Lakefield	Johannesburg, RSA	August 2001 to January 2002	The samples were prepared from the Stage 3 lithological samples at VTT as described above and freighted to SGS.	Bench testing evaluated the 11 individual lithologies and blended talcose and non- talcose composites. 69 tests were conducted and evaluated grind size, circuit configuration (MF1 or MF2), flotation time and open circuit cleaning. Bond Ball Mill grinding indices were determined.
Phase 2	SGS, Lakefield	Johannesburg, RSA	reported February 2002	An “Overall” composite and talcose and non-talcose composites were prepared from the samples provided to SGS for the Phase 1 work.	The majority of the work was conducted on the “Overall” composite and reviewed grind size, grinding circuit configuration(MF1 or MF2), reagent options and usage including depressants and collectors, flotation pH and flotation residence time.

Phase 3	SGS, Lakefield	Johannesburg, RSA	February to July 2002	New drill core samples of the 11 different lithologies were prepared at VTT and sent to SGS for preparation of a “Master” composite. Variability samples of each lithology, high and low grade composites of each ore body as well as composites representing different phases and years of mine production were also prepared. The “Master” composite was prepared based on the AMC February 2002 mine plan first 4 years of production.	The testwork formed the basis of the 2002 Feasibility Study. Approximately 80 tests reviewed grind size, grinding circuit configuration, reagents, flotation pH, concentrate regrind, and open circuit cleaning. Variability tests were conducted on each lithology as well as composites representing different stages on mine production. Locked cycle flotation tests were conducted on the “Master” composite. Comminution tests including Advanced Media Competency Tests and JK Drop Weight tests and variability Rod and Ball Mill Work Index tests on selected drill core intervals were conducted.
Phase 4	SGS, Lakefield	Johannesburg, RSA	May to September	New samples of the 11 different lithologies were sent to SGS for	93 tests reviewed the outcomes of the Phase 3 work and the Feasibility Study

Test Stage	Laboratory	Location	Testing Period	Samples	Tests Conducted
			2003, reported November 2003.	preparation of a “Life of Mine” composite sample as well as talcose and non-talcose blends as required. The “Life of Mine” composite was prepared based on the AMC February 2002 mine plan.	report investigating grind size and configuration, flotation pH, reagents, flotation time, separate size flotation and cleaning strategies. Copper nickel separation was evaluated in 4 tests. Acid washing of New Feed and Rougher/Scavenger concentrates prior to cleaning was evaluated in 12 tests.
Phase 4, extended	SGS, Lakefield	Johannesburg, RSA	Oct 2003 to June 2004	New variability samples were provided by APP to SGS. These consisted of a range of low, medium and high 2PGE+Au grades as well as sulphur grades for all of the 11 Konttijärvi and Ahmavaara lithologies. 90 plus samples. Acid wash testing of the Phase 4 “Life of Mine”(LOM) composite continued.	Variability float tests on 16 individual samples at standard conditions. Optimisation testing of a Konttijärvi, an Ahmavaara and a Konttijärvi-Ahmavaara composite were conducted. Reagent additions, depressant type, primary and regrind grind size and flotation pH were reviewed. Acid wash tests on the Phase 4 LOM composite.
Stage 4	G&T	Canada	November to December 2003	Rougher Concentrates and Tails samples from SGS test on Phase 3 “Life of Mine” composite sample.	Mineralogical Modal Analysis.
Stage 5	G&T	Canada	January to March 2004	Konttijärvi Talcose and Non-Talcose composites prepared from Phase3 “Life of Mine” Composite sample and Phase 4 variability samples.	Copper Nickel separation development testwork, supported by Mineralogical Modal Analysis.
Stage 6	AMMTEC	Perth, Australia	March/April 2004	A Konttijärvi Non-Talcose composite prepared from Phase 4 variability samples was used for the development work. A Konttijärvi and an Ahmavaara blend were used for comparative performance tests.	Copper Nickel separation testwork.
Stage 6A	AMMTEC	Perth, Australia	April 2004	Suhanko Concentrate from 2001 GTK Pilot Plant campaign.	The purpose was to conduct a copper- nickel separation for subsequent leach testing of the nickel concentrate
Stage 6B	Western Minerals Technologies	Perth, Australia	May to July 2004	Nickel concentrate from AMMTEC flotation separation testwork.	Activox Testwork (Fine Grinding to 10 micron and pressure oxidation at 110°C), followed by flotation of residues. Mineralogical analyses of flotation concentrate and tailings.
Stage 6C	SGS Lakefield	Perth, Australia	May to July 2004	Nickel concentrate from AMMTEC flotation separation testwork.	Pressure oxidation testwork at temperatures between 110°C and 200°C. Mineralogical analyses of residues.
Stage 7	GTK, previously VTT	Outokumpu, Finland	April to July 2004, preliminary reports prepared.	11 lithological samples were provided from the Konttijärvi and Ahmavaara trial pits mined	Pilot Plant preparation of Bulk concentrate samples for downstream process testing. A

				in April 2004.	series of laboratory bench tests evaluating the Bulk flotation process as well as Copper-Nickel separation were conducted.
Stage 8	G&T	Canada	September 2004, ongoing	2 composites were prepared from Phase 4 variability samples for the testwork. These were a Konttijärvi / Ahmavaara: 76 / 24 blend and a Konttijärvi / Ahmavaara: 24 / 76 blend.	Copper Nickel separation development testwork.
Phase 5	SGS, Lakefield	Johannesburg, RSA	July 2004 ongoing	11 lithological samples were provided from the Konttijärvi and Ahmavaara trial pits mined in April 2004 to GTK Finland. Samples of each lithology were prepared from these and sent to SGS.	Rougher/Scavenger, Open Circuit Cleaner and Locked Cycle tests were conducted on each lithology and on various blends of the lithologies representing different stages of planned mine production.

15 Mineral Resource Estimate
15.1 Summary tabulation of Mineral Resources
15.1.1 Konttijärvi and Ahmavaara

The Mineral Resources for Konttijärvi and Ahmavaara were estimated by Snowden in August 2004 (Snowden 2004a, 2004b). The resources are tabulated in Table 15.1, and are reported above a 2PGE+Au cut-off of 1 g/t .

Table 15.1 2004 Tabulation of Suhanko resources and comparison with 2003

Project	Tonnes (Mt)		Grade (g/t 2PGE+Au)		Metal (000's oz 2PGE+AU)		Individual Metal Grades 2004				
	2004	2003	2004	2003	2004	2003	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
Konttijärvi											
Measured	19.3	13.3	2.45	2.68	1,524	1,142	1.81	0.51	0.13	0.17	0.08
Indicated	10.6	9.7	2.30	2.41	786	754	1.70	0.49	0.12	0.17	0.07
Sub Total Measured & Indicated	29.9	23.0	2.41	2.65	2,310	1,896	1.77	0.50	0.13	0.17	0.08
Inferred	8.9	12.6	2.06	2.27	593	917	1.54	0.41	0.11	0.17	0.04
Ahmavaara											
Measured	19.3	21.1	2.22	2.13	1,383	1,440	1.69	0.36	0.17	0.30	0.12
Indicated	25.1	8.0	1.72	1.64	1,387	423	1.30	0.26	0.16	0.28	0.10
Sub Total Measured & Indicated	44.4	29.1	1.94	2.06	2,770	1,863	1.47	0.31	0.16	0.29	0.11
Inferred	15.6	32.7	1.63	1.78	821	1,870	1.21	0.26	0.16	0.23	0.08
Ahmavaara East											
Measured	0.0	0.0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00
Indicated	12.3	0.2	1.65	1.64	653	9	1.23	0.29	0.14	0.23	0.08
Sub Total Measured & Indicated	12.3	0.2	1.65	1.64	653	9	1.23	0.29	0.14	0.23	0.08
Inferred	7.8	16.1	1.55	1.54	391	798	1.15	0.26	0.13	0.23	0.08
Total Suhanko											
Measured	38.6	34.3	2.34	2.42	2,907	2,582	1.75	0.44	0.15	0.23	0.10
Indicated	47.9	17.9	1.83	2.13	2,826	1,187	1.37	0.32	0.14	0.24	0.09
Total Measured & Indicated	86.6	52.2	2.06	2.32	5,732	3,768	1.54	0.37	0.15	0.24	0.09
Total Inferred	32.4	61.4	1.73	1.88	1,806	3,586	1.29	0.31	0.14	0.21	0.07

These resources have been classified and reported in compliance with NI 43-101 . Ahmavaara East has been combined with Ahmavaara in the 2004 resource estimate, but has been separated for the purposes of comparison with the 2003 figures. The resource was estimated and reported by Paul Blackney, Shaun Hackett, Elizabeth Haren and Alex Trueman of Snowden, all of whom are independent of GFAP. The relevant certificates are presented in Section 17.

15.1.2 SK Reefs

The SK Reefs are tabulated in Table 15.2. The total comprises an estimate of the Kuohunki reef completed by SRK in July 2004, and estimates of the Nutturalampi and Siika-Kama reefs completed by Snowden in 2002 and 2003 respectively. The SK Reef resources are reported above a 1.0g/t 2PGE+Au cut-off above 100 m depth and above a 2.0g/t 2PGE+Au cut-off for areas deeper than 100 m .

Table 15.2 2004 Tabulation of SK resources and comparison with 2003

Project	Tonnes (Mt)		Grade (g/t 2PGE+Au)		Metal (000's oz 2PGE+AU)		Individual Metal Grades 2004				
	2004	2003	2004	2003	2004	2003	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
SK Reef											
Measured	0.0	0.0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00
Indicated	6.1	0.0	3.56	0.00	696	0	2.72	0.77	0.07	0.10	0.10
Sub Total Measured & Indicated	6.1	0.0	3.56	0.00	696	0	2.72	0.77	0.07	0.10	0.10
Inferred	20.0	25.6	4.15	4.23	2,671	3,482	3.17	0.90	0.09	0.11	0.11
SK Reef Footwall											
Measured	0.0	0.0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00
Indicated	0.0	0.0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00
Sub Total Measured & Indicated	0.0	0.0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00
Inferred	23.3	17.5	2.26	2.45	1,696	1,377	1.76	0.44	0.06	0.09	0.05
Total SK Reef											
Measured	0.0	0.0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00
Indicated	6.1	0.0	3.56	0.00	696	0	2.72	0.77	0.07	0.10	0.10
Total Measured & Indicated	6.1	0.0	3.56	0.00	696	0	2.72	0.77	0.07	0.10	0.10
Inferred	43.3	43.1	3.14	3.51	4,367	4,859	2.41	0.65	0.07	0.10	0.08

The resources were estimated by Michael Harley of SRK (Kuohunki) and by Shaun Hackett and Paul Blackney of Snowden, all of whom are independent of GFAP . Their certificates are presented in Section 17.

15.1.3 Total Arctic Platinum Resource

The total Arctic Platinum resource base is tabulated below. Total Measured and Indicated resources now account for 55% of the resource tonnes, and 51% of PGE+Au metal. This compares with 33% and 31% respectively in 2003 .

Table 15.3 2004 Tabulation of Total Arctic Platinum comparison with 2003

Project	Tonnes (Mt)		Grade (g/t 2PGE+Au)		Metal (000's oz 2PGE+Au)		Individual Metal Grades 2004				
	2004	2003	2004	2003	2004	2003	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)
Arctic Platinum											
Measured	38.6	34.3	2.34	2.42	2,907	2,582	1.75	0.44	0.15	0.23	0.10
Indicated	54.0	17.9	2.03	2.13	3,522	1,187	1.52	0.37	0.14	0.23	0.09
Sub Total Measured &											
Indicated	92.6	52.2	2.16	2.32	6,429	3,768	1.62	0.40	0.14	0.23	0.09
Inferred	75.7	104.5	2.54	2.60	6,173	8,444	1.93	0.50	0.10	0.15	0.07

Details of the individual estimates are presented below .

15.2 Konttijärvi estimate

15.2.1 Overview

The 2004 Konttijärvi resource estimation builds on work carried out by Snowden for the 2003 estimation. New data and new understanding of the mineralisation controls have been incorporated in to the 2004 estimation. The approach taken in 2003 has been used for 2004 with only minor changes such as unfolding of sample data .

Preliminary engineering analysis indicated that mining cut-off grades needed to be higher than those utilized in the 2002 resource. These observations and conditions required the development of the 5 mE by 5 mN by 4 mRL recoverable resource estimate. A recoverable resource estimate is one in which estimation is carried out initially into large blocks or panels. A change of support correction is then made to this estimate to indicate the proportion of each panel, in units of 5 mE by 5 mN by 4 mRL, which is potentially recoverable at various cut-off grades .

Conditional bias – that is, the underestimation of high sample grades and the overestimation of low sample grades - was minimised in 2003 by increasing the estimation panel size to 25 mE by 25 mN by 4 mRL, which was found to be the optimal panel size based on kriging neighbourhood and conditional bias analysis . The 5 mE by 5 mN by 4 mRL recoverable resource estimate was developed from the 25 mE by 25 mN by 4 mRL ordinary kriged model using uniform conditioning based on the 2PGE+Au variable.

The results of the 2004 resource estimation process are tonnage and grade estimates for the two blocks sizes mentioned above that have been classified into Measured, Indicated and Inferred confidence categories according to NI43-101 guidelines . Both estimates incorporate internal dilution, but no allowance has been made for edge dilution between ore and waste material. The 5 mE by 5 mN by 4 mRL block size report (Table 15.1) also includes an allowance for ore and waste misclassification during mining based on the assumption of a 10 m by 10 m grade control drill grid and the grade continuity conditions measured from the exploration data. This is commonly referred to as an information effect adjustment.

The 2004 25 mE by 25 mN by 4 mRL panel model was estimated using ordinary kriging, the same methodology as was applied for the development of the 2002 resource estimate. The differences between the 2002 and the 25 mN by 25 mE by 4 mRL panel size 2004 resource estimates are therefore mainly a result of changes to the drillhole database and the geological interpretation. A significant difference between the 2003 and the 2004 Konttijärvi estimates is the recognition of a hydrothermal, structurally-controlled mineralization system for PGE, Au, Cu, and Ni, which essentially sits below the previously-recognised magmatic mineralization system .

The 2004 recoverable resource model has been validated by comparison with global change of support models, derived using the discrete Gaussian change of support technique, and by comparison with conditional simulation results from test areas within the Konttijärvi deposit. Both comparisons support the predictions obtained from the uniform conditioning method, and indicate that conditional bias is absent at the scale of the mineralisation domains. The conditional simulation analysis also suggests that conditional bias is minimal for 4 Mt to 5 Mt parcels of mineralisation if the estimation process is informed by drillhole data on a 25 m by 50 m grid or better, which is the current nominal drill spacing over much of the Konttijärvi mineralization .

The recoverable resource model predicts that selective mining (5 mE by 5 mN by 4 mRL) will produce less tonnage at a higher grade for slightly less metal above a mining cut-off than the 25 mE by 25 mN by 4 mRL model. This selective mining response appears attractive to a potential mining operation that incurs high processing costs .

Compared to the 2002 estimate, the 2004 model contains more Measured and Inferred tonnage and less Indicated tonnage. The increased Measured component reflects the influence of the findings of the conditional simulation analysis, which demonstrated that parts of the resource estimate informed by drill hole data on a 25 m by 50 m grid or better provided global precision levels that were commensurate with higher confidence. The additional drillhole data incorporated into the Konttijärvi database has also influenced the component of the resource assigned to the Measured category. Mapping of trial excavations and regional mapping supported continuity in the Layered Series but was less conclusive for the Basement Middle and Lower domains. The Basement domains within the three smaller fault blocks were downgraded from Indicated in the 2002 estimate to Inferred in the 2004 estimate. In general, many parts of the Basement Middle and Lower domains failed to achieve the drill grid spacings required for promotion to high confidence categories due to their greater depth below surface .

15.2.2 Drillhole data supplied

A preliminary Konttijärvi drillhole database was received from GFAP in the form of Datamine binary files on the 18th of June 2004. A Datamine macro used to code the drillhole intervals with the geological interpretation was also supplied. Updates to the drillhole database were supplied on the 22nd of June, and contained corrections to various errors noted by Snowden.

Each database was subjected to a range of basic data consistency checks including some initial grade statistics and visual comparisons of data coding relative to the wireframe models representing mineralisation domaining. The final drillhole database, received from Arctic Platinum on the 22nd of June 2004, included several minor corrections to errors identified in the earlier version and included additional assay results.

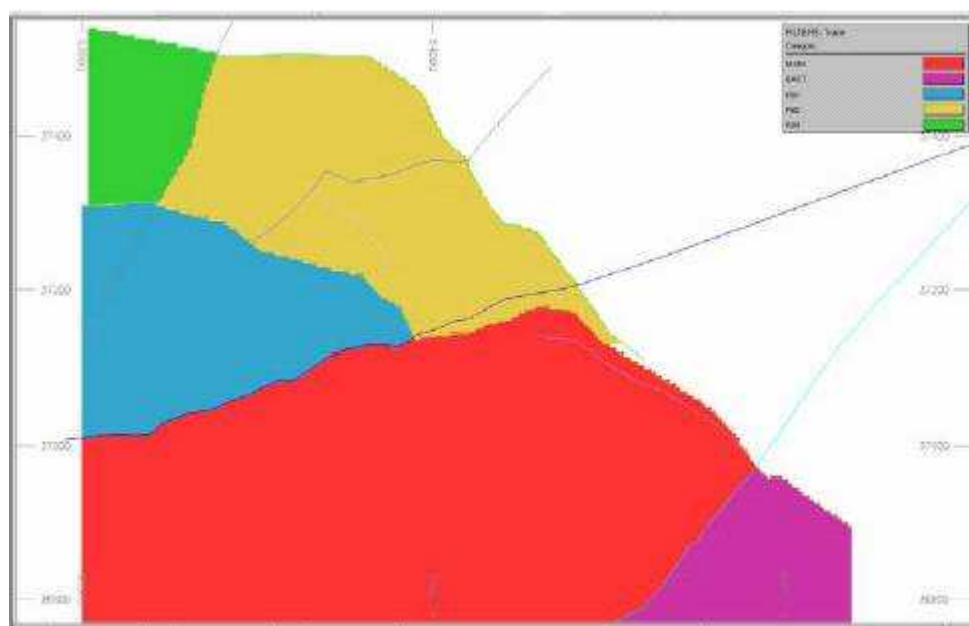
The drillhole database contains 506 resource drill holes, 122 drill holes more than 2003. Most of the additional holes are in two areas of close spaced, shallow drilling . Figure 11.1 shows the holes used in the 2004 update.

15.2.3 Geological model

GFAP provided the final geological model for Konttijärvi on the 22nd of June 2004 which incorporated a number of edits requested by Snowden.

The most significant change in the interpretation since 2003 is to the Layered Series . APP's 2003 interpretation modelled the Layered Series as a single unit. Since then, the Layered Series has been identified as two graduated units, an upper Magmatic component and a lower hydrothermal component. To reflect this, GFAP has divided the Layered Series into two units, based on geological and grade characteristics. Boundaries between the Layered Series and the Basement Upper have been modified based on further geological review. The Upper Peridotite Marker has not been modelled as a separate mineralisation domain for 2004. The interpretation also included three fault blocks, as shown in Figure 15.1.

Figure 15.1 Plan view of Konttijärvi interpretation showing fault blocks



In addition to the geological interpretation, a stratigraphic interpretation was supplied by GFAP. This includes the following units (from the youngest downwards):

- Till;
- Hangingwall rocks;
- Upper Pyroxenite;
- Peridotite;
- Pyroxenite;
- Marginal Gabbro;
- Hybrid Gabbro;

- Portimo dykes; and
- Basement.

15.2.4 Unfolding

Previous Konttijärvi estimates used search orientation domains to align the variogram and search ellipses to the local mineralisation orientation. The 2004 model uses unfolding to remove fault offsets and tilting between fault blocks by reducing all mineralisation to a common plane relative to the mineralisation hangingwall. This allows grade estimation to be carried out across fault boundaries, and thus increasing the samples available to inform grade estimation panels in the smaller fault blocks. Unfolding was carried out using Datamine software .

15.2.5 Domain definition, statistical and geostatistical analysis

Domain definition was confirmed using moving window statistics and simple averages of the samples within the fault blocks and stratigraphic units. The result of this was the domains as defined in Table 15.4

Table 15.4 Estimation domains selected for Konttijärvi by code (MINCODE)

Domain (MINCODE)	Description
201.1	Layered Series Magmatic, western and Main fault blocks
201.2	Layered Series Hydrothermal, western and Main fault blocks
211.1	Layered Series Magmatic, Konttijärvi East
211.2	Layered Series Hydrothermal, Konttijärvi East
301	Basement Upper, all fault blocks
401	Basement Middle, all fault blocks
501	Basement Lower, all fault blocks
601	Layered Series Low Grade, restricted to Layered Series
701	Portimo Dyke
801	Basement Upper Waste Zone, restricted to Basement Upper

A statistical analysis of the most appropriate composite length suggested that 2 m downhole composites would be most appropriate. These were generated within the domains defined in Table 15.4, and composites were generated using an optimal compositing algorithm which minimised the occurrence of residuals. The samples in each domain were subject to declustering analysis in order to define the most appropriate set of weights for global mean comparison .

All of the domains defined above were then subject to univariate statistical analysis for the elements Pd, Pt, Au, S, Cu, Ni, Zn, Co, Pb. The variable 2 PGE+Au (ie. Pd, Pt, and Au added together) was analysed in addition to the individual elements. The results demonstrate that most domains are positively skewed, with some approaching lognormality .

The individual elements were also assessed for the linear (Pearson's) correlation coefficient. The results show that correlations are strong within the group Pd, Pt, and Au, with Cu being moderately to strongly correlated with this group in most

domains, and Ni and S less strongly correlated. The data was analysed for the need to apply top cuts – these were generally applied in domains and elements featuring high coefficients of variation, but were also applied at relatively high percentiles – very few domains had top cuts which affected more than the top 1% of the respective population .

All elements and domains were subject to continuity analysis by the definition of variograms (strictly semi-variograms). In many cases a Gaussian transform was applied to the data to improve the modelling of the variogram. Variograms were generated for all variables in both normal (Euclidean) space and in Gaussian space . Data for Gaussian variograms was obtained by applying a Gaussian anamorphosis to the data using the method of Hermite polynomials. In summary, the nugget variances (nugget effects) for the layered series elements tended to be lower (c.25% of the total sill), whereas the variograms for the basement units were characterised by higher nugget effects. This is thought to reflect the greater structural control on mineralisation in the (hydrothermal) basement domains. As a general comment the unfolding process introduced in 2004 has improved the variograms compared to the 2003 model (which was not unfolded).

15.2.6 Grade estimation

All domains were subject to kriging neighbourhood testing – the purpose of this exercise is to adjust the estimation parameters (search, octant parameters, minimum and maximum numbers of samples, etc.) so as to minimize the degree of conditional bias in the model. The results of conditional bias testing show that the key measures of conditional bias (the regression slope and the kriging efficiency) have, in general, increased from the 2003 estimate, suggesting that either the unfolding process and/or the increased drilling levels will improve the estimation efficiency. However, despite these issues there are still parts of the model which will be subject to significant conditional bias – this will be represented in the resource classification .

The volume model was built using a panel size of 25 mE by 25 mN by 4 mRL, with a minimum subcell size of 5 mE by 5 mN by 1 mRL for filling the block model between wireframe surfaces or within wireframe solids. Bulk density was applied to the model using default values per domain, as detailed in Table 15.5 .

Table 15.5 Bulk density values applied per domain in the 2004 Konttijärvi model

Unit	RCODE	Density
Air	10	0.00
Till	50	2.10
Hangingwall	100	2.91
Upper Pyroxenite	800	2.94
Peridotite	200	2.94
Pyroxenite	300	2.99
Marginal Gabbro	400	2.96
Hybrid Gabbro	500	2.93
Portimo Dyke	700	3.00
Basement	600	2.80
Uncoded Blocks	1000	2.80

The initial estimation was carried out using conventional ordinary kriging into the 25 mE by 25 mN by 4 mRL panels. All domain boundaries were treated as hard for the

purposes of estimation. The search strategy for estimation was based upon the results of the conditional bias testing. The large panel model was validated by graphical inspection, by comparing the domain averages for input composites versus model panel grades and by generating grade profiles along the easting axis (pseudo strike direction) of the model. The comparison between input and output averages was generally adequate, with the exceptions being those domains with less Pb, Zn and Co data compared to the other elements, and the smaller domains such as the Layered Series Low Grade .

The large panel model was then used as the basis for a recoverable resource estimate, which was generated using the uniform conditioning (discrete Gaussian) technique. The uniform conditioning was carried out on the 2PGE+Au variable, which was derived as the sum of the individual Pd + Pt + Au values, and assumes a selective mining unit of 5 mE by 5 mN by 4 mRL. In addition to the straight uniform conditioning value (which derives the proportion of the panel – and the grade – theoretically available at various cut-off grades), an information effect correction was made to the data. This represents the fact that the information available at the time of mining is constrained by the grade control drill spacing (assumed here to be a 10 m by 10 m spacing). The other elements (principally S, Ni, and Cu) values were derived using a simple regression technique from the recoverable 2PGE+Au value (if the correlation coefficient was greater than 0.5); if the correlation was worse than this then the entire panel grade was assigned. This is a conservative approach as it is likely that higher grades may be achieved though the selectivity inherent in the grade control process .

The results of the recoverable resource estimation show that the Konttijärvi orebody is largely amenable to a selective mining strategy, resulting in higher grades but at the expense of a lower tonnage .

The recoverable resource models were further validated by cross-checking against a discrete Gaussian global change of support model. This is derived from the composites and the Gaussian variogram for each domain. The results show, for most domains and elements at the cut-offs of interest, a good comparison to the uniform conditioning recoverable resource estimates .

The recoverable resource model was subdivided into ‘parcels’ representing the proportion of a panel available at a given cut-off grade (in units of one SMU or greater), and was output for pit optimization .

15.2.7 Resource classification

The Konttijärvi deposit has been classified by Snowden according to the definitions in NI43-101. The classification was based largely upon the drilling density, but also took into account the results of a bedrock mapping exercise conducted at Konttijärvi in 2004, which demonstrated that the layered series was very continuous, but that the basement series was prone to disruption by faulting. This resulted in lower confidence levels being applied to the basement series than to the layered series for similar drilling densities. The resource classification criteria are detailed in Table 15.6 .

Table 15.6 Criteria used for resource classification, 2004 Konttijärvi resource estimate

Mineralised Domain	Parameter Description
Layered Series	Measured Category if within Main or Eastern blocks and drill grid 50 m by 50 m or better.
	Indicated Category if within Main or Eastern blocks and drill grid wider than 50 m by 50 m or if located within Fault Blocks 1, 2 or 3.
	Inferred Category if extrapolation beyond last drill hole further than approximately 20 m.
Layered Series Low Grade	See Basement Upper.
Basement Upper	Measured Category if within Main or Eastern blocks and drill grid 25 m by 50 m or better.
	Indicated Category if within Main or Eastern blocks and drill grid no worse than 50 m by 75 m.
	Inferred Category if drill grid poorer than 50 m by 75 m or if extrapolation beyond last drill hole greater than approximately 20 m or if located within Fault blocks 1, 2 or 3.
Basement Middle	Inferred Category irrespective of drill hole density which was typically low.
Basement Lower	Inferred Category irrespective of drill hole density which was typically low.
Portimo Dyke	See Basement Upper.

15.3 Ahmavaara estimate

15.3.1 Overview

The 2004 Ahmavaara resource estimate is an update of the 2003 estimate, with a refined geological interpretation and significant amounts of additional drill hole data. This estimate utilises the recoverable resource estimation technique of uniform conditioning to predict the tonnage and grade characteristics of the mineralisation for a 5 mE by 5 mN by 4 mRL selective mining unit.

Conditional bias was minimised by maintaining the estimation panel size at 50 mE by 50 mN by 4 mRL. This was the smallest optimal block size based on kriging neighbourhood and conditional bias analysis. Sub-celling was used to ensure compatibility with the mineralisation geometry defined by the geological interpretation.

The 5 mE by 5 mN by 4 mRL recoverable resource estimate was developed from the 50 mE by 50 mN by 4 mRL ordinary kriged panel model using uniform conditioning based on the 2PGE+Au variable.

This process resulted in the 2004 resource being estimated at both of the block sizes described above, and these have been classified into Measured, Indicated and Inferred confidence categories using NI43-101 guidelines. Resources have been estimated for the Ahmavaara and Ahmavaara East areas. The down-dip extent of the Ahmavaara orebody, located outside expected open pit limits, remains largely untested and this portion of the resource (125 Mt at a zero cut-off grade) was assigned to the unclassified category as it represented considerable extrapolation beyond the limits of the drill hole data. This tonnage has been excluded from the reporting.

Both estimates incorporate internal dilution, but no allowance has been made for edge dilution between ore and waste material. The 5 mE by 5 mN by 4 mRL

estimate includes an allowance for ore and waste misclassification during mining, based on the expectation that a 10 mE by 10 mN drill pattern will be used for production grade control and assuming the grade continuity conditions revealed by the exploration data.

The 2004 50 mE by 50 mN by 4 mRL block size model applies unfolding techniques to track the variable dip and strike orientations of the mineralisation rather than multiple search orientation domains. The differences between the large panel 2003 and 2004 estimates are therefore due to the refined interpretation and new data.

Due to the increase in drill density in the north-east portions of the deposit, Snowden anticipates that conditional bias has been reduced in the majority of the deposit.

In comparison to the 2003 resource estimate, the 2004 model contains significantly more Indicated Resource and a commensurate reduction in Inferred Resource, with almost no net change in the classified material. The increased Indicated component is almost entirely in response to the significant amounts of new drilling in the north-east.

15.3.2 Drillhole data supplied

An updated final drillhole database for Ahmavaara was supplied by GFAP in June 2004. Snowden performed sample selection, coding, and validation using the database and mineralisation wireframes

15.3.3 Geological model

The Ahmavaara sectional interpretation of mineralisation domains was constructed by GFAP. Snowden assisted with the digital capture of the interpretation. The digital version of the interpretation included “snapping” of strings to the drillholes on nominal section lines. These strings were then wireframed together to form either three dimensional surfaces or solids.

The layered nature of most of the mineralisation allowed these domains to be represented by a series of surfaces. With the exception of the uppermost and lowermost surfaces, each surface represented the footwall and hangingwall of adjacent domains.

The only mineralisation domains that were not handled as paired surfaces were the two Hangingwall domains and the Basement Xenolith domain. A separate solid wireframe was constructed for each of these small domains located above the main mineralised sequence. Details of the mineralization domains utilized is presented in Table 15.7.

The process for capturing the Ahmavaara stratigraphic interpretation was conceptually identical to that applied for the mineralisation domains.

The stratigraphic wireframe surfaces were used to represent surface topography and the base of tillite. The surface topography is the same as used for the 2003 resource estimate and no allowance has been made for the removal of tillite that has occurred to allow small amounts of bulk sampling within the resource.

The tillite surface was ultimately used to control the up dip limits of the stratigraphic and mineralisation interpretations.

Table 15.7 Mineralisation domains used in the 2004 Ahmavaara estimate

Domain (MINCODE)	Description
101	Hanging Wall Surface (HW1)
111	Hanging Wall Surface (HW2)
501	Basement Xenolith
201.1	Upper High Grade (UHG)
201.2	<i>Higher grade sub-domain</i>
311.1	Upper Low Grade (ULG)
311.2	<i>Higher grade sub-domain</i>
301.1	Central Barren Zone (CBZ)
301.2	<i>Higher grade sub-domain</i>
321.1	Lower Low Grade (LLG)
321.2	<i>Higher grade sub-domain</i>
401.1	Lower High Grade (LHG)
401.2	<i>Higher grade sub-domain</i>

After statistical appraisal of the domain data each of the main domains was divided in to lower and higher grade sub-domains to reduce the influence of non-stationarity.

15.3.4 Unfolding

Due to the stratigraphic controls on mineralisation at Ahmavaara, it was decided to adopt an unfolding technique for the estimation of grades for the resource model. This approach also has the advantage of reducing the number of search orientation domains employed for estimation.

The essence of an unfolding technique is that folded strata, in this case a folded and faulted structure exhibiting a change in strike and dip over the interpreted deposit, and the drillhole samples intersecting them are 'unrolled' to represent the situation prior to folding and faulting, but after the mineralisation event. Geostatistical analysis can then be carried out with samples representing the pre-folding and faulting arrangement, as can estimation of grades.

The unfolding and subsequent estimation of grades in the unfolded strata was carried out using Datamine software.

15.3.5 Domain definition, statistical, and geostatistical analysis

GFAP, with the assistance of Snowden, created a downhole composited drillhole database for resource estimation. This composite database was generated from raw drillhole sample intervals which had been assigned to mineralisation domains(MINCODE) based on the wireframed sectional interpretation compiled by GFAP. Following on from the findings of the 2003 resource estimate a composite length of 2 m downhole was adopted for this generation of resource estimation. The minimum composite length allowed was 0.5 m.

Each of the 13 domains was subject to univariate statistical analysis. The mean grade patterns revealed by the analysis demonstrates that the mineralisation domaining has achieved the desired grade population outcomes, inasmuch as the two highest grade domains (201 and 401) show significantly higher average 2PGE+Au, Pd, Pt and Au grades than the surrounding lower grade domains (311 and 321), and that the Central Barren Zone (CBZ - 301) is lower grade than all other domains. The effectiveness of subdividing each of the major domains into lower and higher grade regions is also demonstrated by the average grade data. Statistics show that the vast majority of the grade distributions for all elements in all domains are positively skewed, the only exceptions being smaller domains where low numbers of samples make skewness difficult to judge (101 and 111). Many of the element distributions approximate lognormality. Where this is not the case, the main reasons are either population mixing or inadequate samples to make a clear determination.

Bivariate correlation coefficients (Pearson's correlation coefficients) were generated for all of the significant elemental combinations. The correlation between 2PGE+Au and Pd and Pt is very strong, as expected, with correlation coefficients ranging from 0.91 to 1.00. The correlation between 2PGE+Au and Au is not as strong and is dependent on the domain, with the correlation coefficients ranging from 0.43 to 0.81. Both Cu and Ni have generally stronger correlations with 2PGE+Au than Au. S has a variable correlation with 2PGE+Au with stronger correlations being exhibited by domains located lower in the stratigraphic sequence. Co exhibits a similar correlation pattern to 2PGE+Au as S. With the exception of one domain, Zn shows no correlation with 2PGE+Au. Pb shows absolutely no correlation with 2PGE+Au. The relatively benign Coefficient of Variation values revealed by most elements in most domains suggested that the need for top-cutting of data prior to grade estimation was relatively limited. Under these conditions, each element population distribution was assessed primarily for the presence of high grade outliers. Once identified, limited top-cutting of the data was applied to reduce the potential influence of any outliers.

Variogram analysis for Pd, Pt, Au, Cu, Ni, S, Pb, Co, Zn and for the combined 2PGE+Au variable was completed in the unfolded coordinate system. A preliminary analysis of anisotropy was completed using Supervisor software. After determining principal axis directions, the results were transferred to Isatis for the calculation of the Gaussian variography required for kriging parameter development. In many cases a Gaussian transform was applied to the data to improve the modelling of the variogram. Variograms were generated for all variables in both normal (Euclidean) space and in Gaussian space. Data for Gaussian variograms was obtained by applying a Gaussian anamorphosis to the data using the method of Hermite polynomials. In summary, anisotropy in all domains is weak or absent. Variogram structure is generally good, particularly at the longer ranges. The high grade sub-domains exhibit much higher short scale variance than the associated low grade sub-domains. This may reflect the higher grades and the structural complexity of these sub-domains. Insufficient close spaced data exists to perform the necessary analysis of short scale variance required for optimal uniform conditioning.

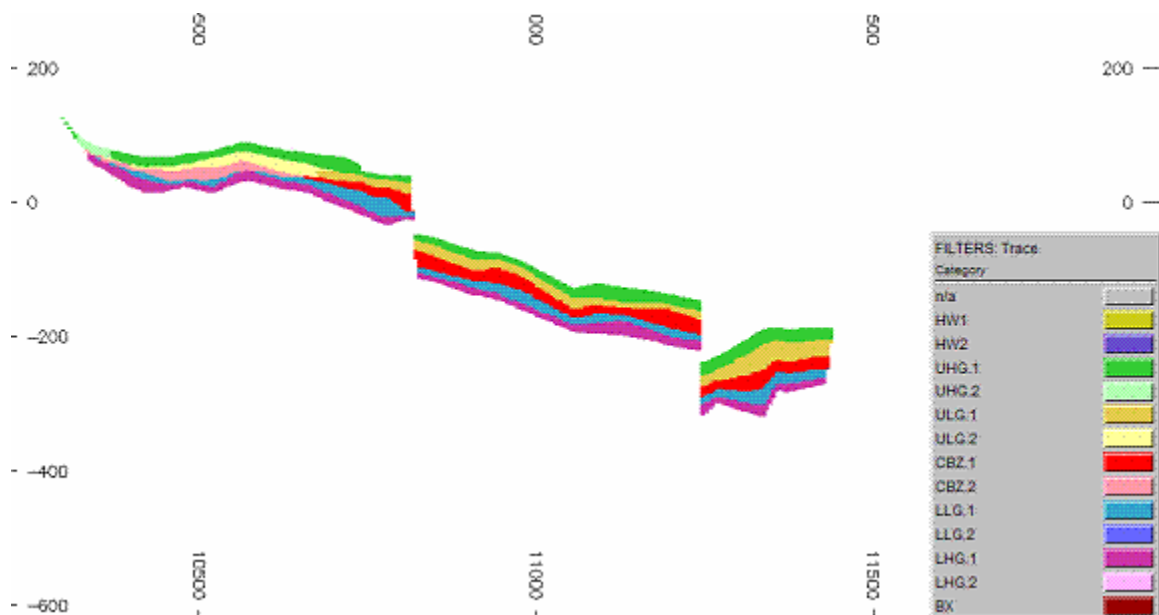
15.3.6 Grade estimation

All domains were subject to kriging neighbourhood analysis in order to minimize conditional bias. This resulted in the derivation of an optimal set of kriging parameters for grade estimation. Kriging efficiency results show considerably more variation with panel size, with the kriging efficiency generally increasing as panel size increases for the Lower Grade sub-domains. The Higher Grade domains show kriging efficiency decreasing as the panel size increases above 50 mE by 50 mN. The kriging efficiency achieved by a 50 mE by 50 mN by 4 mRL panel configuration is generally the best for all domains. The panel size results obtained support the

selection of a panel configuration of 50 mE by 50 mN by 4 mRL. While larger panels do provide better kriging efficiency results in some domains, the decision was made to proceed with a 50 mE by 50 mN by 4 mRL panel size due to the observations that larger panels would rarely fit entirely within the geometry of the mineralisation domains and that these panels would be much larger than the ranges of influence demonstrated by variography. The decline in regression slope observed for the larger panels is interpreted to be due to the large dimension of the panels relative to the grade continuity.

A volume model was created to represent the mineralisation domains using the mineralisation wireframes. The codes used to identify the different domains are stored in a field called MINCODE and are identical to those used for the drillholes (Table 15.7). Model creation used a parent cell size of 50 mE by 50 mN by 4 mRL with a minimum sub cell size of 5 mE by 5 mN by 0.5 mRL for filling the panel model between wireframe surfaces or within wireframe solids. An example of the panel model is shown in Figure 15.2.

Figure 15.2 South-north section on 30,520 mE through Ahmavaara panel model



A volume model was also created using the stratigraphic domains – this was largely used to allocate bulk density to the resource estimate. Densities were derived as domain averages based upon extensive measurement carried out by GFAP during 2003 and 2004. Table 15.8 shows the densities used for the Ahmavaara modelling and the comparison with the 2003 figures.

Grade estimation into the 50 mE by 50 mN by 4 mRL panels was via ordinary kriging, using the parameters derived in the kriging neighbourhood testing exercise. Full details of these parameters are provided in Snowden (2004b).

Table 15.8 Density values used for resource model, 2004 and 2003

Stratigraphy	SG – 2004	SG – 2003
Upper Peridotite	2.95	2.90
HW	2.91	2.90
Peridotite Marker	2.92	2.91
Ahmavaara Pyroxenite	2.95	2.95
Marginal Upper	2.94	2.94
Marginal Central	2.95	2.95
Marginal Lower	3.02	3.03
Basement	2.84	2.81
Basement Xenolith	2.90	2.89

The panel model was validated against the input data using the following techniques:

- visual validation of the model and data in section and plan views;
- comparison of composite and model grades on scatter-plots;
- comparison of average grades by domain; and
- comparison of average grade trends by easting.

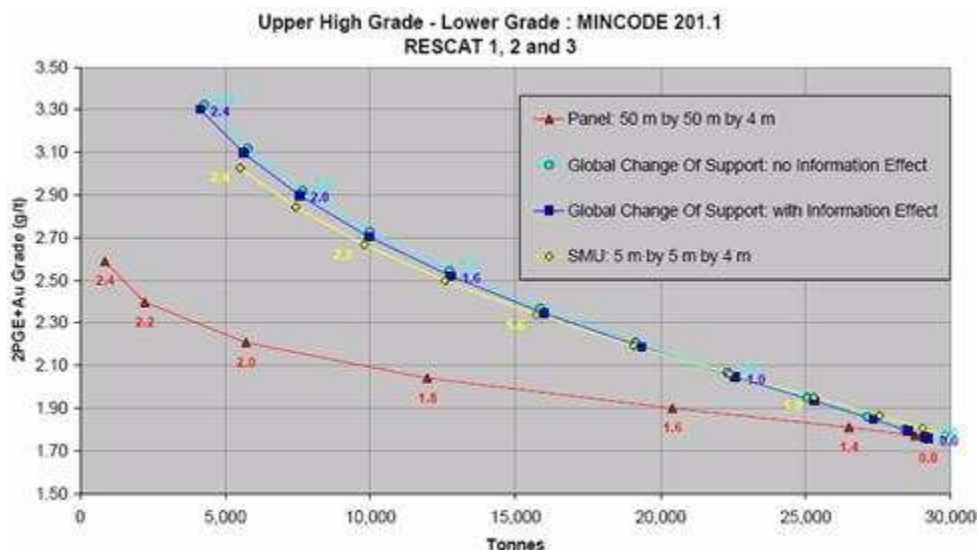
The results of validation (presented in Snowden (2004b)) demonstrate that the model is a fair representation of the input data.

In addition to the large panel model, a recoverable resource model was derived using uniform conditioning. When determining the profitability of a project it is important to determine the grade and tonnes characteristics of the deposit at the desired mining selectivity. Traditional linear estimation techniques such as kriging rely heavily upon the grade continuity and sample density being capable of supporting an unbiased estimate at the panel size required by selective mining. Due to these constraints, linear estimation techniques commonly fail to provide unbiased estimates of recovered ore tonnes and metal, exposing the project to increased resource and financial risk. In many cases, especially when selective mining options are being evaluated, the size of the larger kriged panels that minimises conditional bias bears little significance to the required smaller selective mining unit (SMU) used for mining. In this case, the kriged panel estimates may result in grade-tonnage relationships that are too smoothed for the SMU to be mined. Non linear estimation techniques such as uniform conditioning provide a means of calculating unbiased estimates of ore and metal content for a range of SMU sizes and grade cut-off values within a larger panel. In order to derive a recoverable resource estimate for Ahmavaara, uniform conditioning was undertaken based on the 2PGE+Au variable using the Isatis geostatistical software package.

At the feasibility stage there is never perfect knowledge of the SMU block grades due to wide spaced exploration drillholes. While the understanding of the SMU block grades improves once close spaced production grade control sampling is available, the discrimination of ore and waste remains imperfect to some degree. The *information effect* takes this fact into account by incorporating some ore loss and waste gain into the SMU block grade and tonnage data predicted by the uniform conditioning process. The information effect is implemented by including the expected grade control sample spacing into the uniform conditioning process in addition to the SMU block size and the grade continuity model, which at this stage is determined from the exploration data. The information effect parameters at

Ahmavaara were determined using a 10 mE by 10 mN by 2 mRL grade control pattern and a 5 mE by 5 mN x 4 mRL SMU block plus the dispersion variance of the estimated SMU block and the estimated covariance between the estimated and true SMU grade. The information effect parameters were incorporated into the uniform conditioning post-processing at the Gaussian anamorphosis stage when the SMU block anamorphosis function is created. The results of the uniform conditioning process are shown in Figure 15.3. This figure also shows the comparison with a discrete Gaussian global change of support.

Figure 15.3 Tonnage-grade curve comparison of panel model with UC model and global change of support, domain 201.1

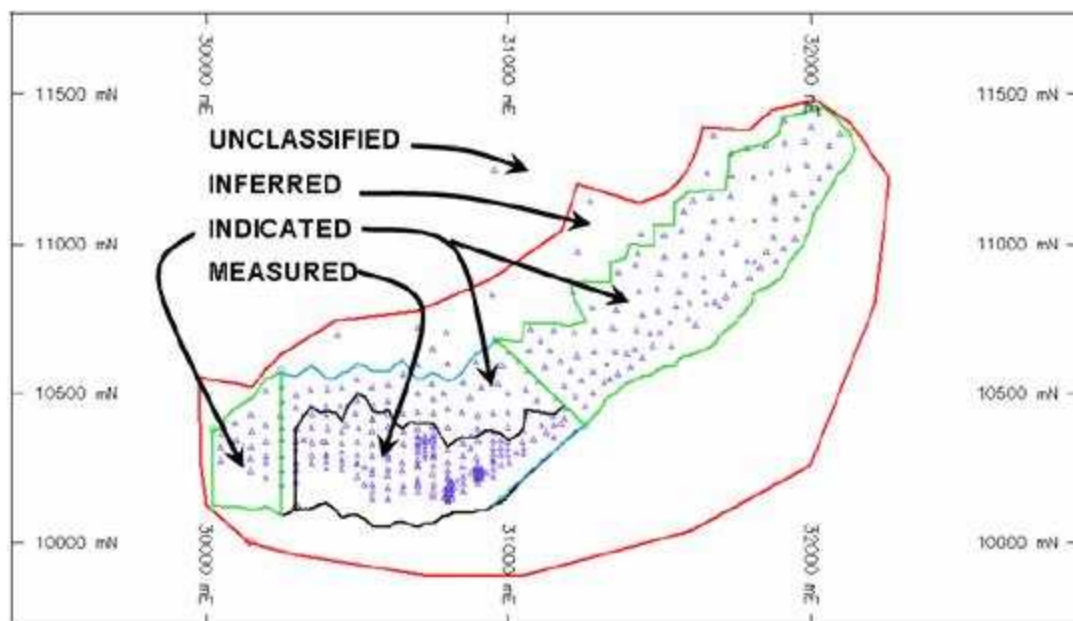


As was the case with Konttijärvi the other elements (principally S, Ni, and Cu) values were derived using a simple regression technique from the recoverable 2PGE+Au value (if the correlation coefficient was greater than 0.5); if the correlation was worse than this then the entire panel grade was assigned. This is a conservative approach as it is likely that higher grades may be achieved through the selectivity inherent in the grade control process.

15.3.7 Resource classification

During 2003 and 2004 GFAP removed a segment of the overburden from the Ahmavaara resource to allow surface mapping and the collection of bulk metallurgical samples. While Snowden has had only limited exposure to the mapping data, it is understood that the observations from the mapping have been used to refine the geological interpretation of the deposit. This work has also generally increased the confidence in the geological interpretation and this has been considered during the resource classification process. The classification of the Ahmavaara resource into Measured, Indicated and Inferred confidence categories was ultimately based on a combination of geological domaining and drill grid density. The choices made included consideration of issues derived from variography, kriging neighbourhood results and geological confidence. Guidance on geological confidence issues was provided by GFAP.

Figure 15.4 summarises the resource classification scheme utilized at Ahmavaara.

Figure 15.4 Summary of resource classification scheme, Ahmavaara

The outermost red outline defines the limits of the Inferred resources. Any resource located outside this boundary was assigned to an 'unclassified' category and was not included in the total resource reporting. Within the red envelope, the blue and green boundaries define the limits of Indicated material. Within the blue boundary, the Upper High Grade was upgraded from Indicated to Measured, based on the higher geological confidence. The black boundary denotes the limits of Measured material. All material within this domain was assigned to a Measured confidence category.

Several other geological rules were applied to some of the smaller mineralisation domains that override the purely spatial rules described above:

- all of the 101 Hangingwall domain was considered to be Inferred based on its geological continuity;
- if initially assigned to a Measured category, the 111 Hangingwall domain was downgraded to Indicated based on its geological continuity; and
- if initially assigned to a Measured category, the Basement Xenolith (501) domain was downgraded to Indicated based geological uncertainty.

In addition to the geological considerations, each confidence category was broadly based on a nominal drill grid spacing. The Measured confidence category targeted areas covered by either a 25 m by 50 m or a 50 m by 25 m drill grid. Ultimately, an area covered by a regular 50 m by 50 m pattern in the north-western corner of the black outline in Figure 15.4 was also accepted as Measured. The Indicated category targeted regions covered by a 'nominal' 50 m by 50 m to 75 m by 75 m drill grid. In the western portion of the green outline (Figure 15.4), the drill grid is, on average, better than this spacing. However, local complexity of geological structures dictated that this region should remain in the Indicated category. The Inferred category covers the down dip extensions of the deposit supported by widely spaced drillholes that demonstrate the presence and continuation of the host lithologies.

The tabulated resource figures for Ahmavaara and Ahmavaara East are given in Table 15.1.

The most significant difference between the 2003 and 2004 resource models has been the transfer of over 75 million tonnes of material from the Inferred to Indicated category. This has been entirely due to the additional drilling completed and subsequent upgrade in confidence since the 2003 estimate.

15.4 SK horizon resource estimates

15.4.1 Nutturampampi and Siika-Kama estimates

The current Mineral Resource estimates for the Nutturampampi and Siika-Kama zones of the Narkaus intrusion are based upon work carried out by Snowden in 2002 and 2003 respectively. GFAP geologists interpreted mineralisation domains in cross section, based on PGE grade cut-offs and stratigraphy. GFAP supplied a series of downhole intersections representing the mineralised domains. Each mineralised domain represents material within a stratigraphic unit above a 0.5 g/t 2PGE+Au grade cut-off.

An initial reference surface was built for each structural block. The reference surface represents the most continuous and planar mineralisation surface for each set of mineralisation domains. The reference surface was then used as the initial surface for creation of all other related surfaces. Surfaces representing the top and bottom of each mineralised domain were created in sequence away from the reference surface, using the previous surface to create the next. The true width (TW) of each drillhole intersection was calculated at each drillhole using the local orientation of the previous surface and the desurveyed drillhole orientation. An estimate of true width was made at each wireframe point using a first pass inverse distance weighted (IDW) estimation, followed by nearest neighbour (NN) estimation to inform any remaining points. The next surface was created by offsetting points on the previous surface by the estimated true width in a direction perpendicular to the previous surface.

A standard density of 2.95 t/m³ was applied to all mineralised domains. This value was supplied by GFAP. Prior to undertaking the estimation of block grades, the drillhole composites and domain blocks were all projected onto a horizontal plane to simplify the process. This was done to remove the influence of undulations in the otherwise shallow to moderately dipping tabular structures. Each domain was individually projected onto a horizontal domain using its hangingwall surface as a reference. Snowden considers the projection method to be a satisfactory compromise for the resource update, particularly for the Siika Kama deposit, but notes that the steeper average dip of the Nutturampampi deposit is nearing the practical limits of the technique.

Pd, Pt, Au, Cu, Ni and S grades were estimated for each mineralisation domain using the top-cut drillhole composites located within the domain. Ordinary kriging was used to estimate grades into 10 mE by 10 mN by 4 mRL blocks. This block size is much smaller than the resolution available from the current drill grid; however, the small block size was necessary to obtain an adequate representation of the geological interpretation. The actual resolution of the model within any given mineralisation plane will be much coarser than this block size but has not been assessed during this analysis.

Sample search criteria were based on the variography models. For Siika Kama, maximum search radii of 250 m along strike, 400 m down dip and 10 m across the plane were applied. For Nutturampampi, maximum search radii of 250 m along strike, 250 m down dip and 10 m across the plane were applied. In addition to these search constraints, a minimum of 3 composites were required for a block estimate. The maximum number of composites was set to 32. No more than 4 composites could be selected from each drill hole located within the search ellipse.

15.4.2 Resource classification Siika Kama and Nutturampampi

The entire Nutturampampi resource, within a 50m perimeter around drilling is classified in the Inferred Resource category.

The Siika Kama resource to within an approximate 50m perimeter around drilling is classified as Inferred Resource. That portion of the SK Reef horizon (excluding all footwall mineralisation) as Siika Kama which occurs within the better drilled (average 50m x 50m) central portion of the deposit has been classified into the Indicate status. This is based on the high geological continuity, more regular nature of the reef compared to footwall, and clearer understanding of the mineralizing controls for this horizon.

15.4.3 Kuohunki resource estimate

The Kuohunki Mineral Resource estimate was updated in 2004 by SRK following drilling in 2003 and 2004 by GFAP. GFAP provided a series of wireframe surfaces that described the interpreted boundaries to the mineralization units that are hosted within the distinct lithologies of the Kuohunki block. Surfaces that delineated the following interpreted entities were provided to SRK as a set of Datamine triangulated surfaces:

- Top and Bottom surface of SK mineralisation;
- Top and Bottom of the FW1A mineralization;
- Top and Bottom of the UM1 mineralisation; and
- Top and Bottom of the FW2C mineralization.

In addition, surfaces defining the base of the overburden identified within the drillholes and the surface topography were provided to SRK. Two drillhole files were also provided. One contained samples composited over the width of the mineralised units; the second contained 1 m downhole composites, with the relevant assay data. All composites have been coded to identify the stratigraphic unit containing the mineralization. Two fault-loss areas have been defined associated with faults that have been identified within the stratigraphy. The block volume of each stratigraphic unit that intersects the fault loss areas has been excluded from the Mineral Resource estimates. Additionally, there is a sedimentary channel feature that erodes the SK unit within the south central part of the Kuohunki block. Blocks in the SK model that intersect the erosion channel have also been excluded from the resource estimation. GFAP has also defined a perimeter within which it is considered that a Mineral Resource may be defined. External to this perimeter APO consider that any estimates would represent exploration potential. Whilst on site, SRK examined some of the drill cores sampled from the Narkaus intrusion, as well as examining the drillhole plots and sections showing drillhole data within the Narkaus intrusion.

No detailed SG data have been provided within the drillhole data supplied to SRK. For the purposes of this exercise, a global SG of 2.95 t/m³ has been applied.

SRK chose to model the SK unit as a seam-model. The motivation for this decision came from the consideration of the continuous and tabular nature of the SK Unit. The SK unit ranges in thickness from 0.5 m to approximately 20 m, with much of the area characterised by the SK Unit being between 2.5 m and 5 m in thickness. The wireframes defining the upper and lower surfaces of the SK unit were intersected against a 50 m x 50 m block model, such that the vertical increment of each block represents the average perpendicular thickness of the SK unit within the block cell. This type of model flattens the SK unit for the purposes of the modelling. The data used for the modelling of grades within the SK Unit are composited across the width of the SK unit, such that a single value exists for each drillhole that intersects the SK unit. The footwall units in contrast were modelled as blocks. The block size used for the footwall units was 50 m x 50 m x 3 m. The block footprint of 50 m x 50 m was considered the smallest possible size given the drillhole spacings. The blocks intersected the individual footwall units and an

intersection volume between each block and the relevant wireframes was stored into each block. This figure defines the 'ore volume' within each block.

For the SK and footwall units, a recoverable resource modelling approach was considered because the drill data are too widely spaced to consider that the block estimates will be conditionally unbiased and will correctly reproduce the grade-tonnage curve. Additionally it is not possible to consider directly estimating the SMUs that might be accessible via selective mining without significant smoothing of these estimates. The recoverable resource modelling process used was uniform conditioning. Within this approach, an information effect correction was applied assuming that a specific grade control pattern would be used at the time of selection. In all cases, the grade control pattern used was a 10 m x 10 m drill grid and all SMUs are assumed to have 5 m x 10 m dimensions. The SK unit SMU has a vertical increment that equals the layer width, whereas the footwall unit SMUs are assumed to be based on a 3 m bench height.

When estimating tabular units it is generally preferable to estimate the accumulation service variable (product of grade and width) and the width and develop grade estimates of blocks using the quotient of the accumulation and width variables. In the SK horizons the gross variability in grades appears to be practically independent of the thickness variations.

SRK developed a linear model of coregionalisation describing the spatial variance and cross variance of the grades of Pd, Pt, Au, Ni and S. This model formed the basis of a cokriging estimation of Pd, Pt, Au, Ni and S grades. Following the development of the cokriged grades, GFAP requested that copper be added to the estimation suite as well. To achieve this objective within the time frame required for the reporting of the results, copper was estimated using ordinary kriging of the copper grades, using the same search parameters applied in the cokriging estimates.

The cokriged estimates for the individual elements were compared with the average drillhole composite grades for the purposes of validation. The results showed an acceptable match with the model grades.

The SK estimates appear to be quite reasonable with respect to the estimation quality indicators. In contrast the estimates developed for the footwall units are of significantly poorer quality. Ideally one would prefer kriging efficiency values as close to 100% as possible and regression slopes (Z/Z^*) as close to 1.0 as possible. In cases where the kriging efficiencies fall to zero, or even below zero, it is preferable to use a global mean value rather than the kriged value, because the error variance in applying the mean grade is equal to the block variance. One issue to consider regarding the use of a global mean grade is as follows: within the FW2C and FW1A units, higher grades appear to be developed adjacent to areas where the SK truncates its footwall, whilst lower grades are considered developed more remotely to these generally thicker pods. Accordingly it is preferable to use a local mean grade within each of the thicker pods. Unfortunately the local data do not permit a reliable estimate of the local mean. In order to overcome the conditional bias present within ordinary kriging estimates of the various footwall units, SRK completed the estimation of the footwall units using Simple Kriging with a global mean grade based on observed declustered grades.

Previous Mineral Resource estimates have been stated relative to the 100RL surface. This surface is approximately 100m beneath the topography. Results above this surface have been quoted at a 1g/t 2PGE+Au cut-off grade. SRK estimated the recoverable resources in terms of palladium, the dominant PGE present. Based on the metal ratios within the various mineralised units, a cut-off grade of 0.75g/t Pd is equivalent to a 1.0g/t cut-off with respect to 2PGE+Au. Material beneath the 100RL surface has been reported at a cut-off grade of 2.0g/t 2PGE+Au. This cut-off grade is equivalent to a palladium cut-off grade of 1.5g/t. In order to determine

the other metal values present within the deposit, relative to the palladium values above cut-off, SRK applied the linear correlation equations between each metal and palladium within the point sample data set.

The SK horizon and the footwall horizon resource estimates have been combined with the Siika-Kama and the Nutturalampi figures and are summarized in Table 15.2.

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2. I graduated with the following degrees:
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 - MSc (Mineral Exploration) – Royal School of Mines, UK, 1981
 - MSc (Geostatistics) – Stanford University, USA, 1996

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3. I hold the following professional qualifications:
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 - Member of the Institute of Metals, Mining, and Materials, United Kingdom (MIMMM)
 - Chartered Engineer, Engineering Council, United Kingdom (CEng)
 - Member of the Geostatistical Association of Australasia (MGAA)
4. I have worked as a geologist for a total of 23 years since my graduation from university.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, that I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am responsible for the compilation of the technical report titled ‘The Konttijärvi, Ahmavaara, and SK deposits, Finland’, and dated

October 2004 (the “Technical Report”) relating to the Konttijärvi and Ahmavaara properties. I visited the Konttijärvi and Ahmavaara properties in September 2004 for 6 days, during which time I carried out site visits to both properties, reviewed the geological models, data collection, sample preparation and quality control procedures.

7. I have had prior involvement with the properties that are the subject of the Technical Report. The nature of my prior involvement is the review of previous work carried out by Snowden Mining Industry Consultants relating to previous resource estimates and QA-QC data analysis.
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 1st Day of October, 2004.



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4. I have worked as a geologist for a total of 21 years since my graduation from university.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, that I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am responsible for the estimation of the Mineral Resources at the Konttijärvi and Ahmavaara properties, in which process I acted as Project Manager. I visited the Konttijärvi properties in December 2002 for 14 days. I also acted as reviewer for the estimation of Mineral Resources at the Nutturalampi and Siika Kama properties.
7. I have had prior involvement with the properties that are the subject of the Technical Report. The nature of my prior involvement is the generation of previous resource estimates carried out by Snowden Mining Industry Consultants (in which capacity I was the Project Manager). In addition I have reviewed resource estimates carried out on the SK horizons and QA-QC data analysis reports.
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

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4. I have worked as a geologist for a total of 9 years since my graduation from university.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, that I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I am responsible for the 2004 resource estimate at the Ahmavaara property and for the analysis of QA-QC data as reported in September 2004.
7. I have had prior involvement with the properties that are the subject of the Technical Report. The nature of my prior involvement concerns resource estimate work carried out by Snowden Mining Industry Consultants and QA-QC data analysis.
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by

them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

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5. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, that I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am responsible for the Konttijärvi, Siika Kama, and Nutturlampi resource estimates detailed in the technical report titled ‘The Konttijärvi, Ahmavaara and SK deposits, Finland’, and dated October 2004 (the “Technical Report”) relating to the Konttijärvi and Ahmavaara properties. I visited the Konttijärvi property in December 2001 for 14 days and in November 2002 for 18 days, during which time I reviewed drill core, sample preparation and quality control procedures, and advised on geological interpretation. A site visit was conducted to the Konttijärvi deposit.
7. I have had prior involvement with the properties that are the subject of the Technical Report. The nature of my prior involvement is the preparation of previous resource estimates for the Ahmavaara, Konttijärvi, Siika Kama South, Nutturlampi and Kuohunki projects.
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

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 - BAppSc in Geology – Queensland University of Technology, Australia, 1991
3. I hold the following professional qualifications:
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4. I have worked as a geologist for a total of 12 years since my graduation from university.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, that I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am responsible for parts of the geological modelling and the geostatistical analysis of the Ahmavaara and Konttijärvi resources. Specifically, I am responsible for the preparation of the Ahmavaara geological modelling and variography, and the Konttijärvi statistical analysis and variography. This work is presented in the ‘Mineral Resource Estimate’ section of the technical report titled ‘The Konttijärvi, Ahmavaara, and SK deposits, Finland’, and dated October 2004 (the “Technical Report”) relating to the Konttijärvi and Ahmavaara properties. I visited the Konttijärvi and Ahmavaara properties in February 2004 for 20 days and in May 2004 for 25 days, during which time I assisted with geological interpretation and digital modelling of both deposits and with development of tools for validation of drillhole sample data.
7. I have had prior involvement with the properties that are the subject of the Technical Report. The nature of my prior involvement was

compilation of a geological model for a portion of the Konttijärvi deposit. This involved a site visit for 10 days in October 2003.

8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 1st Day of October, 2004.

/s/ Alex Trueman

Alex Trueman

17.6 Michael Harley



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CERTIFICATE of AUTHOR

I, Michael Harley, Pr.Sci.Nat. do hereby certify that: I am Principal Geologist of:

SRK Consulting, 265 Oxford Road, Illovo, Johannesburg 2196, South Africa.

2. I graduated with the following degrees and diplomas:

- BSc(Honours) in Geology from the University of the Witwatersrand (1988);
- PhD(Geology) from the University of the Witwatersrand (1993);
- *Cycle Formation Specialisee en Geostatistique* (CFSG) Fontainebleau (1997);

3. I am a member the following professional bodies:

- Member of South African Institute of Mining and Metallurgy (MSAIMM);
- Member of Australasian Institute of Mining and Metallurgy (MAusIMM);
- South African Council of Natural Scientific Professionals (SACNASP);
- Member of Geostatistical Association of South Africa (GASA);

4. I have worked as a geologist for a total of fifteen years since my graduation from university.

5. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience. I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.

6. I am responsible for the preparation of the geostatistical Mineral Resource estimates of the Kuohunki Property in Northern Finland. These results have been presented as SRK Report 335638 ‘Geostatistical Estimates of the SK and Allied Orebodies at Kuohunki, Finland’ dated 23 July 2004. This report has been referenced within the Technical Report. I visited the Rovaniemi Offices, of the Arctic Platinum Oy property in April 2004 for eight days, and reviewed the drill logs, geological models, cross-sectional and plan data from the drill campaigns and drill cores from the greater Narkaus intrusion, within which the Kuohunki Property is situated.

7. I have not had prior involvement with the property that is the subject of the Technical Report.

8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read National Instrument 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with the instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 2nd Day of November, 2004.

/s/ Michael Harley
Michael Harley

17.7 Justin Osborne



GOLD FIELDS
Arctic Platinum Oy

CERTIFICATE of AUTHOR

I, Justin Paul Osborne, MAusIMM, do hereby certify that:

1. I am Manager – Resources Development for Gold Fields International Services Ltd, previously Project Manager – Geology (January 2003 to September 2004) for Gold Fields Arctic Platinum Oy of: Kairatie 56, Rovaniemi, FIN 96101, Finland.
2. I graduated with the following degree:
 - BSc (Hons) in Geology – La Trobe University, Australia, 1988
3. I hold the following professional qualifications:
 - Member of the Australasian Institute of Mining and Metallurgy (MAusIMM)
4. I have worked as a geologist for a total of 16 years since my graduation from university.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, that I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I have been responsible for the management of exploration, geological and resource estimation activities at Arctic Platinum since January 2003. This includes all relevant and recent geological

activities referred to in the document 'The Konttijärvi, Ahmavaara and SK deposits, Finland', and dated October 2004 (the "Technical Report") relating to the Konttijärvi and Ahmavaara properties. Specifically, I am responsible for parts of the preparation of the Ahmavaara, Konttijärvi, Siika Kama and Kuohunki geological models, management and design of all exploration activities including drilling and trial mining programs, design of the current QAQC and sampling protocols, management of the implementation of the current geological database, and training of geological staff in geology and resource modelling activities. I have worked continuously on site from January 14 2003 to September 25 2004, at which time I transferred to Gold Fields International Services, based in Oxford, UK.

7. I have had prior involvement with the properties that are the subject of the Technical Report. The nature of my prior involvement was construction of the geological models for Ahmavaara, Konttijärvi and Siika Kama in 2003.
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
9. As an employee of Gold Fields since November 2001 I am not independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 1st Day of October, 2004.

/s/ Justin Osborne
Justin Osborne
MAusIMM



Technical Report

Cerro Corona Project
Department of Cajamarca, Peru
October 7, 2004

Prepared for:
Gold Fields Limited and IAMGold Corporation

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1.0 SUMMARY

The 2001 Definitive Feasibility Study on the Cerro Corona Project by GRD Minproc Limited of Australia (Minproc) has formed the basis for this report. The block model and mineral resource estimate used in the Minproc study was made by Mr. John Duke of ECS International of Australia (ECSI) according to the JORC Code. ECS International has recently merged with Surpac Minex Group and is now called Surpac Minex (development) Pty. Ltd. (Surpac). Mr. Duke is a member of the AusIMM and is an independent Qualified Person for Section 17.1 through 17.6 of this report. Dr. Bruce Davis of Norwest Corporation completed a geostatistical fatal flaw evaluation of the ECSI block model used in the Minproc DFS. Dr. Davis is a member of the AusIMM and is an independent Qualified Person for Section 17.7 of this report.

The Cerro Corona Cu-Au project is located in the Hualgayoc mining district, about 40 km north of the Yanacocha mine, and 90 km by road north of the departmental capital of Cajamarca. Gold Fields is currently completing a Feasibility Study based on the resource estimates that are the subject of this report. Planned production scenarios involve open-pit mining and flotation processing of the sulfide ore.

The mineral rights, surface rights and related data that comprise the Cerro Corona project are currently owned by Sociedad Minera Corona S.A. ("SMC") a company incorporated in Peru and listed on the Lima stock exchange. The Gubbins Family owns all of the voting shares in SMC representing 87.7 percent of the outstanding capital.

In December 2003, Gold Fields through its subsidiary, Gold Fields Corona (BVI) Limited, signed an agreement to purchase an 80.7 per cent interest in the Cerro Corona Cu-Au Project from SMC. Gold Fields' share purchase agreement is with members of the Gubbins Family who own 92 percent of the voting shares (in other words with shareholders holding 80.7 percent of SMC shares). The Gold Fields purchase agreement with the Family envisages a corporate re-organization in which the assets comprising the Cerro Corona project will be transferred to a new company organized under the laws of Peru to be named Sociedad Minera La Cima S.A. ("SMLC").

The Hualgayoc District has seen significant production of silver, lead, zinc, gold and copper since the Spanish discovered the area in the 1700's. Early mining concentrated on placer deposits and oxidized surface veins. The veins at Cerro Jesus have reportedly produced more than 50 million oz of silver. Cerro Corona is a copper-gold mineralized Tertiary diorite intrusive hosted in broadly folded Cretaceous and Jurassic limestones and sediments. The upper portion of the deposit is oxidized and has low copper grades. Below the oxide ore, secondary copper mineralization is present in a supergene zone. A mixed or transition ore zone of variable thickness is present between the oxide and supergene zones. Primary copper mineralogy and gold are present below the supergene zone as hypogene ore. Pyrite is present in both the supergene and hypogene ores. Pervasive alteration of the porphyry has led to the formation of extensive clays in parts of the deposit.

The Bureau de Recherches Geologiques Minieres (BRGM) discovered the porphyry-style mineralization at Cerro Corona during systematic exploration of the area in 1979. They completed initial surface sampling, mapping as well as IP/Resistivity and SP surveys over the prospect but never drilled it. SMC controls 2,027.1 hectares of titled and registered mining claims which include the Cerro Corona deposit. SMC drilled the first 9 holes in the deposit in 1992. Barrick Gold Corporation (Barrick), a Canadian company, optioned the property from SMC in 1994 and completed extensive work to explore the deposit as a large low-grade disseminated copper-gold porphyry deposit which could be amenable to open-pit mining. Their work culminated in a 15,000 ton per day feasibility study by Kilborn Inc. (Kilborn) in 1995 but elected not to continue. Minera RGC Peru S.A. (RGC), the Peruvian subsidiary of Renison Goldfield Consolidated, an Australian company, acquired an option in 1997 and completed a thorough due diligence and pre-feasibility study based on a 40,000 ton per day operation. RGC relinquished their option in 1998. SMC subsequently engaged GRD Minproc Ltd. (Minproc) to complete a definitive feasibility study (DFS) which was completed in 2001.

Having constructed a resource block model of Cerro Corona for the RGC Due Diligence Study in late 1997, ECS International Pty Ltd (ECSI) was asked by Minproc to improve on that model for the Minproc DFS. ECSI also

provided models of clay, pyrite and quartz stockwork distribution using geological drill hole logging data compiled by Barrick geologists and extended by RGC.

The ECSI Resource Block Model was based on the Hypogene Zone geological interpretation used in the RGC model, but the Oxide, Mixed and, to some extent, the Supergene Zone interpretation was changed. Based on the geological logging and observations by Minproc's geological consultants, Ironbark Geoservices S.R.L. (Ironbark), the Oxide and Mixed Zones have been re-interpreted using copper assays in order to identify the zone boundaries.

The estimated Resource for the Minproc DFS was classified to comply with the JORC guidelines using the following criteria:

- Measured Resource blocks were those which both copper and gold values were estimated and which gold values were estimated using search distances set at the variogram range. Additional constraints applied such that blocks were selected only where the block search strategy included sample composites in at least four of the possible six sectors and that contained at least 15 of a maximum of 24 samples per block.
- Indicated Resource blocks were those other than Measured blocks which had both gold and copper values estimated using search distances set at the variogram range and a search strategy for gold which included sample composites in at least two of the six possible sectors.
- Inferred Resource blocks were those other than Measured or Indicated blocks which had either gold or copper values estimated.

The Measured, Indicated & Inferred Oxide and Sulfide Resource estimates within the diorite intrusion above 3325 RL and using a 0.5 g/t Au and 0.0 % Cu cut-off are shown in the tables below.

Table 1.1 : Measured & Indicated Oxide and Sulfide Resources at a 0.5 g/t Au and 0.0% Cu cut-off.

	Tonnes (Mt)	Au (g/t)	Cu (%)	Contained Metal	
				Au ('000 oz)	Cu (kt)
<i>Oxide Mineralization</i>					
Measured	4.0	1.31	0.06	169.6	2.4
Indicated	4.5	1.27	0.05	182.6	2.2
Sub-Total Oxides	8.5	1.29	0.05	352.2	4.7
<i>Sulfide Mineralization</i>					
Measured	71.7	1.02	0.53	2,348.2	380.4
Indicated	39.5	0.94	0.46	1,190.9	181.7
Sub-Total Sulfides	111.2	0.99	0.51	3,539.1	562.1
Total M & I Resources	119.7	1.01	0.47	3,891.3	566.8

Table 1.2 : Inferred Oxide and Sulfide Resources at a 0.5 g/t Au and 0.0% Cu cut-off.

Classification	Tonnes (Mt)	Au (g/t)	Cu (%)	Contained Metal	
				Au ('000 oz)	Cu (kt)
Oxide Mineralization					
Inferred	0.1	0.90	0.04	2.5	0.0
Sulfide Mineralization					
Inferred	7.6	0.72	0.36	176.0	27.4
Total Inferred Resources	7.7	0.73	0.36	178.5	27.4

The Minproc DFS formed the basis for Gold Fields' evaluation. The Gold Fields technical due diligence program in 2003 consisted of following main activities:

- re-logging selected drill holes to confirm the metallurgical zone boundaries in the ECSI model.
- the completion of confirmatory drilling in the upper portions of the deposit to confirm grades in the model and obtain sample material for metallurgical testing;
- re-assaying of selected pulps from the Barrick and RGC drill hole samples.

The Gold Fields program encountered no significant problems in the interpretation of metallurgical zone boundaries or the geological model used in the Minproc DFS. The assays for the three Gold Fields twin holes showed acceptable correlation with the Au and Cu assays in the adjacent holes and the assay results for the 4th hole confirmed the western high grade zone. Check assays on old pulps confirmed the previously reported Cu grades. Average Au grades for the check assays compared well with the average for the reported values, although variances for a number of individual Au assays exceed acceptable limits (+/-10%).

As part of the Gold Fields technical due diligence program, Norwest Corporation was asked to complete a geostatistical fatal flaw evaluation of the ECSI block model used in the Minproc DFS and make new pit optimization estimates of the sulfide mineralization only, utilizing economic input parameters provided by Gold Fields. Norwest's evaluation found no fatal flaws in the ECSI block model.

Although no major problems were identified during its due diligence, Gold Fields did not validate the sample grades against original assay reports, nor verify other data such as specific gravity, drill hole surveys or geotechnical information. This decision was based on a review of results of a thorough due diligence study done by RGC.

General conclusions are as follows:

- A single copper-gold deposit has been delineated at Cerro Corona. The deposit is hosted by a Tertiary diorite intrusive and is classified as a porphyry copper-gold deposit. The geology of the Cerro Corona Project, including the controls on mineralization are well understood.
- The database used to estimate the mineral resource for the Cerro Corona Project consists of samples from 130 diamond drill holes, 140 reverse circulation drill holes and 2,240 surface channel samples.
- All of the drill hole collar locations have been surveyed with a total station instrument, and most of the holes have undergone some type of down-hole surveying as well. Those holes that have not been subjected to down hole surveys will not have an adverse effect on the reliability of resource estimates due to their small number and short length. In Gold Fields' opinion, the methods used to collect samples at Cerro Corona are consistent with standard industry practices.
- Core logging procedures generally meet or exceed industry standard practices. Gold Fields recommends that copies of original assay certificates be attached to each drill log to facilitate future checks and audits.
- The transfer of data to the resource database was verified with approximately a 5% check of the assay database and survey records against original records. The sampling procedures and assaying methods are consistent with standard industry practices. The project has followed a comprehensive quality assurance program that includes the submission of standards, blanks, field duplicates, and pulp duplicates. Program accuracy and overall precision were good. It is Gold Fields' opinion that the data used for the resource estimate is under sufficient control to form the basis of the mineral resource estimate.
- A three dimensional block model has been used to estimate the mineral resource at Cerro Corona. The model was constructed with ordinary kriging techniques on composited assays. The model has been subjected to several validation exercises and based on those results,
- This mineral resource estimate conformed to the requirements of the Listing Rules of the Australian Stock Exchange Ltd, and the "Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves" (the JORC Code). The resource has been classified into Measured, Indicated or Inferred categories consistent with the CIM definitions referred to in NI43-101.
- Current technical work by Gold Fields includes developing a new resource block model to support a mineral reserve estimate and a new feasibility study, to be completed in April 2005.
- Gold Fields is also focused on community relations and completion of an updated Environmental Impact Study ("EIS").

2.0 INTRODUCTION AND TERMS OF REFERENCE

The 2001 Definitive Feasibility Study on the Cerro Corona Project by GRD Minproc Limited of Australia (Minproc) has been used as the basis for this report. The mineral resource estimate used in the Minproc Definitive Feasibility study was updated from the mineral resource estimate made by Mr. John Duke of ECS International of Australia (ECSI) as part of the RGC Due Diligence Study and was the outcome of a thorough and detailed analysis of the data, and the development of new geological and statistical models. This estimate conformed to the requirements of the Listing Rules of the Australian Stock Exchange Ltd, and the “Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves” (the JORC Code). The ECSI mineral resource estimate had good general agreement with the global geological resources estimated by Barrick. The ECSI estimate was, however, much more closely constrained, externally, and by interpreted internal structures, and had the benefit of additional drilling information, particularly in the lower sections of the deposit.

Mr. Duke has agreed to serve as an independent Qualified Person and co-author for Sections 17.1 through 17.6 of this report. ECS International has recently merged with Surpac Minex Group and is now called Surpac Minex (development) Pty. Ltd. (Surpac). Mr. Duke has visited the project site for a period of 12 days during October- November 1997.

The Gold Fields due diligence program was supervised by Mr. Nathan H. Brewer, a Gold Fields employee. Mr. Nathan Brewer is a Qualified Person and co-author of this report. He has made numerous visits to the project site for variable durations of up to 5 days between September 2003 and May 2004. The longest site visits were made from October 29th through November 2nd, 2003 and from November 27th through November 29th, 2003 during the Gold Fields re-logging and confirmation drilling programs.

As part of the Gold Fields due diligence program, Dr. Bruce Davis of Norwest Corporation was asked to complete a geostatistical fatal flaw evaluation of the ECSI block model used in the Minproc DFS. Norwest’s evaluation found no fatal flaws in the ECSI block model. Dr. Davis has agreed to serve as an independent Qualified Person and co-author of this report. Dr. Davis visited the project site on September 1st, 2004 for one day.

2.1 Terms of Reference

Unless otherwise specified, all units of measurement in this report are metric and all costs are expressed in United States dollars. The payable metals, gold and copper, are priced in United States dollars (US\$) per ounce and pound respectively.

2.2 Purpose for the Technical Report

The non - South African assets of Gold Fields are being merged with the assets of IAMGOLD to form a new entity, Gold Fields International (‘GFI’). This merged entity will be listed on the Toronto Stock Exchange (‘TSE’). Those Gold Fields assets which are being incorporated into the GFI entity are to be reported on the TSE for the first time, and as such are subject to the regulatory framework laid out in National Instrument 43-101 (‘NI 43-101’), which is administered by the Canadian Securities Association (‘CSA’). One of the requirements of NI 43-101 is that any issuer disclosing mineral resources on a property material to the issuer for the first time must generate an independent technical report covering those resources. One of the Gold Fields properties which forms part of the GFI portfolio is the Cerro Corona Project in Peru. Gold Fields has not previously reported Mineral Resources on this property.

3.0 DISCLAIMER

No disclaimer is necessary for the issuance of this report.

4.0 PROPERTY DESCRIPTION AND LOCATION

The Cerro Corona Property consists of 33 mining claims located within the District and Province of Hualgayoc, Department of Cajamarca, in northern Peru. The project plots within the Chota Topographic Map Sheet (14J), UTM Zone 17S, PSAD 1956, Coordinates 9,252,200N and 763,300E, near latitude 6° 45' 34" S and longitude 78° 37' 5" W. The property is located approximately 1.5 km west of the town of Hualgayoc and about 90 km by road north of the city of Cajamarca (Figure 4.1).

The mineral rights, surface rights and related data that comprise the Cerro Corona project are currently owned by Sociedad Minera Corona S.A. ("SMC") a company incorporated in Peru and listed on the Lima stock exchange. The Gubbins Family owns all of the voting shares in SMC representing 87.7 percent of the outstanding capital.

In December 2003, Gold Fields through its subsidiary, Gold Fields Corona (BVI) Limited, signed an agreement to purchase an 80.7 per cent interest in the Cerro Corona Cu-Au Project from SMC. Gold Fields' share purchase agreement is with members of the Gubbins Family who own 92 percent of the voting shares (in other words with shareholders holding 80.7 percent of SMC shares). The Gold Fields purchase agreement with the Family envisages a corporate re-organization in which the assets comprising the Cerro Corona project will be transferred to a new company organized under the laws of Peru to be named Sociedad Minera La Cima S.A. ("SMLC").

Figure 4.1 : Cerro Corona Project Location map



4.1 Mineral Tenure

The following description of Mineral Tenure is excerpted from the Legal Due Diligence Report which was prepared for Gold Fields by Rodriguez Mariategui & Vidal Abogados, a Lima legal firm, in March 2004.

4.1.1 SMC Mining Concessions

The Cerro Corona Project as defined in the Minproc Definitive Feasibility Study involves 33 Mining Concessions in the Hualgayoc District, Hualgayoc Province, Cajamarca Department in Peru. All but the “Carolina Uno 2003” claim are titled and registered under the name of SMC. Table 4.1 is a list of SMC’s titled and registered mining concessions, the concession code numbers and their area in hectares. The claim map is shown in Figure 4.2.

Table 4.1
CLAIMS BELONGING TO SOCIEDAD MINERA CORONA S.A. LOCATED IN THE DISTRICT AND PROVINCE OF HUALGAYOC, DEPARTMENT OF CAJAMARCA

Name of Mining Claim	Code	Hectares
ALFA –C	03002889X01	1.6400
ALFA –D	03002896X01	0.1944
ALFA –E	03002890X01	0.1427
ALFA –H	03002897X01	1.0000
ALFA VEINTITRES	03001066X01	80.0000
ALFA 23 - I (ACUMULADO)	03000715Y01	107.2000
ALFA 23 -II (ACUMULADO)	03000716Y01	24.8000
ALFA 23 -III (ACUMULADO)	03000721Y01	46.9700
ARPON A	03002887X01	4.6120
ARPON C	03003101X01	0.8394
ARPON DIECINUEVE	03001067X01	90.0000
ARPON 19 - I - (ACUMULADO)	03003206X01	55.5000
CAÑON	03001629X01	90.0000
CERRO	03002064X01	166.6300
CHELA VEINTIDOS	03001014X02	10.0000
CONC. BELLA UNION	P0100170	50.0000
FUMISA No. 3	03001918X01	19.9944
FUMISA No. 3 – A	03002736X01	4.5099
FUMISA No. 3 – B	03002737X01	1.9953
FUMISA No. 3 – H	03002746X01	4.0000
FUMISA No. 3-H-A2 (FRACCIONADO)	0302746AX01	1.7677
JUAN XXIII	03003661X01	0.5236

NANCY	03000479X01	12.0000
NILDA	03000078X01	10.0000
REDENCION	03002204X01	2.9212
RELAVERA LA JALCA	DR0000030	35.0000
SAN RAMON	03000176X01	5.6329
TARA	03002284X01	0.3695
TARA A-2 (FRACCIONADO)	0302284BX01	25.3365
VALE	03002471X01	533.7294
VALLE	03002085X01	616.0000
VALLE A	03002350X01	23.7933
Total Area		2,027.1022

The “Carolina Uno 2003” claim is the only untitled claim and the only one applied under the new rules governing Mining Concessions as from 1991. This application was filed with Code 01-02650-03 by SMC on August 4, 2003 for 100 hectares (one square) in the district and province of Hualgayoc, department of Cajamarca.

Clockwise starting from the northeastern corner the UTM coordinates for this claim are: N9253000.00 E764000.00; N9252000.00 E764000.00; N9252000.00 E763000.00; and N9253000.00 E7633000.00.

Within this claim there are areas reserved for the following Mining Concessions: “Arpón 19-I (Acumulado)”, record 722; “Arpón C”, record 3101; “Arpón Diecinueve”, record 710; “Cañón”, record 705; “Cerro”, record 2064; “Chela Veintidós”, record 693; “Nancy”, record 687; “Redención”, record 2204; and “Tara”, record 2284 (all of them held by SMC and comprised in this Section 4.1.1); “Demasía Pampas de Navas”, record 2331; “Porcia”, record 600; “Porcia N°1”, record 684; “Predilecta”, record 629; and “Sylvita”, record 647 (all of them leased to SMC and comprised in Section 4.1.2); “Demasía Don Carlos”, record 2046; “Demasía Don Lucho I”, record 2060; “San Remo”, record 311; and “Segundo San Remo”, record 310 (all of them within the Project Area pursuant to Minproc’s Feasibility Study and held by a third party as detailed in Section 4.1.3); and “Capricornio”, record 1700; “Colina”, record 2223; and “San Ignacio o Pozos Ricos”, record 61 (all of them held by third parties but outside the Project Area pursuant to Minproc’s Feasibility Study).

The titling procedure is being properly followed and the notice of the claim has already been published in the official gazette in Lima and Cajamarca; pages of both publications have been properly filed in the titling proceedings, only awaiting for the title to be issued.

4.1.2 Leased Mining Concessions

The following Mining Concessions are part of the Cerro Corona project as defined in Minproc’s Feasibility Study in the Hualgayoc District, Hualgayoc Province, Cajamarca Department in Peru, and are currently leased by their respective titleholders to SMC, according to the registered Lease Agreements. However, the terms of some of these Lease Agreements admits their assignment only to companies controlled by the Gubbins Family. For an assignment of these Lease Agreements to SMLC, even though SMLC is currently controlled by the Gubbins Family, Gold Fields should be required to obtain the corresponding titleholders’ authorization, otherwise they will not be assigned to Gold Fields at Closing. None of these Lease Agreements have been considered as Subject Contracts in the SMLC Share Purchase Agreement nor have not been assigned to SMLC. SMLC can get hold to these Mining Concessions by means of: (i) getting assigned the Lease Agreements in force between the applicable titleholder and SMC; or (ii) terminating the existing Lease Agreement and enter into new arrangements under negotiated conditions with the

applicable titleholder. Should any of these leased Mining Concessions elapse Carolina Uno 2003, overlapping them, will not absorb their area, as they will be published for receiving new claims.

PORCIA
PORCIA N°1
PORCIA N°2A-1 (FRACCIONADO)
PORCIA 3
PREDILECTA
DEMASÍA PAMPA DE NAVAS
SYLVITA

The Sylvita claim was leased by SMC for the Mina Carolina underground mine which closed in June 2003. This lease currently extends to December 31, 2005, and will require renewal. The Sylvita claim is located immediately north of the proposed Cerro Corona pit and is considered to be critical for the rational development of the deposit although it does not include any of the known resources. The Porcia, Porcia No 1, Predilecta and the Demasia Pampa de Navas are important but somewhat less critical, assuming that the mine maintenance facilities could be relocated. Porcia No2 A-1 (Fraccionado) and Porcia No 3 concessions are not critical for the development of the Cerro Corona deposit but may have importance from an exploration perspective.

4.1.3 Third Parties Mining Concessions

The following are the Mining Concessions in which SMC has no interest notwithstanding they are partially or totally inside the area of the Cerro Corona project as defined in Minproc's Feasibility Study in the Hualgayoc District, Hualgayoc Province, Cajamarca Department in Peru. SMC can get hold to these Mining Concessions only by entering into an agreement with the applicable titleholder.

CONSULADO
COLORADA
PERENE
DEMASÍA DON CARLOS
DEMASÍA DON LUCHO I
SAN REMO
SEGUNDO SAN REMO
COLINA A-3
PROVEEDORA N°1-I
TANTAHUATAY N°24

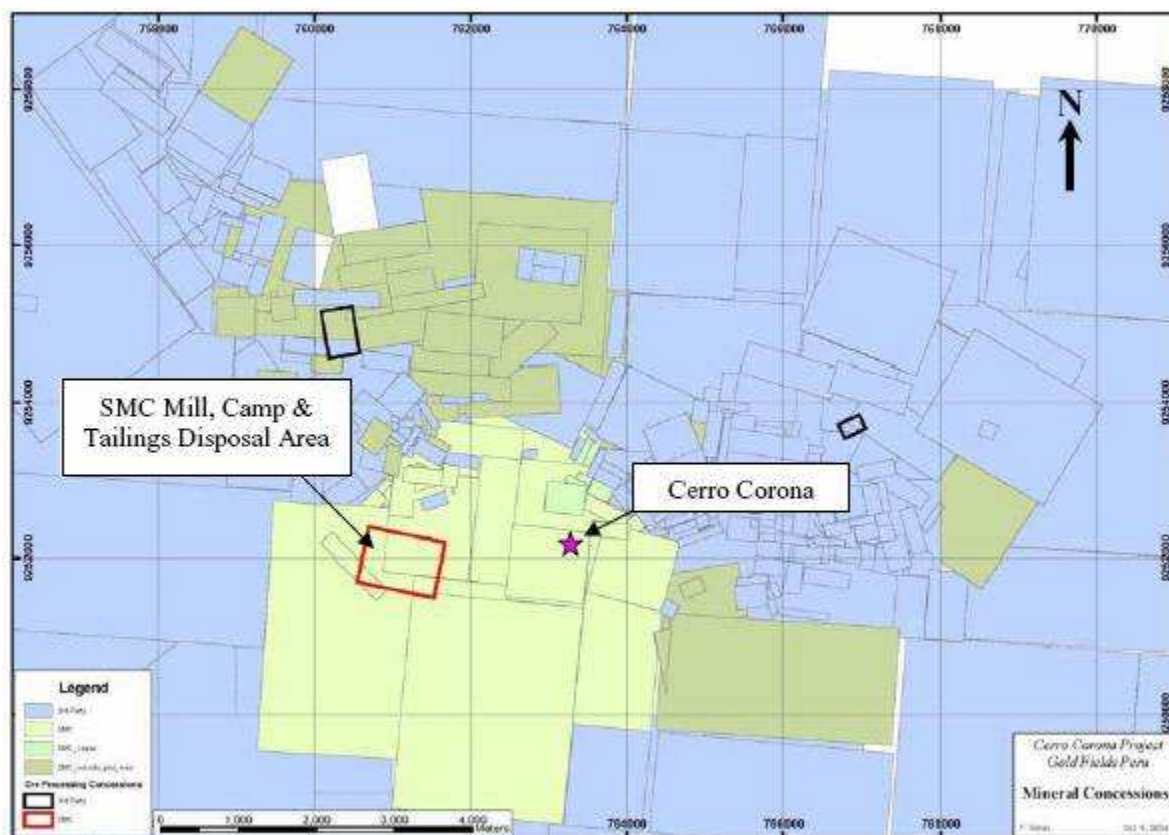
Several of the third party claims are located outside the project area, have no effect on the project and are considered by Gold Fields to be optional. The Consulado claim has an abandoned mine portal discharging acid water. Due to the possibility of future environmental liability with this claim, as well as its location outside the proposed project development layout, Gold Fields does not consider it to be material to the project. The Tantauatay No. 24 claim is near and partially covered by the downstream toe of the tailings dam. This claim is not considered by Gold Fields to have a material impact on the project. Any other existing third party fractions within the project area are not considered by Gold Fields to have any material impact on the project.

4.1.4 Free Areas

There are small free spots within the area of the Cerro Corona project as defined in Minproc's Feasibility Study which are not covered by any Mining Concession nor untitled claim.

It is advisable to cover all the free areas within the Cerro Corona project by filing an application for one or more 100 hectares, even though the free areas will only cover a very reduced actual area.

Figure 4.2 : Cerro Corona Project Mineral Concession Map



As part of its due diligence program, RGC contracted a professional surveyor to survey boundary positions of 11 critical mining concessions surrounding the proposed pit and tailings dam sites. Surveying was done to an accuracy based on the official UTM (Universal Transverse Mercator) coordinates provided by the Peruvian Mining Registry. The concessions are all located on the Cadastral and Precadastral government maps. Surveying confirmed their position on the ground. Gold Fields has not attempted to re-survey the SMC mining concessions.

4.2 Location of Mineralized Zones , Resources, Mine Workings and Processing Facilities

The Hualgayoc Mining District has an extensive mining history dating from the 1700's. Numerous mine workings can be found in the area surrounding the Project, principally related to the extraction and processing of lead, zinc and silver. Most of these workings are abandoned tunnels and small open cuts, leaving a legacy of environmental contamination. The Cerro Corona project is controlled by a group of mining claims, which total about 2,027 hectares (Figure 4.2).

The mineralized zone at Cerro Corona is located on the eastern side of the project area, approximately 3.6 kilometres west of the town of Hualgayoc. The summit of Cerro Corona has an elevation of approximately 3,960 metres and the mineralization is exposed in outcrops and drill roads over an area of roughly 800 metres by 1,000 metres, elongated in a north-south direction. In 1992, SMC excavated two exploration adits located on the lower northwest flank of the hill. Abandoned small open-cuts and tunnels of the Arpon Mine exploited silver-lead-zinc veins and mantos which are located approximately 1,000 metres to the northeast of the

summit of Cerro Corona. The portal to SMC's Mina Carolina underground silver-lead-zinc mine (now closed) is located in this area.

The flotation mill, camp facilities and tailings disposal area for SMC's Mina Carolina Mine are located approximately two kilometers to the west of the Cerro Corona mineralized zone. SMC is responsible for removal of all their equipment and buildings which work is already in progress. SMC's ore processing concession which covers the mill, camp and old tailings disposal area is outlined in red on Figure 4.2.

The project area has no overlaps with any Natural Protected Area or its cushion zone or with any Urban Area or Urban Expansion Area, as shown by the Non Mining Catastro. Despite the fact that SMC does not have a certificate of non-existence of archeological sites (CIRA) in the area of the Mining Concession, a private report by an archeologist concludes there is no evidence of archeological sites nor human presence in the area.

5.0 INFRASTRUCTURE , AND PHYSIOGRAPHY

5.1 Accessibility

The Cerro Corona project lies approximately 90 km by road north of the departmental capital of Cajamarca (population approximately 100,000) and near the village of Hualgayoc (population 2,000). Access from Cajamarca is by means of an all-weather gravel road to Yanacocha (45 km), followed by approximately 25 km of road to Sipan that is currently being upgraded. The remaining 20 km is a relatively poor quality road that is capable of taking 30 t concentrate loads from Mina Carolina.

5.2 Physiography

The Cerro Corona project is found in the highest part of the Western Cordillera of the Andes in Northern Peru, close to the headwaters of the Atlantic continental basin. It is an area marked by strong contrasts between the regions of maximum altitude with a SSE-NNW direction, approximately 5-10 km to the west of Cerro Corona, and the valleys that begin to dominate the landscape in the region of Bambamarca to the NE of the project. The local topography shows pronounced features with deep canyons and steep, bare slopes with projecting rock edges. The summit of Cerro Corona has an elevation of approximately 3,960 metres (Figure 5.1).

Figure 5.1 : View of Cerro Corona (Looking East)



5.3 Climate

The environmental conditions of the project are strongly influenced by the altitude. The climate of the area is cold (median annual temperature of 8°C), with frequent frosts and a wide daily thermal amplitude. Rainfall varies from 1000 to 1400 mm per year. There are two distinct seasons, with dry winters (April through September) and wet summers (October through March). The predominant wind direction is from the ENE with a maximum average velocity of 9,3 m/s and an average annual velocity of 3m/s.

5.4 Local Resources

The project is located within the district of Hualgayoc, Department of Cajamarca about 90 km to the north of Cajamarca city. The population is rural, concentrated in small villages or hamlets. The population density of the district is the highest of the entire Cajamarca Department. There are approximately 2,000 inhabitants in the village of Hualgayoc (Figure 5-2). Minimal local services include daily bus transport, a small hospital, small stores, market and a few restaurants. The man camp and flotation plant for Mina Carolina, located 2.2 km west of Cerro Corona and 3.6 km west of the village of Hualgayoc, includes offices, warehouse and core storage and has served as a base for the project in the past. Development plans for Gold Fields include the construction of a new camp at an alternate site in the vicinity.

Figure 5.2 : View of Hualgayoc Village (Looking West)



5.5 Surface Rights

The approximately 523 hectares of surface land rights over the Cerro Corona deposit and project site are owned collectively by the El Tingo Rural Community (Comunidad Campesino El Tingo) an entity created by Agrarian Reform in 1956. This community comprises numerous families, spread over what was originally some 5,000 hectares. Most of the families work and live on their land but have traditionally also depended on the mining industry for income. Unlike many rural areas, the population has actually grown over the last 50 years because of the additional income from mining. However, the decline in mining activity of recent years and the over-farming of ever smaller plots due to the population growth has gradually impoverished the area.

The land needed for the Cerro Corona Project is sub-divided into a number of small, well-defined, parcels that are occupied and/or worked by individual families or members of the El Tingo Community who have the rights of possession and are known as “posesionarías” or “parcelaros”. The total population in this area numbers approximately 100 people and many are or have been linked with the SMC mining operations in the past.

In order to acquire this land the company must first acquire the rights of possession for each parcel or group of parcels and then get approval of the community to convert it into title. Rights of possession may be negotiated and acquired directly, but the approval from the community for the transfer of title must be at a public assembly where

over two-thirds of the members of the community vote in favor of the transfer. In order to get approval from the community the company will need to also pay them for the land and assume other commitments such as providing jobs and social investments. Once the community votes favorably, the title can be transferred with only the signature of the President and Treasurer. This same community will have a say in the approval of the environmental permit for mining.

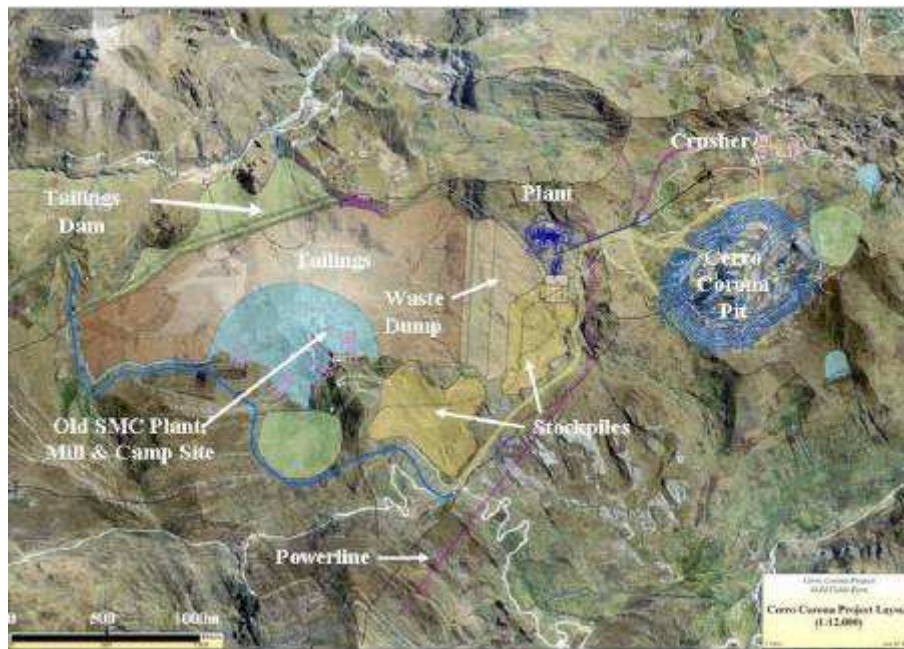
At the time of the purchase agreement with Gold Fields, SMC already owned 141.7 hectares, comprising the surface rights over much of the Cerro Corona deposit, the Mina Carolina plant and campsite, and about half of the valley that would be used for tailing storage. This land was mostly acquired during Barrick's option but has been added to piecemeal by SMC over the intervening years at an average cost of some US\$300 per hectare.

The remaining parcels needed for the project, which total 382.06 hectares, are under various stages of ongoing negotiation by SMC and Gold Fields. The estimated total costs to secure all of these outstanding surface rights are US \$1.5 million.

The sulfide ore from Cerro Corona will be mined by open-pit and concentrated by a standard flotation process. No heap leach pads will be constructed to process the oxide mineralization. Overall the Cerro Corona Project is designed for zero discharge and has essentially been limited in size as much for environmental reasons as economic in that by mining less than 90 million tonnes of ore, all waste dumps, water, tailings and the plant site will be contained within a single watershed which is centered just north of the SMC's La Carolina mill and camp site and about two kilometres west of the ultimate open-pit at Cerro Corona. The tailings disposal site for the Cerro Corona Project will eventually bury the old La Carolina tailings. Figure 5.3 shows the preliminary project layout with locations of the proposed open-pit, crusher, plant, crusher, waste dump, stockiles and tailings disposal facility.

The Cerro Corona mine operation will require the construction of a 37 kilometre power line from the Cajamarca Norte substation located adjacent to the Yanacocha Mine. Process water will be provided by dewatering wells in the open-pit area as well as surface run-off to be captured in the tailings dam. A new camp to house construction and mining personnel will be built within the project area.

Figure5.3 : Preliminary Project Layout Plan



6.0 HISTORY

6.1 Pre-1992

The Hualgayoc Mining District has been a significant producer of silver, lead, zinc, gold and copper. Silver production commenced in the late 1700s with the discovery of the area by the Spaniards. Mining concentrated on placer deposits and oxidised surface veins. The earliest published reports of mining in the area are from 1827 by Von Humboldt, who visited the district in 1802. Underground and minor open-pit production of lead-zinc-silver mantos and veins continued intermittently from several operations into the 20th century.

The silicification and associated sulfides at Cerro Corona were identified when the first systematic exploration was conducted by BRGM in 1979 evaluating the potential for copper porphyry deposits in the area.

SMC and its predecessors operated the former Mina Carolina mine situated adjacent to the Cerro Corona project since the 1980's. Mina Carolina was an underground silver-lead-zinc-copper manto and vein mine in limestones and intrusives. The operation consisted of an underground mine, a processing plant and tailings dam situated approximately 2 km west of Cerro Corona. Production ceased in mid-2003 due to low metals prices and diminishing reserve grades. The total production from the mine is not known to the authors. The mineral concessions (described in Section 4.0) covering the Cerro Corona project and surrounding area were originally staked at various times in the 1960's, 1970's and 1980's. Ownership and control of these claims was consolidated by SMC during the 1990's.

6.2 1992-1993: SMC Exploration

A sampling and mapping program was conducted on the Cerro Corona outcrop in 1992 by SMC. This program identified significant gold anomalies in the oxide cap. SMC subsequently completed 9 diamond drill holes (2,226m) and the development and sampling of exploration adits. Mineral Resource Development Inc. ("MRDI") was contracted in September 1993 to provide technical guidance and recommendations for exploration on the property.

6.3 1994-1996: Barrick Exploration

Between January 1994 and 1996, the property was optioned to Barrick Gold Corporation (Barrick) of Toronto. A program of diamond and RC drilling and geological mapping was undertaken.

The first phase drilling program of 140 RC holes at 70 m spacing (9455 m total) and 38 diamond core holes at 200 m spacing (13 283 m total) was completed in June 1994. A preliminary interpretation was then conducted, using north-south drill hole sections and surface geology maps. A second phase of in-fill drilling, including 77 diamond core holes (20 764 m total) on 70 m centres, was subsequently completed in May 1995. Drilling totalled 43 502 m. Additional work included environmental studies, infrastructure analysis, mining and metallurgical testwork.

Kilborn completed a Draft Feasibility Study (November 1995) on behalf of Barrick Gold in November 1995. This study was based on a mining rate of 15 000 t/d. The mine reserve was estimated at 6.85 Mt of oxide ore at 1.34 g/t Au and 84 Mt of sulfide ore at 1.02 g/t Au and 0.58% Cu. Capital costs were estimated at US \$235 M for a combined oxide and sulfide operation. The Capital costs included \$78 M in Pre-stripping.

Barrick decided not to proceed with the Cerro Corona Project and returned it to SMC in 1996.

6.4 1997-1998: RGC Due Diligence

In 1997, RGC entered into a purchase agreement with SMC and carried out a thorough due diligence investigation, including 2,578 meters of drilling in 5 diamond drill holes, and a preliminary feasibility study in May 1998. The RGC due diligence drilling program was conducted primarily to provide samples for metallurgical testwork. The holes were placed in each of the Barrick defined hypogene ore zones. The secondary objectives were to increase the sample density in the lower levels of the proposed larger pit and to validate the copper equivalent grades obtained in the RGC drill holes against the block model.

The mineral resource estimate completed by ECS International (“ECSI”) as part of the RGC Due Diligence Study was the outcome of a thorough and detailed analysis of the data, and the development of new geological and statistical models. This estimate conformed to the requirements of the Listing Rules of the Australian Stock Exchange Ltd, and the “Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves” (the JORC Code). The RGC mineral resource estimate had good general agreement with the global geological resources estimated by Barrick. The RGC estimate was, however, much more closely constrained, externally, and by interpreted internal structures, and had the benefit of additional drilling information, particularly in the lower sections of the deposit.

Although RGC found no fatal flaws in their due diligence and made a recommendation to purchase the project in their December 1997 report, they returned the property to SMC in 1998 due to a change in their core business strategy and the existing climate of falling gold prices.

6.5 2000-2002: SMC - Minproc Definitive Feasibility Study

SMC contracted GRD Minproc Ltd. (“Minproc”) to assess project viability using a “fit for purpose” approach and a smaller but higher grade mine reserve. ECSI were commissioned as part of the Minproc studies to refine the model and resource estimates previously completed for RGC. The resultant global resource estimate of 426 Mt at 0.48 g/t Au and 0.28% Cu compares well with the RGC global resource estimate of 426 Mt at 0.47 g/t Au and 0.30% Cu. Both estimates are based on a 0% Cu and 0 g/t Au cut-off above the 3325 RL and include the oxide zone.

A preliminary feasibility study (PFS) was completed by Minproc for SMC in April 2000. That study indicated that a plant capacity of 5.4 Mt/a (15 000 t/d) was financially attractive. 40 Mt sulfide ore reserve at 1.33 g/t Au and 0.71% Cu and 6 Mt oxide ore reserve at 1.38 g/t Au were considered for the DFS. Metal prices of US\$0.80/lb of copper and US\$320/oz of gold were used for the PFS. The treatment of the oxide cap ore (over 6 Mt) was best deferred until after the treatment of sulfide ore due to the uncertainties associated with the impact of copper on oxide ore treatment costs.

The PFS results were used as a basis for the 40 Mt Option Definitive Feasibility Study (40 Mt DFS) completed by Minproc for SMC in April 2001. The 40 Mt DFS considers 42.6 Mt sulfide ore reserve at 1.36 g/t Au and 0.68% Cu and 8.5 Mt of oxide ore at 1.3 g/t Au and 0.05% Cu. A copper price of US\$0.90/lb and gold price of US\$275/oz are used for the 40 Mt DFS. The 40 Mt DFS has concluded that there is significant potential for the project life of the sulfide ore deposit to extend past the 8 years assessed in the study and that the ore body is capable of supporting a pit as large as 130 Mt (as per previous studies). The likely limitations on project life are the ability to cost effectively dispose of tailings and mine waste and the gradually diminishing ore grades.

SMC and Minproc evaluated these opportunities and further optimised the project in the 60 Mt Option Definitive Feasibility Study (60 Mt DFS), completed in December 2001. The sulfide ore mine reserve used for the DFS is approximately 65 Mt and storage capacity for both tailings and waste is available. Project life is 12 years. It was estimated that this option would provide maximum project returns.

As part of this DFS, Minproc drilled 825 meters in 9 core holes to acquire additional metallurgical samples. The focus of this drilling was on the upper ore regions of mixed and supergene ore. These ore types provide

approximately 50% of the ore tonnage in the first 3 years and up to 75% of the copper and gold. The metallurgical testwork conducted by Barrick and RGC focussed on the hypogene ore metallurgy and verification of the metallurgy in the upper regions was considered to be critical to successful start-up of the proposed plant.

6.6 2003-2004: Gold Fields Due Diligence

Gold Fields signed a letter of intent in September 2003 and a definitive agreement in December 2003 to acquire SMC's share of Cerro Corona, subject to a due diligence period and conditional on completion of certain critical path deadlines over a 3 year period. The GF technical due diligence program consisted of re-logging selected drill holes to confirm the metallurgical zone boundaries in the Minproc model, the completion of 4 confirmatory diamond drill holes (500m) in the upper portions of the deposit to obtain sample material for metallurgical testing at Dawson Metallurgical Laboratories, check assays on selected Barrick and RGC drill hole sample pulps. A subsequent study of the sulfur distribution in the deposit using available S assays was undertaken by consultant Tom Vehrs to provide information for Mike Brittan to define areas with potentially problematic gold metallurgy.

Although no major problems were identified, Gold Fields did not validate the sample grades against original assay reports, nor verify other data such as specific gravity, drill hole surveys or geotechnical information. This decision was based on a review of results of a thorough due diligence study done by RGC.

Norwest Corporation (Norwest) completed a geostatistical evaluation of the ECSI model used in the Minproc DFS and carried out new Whittle Pit optimisation runs using parameters provided by Gold Fields.

WLR Consulting, Inc. (WLRC) was retained by Gold Fields to conduct a brief due diligence study of the mine plan for the Cerro Corona Project. Revision 2 of the Minproc DFS study was based upon 65 Mt of sulfide ore and a daily processing rate of 15,000 tonnes (5.4 Mtpa). WLRC's scope of work included: capturing and adapting a deposit model that was converted into MEDS® by Norwest Corporation (Norwest); conducting pit limit analyses using costs, recoveries and metal prices specified by Gold Fields; designing an ultimate pit that targets approximately 80 to 90 Mt of sulfide ore; designing internal mining phases; and developing mine production schedules for ore processing rates of 5.4 Mtpa and 7.2 Mtpa (20,000 tpd). WLRC did not audit the deposit model.

Current work by Gold Fields is intended to verify that the Minproc DFS block model and by inference, the WLRC mine plan and reserves, are adequate (i.e. no material risks or cumulative risks that become material when added together) for Oct/Nov 2004 decision making (EPCM tender, contract mining tender, power, roads).

In order to complete a new feasibility study by April 2005, Gold Fields will complete an updated resource estimate by mid-Feb 2005, preferably with input from new data relating to sulfur analyses, waste characterization, check analyses, clay mineralogy, dh re-logging, surface mapping and 2004 drill program. This will be followed by an updated mine plan and reserve estimate to be completed by March 2005.

7.0 GEOLOGICAL SETTING

7.1 Regional Geology

The regional geology of Peru is dominated by the Andean Mountain Chain which extends 2000 km along a northwest to north-northwest trend and reaches elevations up to 6000 m. Formed by the collision and subduction of the Nazca Plate under the South American continent, the mountain chain consists of five physiographic provinces, i.e.:

- the Coastal Plains;
- Western Cordillera;
- Intercordilleran Zone;
- Eastern Cordillera, and
- the Amazonian Plains.

The Cerro Corona deposit is located in the Western Cordillera, within the volcanic-hosted polymetallic sub-province of the Altiplano Metallogenic Province of Peru.

The structural fabric of the area is reflected in generally northwest trending thrust faults and fold axes. However, Cerro Corona is located at a latitude affected by the Cajamarca flexure, which has produced east-west trending mega-lineaments that transect the dominant northwest fabric and may have localised mineralization on a regional scale (Figure 7.1). In fact, the epithermal deposits of Yanacocha and Maqui-Maqui lie along northeast trending linears extending westward from the Hualgayoc Fault.

Porphyry copper, molybdenum and gold deposits are characteristically situated above subduction zones in continental (North and South American) or island arc (Indonesian) settings, and are the product of rising plumes of magma directly related to melting of the subducting oceanic crust. The Maricunga Belt porphyry gold-copper and related epithermal gold deposits in Chile are other examples of these types of deposits in South America.

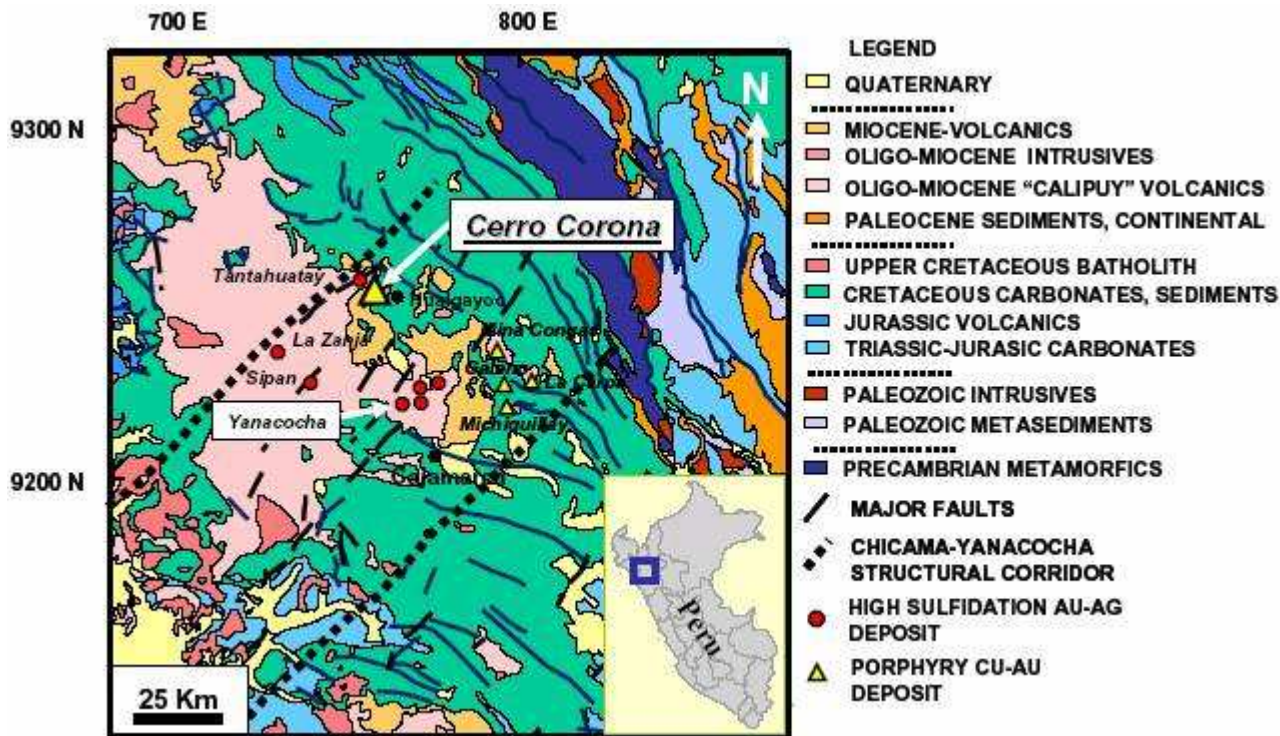
Gold-copper bearing diorite and quartz-diorite porphyry belts, such as Maricunga, El Indio-Nevada and the Hualgayoc Trend, typically occur about 200-250 km inland from the subduction trench. These gold-copper deposits are characterised by smaller size (typically 50-150 Mt of 1-1.5 g/t gold and 0.05-0.15% copper), weaker potassium metasomatism, more telescoped alteration, more abundant iron oxides and generally fewer intrusive phases than the giant porphyry copper deposits of Chile and Peru.

7.1.1 Regional Stratigraphy and Structure

Unexposed basement rocks are inferred to be Precambrian metamorphic rocks, which are overlain by Ordovician shales and sandstones. These are, in turn, overlain by Permian conglomerates, sandstones and volcanic flows and tuffs, then by Triassic to Jurassic limestones. Up to 5000 m of Cretaceous fossiliferous limestones, laminated shales and sandstones were then deposited, these constituting the host to all the stratiform manto deposits of the Hualgayoc district. These rocks were deformed into open, upright folds during the Palaeocene Incaic Orogeny and then deeply eroded in the later Tertiary. In Miocene time, 1000-3000 m of sub-aerial andesitic to rhyo-dacitic volcanics were deposited on the erosional surface, associated with coeval intrusions of similar composition. More recently, the area has been variably eroded by glaciation.

Regional structure is characterised by large open folds in the sediments, the axial planes striking roughly 315 ° with steep southwest dips. There are no large scale thrust faults in the Hualgayoc district; faulting is restricted mainly to normal and oblique slip fractures with offsets of a few metres. Three fracture sets have been recognised: 315° with vertical to steep NE dips; 080° with 65° NW dips; and 045° with 65° NW dips. These structures all host vein mineralization and cut both sediments and intrusions, indicating that they have been active since emplacement of the intrusions.

Figure 7.1 : Regional Geology & Project Location



7.1.2 District Geology and Mineralization

The Hualgayoc district is underlain by sandstones, limestone, limey siltstones and minor shale interbeds of the Goyllarisquizga Group, Inca, Chulec and Pariatambo Formation, which are unconformably overlain by andesitic to rhyo-dacitic volcanic flows and tuffs, and intruded by coeval plugs and stocks of similar composition. These rocks comprise the Cerro San Miguel, Cerro Jesus, Cerro San Jose, Cerro Hualgayoc, Cerro Tantahuatay and Cerro Corona intrusions (Figure 7.2).

Several intrusive events or centres are indicated by K-Ar dating (MacFarlane, 1990). The dioritic Cerro San Miguel, Jesus and Jose intrusions are dated at 10.5-14.3 Ma, whereas the rhyo-dacitic Cerro Hualgayoc intrusive is slightly younger at 7.9 Ma. Alunite alteration of the andesitic Cerro Tantahuatay intrusion is dated at 12.4 Ma. Cerro Corona is probably coeval with the San Miguel intrusive group, although it is quartz-dioritic in composition.

District mineralization is closely associated with these intrusions, and consists of several distinct styles; polymetallic manto and vein; gold-copper porphyry; and volcanic associated epithermal gold.

Manto and vein Pb-Zn-Ag-Cu mineralization occurs as stratabound metasomatic replacements in limestones and fracture-fill in sediments and intrusives, respectively, and is genetically associated with the Tertiary intrusions. These deposits include: the defunct Cerro Jesus, Cerro San Jose and Maria Eugenia mining areas; the active Apron underground mine of Mina Carolina and El Zorro open pit mine of San Nicolas; and the Sinchao area.

Porphyry gold-copper mineralization potential has only recently been recognised in the district, at Cerro Corona. The district is now being systematically explored for porphyry-related gold deposits.

obtrude into the diorite body, as seen on some cross-sections. Skarn development is minimal, and generally limited to a 30 m halo surrounding the intrusive contact. The skarn is not significantly mineralized.

7.3 Property-Scale Structure

Emplacement of the intrusive appears to have been localised by intersecting northwest and northeast trending regional faults. The intrusive is cut by numerous sub-vertical faults and fracture zones of similar orientation, with moderate fault offsets (30-70 m). Gold and copper mineralization is partly structurally controlled, as evidenced by isolated high grade veins within the intrusive (such as that intersected in Mina Carolina drill hole CO-18 m), although the bulk of mineralization is disseminated in nature, as is typical of most porphyry style deposits.

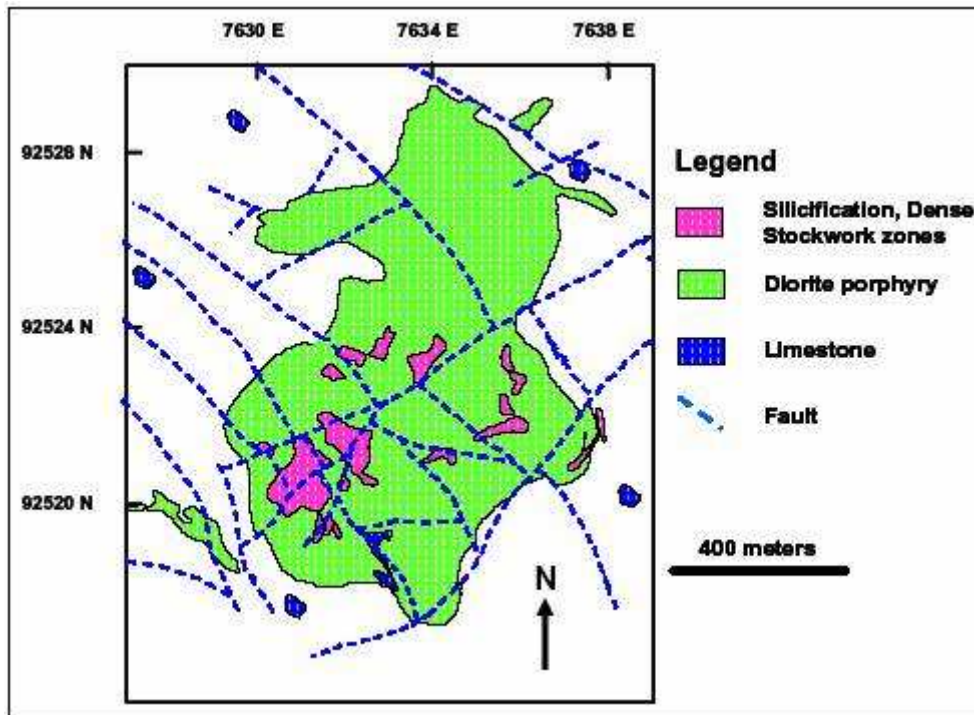
Interpretation of available structural data shows strong sets of fractures, veins and faults trending 025°, 075° and 120°, which reflect a radial pattern of faulting and fracturing observed near the centre of the intrusive. Structural mapping reveals the dominance of northwest and northeast trending faults and fracture systems, within the intrusive and surrounding limestones (Figure 7.3).

Faults are traceable for only short distances on surface and are inferred to depth based on drill core intercepts. The majority of the faults dip outward from the centre of the intrusive, showing normal and/or right lateral movement. Normal fault offsets have not been observed on surface, but offsets from 30-70 m can be inferred from contacts and grade contours on section.

7.4 Property-Scale Alteration

The Cerro Corona intrusive is strongly weathered on surface and deeply overprinted by late argillic alteration, making primary alteration effects difficult to recognise. Limited but detailed work by Leonardson in 1995 outlined

Figure 7.3 : Cerro Corona Deposit Geology Plan Map



the predominant alteration assemblages and their spacial distribution. Alteration zones were identified and digitized, like the ore zones, to provide information for engineering studies and development of the ore deposit model.

Generally speaking, the quartz-diorite stock displays the classic porphyry alteration zonation of a potassic altered core associated with weak distal propylitic alteration, overprinted by weak fracture controlled phyllic (QSP) and strong sericite-clay alteration. The first two alteration styles are the product of magmatic dominated K⁺ metasomatism, the latter two being the result of hydrothermal H⁺ hydrolysis. A potassic alteration boundary, which defined the lower limits of sericitic and argillic overprinting and the upper limit of remnant potassic alteration, was shown on the sections and level plans (Figure 7.4).

At the current levels of exposure, it appears that the entire stock has been affected by weak to moderate potassic metasomatism. Sericite-clay overprinting has affected all but two remnant potassic centres, one centred near the low grade core and the other located in the northeastern sector of the intrusive. In the central core area, potassic alteration is represented by the progressive replacement of hornblende by biotite and the occurrence of “shreddy” biotite within the rock matrix. The northeastern zone contains more orthoclase, which occurs as veins and replacements of plagioclase phenocrysts and rock matrix.

Propylitic alteration is weakly developed in the outer extremities of the intrusive and along early fractures. It is characterised by chlorite, epidote and calcite, which replace hornblende. Pyrite, minor chalcopyrite and hematite have also been noted in association with a carbonate assemblage consisting of siderite and ankerite. This propylitic style of alteration also affects the barren core, as discussed above.

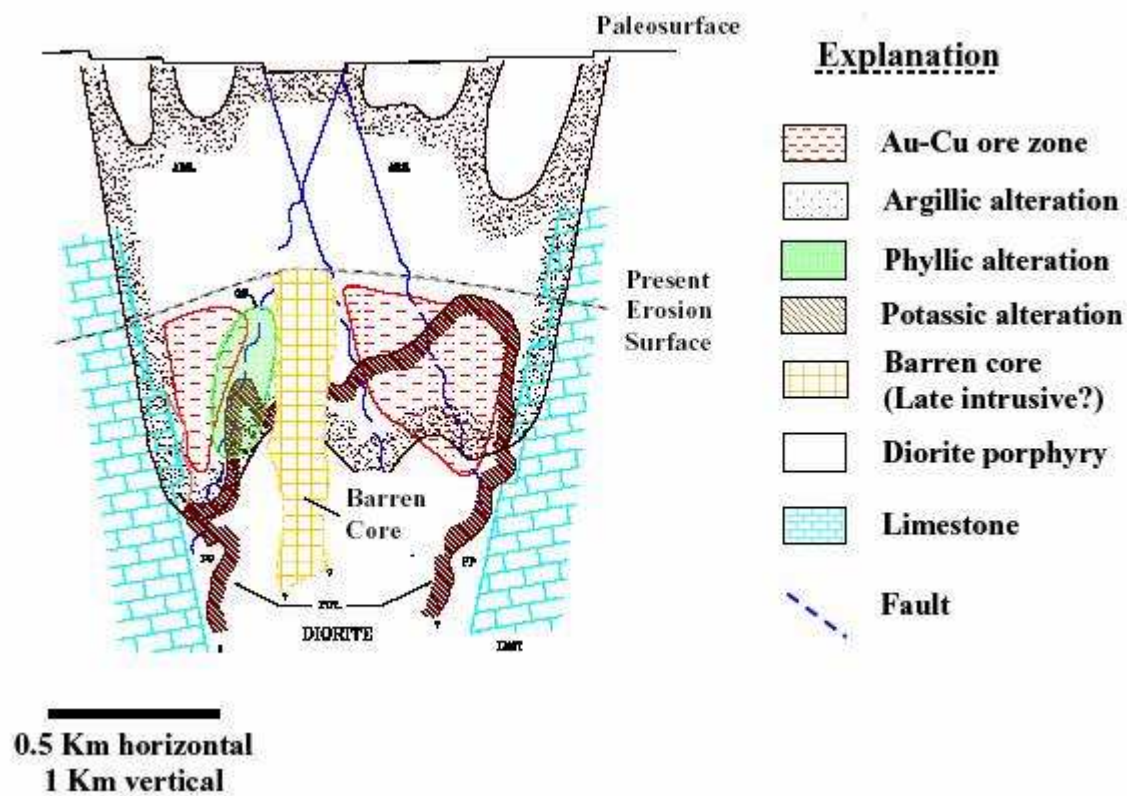
Phyllic alteration is strongly fracture controlled and generally weakly developed, as indicated by the lack of textural destruction of most affected rocks. It occurs as narrow (1-3 cm) quartz-sericite-pyrite selvages on quartz stockwork veins, but coalesces into wider zones (1-2 m) where vein density is sufficiently high. Pyrite is generally fine-grained and dark grey, occurring as disseminations and fine veinlets up to 6 vol%. This style of alteration is best preserved in the southwestern and western margins of the deposit.

Sericite-clay or clay-sericite alteration is ubiquitous from surface down to an elevation of about 3600 m. The alteration assemblage is composed of sericite and clay in varying proportions, which overprint all other alteration styles while preserving original rock textures. This alteration style also appears to be partly structurally controlled, as it is commonly associated with fracture zones and inferred faults.

The Barrick Study reported that the youngest alteration is a swelling clay (montmorillonite) produced by meteoric water dominated leaching along fractures and faults. About 22% of the porphyry reportedly displayed this alteration, which results in the formation of a distinctive, crumbly “popcorn rock” texture noted in core, produced when the clays expand in response to interaction with drilling fluids and/or water. This assemblage was noted on re-logged sections as Intermediate argillic (SCC) or sericite-chlorite-clay. Examination of recent metallurgical drill cores has cast some doubt on the interpretation of “swelling clay”.

Limestone contacts are typically decalcified and partially silicified, but otherwise are relatively unaltered, with minimal skarn or marble development. Irregularly developed skarns are generally limited to a 30-40 m halo around the intrusive (but have been noted 50-70 m beyond the contact) and typically contain disseminated diopside, biotite and minor garnet. However, marble forms a halo up to 100 m wide in the southwest portion of the intrusive contact.

Figure 7.4 : Cerro Corona Schematic Alteration Section



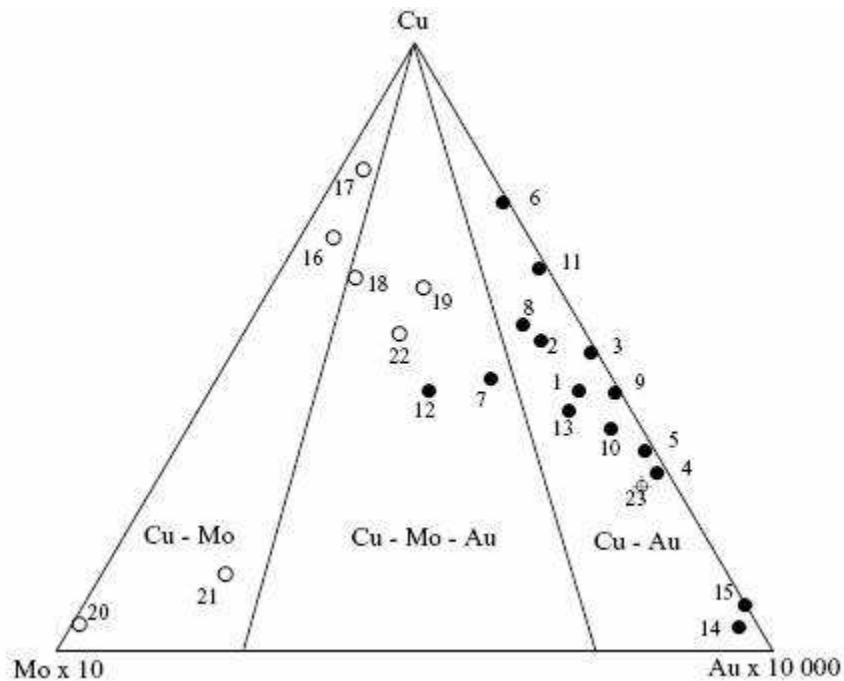
8.0 DEPOSIT TYPE

Cerro Corona is a classic gold-copper porphyry deposit of dioritic affinity. It was passively emplaced into sedimentary country rocks at a depth of about 1 km, probably as a feeder to overlying dacite flows and pyroclastics. The main body of the deposit was intruded in a single episode, although the Barren Core may represent a slightly later phase. Deposition of primary, magmatic associated, disseminated gold and copper mineralization accompanied emplacement of the intrusion and was associated with early potassium metasomatism (K-feldspar-biotite alteration). Abundant fracturing then occurred during progressive inward cooling of the intrusive, resulting in multiple, crosscutting quartz stockwork veins, oriented in radial and concentric patterns. Early veins were generally of low grade, but, as the meteoric water dominated hydrothermal system developed, later veins became enriched in gold and copper remobilised from the intrusive host rocks. Second stage veins were associated with phyllic alteration, later ones with argillic alteration, which strongly overprinted the deposit during the waning stages of the hydrothermal system. The annular ore zones may have been formed through the remobilisation of gold and copper upward and outward by hydrothermal processes. The deposit was then deeply eroded, exposing the roots of the hydrothermal system and the base of economic mineralization.

Cerro Corona shares many characteristics with the Ok Tedi, Grasberg and Batu Hijau porphyry copper-gold deposits of South East Asia and also with the gold-rich porphyries of the Maricunga Belt, Chile. Similarities with these deposits include Miocene age diorite intrusive composition, central quartz stockworks, classic alteration zoning and low sulfide content.

The relationship between Cerro Corona and other porphyry-related ore deposits is shown in the triangular plot for copper, gold and molybdenum (Figure 8-1).

Figure 8-1 Triangular Plot For Selected Copper, Gold and Molybdenum Porphyry and Related Deposits



Note: Copper-gold-molybdenum triangular plot for gold rich porphyry deposits, porphyry copper-molybdenum deposits and porphyry molybdenum deposits showing the relative position of Cerro Corona. All grades are hypogene and are in ppm. Deposits: 1=Panguna, Papua New Guinea, 2=Ok Tedi, Papua New Guinea, 3=Mamut, Malaysia, 4=Dizon, Philippines, 5=Santo Tomas II, Philippines, 6=Galore Creek, B.C., 7=Morrison, B.C., 8=Bell

Copper, B.D., 9=Mount Polley, B.C., 10=Fish Lake, B.C., 11=Afton, B.C., 12=Bingham Canyon, Utah, 13=Bajo de la Alumbra, Argentina, 14=Marte, Chile, 15=Lobo, Chile, 16=Quebrada Blanca, Chile, 17=Chuquimata, Chile, 18=El Salvador, Chile, 19=Potrerillos, Chile, 20=Questa, New Mexico, 21=Mt Tolman, Washington, 22=Deep Butte, Montana, 23=Cerro Corona, Peru.

The plot is partitioned into three regions representing Cu-Au, Cu-Au-Mo and Cu-Mo porphyry deposits. There is a good trend from the large, copper-enriched deposit at Chuquimata, Chile to the much smaller gold-rich and copper poor deposit at Marte, Chile. Cerro Corona (#23) fits well within the gold-rich field of porphyry deposits.

All of the exploration programs at Cerro Corona have been based on the porphyry model and analogies with other similar deposits described above. The drilling programs have been designed to define the limits of mineralization, the boundaries of oxide, transition, supergene and hypogene mineralization, alteration zonation, as well as the grade distribution of copper and gold within the deposit.

9.0 MINERALIZATION

Primary hypogene mineralization at Cerro Corona consists of 3-8% pyrite, 1-3% chalcopyrite, <1% bornite, trace molybdenite, galena and sphalerite, and microscopic gold. Accessory minerals include magnetite (1-4%), earthy and specular hematite (to 10%) and minor carbonates.

Gold and the primary sulfides occur within quartz stockwork veinlets and disseminated within the wall rocks. Quartz veins commonly contain magnetite, which is associated with high gold and chalcopyrite contents in some cases, but these minerals do not show an exclusive association. Primary magnetite also occurs disseminated within wall rocks. The secondary copper sulfides, chalcocite and covellite (1-2% total), are restricted to a supergene enrichment blanket, where they occur as rims or coatings around pyrite and chalcopyrite grains.

Preliminary microprobe study of polished sections made from high grade quartz vein samples shows that pyrite typically predates chalcopyrite, and that most of the gold is of the same age as chalcopyrite. The later chalcopyrite hematite-quartz mineralization is observed to have corroded earlier pyrite. Gold typically occurs as inclusions within chalcopyrite, and on chalcopyrite-pyrite contact boundaries. Gold also occurs as fracture fillings within pyrite. Gold composition typically includes 5-15 atomic % silver in the samples analysed. Initial optical studies indicated that magnetite was the earliest deposited mineral. Six polished section studies showed magnetite, hematite, pyrite, chalcopyrite, bornite and molybdenite to be the earliest suite and, in that order, all very likely related to early potassic alteration.

Cursory statistical analysis of metallurgical sample assays also supports a strong association between gold and copper, and a much weaker association between gold and iron. Metallurgical float tests further confirm the dominant association of gold and chalcopyrite, but also reveal a locally significant association between gold and pyrite.

In summary, the data indicates that gold is genetically associated with copper mineralization, the bulk of which occurred during late magmatic/early hydrothermal stages within the mineralization system. Older mineralization was mainly disseminated, and younger mineralization was increasingly vein hosted. This was followed by late stage, barren pyrite veins.

a) Stockwork Veins and Breccias

Quartz stockwork veins occur throughout the intrusive, at volumes between 10-25%, ranging up to 50-70%. The veins and stockwork systems are generally sub-vertical, and veins vary in width from 1 mm to 1 m, but average about 3 mm to 1 cm (Figure 9.1). Locally, intensely silicified zones up to 10 m wide are formed by coalescing veins. One such zone may be exposed on surface at the topographic peak of Cerro Corona, where intense silicification and quartz veining form a resistive “cap” of almost pure saccharoidal silica. The silicic cap is sulfide poor, low grade, and is generally coincident with the barren core discussed later.

Figure 9.1 : Cerro Corona Quartz Stockwork Mineralization – Hypogene (sulfide) Ore in Drill Core



b) Ore Zones

The deposit was divided into 6 general zones for the Barrick Study, i.e.:

- Oxide;
- Mixed (or Transition)
- Supergene;
- Hypogene;
- Barren Core, and
- Limestone.

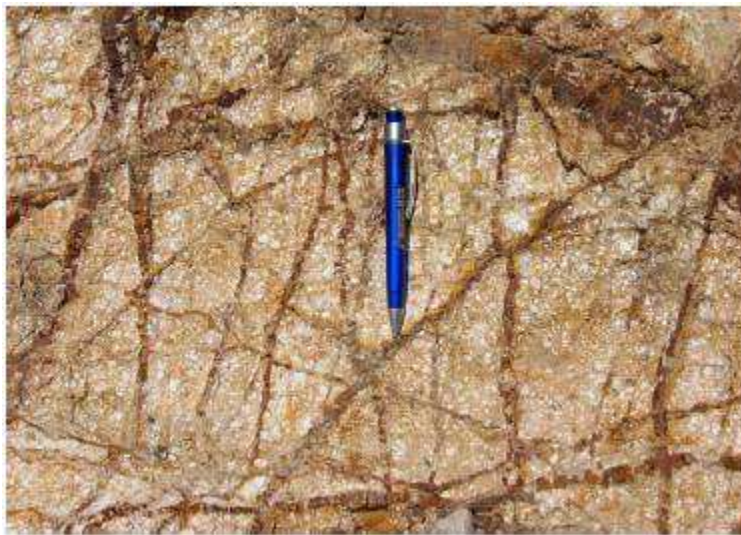
These zones were interpreted on sections and level plans and then digitized, to aid in engineering studies and development of the ore deposit model. As a disseminated style of deposit, the hypogene zone is generally continuous while the overlying oxide, mixed and supergene zones have variable thicknesses as described below.

Weathering related alteration occurs as a sub-horizontal blanket, draped over the deposit, generally parallel to topography. The Oxide Zone varies from 10 to 50 m thick, the Mixed Zone from 10 to 70 m and the Supergene Zone from 10 to 60 m. The Supergene Zone occurs within, and generally at the base of, the Mixed Zone.

On the level plans, the Hypogene Zone is surrounded by a discontinuous Supergene Zone and Mixed Zone, and distally by the Oxide Zone. The Oxide Zone dominates above 3900 m elevation, while the Hypogene mineralization is dominant below 3820 m elevation.

The Oxide zone is characterised by ubiquitous iron oxide minerals (3-5 vol% goethite, hematite and minor jarosite) and almost total removal of copper mineralization by supergene acid leaching due to the oxidation of sulfide minerals (mainly pyrite). Copper grades vary from 0.02-0.15%, but are typically less than 0.05%.

Figure 9.2 : Cerro Corona Oxide Mineralization – Surface Exposure



The Mixed Zone consists of mixed oxide and sulfide minerals and is characterised by erratic grades of copper. The mineral assemblage includes: various iron oxides; pyrite, chalcopyrite and minor bornite; sparse chalcocite and covellite; trace molybdenite, galena, sphalerite, malachite, azurite, chalcantite, brochantite and chrysocolla.

The Supergene Zone is defined by mineralogy, namely the general absence of oxide minerals and the occurrence of supergene copper minerals, which result in anomalously high copper grades. The enriched supergene copper sulfides are chalcocite and covellite, which occur in trace to 2% amounts by volume. Copper grades are

characteristically elevated, ranging from 1-2% copper, while gold grades are generally unaffected. In the Barrick Study, the Supergene boundary was based on a minimum cut-off of about 0.3% copper, but this varied significantly, based on the “background” average of each drill hole intercept.

Within the Hypogene Zone, gold and copper ore grades occur in a classic distribution pattern, generally coinciding with annular shells about a central, relatively barren core.

The Hypogene mineral assemblage consists of abundant pyrite, lesser chalcopyrite, minor bornite, trace molybdenite, galena and sphalerite, and gold. Total sulfide content ranges from 1-8 vol%, with averages less than 5 vol%, making Cerro Corona a low sulfide system.

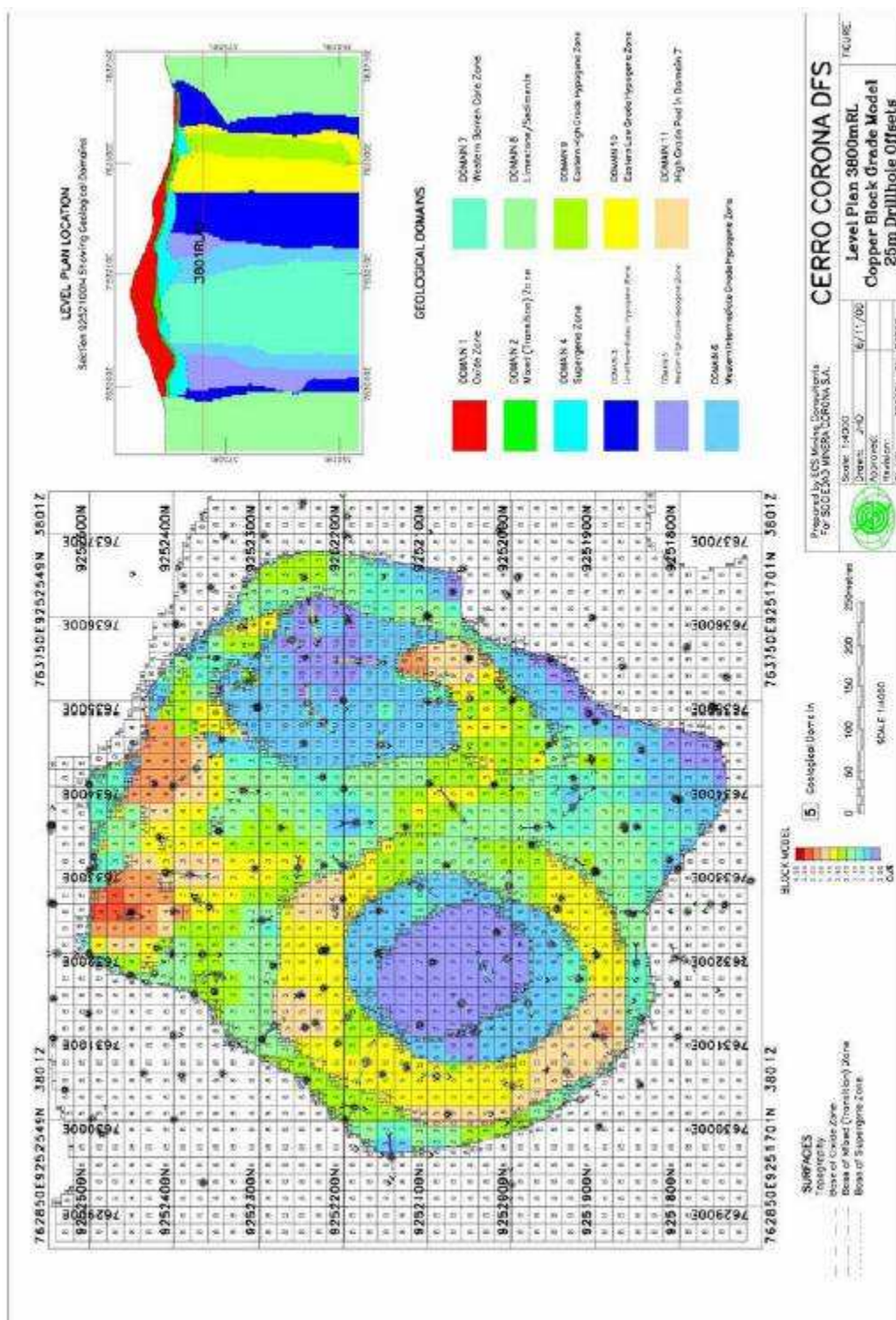
c) Barren Core

The Barren Core is located in the western part of the Hypogene zone, centred at about 9252100 N 763200 E. It forms an irregular, but generally north-south oblong area, about 60 m in diameter at 3900 m elevation, and widening downward to about a 100 x 200 m area at 3640 m elevation. The boundary of the Barren Core is defined on a gold grade contour of approximately 0.14 g/t gold. Within the zone, copper grades are typically 0.05%.

Relogging selected drill holes which cut the Barren Core indicated the possibility that it is a different diorite rock type or intrusive phase, being distinguished by fewer quartz veins, finer-grained, somewhat darker colour, slightly larger feldspar phenocrysts and potassic alteration. Mineralization is weak to non-existent.

The figure below illustrates the distribution of copper gold grades in plan (3800m Level) from the block model and the various domains (ore zones) in section (9252100N). The distribution of gold grades shows a very similar annular pattern around the barren core.

Figure 9.3 : Cerro Corona Level Plan 3800m RL, Copper Block Grade Model



10.0 EXPLORATION

10.1 Recent Exploration

Exploration programs have been conducted in stages as the project has advanced. These stages included:

- preliminary evaluation by SMC including 9 diamond drill holes and 2 exploration adits;
- an extensive exploration program by Barrick that allowed development of a resource model for the Barrick Draft Feasibility Study;
- confirmatory drilling for the RGC Due Diligence Study:
- the drilling for metallurgical samples conducted for the Minproc DFS, and
- the confirmatory drilling done for the Gold Fields Due Diligence program.

While the latter three programs were not primarily exploration drilling programs, the work complements the previous Barrick exploration in two ways, i.e.:

- the RGC program focused on confirmation and further definition of ore and metallurgy at depth in the hypogene zone, and
- the DFS program focused on the definition of ore and metallurgy in the supergene and transition zones.
- three of the Gold Fields holes twinned previous holes by Minproc and Barrick to confirm grade and metallurgy in the supergene and hypogene zones and the fourth confirmed the high grade supergene and hypogene zones on the western side.

10.1.1 Barrick Drilling Programs

There were two phases of the Barrick drilling program at Cerro Corona; Phase 1, from January 1994 until June 1994, and Phase 2, from August 1994 until May 1995.

To delineate the different ore types in the deposit, a blend of RC and diamond core drilling was used in the first phase exploration program as follows:

- Oxide and supergene portions of the deposit were tested predominantly by RC drill holes spaced over a relatively tight (70 m) grid and drilled to shallow depth (40-70 m). The RC drilling was intended to provide a feasibility level definition of oxide and supergene material for proven and probable reserves.
- Hypogene material was delineated by DD holes positioned at a wider spacing (nominal 200 m grid) and drilled to a greater depth (approximately 400 m). The DD drilling was intended to provide a geological, global resource at a prefeasibility level of confidence for the hypogene material.

The first phase of the drilling included 140 RC holes, with five of the RC sites to be twinned vertical and angled drill holes to provide data to help evaluate if angled drilling was necessary to better define the geological controls and ore continuity. Approximately 10% of the 140 total RC holes were ultimately drilled at a -60 ° to -70 0 ° angle, along an azimuth determined locally for each site based upon the mapped, predominant quartz vein sets. A total of 38 DD holes was drilled in Phase 1, with six being angled to test mineralized trends, or to define the geometry of the weakly mineralized core area of the deposit. One deep DD hole was testing for the occurrence of deep mineralization within the central portion of the deposit and reached 602 m depth. A preliminary geological interpretation was then conducted, using north-south drill hole sections and surface geology maps.

During the second phase, infill drilling on an approximate 70 m x 70 m pattern was completed in the hypogene zone. Because angled holes were used, the target plane was half the distance between the contact of supergene with hypogene and the prefeasibility final pit limit. This criterion produced some voids above and below that plane. The last part of the second phase of drilling, that took place in the first two months of 1995, attempted to plug all the voids within the pit. Voids still exist below the final pit limits and give rise to the majority of the Inferred category

of reserves. A second iteration of geological interpretation was then performed, using oblique sections, level plans, surface geology and geochemical maps to help develop a more coherent deposit model.

Based on the available data, the confidence level regarding geology, ore zones, gross alteration and overall structure of the deposit was high. However, as a check on alteration and structure, detailed investigations and structural remapping on two main oblique sections were done during July to 1 October 1995. While these studies did not affect the reserve materially, they served to enhance deposit details and increase the confidence level.

10.1.2 Barrick Mapping & Sampling

Barrick mapped and sampled surface and underground exposures using industry standard practices, and incorporated data collection methodologies designed by the American Barrick Goldstrike operation, which were modified slightly to accommodate the geological specifics of Cerro Corona. Outcrop sample locations were hand-surveyed using a Brunton compass, and tied to locatable survey points (“DEW” points) placed in the field by the mapping geologist. Samples from road-cuts were located by a combination of (isolated) survey points and/or by Brunton-and-tape methods tied to DEW points.

Geologic mapping was completed using surface outcrops and exposures in road-cuts. Natural outcrop comprises approximately 15% of the Cerro Corona surface. Outcrops were mapped on field sheets (1:1000-scale) noting types of rock, alteration style and intensity, and recording measured orientation and quantified intensity of fracturing, faulting and veining. Mapping was tied by hand-surveying to DEW points. These points were later surveyed into the UTM grid. The mapping grouped observations over intervals of 20 m, or intervals of greater length when comprising the same characteristics; the characteristics were quantified at various points of observation for the mapped interval, then averaged and recorded. Characteristics mapped and recorded included:

- percentage of quartz, as quartz veins;
- argillization index, from 0 (low) to 4 (high);
- hardness index, from 0 (low) to 5 (high);
- number of fractures, per metre;
- rock type;
- potassic alteration strength, 0 to 4;
- argillic alteration strength, 0 to 4, and
- propylitic alteration strength, 0 to 4.

Field mapping methodologies used a graphical representation of the orientation of significant faults, and dominant (and locally secondary) quartz veining and/or fracture strike and dip directions. Miscellaneous geological information was annotated separately (e.g. occurrences of magnetite and/or copper minerals, by abundance).

Field mapping sheets were digitized into AutoCAD using a menu template designed by the American Barrick Goldstrike Mine, Elko, Nevada, where it is used for digitizing routine pit mapping. This procedure records mapped structural information in a format that is exported (through DBASE for file reformatting) into the “DIPS” program. DIPS was utilized to display stereo-net graphical representations of the compiled structural data. This structural information is utilized for geological modelling and engineering work in open pit planning.

Approximately 870 m of underground exploration workings exist, of which approximately 22% are inaccessible due to flooding and/or closure by rock falls. Accessible workings were mapped by SMC (1:500-scale) by the same methodology used for surface exposures. Samples from underground workings were located by surveying the beginning and end of each relatively straight segment of drift. Results of the underground mapping were compiled by SMC into an interpretive map.

10.1.3 RGC Due Diligence Drilling Program

The data in this section was extracted from RGC's internal report on their Due Diligence Study dated December 2001.

The principal aim of the RGC drilling program was to provide samples for metallurgical testwork. Work done by Lakefield for Barrick, in 1995, identified 4 subdivisions of the hypogene mineralization based on significant differences in metallurgical performance (without documentation of any mineralogical reason for the differences). The objective of the RGC Due Diligence metallurgical program was to verify the results of the Lakefield metallurgical work. Consequently, the drilling program was designed to obtain samples from each of the 4 hypogene zones plus transition and supergene material.

The RGC financial model, completed at the time of formulation of the Due Diligence program, was based on an expanded open pit design which included material below the Barrick designed pit floor. This region, in the bottom of the proposed RGC pit, was sparsely drilled. Thus, an important secondary objective of the Due Diligence drilling program was to infill gaps in the drilling.

Another important objective of the drilling program was to compare copper equivalent grades obtained in RGC's drill holes against the grades estimated in the block model using the RGC copper equivalent formula, for the area within the Barrick pit outline.

Other objectives of the drilling program were to:

- obtain the highest possible core recoveries to ensure sample representativity;
- provide new sections through the geology and to sample all geological domains;
- survey for deflections to compare with earlier drill holes;
- provide additional geotechnical information, particularly core recovery data;
- acquire new core photographs and skeleton samples, and
- acquire additional density samples.

The new drilling program was also to provide RGC with secure and reliable core samples, in which it could have total confidence. Six diamond drill holes were completed from 5 platforms for a total of 2,760 meters.

10.1.4 SMC-Minproc DFS Confirmatory and Metallurgical Drilling Program

The drilling program for the DFS was conducted to obtain samples from the supergene and upper hypogene portions of the orebody that contain the majority of the ore for the initial years of project operation. Previous work by Barrick and RGC had focused on the metallurgy and geology of the hypogene ore due to the larger pit shells and project sizes considered.

Ironbark Geoservices SRL was contracted to undertake the supervision of the program and manage the logging of the core, sample preparation and mineralogy testwork.

Nine diamond holes were drilled, totalling 824.8 m. Holes MDH-4a, and MDH-4b were drilled from the same platform to test a zone of high pyrite material. Hole MDH-7A was sited 2 m from MDH-7, which failed to achieve acceptable recovery over the first 20 m.

10.1.5 Gold Fields Confirmatory and Metallurgical Drilling Program

The Gold Fields geological due diligence program consisted of re-logging selected Barrick and RGC drill holes to confirm the metallurgical zone boundaries in the Minproc model, the completion of confirmatory drilling in the upper portions of the deposit to obtain sample material for metallurgical testing, selected check assays on Barrick

and RGC drill hole sample pulps, a geostatistical evaluation of the ECSI model used in the Minproc study, and new Whittle Pit optimisation runs using input parameters provided by Gold Fields. A subsequent study of the sulfur distribution in the deposit using available S assays was undertaken to define areas with potentially problematic gold metallurgy.

The 4-hole 500m HQ diamond drilling program was completed by Gold Fields in late November 2003. The first 3 holes were vertical “twin holes” of existing Minproc drill holes in generally average grade material. These holes were selected with input from Gold Fields’ metallurgist for specific grade ranges and metallurgical characteristics. The 4th hole was drilled to confirm the geological model in the high-grade western part of the deposit.

The 3 twin holes were collared within 5 meters of the old drill holes. The 4th hole was drilled at -65 ° in a N80E direction. Collar coordinates were measured by hand-held GPS. Drill hole deviation was measured with a Sperry-Sun single-shot survey tool every 50 meters down-hole.

10.2 Future Exploration

Gold Fields plans to carry out detailed re-mapping of the Cerro Corona deposit with an emphasis on structure and alteration. A concurrent property-wide geologic map will also be made as part of an exploration / condemnation program. Compilation and reprocessing of all available surface sample data as well as geophysical data will be done as part of this program. Depending on the outcome of this work, selected areas may be targeted for drilling.

11.0 DRILLING

11.1 Data

A total of 270 drill holes were used for the resource estimate. Out of these, 140 were RC drill holes by Barrick into the upper oxide portions of the deposit, and 130 were diamond drill holes by SMC, Barrick and RGC. The 9 SMCMinproc diamond drill holes completed for the DFS and the 4 Gold Fields confirmatory diamond drill holes have not been incorporated into the model. The drill holes are summarized by year, company, and type in Table 11.1. A total of 1,750 surface channel samples were also used in the resource estimate. Underground sampling by SMC and Barrick could not be verified by RGC due to lack of safe access to the adits, so these data was omitted from the database. Complete lists of the drill holes, mineralized intervals and surface samples are provided in Appendix 1.0.

Table 11.1 Cerro Corona Drilling Tabulation Summary

Years	Company	Drill Hole Type	Drill Holes	Meters
1992-1993	SMC	DDH Vertical	9	2,226
1994-1995	Barrick	RC Vertical	127	8,585
		RC Angle	13	870
		DDH Vertical	59	17,101
		DDH Angle	56	16,946
1997	RGC	DDH Vertical	0	0
		DDH Angle	6	2,760
2001	Minproc/SMC	DDH Vertical	8	710
		DDH Angle	1	115
2003	Gold Fields	DDH Vertical	3	380
		DDH Angle	1	120
Totals:			283	51,063

The disseminated style of mineralization at Cerro Corona is contained within an area of roughly 800 metres by 1,000 metres, elongated in a north-south direction. Drill holes were both vertical and inclined in several directions. It is Gold Fields opinion the overall distribution of mineralization was well tested by the drilling pattern and directions.

11.2 Drilling Methods

Drilling data stored in the Cerro Corona resource modelling database has been collected from diamond core and reverse circulation holes. Diamond drill holes were completed with both HQ and NQ sized equipment. The equipment and methods used to collect reverse circulation samples and drill core at Cerro Corona are consistent with industry standard practices.

The contractors chosen for the RGC Due Diligence drilling program were Perforaciones St Lambert Peru, S.A. and Major Peru, S.A. Both St Lambert and Major had previously drilled at Cerro Corona for Barrick. St Lambert provided a “900” series St Lambert fully hydraulic drill rig manufactured from components of Boyles and Longyear machines. Major provided a Boyles 56A drill rig.

The contractors were chosen on the basis of their quoted prices, their perceived ability to complete the drilling within the specified timeframe and, in accordance with the requirements of the Due Diligence program, their ability to provide English-speaking foremen and self-sufficient accommodation near Cerro Corona.

The contractor chosen for the SMC-Minproc metallurgical drilling program was MDH S.A., using a Longyear 44, with HQ triple tube. This gave core almost exactly 6 cm in diameter (possibly 6.03 cm). The recovery was, in

general, excellent, and fulfilled the stringent requirements of the project. The core recovery was achieved in spite of very difficult drilling conditions. Much of the core fell apart upon being taken from the split tube, and even rock that seemed to be solid shattered when tested with the Point Load Tester. Although some rock contained as much as 60-70% quartz, pyritic fractures within the stockwork made it very weak.

The drilling contractor for the Gold Fields confirmatory program was Bradley-MDH S.A.C of Peru using an Longyear LF-70 Drill and HQ drilling tools. No significant drilling problems were encountered, core recovery was excellent, and the 500m program was completed in 6 days.

11.3 Surveying

Barrick's outcrop sample locations were hand-surveyed using a Brunton compass, and tied to locatable survey points ("DEW" points) placed in the field by the mapping geologist. Samples from road-cuts were located by a combination of (isolated) survey points and/or by Brunton-and-tape methods tied to DEW points. These points were later surveyed into the UTM grid using a total-station EDM instrument.

RGC's audits and checks, including limited resurveying of a limited range of targets in the pit area, were made to check the location and accuracy of surface and surveys. The differences were generally either within the limits of accuracy or of a minimal magnitude.

All of the drill hole and channel sample data is stored in the Gemcom database with UTM PSAD 56 Zone 17 coordinates.

11.3.1 Collar Locations

Drill Hole Layout

Available information does not mention how Barrick, RGC and SMC-Minproc laid out their drill holes. Gold Fields used a hand held GPS unit to spot their drill hole collars in the field.

Figures 11.1 is a plan map of Cerro Corona which shows the pattern and location of the drilling performed to date.

Drill Hole Pick-up

The Barrick drill hole collar coordinates were surveyed using a total-station EDM instrument. RGC also surveyed their drill hole collars with a total-station EDM and as a check, RGC re-surveyed a number of the Barrick collars as well. The SMC-Minproc and Gold Fields drill hole collars were surveyed with a hand-held GPS unit only.

11.3.2 Collar Orientations

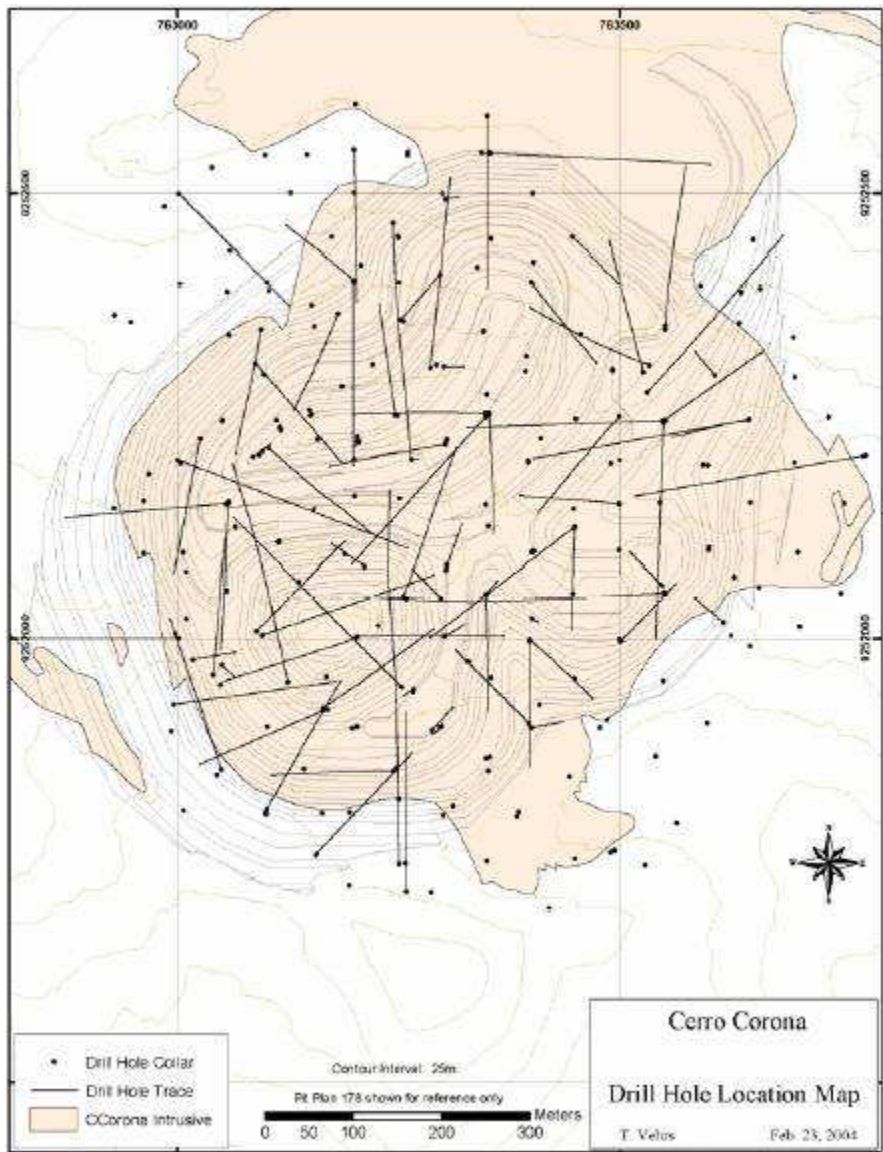
Available information does not mention how Barrick, RGC and SMC-Minproc measured the collar orientations of their drill holes. The collar orientations for the Gold Fields drill holes were measured by surveying two points on the drill string with a Brunton compass while the drill was set up on the hole. Collar inclinations were measured with a Brunton inclinometer placed on the head while the drill was set up on the hole.

11.3.3 Down Hole Surveys

Most of the Barrick diamond drill holes were surveyed down hole using an Eastman Single Shot camera, taking photos at 50 m intervals. Two versions of the camera were used, one for vertical to sub-vertical (-75° to -90°) holes, and another for holes inclined at less than 75° . Overall, the available down hole survey data supported the conclusion that drill hole deviation, for both vertical and angle holes, is not significant, with the exception of a few holes. The Barrick RC drill holes were not surveyed down hole.

Down hole surveys for the RGC drilling program were performed by Silver State Surveys Inc. of Salt Lake City, Utah, USA, using a surface recording gyro guidance system (SRGG). The SRGG was chosen in preference to the conventional Eastman single shot compass camera because it was considered possible that the latter instrument

Figure 11.1 : Cerro Corona Drill Hole Location Map



would be affected by the high proportion of magnetite in the Cerro Corona deposit. Some downhole readings were taken with an Eastman camera for comparison with the gyro results. The Eastman camera readings had poor agreement with the gyro results and some readings were clearly erroneous. The inconsistencies were considered to be due to the effects of magnetite, coupled with poor calibration of the camera. An attempt was made to check the calibration of the camera on the surface, but the surveyor failed to complete this part of his assignment. The gyro results are considered to be the most reliable because they give a consistent set of readings down each drill hole (approximately 1 per 15 m) and each survey is independent of the rest, so that errors are not compounded. Also, the

collar azimuth readings taken with the gyro are in close agreement with the azimuths of the drill holes as marked out prior to drilling. At the completion of the drilling program, drill hole collar azimuth and inclination surveys were performed by licensed surveyor Ing. Eduardo Pedro Camahuali Aranda using EDM pickups on a 1 m length of wood held inside the drill hole collar. This method involved a calculation using the coordinates of two points (no more than 0.4 m apart) surveyed on the portion of wood projecting from the drill hole collar. Given the inherent inaccuracies of the method, the azimuth results are generally in good agreement with those of the gyro survey, as shown in Table 11.2.

Table 11.2

COMPARISON OF DRILLHOLE COLLAR AZIMUTH SURVEYS

Drill hole	Collar Azimuth		As Set Up Using Brunton (Corrected for Decl.)
	Gyro	Surveyor	
RGC01	179.41	179 49' 9"	180
RGC02	189.49	187 16' 56"	193
RGC03	269.94	271 52' 0"	270
RGC04	291.43	285 09' 21"	291
RGC05	Not performed	351 12' 22"	360
RGC05A	1.51	358 38' 53"	360

The 9 SMC-Minproc diamond drill holes were not surveyed down hole. The 4 Gold Fields diamond drill holes were surveyed down hole using a Sperry Sun Single Shot camera, taking photos at 50 m intervals starting at a depth of 50m.

11. 3.4 Topography

H.I.W. Surveys Limited surveyed the topography at Cerro Corona with aerial photogrammetry in 1994. Deliverables from the surveys included 1:1,000 scale topography with 1 meter contour intervals around the the Cerro Corona deposit and proposed tailings disposal area and 1:5,000 scale topography with 5 meter counter intervals covering a large part of the surrounding Hualgayoc district.

11. 4 Core Logging Procedures

The Barrick diamond drill core and RC cuttings were logged by project geological personnel for a number of geological characteristics, and the core was also geotechnically logged to collect information needed for engineering purposes. Logging forms were designed jointly by Barrick, SMC and MRDI, to facilitate a computerised geological database. Logging recorded descriptive geological characteristics of the deposit, in a numeric format (for database computerization), and by descriptive text and graphic diagrams. RC drill cuttings were logged at the drill, and logs were finalized at the field office at Mina Carolina. The RC cuttings included a character sample collected from each 5 ft interval drilled, and are archived in chip-trays stored in Cajamarca. The core from diamond drill holes was checked at the drill site for overall recovery, quality and visible mineralization. Core was then transported to the SMC – Cajamarca office for inventory, washing, photography and logging. Intervals were logged (5 ft for RC, 2 m for core) for rock type, oxidation state, alteration type and intensity, and percentages and distributions of vein materials and accessory minerals. The core logging also recorded the angles of structural characteristics, which were measured as a function of angle-to-core axis. The features so logged included veins, fractures, structures, bedding and contacts.

For engineering purposes, representative samples of all types of rocks were collected, as were types of mineralization and alteration. These samples were point-load tested for determination of rock strength, and to

identify potential failure characteristics. Core recovery estimates were done at Cajamarca during engineering logging.

In order to verify descriptive data in the logs, handwritten drill logs were sent to MRDI (and later to MDA), who entered the information into Quattro Pro spreadsheets twice, usually by two different data entry personnel. When needed, requests were made to Cajamarca for clarification. Groups of spreadsheets were then combined into “Group A” and “Group B” data sets, converted into Paradox tables, and the groups were compared, field by field. Where any field failed to match, the drill log was examined and, if a decision could be made between the two non-matching entries, the edit was made. Otherwise, further clarification was sought from Cajamarca.

RGC engineering logs were completed in the working area outside the core storage lockup at the Santa Rita mine. Logging was carried out before transport of cores to Cajamarca so as to minimise the effects of core breakage on RQD measurements. RQD and recovery measurements were made between core blocks that were placed in the core trays by the drillers at the end of every “run” or “lift” of core. Drillers’ breaks were excluded from the calculation of the RQD value. The logging was carried out by three geologists employed under contract to Minera RGC Peru. All three geologists were former employees of Phelps Dodge in Peru and had previous experience with engineering logging. The logging was completed on Barrick engineering logging sheets, and signed by the geologist who completed the log. Written descriptions of the geology were completed in Spanish. The logs are held in the Cajamarca office. Recovery data was transferred onto the assay files for each hole.

Core photography was carried out after engineering logging and prior to the packaging of the core boxes for transport to Cajamarca. Core photographs have been compiled into albums which are held in the SMC office.

For the SMC-Minproc DFS drilling, Ironbark personnel transported the core from the drill platforms to the core shed at Mina Carolina, a distance of less than 1 km, and it suffered no further deterioration over such a short distance. The core was then logged for geotechnical information and for core recovery.

RQD was measured, as was the number of fractures per meter, where this could be established. The next major problem was washing the core. This was a delicate exercise with weak core. Inevitably, the drillers used drilling mud, and cleaning the crumbling core was difficult.

The boxes were then marked clearly and the core was photographed. The core was cut, the harder material being cut with a rock saw, the softer with a knife. The core was then logged. This was done on logging sheets, with columns similar to Barrick’s, estimating percentages of various minerals over 2 m intervals. Half core was sampled over 2 m intervals. Both the samples and the core were then frozen.

While the core was frozen (to inhibit oxidation) typically within 24 h of coming out of the ground, it did not remain continuously frozen. It was removed from the freezer to perform the PIMA testing (determination of clay species) and the Point Load Testing. The samples were transported to the SGS depot in Cajamarca, at the end of each hole. They were then transported to Lima, and, as SGS typically took two days to complete sample preparation, this involved another time period unfrozen. When SGS had completed the sample preparation and split off the material it needed for the various tests required, the remaining 5 kg was stored in a plastic bag filled with nitrogen and sealed. Both the balance of the samples and the core were, therefore, exposed to oxidising conditions, typically for a few days, but certainly for less than a week. Reducing this interval to less than four days was impractical, given the variety of tests to be performed.

Gold Fields geologists recorded core recoveries, RQD, magnetic susceptibilities and core photographs at the drill site. Geological logging was done at the core shed in camp, and the logs were digitized in Excel spreadsheets.

12.0 SAMPLING METHOD AND APPROACH

12.1 Surface Sampling

Barrick completed extensive channel sampling along the outcrops exposed on most roads over the Cerro Corona deposit within the area shown on Figure 11.1. A total of 1,750 channel samples are listed in the GEMCOM database (Appendix 2.0). Samples were collected over variable intervals of approximately 2 to 5 meters. The channels were collected at approximately waist-height where possible, and on average weighed approximately 3 kg.

12.2 Underground Sampling

Approximately 870 m of underground exploration workings exist, of which approximately 22% are inaccessible due to flooding and/or closure by rock falls. Accessible workings were mapped by SMCSA – Cajamarca (1:500-scale) by the same methodology used for surface exposures. Samples from underground workings were located by surveying the beginning and end of each relatively straight segment of drift. Results of the underground mapping were compiled by SMCSA – Cajamarca into an interpretive map.

Note that underground sampling by SMC and Barrick could not be verified by RGC due to lack of safe access to the adits, so these data were omitted from the database.

12.3 Drill Sampling

RC Drilling: The RC drill holes were 5.25 inches (13.3 cm) in diameter, and were sampled on 5 ft (1.52 m) intervals, producing a total of approximately 98 lbs (44.5 kg) of sample per sample interval (assuming a density of 2.1 g/cm³). The RC samples were collected on 5 ft intervals so that the intervals would be an even increment of the 10 ft drill rods. This avoided metric sample intervals which would have straddled drill joints, and which could have compromised sample integrity.

When drilling dry, the drilled material was routed through a Gilson splitter at the rig, and 50% collected depending on recovery. These dry RC samples comprised approximately 30% of the total drilling, and had average weights of approximately 8-18 kg.

When drilling wet RC (generally below the base of the oxide zone), water was injected, creating a drill-cuttings slurry. Wet drilling conditions affected approximately 70% of all RC drilling. A standard rotating wet-splitter was used, which had twelve ports; six for sample, and six for reject. Sample ports were covered (or uncovered) to control the flow of sample slurry, and the number of ports uncovered was recorded on a per-interval basis.

Diamond Drilling: No core size or recovery information is available for SMC's initial 9 diamond drill holes completed in 1992. All of Barrick's diamond drill holes were started with HQ core (60 mm diameter), but some were reduced to NQ (48 mm diameter) due to poor drilling conditions. Overall core recovery for Barrick's diamond drilling averaged approximately 84%. All of the Barrick and early SMC drill core was sampled on 2 meter intervals.

RGC attempted to maximize core recoveries by requesting the drilling contractors to use HQ triple tube coring gear in the top sections of the holes. St Lambert provided convincing evidence from its drilling experience at Yanacocha that HQ double tube drilling utilizing face discharge bits would provide comparable recoveries to triple tube drilling, at a faster rate and for less cost. Major was instructed to provide triple tube gear, but failed to bring it to site. In the interests of productivity, it was allowed to continue with face discharge bits. However, despite the absence of triple tube gear, recoveries were acceptable and probably better than were first anticipated.

In order to maximise the quantity of sample available for metallurgical testwork, the drilling contractors were requested to obtain as much HQ sized core as possible. Table 12.1 lists recoveries and the depth achieved by HQ drilling in each drill hole.

Table 12.1

SUMMARY OF DRILL CORE RECOVERIES & HQ CORE DEPTHS

Driller Drill hole	St Lambert			Major		
	RGC03	RGC02	RGC04	RGC05	RGC05A	RGC01
Rec. 0-50 m	86%	79%	91%	82%	91%	82%
Rec. 50-100 m	85%	93%	98%	95%	97%	93%
Depth of HQ	125 m *	350 m	337 m	181.8 m **	299.8 m	319 m
Total Depth	512 m	452 m	450 m	182 m	614.3 m	550 m

* Hit 60 gal/min artesian water at 125 m.

** Hole abandoned at 182 m due to driller error.

All of the RGC drill core was sampled on 2m intervals.

The 9 SMC-Minproc drill holes were drilled with HQ triple tube equipment. The recovery was, in general, excellent, and fulfilled the stringent requirements of the project. The core recovery was achieved in spite of very difficult drilling conditions. Much of the core fell apart upon being taken from the split tube, and even rock that seemed to be solid shattered when tested with the Point Load Tester. Although some rock contained as much as 60-70% quartz, pyritic fractures within the stockwork made it very weak. The core from these holes was sampled on 2 m intervals.

The 4 Gold Fields diamond drill holes were drilled with HQ tools and face-discharge bits to maximize core recovery. Core recoveries in the oxide zone averaged about 87%. Core recoveries in the mixed, supergene and hypogene zones average about 95%. Six metallurgical composites (2 supergene and 4 hypogene) comprising 30 samples (60 meters of core) were shipped to Dawson Met Labs in Salt Lake City, Utah. These samples were shipped in two meter intervals of whole core within 1 to 2 days of being drilled. Each sample was double-bagged and placed in plastic drums to protect them from damage enroute. The barrels were delivered by a Gold Fields employee to a bus service in Cajamarca and shipped overnight to ALS-Chemex Labs in Lima who forwarded them to the USA within 2 to 3 days of their arrival in Lima.

In addition to the metallurgical samples, the entire core for the remainder of the first hole, GFD-01, was sampled on two meter intervals and shipped for assay. The core for the subsequent 3 holes, GFD-02,03 and 04, was trucked to Lima where it was sawn in half and sampled on 2 meter intervals.

Six metallurgical composites (2 supergene and 4 hypogene) comprising 30 samples (60 meters of core) were shipped to Dawson Met Labs in Salt Lake City, Utah. These samples were shipped in two meter intervals of whole core within 1 to 2 days of being drilled. Gold Fields personnel accompanied the truck shipment and supervised the core cutting and sampling. The remaining half core is currently stored at SMC's warehouse in Lima.

The regular two meter sample interval for diamond drill core used throughout the history of the Cerro Corona project is considered to be adequate for the disseminated nature of the mineralization. Descriptions of the rock types, geological controls and thicknesses of the ore zones have been described in Section 9.0 above. The most important factors which could seriously impact accuracy, sample quality and representativeness are drilling recovery and wet splitting of RC cuttings which have been discussed above.

A list of the drill hole samples and assays is provided in Appendix 3.0.

13.0 SAMPLE PREPARATION , ANALYSIS, AND SECURITY

Both Barrick and RGC have documented their commitments and procedures to maintain high standards of security and sample integrity. There is no evidence that any samples were deliberately (or accidentally) interfered with or contaminated.

13.1 Barrick Exploration Program

13.1.1 Sample Preparation

During the Barrick exploration program, a sample preparation facility, constructed at SMC – Cajamarca, was run jointly by SMC and SGS Laboratory-Lima. The preparation scheme was devised by SMC, with input and comment from Barrick-Lima. Samples were brought from the project site to Cajamarca in regular shipments.

Initial sample preparation at Cajamarca involved drying and crushing to –10 mesh, after which 500 g splits were sent to Lima for assaying.

13.1.2 Analysis

The 1994 Cerro Corona program utilized a number of laboratories. SGS-Lima was originally selected as the primary laboratory to provide the bulk of the routine analytical determinations, while Cone Geochemical, Denver, Colorado, was selected to serve as the secondary, or “check” laboratory, to perform 1-in-10 check analyses on the routine pulps. SGS-Lima proved to be unable to accommodate the high volume of samples, and initially reported questionable precision on the inserted QA-QC materials. On the recommendation of Barrick Gold Corporation, Toronto, the Lakefield Research Laboratory was selected as a substitute primary laboratory, until SGS-Lima complied with certain needed upgrades to laboratory procedures, improved sample throughput, and the reporting of assay results.

From July 1994, the SGS laboratory in Lima was the main laboratory for the analyses of the samples.

All laboratories routinely performed the following determinations on Cerro Corona samples:

- Gold
 - Fire assay gold (AuFA): on a minimum 1 assay-ton charge; gravimetric or atomic absorption finish.
- Copper
 - Total copper (CuT): by total acid digestion; atomic absorption finish.
 - Acid-soluble copper (CuASol): cold sulfuric acid; atomic absorption finish.
- Silver
 - Total silver (AgT): using same aqueous acid digestion solution as for total copper; atomic absorption finish.

13.1.3 Assay and Drill Log Databases

At the beginning of the project, laboratories provided assay reports in both paper and diskettes (later via electronic mail) “Lotus.wk1” formats. The Lotus files were translated into Quattro Pro (Windows) format, and reports were combined from these into Paradox database files.

The approximate breakdown of sample types processed during the Barrick program is as follows:

• DD drill core (prefix CCD)	54%
• RC drill chips (prefix CCR)	21%
• Surface chip channels (prefix CCN)	11%

- Carolina holes (prefix CO) 4%
- Other (metallurgical, BMT and QA/QC) 10%

13.1.4 Quality Assurance / Quality Control

The Cerro Corona QA-QC program, rigorously implemented by Barrick, consisted of two main procedures:

- Submittal of blind, interspersed QA-QC standard sample materials with routine submittals of samples to the primary laboratory.
- Re-analyses of 7-10% of routine sample pulps by a secondary, commercial “check” laboratory.

Standard Samples

The QA-QC materials used during the course of the project consisted initially of samples from the Barrick Goldstrike Mine, Nevada, and latterly of materials generated from Cerro Corona drill samples rejects. The QA QC materials in use were changed over to the Cerro Corona derived samples as better project-specific materials became available from Cajamarca, and as stocks from Goldstrike standards were exhausted. The Cerro Corona specific materials provided an advantage over the Goldstrike materials in that they were submitted to the laboratory at –10 mesh, i.e. identical to project drill samples, whereas the Goldstrike QA-QC materials were submitted as pulps and were, therefore, not “blind” to the SGS laboratory. Separate standard samples of oxide, mixed, supergene and hypogene mineralization were prepared. In addition, standards included low, medium and high grade mineralization.

Five samples of each standard type were sent to each of six different laboratories to be analysed for gold, cyanidable gold, total copper, acid soluble copper, cyanidable copper, zinc, molybdenum and lead. The samples were sent over a period of several days, so as to reflect laboratory variance as it occurs between work crews and procedures.

Once all the results were received from the laboratories, the standard deviation (STD) and mean were calculated for each element and sample, and the maximum and minimum values were obtained. Then a graph was created to eliminate all values that were above or below set limits. A new average was then found with the remaining sample population, as well as the new standard deviation. Two standard deviations were used to establish the failure limits (+2STD, -2STD).

Whenever routine standards failed to fall within these limits, the laboratory was required to re-analyse all samples in the associated batch. Contained in Table 13.1 are the percentages of failures from a total population of approximately 30,000 samples.

Table 13.1

PERCENTAGES OF FAILURES

Analysis Results	Au _{FA}		Ag _T		Cu _T	
	1 st Run (%)	Rerun (%)	1 st Run (%)	Rerun (%)	1 st Run (%)	Rerun (%)
Pass	88.3	99.81	94.63	99.61	89.42	99.61
Failed	11.7	0.19	5.37	0.39	10.58	0.39

One of the most serious problems encountered in the QA-QC program involved apparent “special treatment” by SGS-Lima in the first few months of the project, of control standards in fire assays as discussed earlier. This was resolved by having all questionable laboratory batches re-analysed for gold, at their cost. Additionally, all laboratory batches of samples that contained QA-QC material assays which fell outside the tolerance limits (i.e. “failed”) for any element, were also re-analysed. After initial problems with the SGS-Lima laboratory were resolved, this approach worked well, with a high degree of accuracy and precision for this procedure.

Primary Laboratory Performance: SGS-Lima and Lakefield-Ontario

After the first few months, SGS-Lima's fire assay results and their performance on the re-analyses were acceptable, as determined by assay checks on 10% of the samples. Representative graphs of all determinations on project QA-QC standard materials through time are kept for reference in the Lima office, in addition to individual laboratory performance on each standard, by element.

Verification of Project Assay Data

The project QA-QC protocol incorporated the following check assay program:

- Monitoring of laboratory performance on inserted standards. Where results for the inserted standard did not fall within tightly-defined limits, other samples in the laboratory batch were re-analysed for that element.
- Checking of high results (top 0.5%) from each type of determination, from the database back to assay certificates.
- Performing check assays (via Cone geochemical) such that every batch in every report has a check assay (7-10% of the sample population). At the beginning of the project, these check assays included AuFA, AgT, CuT and acid-soluble copper. Later, the check assays include only AuFA and CuT.

Examination of assay checks by Cone laboratory indicates very good matches for AuFA and CuT (Figures 13.1 and 13.2), and adequate agreement for silver.

Separate Paradox tables were maintained for Lakefield and SGS-Lima laboratories; and for drill hole and non-drill hole samples. Only results of laboratory batches of samples which had passed QA-QC were incorporated into the project databases at any time. The tables containing non-drill hole samples comprise chip-channel samples from road-cuts and underground workings. In addition to these, historic Carolina analyses of its DD core, underground and surface sampling are contained in separate tables. A final Paradox table consists of assay checks performed by Cone Geochemical.

In addition to the above database tables, Paradox database tables of all drill log data and sample preparation data were maintained which can be "linked" to the assay data through the key field "sample number".

Figure 13.1 Check Assays for Au in g/t: Cone versus SGS-LIMA

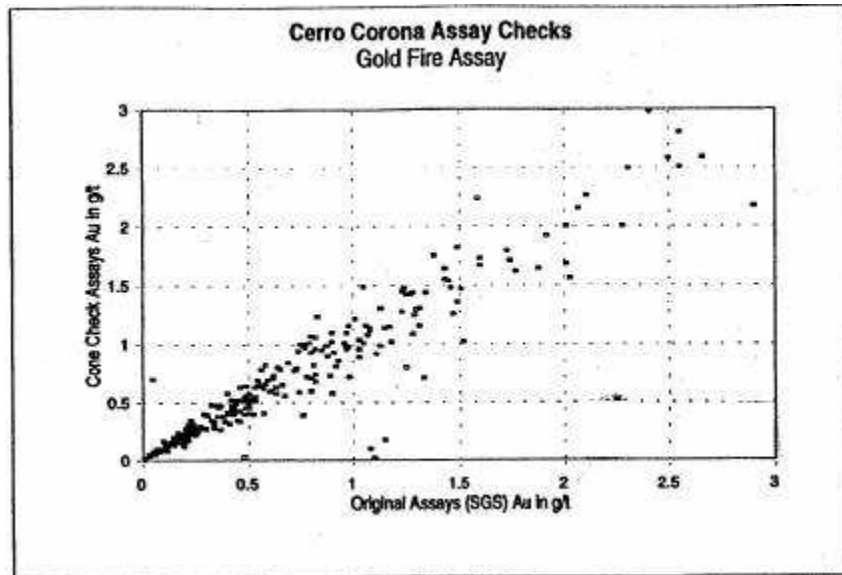
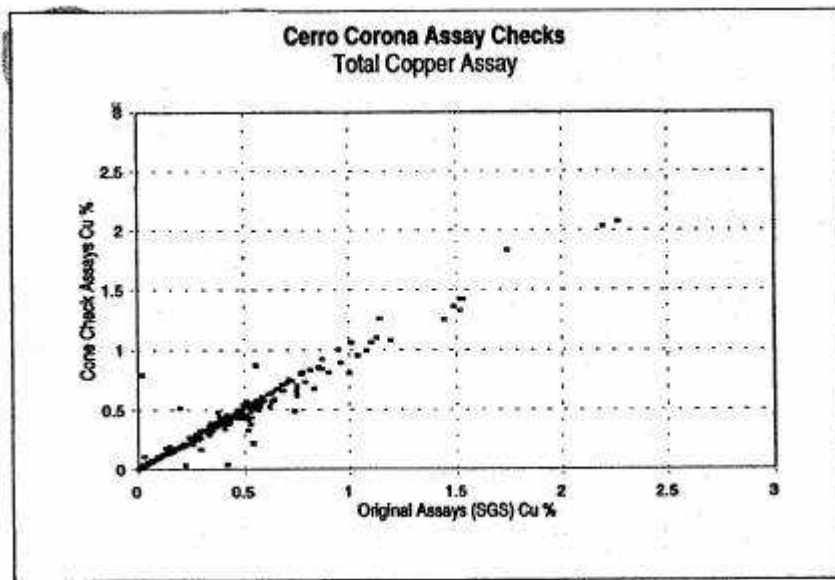


Figure 13.2 Check Assays for Cu in percent: Cone versus SGS-LIMA



13.2 RGC Due diligence Program

RGC's samples were sent to ALS laboratory in Peru and assayed for Au plus a 17 element ICP package. Approximately 5% of the samples were standards. As a result of quality control procedure, RGS identified that the laboratory tended to bias slightly low on its gold assays, particularly for higher grade and possibly sulfide-rich samples. This led to the identification of a defective AAS unit that was replaced. There is a high degree of confidence that sample handling and preparation were generally to the highest industry standards.

13.3 SMC-Minproc Drilling Program

While the core was frozen (to inhibit oxidation) typically within 24 h of coming out of the ground, it did not remain continuously frozen. It was removed from the freezer to perform the PIMA testing (determination of clay species) and the Point Load Testing. The samples were transported to the SGS depot in Cajamarca, at the end of each hole. They were then transported to Lima, and, as SGS typically took two days to complete sample preparation, this involved another time period unfrozen. When SGS had completed the sample preparation and split off the material it needed for the various tests required, the remaining 5 kg was stored in a plastic bag filled with nitrogen and sealed. Both the balance of the samples and the core were, therefore, exposed to oxidising conditions, typically for a few days, but certainly for less than a week. Reducing this interval to less than four days was impractical, given the variety of tests to be performed.

The samples delivered to SGS-Lima were tested as follows:

- All samples were assayed for Au (FA50), Ag, Cu, Fe (total digestion, ICP 80), S (Leco), and cyanide soluble Cu (CNsolCu).
- The samples from the oxide zone were also assayed for cyanide soluble Ag. All samples from MDH-3 were assayed for S in sulfates by Leco. This was to test for the possibility of sulfates in a high pyrite drill hole.

In addition, the samples were composited, typically in groups of four, but sometimes in different intervals to respect natural boundaries, and these composites were tested for density and for the percentage, by weight, of material <10

µm in grain size. This was because the content of clay represents a considerable metallurgical problem in recovery by flotation.

The percentage of pyrite in the core was systematically estimated. Assays for sulfur were also obtained and the pyrite content calculated by allowing for the sulfur combined with copper minerals. In order to do this, it was necessary to assume that the only cyanide leachable copper mineral was chalcocite. A small error would occur where covellite or, perhaps, other copper minerals (cuprite, for example) are present. These calculations gave figures for pyrite content that were, on occasion, negative. The problem could have been the presence of other copper minerals, or inaccuracy in any of the three assayed figures: sulfur, copper or cyanide leachable copper.

The pyrite content that emerged from these calculations correlated with the visual estimates only in the most approximate way. Pyrite content is typically between 1-10%, outside of the oxide zone, in which there is essentially no pyrite. The average calculated pyrite contents are tabulated in Table 13.2.

Table 13.2
CALCULATED PYRITE CONTENT – AVERAGE FIGURES

Drill hole	Oxide Zone	Transition Zone	Supergene + Hypogene Zone
MDH-1	0.1%		4.1%
MDH-2	0.0%		3.0%
MDH-3	0.1%		6.1%
MDH-4A		7.3%	9.1%
MDH-4B	0.2%	4.2%	7.1%
MDH-5	0.0%		10.5%
MDH-6	0.0%		3.8%
MDH-7, 7a	0.2%		4.9%

The clay content of the ore was given considerable attention because of the importance of this as a contaminant in the flotation process. A PIMA instrument was used on every 2 m stretch of core, but results proved to be contentious, as illite, smectite and kaolinite were identified and the descriptions were at odds with the petrography and Ironbark's geological interpretation. The PIMA work did not correspond with any of the other work Ironbark performed; it revealed a complex pattern of clays and very little sericite. Clay content was estimated visually, typically at about 50%, in most of the rock that was drilled, in all three zones: oxide, supergene and hypogene. Finally, SGS measured the content, by weight, of the -10 µm fraction, using sedimentation.

The sedimentation testing and the thin section work correspond very well in detail. For example, the sedimentation tests typically revealed less than 5% <10 micron material, except in MDH-7, where the percentage varied from 3-20%. The thin section cut from MDH-7 shows that the sericite is much finer, typically of 10 micron size, and there is some clay. Likewise, the sedimentation tests gave very few fines in suspension in MDH-4a, where the core is 60-70% quartz stockwork. Finally, two X-ray diffraction tests were performed on sample MDH-4a, 45 m, and these identified sericite and little clay (XRD is the definitive method for identifying clays).

Thus, it was concluded by Ironbark that the "clay" content of the orebody was predominantly sericite and relatively coarse, rather than the illite/smectite/kaolinite clays indicated by the PIMA testwork and previously alluded to by Barrick and RGC geologists.

13.4 Gold Fields Due Diligence Program

Six metallurgical composites (2 supergene and 4 hypogene) comprising 30 samples (60 meters of core) were shipped to Dawson Met Labs in Salt Lake City, Utah. These samples were shipped in two meter intervals of whole core within 1 to 2 days of being drilled. Each sample was double-bagged and placed in plastic drums to protect them from damage enroute. The barrels were delivered by a Gold Fields employee to a bus service in Cajamarca and shipped overnight to ALS-Chemex Labs in Lima who forwarded them to the USA within 2 to 3 days of their arrival in Lima.

In addition to the metallurgical samples, the entire core for the remainder of the first hole, GFD-01, was sampled on two meter intervals and shipped for assay. The core for the subsequent 3 holes, GFD-02,03 and 04, was trucked to Lima where it was sawn in half and sampled on 2 meter intervals. GF personnel accompanied the the truck shipment and supervised the core cutting and sampling. The remaining half core is currently stored at Cerro Corona's warehouse in Lima.

All samples were prepped and analyzed at ALS Chemex Laboratory in Lima for the following:

- Au (50g FA / AA finish)
- Total Cu
- Acid-soluble Cu
- CN-soluble Cu
- Water-soluble sulfate Cu
- Total sulfur
- Water soluble sulfate sulfur
- ME-ICP, 27 elements
- Paste pH

No blanks or standards were submitted with the Gold Fields core samples analyzed at ALS Chemex in Lima.

Dawson Met Labs used Assay Labs to analyze the 30 Gold Fields metallurgical samples for Au and Cardwell Labs for Cu. The pulps for these were subsequently assayed by ALS-Chemex in Lima as well. A comparison of the data sets is summarized as follows:

- Dawson's Au assays done by Assay Labs are consistently higher than those reported by ALS Chemex. The average is 8.1% higher (1.614 g/t Au vs 1.492 g/t Au).
- Dawson's Cu assays done by Cardwell Labs are similar to ALS Chemex. The average is 0.8% lower (0.73% Cu vs 0.74% Cu).

All of the laboratories used throughout the project history are known for their use of industry best practises and standards, but Gold Fields does not have information regarding the certification of these laboratories.

13. 5 Specific Gravity

Density measurements were made by Barrick during its exploration campaigns and by RGC during its due diligence program. No data were acquired during the subsequent SMC-Minproc or Gold Fields program.

13.5.1 Barrick Density Determinations

Barrick performed rock densities determinations in-house at the SMC-Cajamarca field office. Density determinations were completed on drill cores from the major ore zones and rock types in the deposit. Specific gravity determinations were done by the following two methods:

- Method 1: Caliper, volume/gravimetric. This method was applied to the four major zones (oxide, mixed/supergene, hypogene and sediments, Barrick SMC staff, 1994-95).

- Method 2: Wax-coated, water immersion. This method was applied to the same four zones (oxide, mixed/supergene, hypogene and sediments, Barrick SMC staff, 1994-95).

Some samples were also sent to Rocktech Labs for density determinations. The SMC - Cajamarca results exhibited some variability, and were thought to be slightly lower than those for other similar deposits. The Rocktech Lab results matched the SMC – Cajamarca results. Some weighting by various clay and/or quartz rich or mixed lithologies was done in the past, but is not applicable at this time, as no classification of these ore types has been done across the deposit. Overall, the data suggests that the bulk densities performed by the two groups yielded similar results.

Finally, for modelling purposes, SMCSA elected to use the following bulk densities:

•	Oxide Zone	2.10 g/cm ³
•	Mixed/Supergene Zones	2.30 g/cm ³
•	Hypogene Zone	2.50 g/cm ³
•	Sediments	2.50 g/cm ³

Sediments include limestone, some marble, some hornfels, mudstone, decalcified limestone, siltstone and possibly some skarn. Therefore, the figure above represents an average for these various lithologies.

13.5.2 RGC Density Determinations

Two samples were selected for density measurements from each geological domain in each RGC drill hole. Samples were selected in Cajamarca after lithological logging had been completed and were, therefore, significantly drier than their in situ equivalent. Samples of whole core were selected from RGC05A, 02 and 01. Half core was sampled from the remaining drill holes.

Based on 50 additional determinations from old Barrick core and 38 determinations made on newly acquired RGC core, the following bulk densities were estimated by RGC:

•	Oxide Zone	2.10 t/m ³
•	Transition/Supergene Zone	2.27 t/m ³
•	Hypogene Zone	2.50 t/m ³

14.0 DATA VERIFICATION

In addition to Barrick's own internal QA/QC and database validation process before developing a resource model for their 1995 Feasibility Study, RGC completed a thorough due diligence program. Results of the subsequent confirmatory and metallurgical drilling by SMC-Minproc generally agreed with the block model grades. The Gold Fields due diligence program included twin holes of three of the SMC-Minproc drill holes, 1 angle hole to test a high grade zone in the block model, and re-analyses of 104 selected Barrick and RGC sample pulps. Results are discussed below.

14.1 RGC Due Diligence Drilling Program Objectives and Design

The data in this section was extracted from the RGC Due Diligence Report.

The principal aim of the RGC drilling program was to provide samples for metallurgical testwork. Work done by Lakefield for Barrick, in 1995, identified 4 subdivisions of the hypogene mineralization based on significant differences in metallurgical performance (without documentation of any mineralogical reason for the differences). The objective of the RGC Due Diligence metallurgical program was to verify the results of the Lakefield metallurgical work. Consequently, the drilling program was designed to obtain samples from each of the 4 hypogene zones plus transition and supergene material.

The RGC financial model, completed at the time of formulation of the Due Diligence program, was based on an expanded open pit design which included material below the Barrick designed pit floor. This region, in the bottom of the proposed RGC pit, was sparsely drilled. Thus, an important secondary objective of the Due Diligence drilling program was to infill gaps in the drilling.

Another important objective of the drilling program was to compare copper equivalent grades obtained in RGC's drill holes against the grades estimated in the block model using the RGC copper equivalent formula, for the area within the Barrick pit outline.

Other objectives of the drilling program were to:

- obtain the highest possible core recoveries to ensure sample representativity;
- provide new sections through the geology and to sample all geological domains;
- survey for deflections to compare with earlier drill holes;
- provide additional geotechnical information, particularly core recovery data;
- acquire new core photographs and skeleton samples, and
- acquire additional density samples.

The new drilling program was also to provide RGC with secure and reliable core samples, in which it could have total confidence.

14.2 RGC Due Diligence Study Outcomes

The following data was extracted from a report by Gillfillan Associates Pty Ltd for RGC, dated November 1997.

The RGC Due Diligence report was commissioned to review existing exploration data, and to provide geological interpretation to form the basis of an independent estimation of the mineral resources of the Cerro Corona deposit.

A technical team of experienced specialist consultants and selected RGC staff and contractors undertook the studies on which this report relies. Data acquisition was undertaken in the field, while resource estimation and final reporting were completed in Australia.

The Due Diligence process included checking of data provided by SMC, in particular the exploration and evaluation results of work undertaken by Barrick Gold Corporation, as well as the acquisition of new confirmatory data. In summary, the Due Diligence program consisted of:

- auditing documentation in the chain from field notes to final data compilation;
- extensive resampling and independent assaying of about 10% of the total of the prepared, partly prepared and raw samples;
- acquisition of independent geological information and diamond drill core samples, and
- independent development of a geological model to use as the basis of a new estimation of the mineral resources.

The areas covered in the study were:

- testing of physical data;
- initial assessment of tenement location data;
- extensive testing of analytical data;
- provision of additional bulk density data;
- drilling additional holes;
- acquisition of samples for metallurgical testing;
- interpretation of geological data;
- development of a geological model;
- assessment of sample representativity;
- update and validate database;
- preparation of a new resource estimate;
- presentation of professional resumés, and
- discussion of security.

It was concluded that the exploration data of Barrick Gold Corporation is generally of good industry standard and represents a fair and unbiased assessment of the Cerro Corona deposit. While comment was made on a number of problem areas, no items were identified in this study which impacted adversely on the quality of the deposit, or on the integrity of the geological and associated technical data provided by SMC.

More detailed and, therefore, modified interpretations were made of the geology of the deposit. These represented a progression in understanding of the nature of the deposit and did not negatively impact on the deposit.

14.3 SMC-Minproc Drilling Program

Minproc did not audit the database or quality control procedures and results. However, documentation shows that Barrick paid careful attention to data quality, particularly with regard to assay data, for which a rigorous series of standards, duplicate assays and inter-laboratory check assays was undertaken and results assessed.

As part of its due diligence audit of the project, RGC not only reviewed Barrick's quality control information, but also undertook a large program of resampling and reassaying of core, crushed core, RC cuttings and pulp samples from both Barrick and Mina Carolina drilling and surface sampling programs. RGC concluded that the Barrick database was acceptable in terms of precision and accuracy. Moreover, RGC determined that there was no material difference between results of RC and diamond drilling, nor between vertical and angled drill holes. Further, RGC observed no relationship between grade and core recovery in the Hypogene Zone, although it noted an apparent tendency for elevated gold grades in zones of high core loss in the Oxide Zone. RGC's due diligence drilling results were compatible with earlier data.

Repeat assays of the recent metallurgical drill hole samples, also included in the resource database, show good repeatability, although no attempt has been made to reconcile these results with the remainder of the database.

In addition, RGC evaluated the quality of survey and density data, which were found to be of acceptable standard.

The data validation steps undertaken by Barrick and RGC are in accordance with industry standards, and would be expected to have revealed any serious flaws. The fact that no significant problems were revealed would indicate that the resource database is acceptable for resource estimation purposes.

The SMC-Minproc drilling program, carried out by Ironbark, was conducted to obtain samples from the supergene and upper hypogene portions of the orebody that contain the majority of the ore for the initial years of project operation. Previous work by Barrick and RGC had focused on the metallurgy and geology of the hypogene ore due to the larger pit shells and project sizes considered. Based on the results of program, Ironbark made the following observations and interpretations:

- the “Popcorn Rock” as defined by Barrick, has been given several different descriptions. It appears that this phrase originally described expanding clays, as one of the Peruvian geologists at Mina Carolina saw and described them. The expanding clays replaced feldspar phenocrysts, and they literally popped from the rock a few minutes after the core was taken from the core barrel. The core subsequently collapsed. Although its presence was anticipated from Barrick cross-sections, no example of expanding clay was recognised in any of the nine SMC-Minproc metallurgical holes, and it would appear that such clays could be rare at Cerro Corona. It would also appear that Barrick subsequently used this phrase to refer to any rock that disintegrated. Ironbark concluded that expanding clays are unlikely to be a major problem at Cerro Corona, but the extreme physical weakness of the rock is important.
- Ironbark believes that the PIMA instrument was unable to differentiate between sericite and clays in drill samples, and has discounted the results for reasons discussed below.
- Ironbark considered the geology to be that of a typical porphyry system, although it had an unusually heavy argillic alteration overprint. The phyllic zone presented a subtle problem of identification, as the clay overprint might be expected to convert sericite to illite. Nevertheless, the much more abundant quartz veining and pyrite in holes 4a and 4b, together with textural destruction, and minor sericite, gave clues that identified this as a phyllic zone.
- The clay overprint at Cerro Corona is pervasive (and there are no obvious clues as to age relationships). This is in sharp contrast to most porphyry systems in which late argillic alteration descends along fractures.
- Ironbark believed that the weathering profile was simpler than that interpreted by Barrick, and the reinterpretation has ramifications for resource modelling and for the operation.
- Beginning at the deepest level, in the Hypogene Zone (unoxidised material), virtually the only copper mineral that is visible is chalcopryite, associated with pyrite in quartz veins. There are rare traces of chalcocite. It was notable that, in MDH-7, there appeared to be too little chalcopryite to give the 1% Cu grade that the rock typically assayed. It was impossible to see much chalcopryite without a 20x lens, and it was, therefore, concluded that much of the copper was microcrystalline. The cyanide leachable copper values were consistently about 5% of the total copper grade in the hypogene zone, which is typical of chalcopryite.
- There is a well-developed chalcocite zone in most of the metallurgical holes drilled, (MDH-7 being an exception). The chalcocite zone is typically about 40 m thick (less in MDH-7), but it was difficult to estimate chalcocite percentages by eye, because of the variable quantities of fine-grained magnetite and specularite (all three are fine black minerals). The cyanide leachable copper assays show that, on average, about 20-25% of this copper is leachable.
- Chalcopryite is, therefore, the most abundant mineral in the Supergene Zone, accounting for some 80% of the copper. Chalcocite accounts for most the rest, but there is minor covellite.
- At the very top of the Supergene Zone, covellite is much more abundant. Chalcopryite, and even chalcocite, disappear over a few metres, while covellite continues. There is, in most holes, a very sudden break, where the last of the sulfides (covellite and pyrite) disappear – often within a few centimetres – and where iron oxides begin. This covellite zone typically assayed 0.2-0.3% Cu in the metallurgical holes drilled.

- This limited covellite zone is the only zone that could genuinely be considered as a transition zone. However, no copper oxides, sulfates or carbonates were observed in the metallurgical holes in this zone. The transition or Mixed Zone, as described by Barrick, was not apparent.
- Moving upward into the oxide zone, there was usually a dramatic change of colour from grey to yellow and orange, reflecting the presence of iron oxides and the absence of pyrite. Copper oxides, carbonates and sulfates were not observed in the oxide zone in the metallurgical holes. The copper grades are typically less than 0.1% Cu, and often less than 0.05% Cu.
- In MDH – 4a and, to some extent, in MDH – 4b, there was a more extensive transition zone, in which patches of pyrite alternated with iron oxide bearing core. However, some of this material assays little better than the pure oxide material, and was, therefore, included in the oxide zone. In the transition zones in MDH 4a and MDH – 4b, the sulfide-bearing material typically contained some covellite, or chalcopyrite trapped in the quartz.
- Ironbark believes that the interpretation of the weathering profile can be simplified in a metallurgical sense. There is a natural and often sharp division between oxide material, in which the gold will be leachable, and sulfide-bearing material, where recovery by flotation may be expected to work.

14.4 Gold Fields Due Diligence Drilling Program

The Gold Fields geological due diligence program was supervised by Nathan H. Brewer, and consisted of re-logging selected drill holes to confirm the metallurgical zone boundaries in the Minproc model, the completion of confirmatory drilling in the upper portions of the deposit to obtain sample material for metallurgical testing, selected check assays on Barrick and RGC drill hole sample pulps, a geostatistical evaluation of the ECSI model used in the Minproc study, and new Whittle Pit optimisation runs using input parameters provided by Gold Fields. A subsequent study of the sulfur distribution in the deposit using available S assays was undertaken to provide information to define areas with potentially problematic gold metallurgy.

Due to the amount of extensive prior technical due diligence and verification reported by RGC and Minproc, no additional work was done by Gold Fields with respect to specific gravity, drill hole collar surveys, database validation, or re-construction of a geological model. These areas are being addressed as part of the current technical work being done to support a new feasibility study.

14.4.1 Re-logging Program

A total of 9,978 meters of core (29 holes) were re-logged by Gold Fields geologists in November 2003. Most of the core holes correspond to 3 selected cross sections through the deposit (2000N, 2250N, 3250E). Much of the old core is incomplete and in poor shape due to extensive re-sampling and metallurgical testing in the past. The chips for 7,025 meters of RC drilling (105 holes) were also re-logged to help define the principal oxidation zone boundaries (oxide, mixed, supergene and hypogene) over the deposit as a whole. Overall, discrepancies observed in the zone boundaries compared with the existing model were not considered to be significant enough to justify the construction of a new geological model of the deposit during the due diligence period. Additional observations are as follow:

Geology:

- Cerro Corona is an unusually gold-rich porphyry Cu-Au system. The amount of iron (as magnetite and hematite) and intensity of quartz stockwork and sheeted veining is also notably higher than typical Cu-Mo porphyry deposits.
- At least two stages of magnetite are present in the form of disseminations and cross-cutting quartz magnetite veins. There is no obvious relationship between the magnetite content and the Cu or Au grades. The distribution of magnetite should be mapped to look for any grade relationship.
- While the composition and texture of the mineralized vs. unmineralized porphyry (barren core) looks the same, hypogene Cu-Au mineralization appears to be related to the intensity of quartz veining and sulfides, (pyrite, chalcopyrite +/- bornite).

- High copper grades are well supported by core observations in most holes, but grade estimation is systematically lower at grades around 1% Cu when only chalcopyrite and pyrite are visible. Photomicrographs indicate that microscopic chalcopyrite locally infills microfractures within an early phase of pyrite.
- Gold grades are remarkably consistent throughout the deposit with the exception of the barren cores and appears to correlate well with copper grades. However, metallurgical test results indicate problematic Au recoveries (<70%) in material with high sulfur content (>6%). These data suggest that some of Au mineralization is associated with pyrite.
- High Cu and Au grades appear to be locally controlled by structures. A new structural map and oriented core drilling are recommended to help define geological boundaries for higher grade zones in the next geological model.

Alteration:

- The principal alteration assemblage is phyllic, as quartz-sericite, affecting mainly plagioclase feldspar phenocrysts but there is a strong argillic overprint of clay minerals.
- Propylitic alteration comprising a weak chlorite – clay assemblage is present at depth in some holes. Fresh biotite is common and often occurs together with sericitized and argillized feldspars suggesting that the quartz-sericite alteration event was not strong enough to completely destroy biotite in many areas.
- Although potassic alteration was reported by Barrick and RGC, unequivocal evidence such as K-feldspar and secondary biotite was only noted in 2 of the holes re-logged.

Metallurgical Zones:

Following are the metallurgical zone definitions and observations made during the re-logging program:

- Oxide zone – related to surface weathering and leaching (Fe, S, Mn). Associated with secondary mineral development e.g. (limonites, sulfates and clays) and total to partial primary texture destruction. May contain trace to minor perched sulfides.
- Mixed zone (Transition) – transition zone containing mixed secondary Fe-oxides and sulfides varying in intensity from trace sulfide preservation to trace Fe-oxide development within fractures. The upper and lower limits of the Mixed Zone in some holes vary up to +/-15m with respect to the existing model. Secondary Cu sulfides may be present locally within the mixed zone.
- Supergene zone – material which contains no oxides and includes variable amount of secondary enrichment identified by the presence of Cu-rich secondary copper sulfide minerals (e.g. covellite, chalcocite and digenite) which partially to totally replace primary sulfides (e.g. chalcopyrite, bornite and pyrite). Content of secondary copper minerals diminishes downwards.
- Hypogene zone – contains primary copper sulfide minerals consisting of chalcopyrite and bornite in veins and disseminations. The uppermost part of the hypogene zone contains traces of secondary Cu sulfides on fractures in some drill holes.

Geotechnical Observations:

- In areas of weak quartz veining, strongly clay-altered rock is very incompetent and tends to disaggregate in the core box, especially when exposed to water.
- The presence of so-called “popcorn alteration” was confirmed in several of the re-logged holes, especially on Section 2250N which correspond to Coffey & Associates’ popcorn “Zone B” as reported in the Minproc DFS. The term “popcorn alteration” was first applied by Barrick geologists to describe the phenomenon of swelling clays replacing the feldspars. Based on the irregular distribution of popcorn material, it is probably fault-controlled along high angle structures and/or intersecting structures as suggested by Coffey.
- More work is required to adequately map areas of poor rock quality which could affect the eventual pit design.

14.4.2 Confirmatory Drilling

A 4-hole 500m HQ diamond drilling program was completed by Gold Fields in late November 2003. The first 3 holes were vertical “twin holes” collared within 5 meters of existing Minproc drill holes in generally average grade material. These holes were selected with input from Gold Fields’ metallurgist for specific grade ranges and metallurgical characteristics. The 4th hole was drilled an angle hole to confirm the geological model in the high-grade western part of the deposit. Collar coordinates were measured by hand-held GPS. The table below is a comparison of the assay intervals between the Gold Fields twin drill holes and the adjacent holes.

Table 14.1 : Comparison of Assay Intervals, Gold Fields Twin Drill Holes and Adjacent Holes

Gold Fields Drill Hole	Met Zone	From-To (m)	Width (m)	Au (g/t)	Cu (%)	Adjacent Drill Hole	Au (g/t)	Cu (%)
GFD-01	Oxide	0 - 18	18	1.56	0.05	MDH-05 & CCD-250	1.44	0.06
	Mixed	18 - 26	8	0.76	0.39		1.00	0.56
	Supergene	26 - 44	18	1.15	0.71		1.12	0.78
	Hypogene	44 -150	106	1.59	0.57		1.69	0.54
GFD-02	Oxide	0 - 24	24	1.25	0.04	MDH-03	0.76	0.04
	Mixed	24 - 30	6	0.95	0.06		1.61	1.04
	Supergene	30 - 44	14	1.31	1.00		1.30	1.13
	Hypogene	44 -100	56	1.36	0.85		1.60	0.76
GFD-03	Oxide	0 - 36	36	1.75	0.08	MDH-06	1.47	0.08
	Mixed	36 - 42	6	1.76	0.72		1.89	0.94
	Supergene	42 - 68	26	1.66	1.36		1.56	1.45
	Hypogene	68 -130	62	1.57	0.57		1.60	0.59
GFD-04	Oxide	0 - 4	4	0.50	0.04	n/a	—	—
	Mixed	4 -12	8	0.56	0.41		—	—
	Supergene	12 - 76	64	1.91	2.61		—	—
	Hypogene	76 -120	44	1.82	0.71		—	—

The assays for the 3 Gold Fields twin holes show acceptable correlation with the adjacent holes drilled by Minproc and Barrick. The average variances for both Au and Cu exceed 10% in the oxide and mixed zones but are less than 10% in the supergene and hypogene material. Assay results for the 4th hole confirm the western high grade zone (supergene and hypogene).

14.4.3 Assay Lab Comparison

Dawson Met Labs used Assay Labs in Salt Lake City to analyze the 30 metallurgical samples for Au and Cardwell Labs in Salt lake City for Cu. The pulps for these were subsequently assayed by ALS-Chemex in Lima as well. A comparison of the data sets is summarized as follows:

- Dawson’s Au assays are consistently higher than those reported by ALS Chemex. The average is 8.1% higher (1.614 g/t Au vs 1.492 g/t Au).
- Dawson’s Cu assays are similar to ALS Chemex. The average is 0.8% lower (0.73% Cu vs 0.74% Cu).

14.4.5 Check Assaying

A total of 104 pulps of Barrick and RGC drill holes were retrieved from site and assayed for Au and Cu. The pulps were selected on the basis of average or better grades reported in the database. Results for the remaining 104 pulp samples show average variances of +3.7% for Au and -1.5% for Cu compared to the original data. However, 49 of the Au assays varied by at least 10% while only 3 of the Cu assays exceeded 10% variance. The reason for the large number of high gold variances may be due to poor homogenization of the old pulps by the laboratory before a split was taken for assay.

15.0 ADJACENT PROPERTIES

This section is not applicable.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The following has been excerpted from the Cerro Corona Metallurgy and Process Development Due Diligence Report dated Feb. 17, 2004 by M. Brittan, Head Consulting Metallurgist for Gold Fields.

16.1 Introduction

The four major ore types – Oxide, Transition, Supergene and Hypogene – have distinctive characteristics from a metallurgical perspective.

Oxide

Gold in near-surface oxide ore is amenable to recovery by cyanidation. Both heap leach extraction of crushed ore and leach extraction of ground ore have been tested. Extraction in tanks by CIP or CIL is the preferred approach for Cerro Corona oxide. Cyanide consumption will depend on the content of cyanide-soluble copper minerals in the oxide ore, but can be mitigated to a degree by pre-aeration of the slurry prior to cyanidation. Gold recoveries in the region of 90% can be expected, depending on the fineness of grind, the leach residence time and the economic cyanide dosage.

Since gold in oxide ore comprises only about 10% of the reserve (if included), and cyanide use in bulk has not been incorporated into the current permitting plan, the oxide ore is to be stockpiled for later treatment when a CIL plant will be added.

Transition

Transition ore comprises less than 2% of the reserve, but will be processed at an early stage as mining progresses into the true sulfides. The Transition ore can be considered as a mix of oxide and sulfide, and therefore will not respond as well to flotation as the sulphidic Supergene and Hypogene ores. Lower copper and gold recoveries can be expected.

Supergene

Enrichment of the Supergene zone (18% of reserve tons, excluding oxide, but 28% of copper in the reserve) yields above average copper grades, with secondary copper minerals (notably covellite and digenite) supplementing the dominant chalcopyrite. Supergene ore responds well to flotation, but copper recovery shows a strong head grade dependency.

Hypogene

Hypogene ore (80% of reserve tons, excluding oxide) displays better liberation characteristics than Supergene, and yields high flotation copper recoveries at a coarse grind. As with Supergene ore, gold recovery is dependent on the sulfur (pyrite) content.

16.2 General Processing Considerations

For any project of this nature, copper and gold recoveries are determined in part by the economics of the downstream smelting and refining options. Aside from individual toll smelting requirements, the trade-off generally is between a higher-grade concentrate with lower flotation recovery on the one hand, and a larger mass, lower-grade concentrate with higher overall recovery on the other. Thus, recovery and grade are intimately associated and cannot be assessed in isolation.

All the test work to date confirms that smelter-acceptable concentrate grades can be achieved while still retaining good recoveries. In addition, the Cerro Corona ore is relatively free of contaminants so that a clean concentrate is produced which should not attract smelter penalties.

The Cerro Corona orebody also contains zones of high pyrite content. The pyrite floats along with the primary and secondary copper minerals. This pyrite has to be cleaned from the rougher concentrate in order to achieve target concentrate copper grade. In the process, some copper is lost to tails through entrainment, while gold recovery suffers to a greater degree since the pyrite appears to be a carrier of a significant portion of the gold.

Porphyry alteration of the upper zones of the orebody has generated clays which will result in material handling issues. These have to be accommodated in the plant design.

16.3 Historical Metallurgical Test Work

A number of test work programs have been carried out over the years.

Barrick Gold Corporation (1995)

Barrick investigated cyanide leaching of the oxides, as well as a number of processes for treating the sulfides. The work was carried out by Lakefield Research in Canada on drill core samples. Ultimately, the flotation route was selected and a flowsheet developed which has not changed materially to the present. The program focused mainly on Hypogene ore.

RGC Limited (1997/1998)

Lakefield carried out further test work on new drill core samples for RGC. Since a much larger scale of operation and a deeper mine were being contemplated at this stage, most of the samples used in the test work came from deep Hypogene ore below the elevation of the base case pit being considered by Gold Fields. This ore tends to be harder, but yields high flotation recoveries.

Sociedad Minera Corona SA/Minproc (2000/2001)

As part of a Definitive Feasibility Study, Minproc retained Lakefield to carry out further test work on additional drill core samples. More attention was devoted to Supergene material in this program, since it had to some degree been neglected in previous work.

Evolution of the flowsheet resulted in the adoption of a coarser primary grind which would result in savings in milling costs. Test work results again tended to match those of the previous test work programs.

General Test Work Conclusions

- Ores of the same type, but from different drilling campaigns, showed consistency of metallurgical response throughout the various test work programs.
- Zones of high pyrite have an adverse effect on the metallurgy, particularly on the gold recovery.
- Locked cycle (closed circuit) flotation testing (more representative of commercial plant operation) generally yielded better results than open circuit testing, in some instances by a significant margin.
- Good recoveries and concentrate grades can be expected from Supergene and Hypogene ores.

16.4 Due Diligence Recoveries

For purposes of Gold Fields due diligence evaluation of the project, the 2000/2001 test work program conducted by Lakefield for SMC/Minproc was considered the most representative in terms of ore types and flowsheet development. Consequently, the associated Lakefield laboratory data were adjusted for scale-up to plant conditions, and normalized to a concentrate grade of 25% Cu. This grade is considered reasonable for most smelter scenarios. The data were then modeled to facilitate use in pit optimization and financial cash-flow analysis. These models generated recoveries which were fairly similar to those used by Minproc in the 2001 Feasibility Study.

16.5 Further Work by Gold Fields

In reviewing all the previous metallurgical and engineering work, the following issues were noted:

- All the previous test work had been conducted by one laboratory, essentially under the direction of the same person.
- Independent validation of the previous work was felt to be desirable.
- Issues of open circuit flotation cleaning, and pyrite effects remained to be resolved.
- It was considered desirable to investigate the potential for process optimization through cost reduction or recovery enhancement.

As a consequence, four new diamond drill holes were drilled by Gold Fields to obtain fresh core for additional test work. The holes were positioned in consultation with the exploration geologists.

Selected core intervals were flown to Dawson Metallurgical Laboratories in Salt Lake City for testing. In the limited due diligence period available, testing was confined to Hypogene and Supergene samples representing the bulk of the Cerro Corona reserve.

16.6 Gold Fields Test Work Results

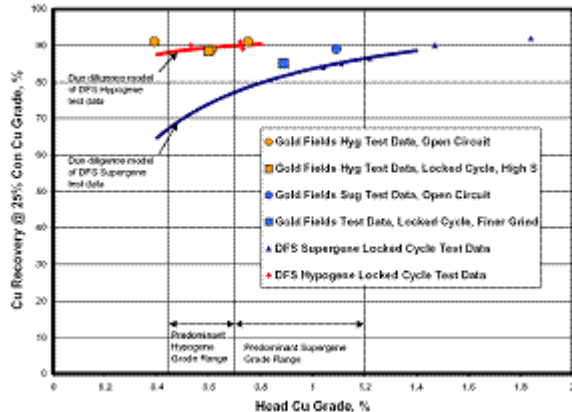
In general, the Gold Fields test work program confirmed the metallurgical response of the ore as determined from the large body of previous work. The metallurgy for the bulk of the reserve (Hypogene and Supergene ore) can therefore be considered robust.

The work also suggested that the benefits of locked cycle testing in the laboratory compared with closed circuit tests lay possibly in the recirculation (better utilization) of flotation reagents in the locked cycle case, along with better regrinding (more consistent liberation) of concentrate products.

Copper Recovery

Copper recovery data from the Gold Fields tests are shown in Figure 16.1. Also represented for comparison are data from the Minproc program, along with the models (red line Hypogene, blue line Supergene) used hitherto for Gold Fields mine planning and financial evaluation purposes.

Figure 16.1 : Test Work Copper Recoveries



Looking at the Hypogene data, the agreement between the Gold Fields test data and the Minproc data is extremely good. The three orange circles represent open circuit flotation tests, which generally yield conservative recoveries. The orange square represents a locked cycle test on a high pyrite sample (8.3% S). Cleaning of a high-pyrite concentrate to achieve copper grade normally results in a loss of recovery. In this case, a 93% recovery would have applied had a 20% concentrate copper grade been acceptable. The recovery of 88.5% actually achieved at 25% concentrate copper grade with this type of material is very satisfactory. Since the average sulfur grade of the reserve is closer to 2.5%, higher copper recoveries can generally be expected at normal smelter grades.

Based on the test work data and the earlier work, a projected Hypogene copper recovery of 90% is considered appropriate. This would add over 1.2% to the average recovery for Hypogene ore in the base case scenario.

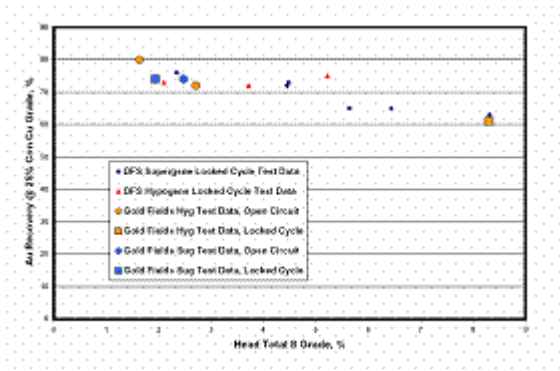
Turning to the Supergene data, the Gold Fields tests (blue circle and square in Figure 2) show higher copper recoveries than those used hitherto for financial evaluation. In the case of the locked cycle test (blue square data point), a finer primary grind was used in order to improve the mineral liberation for flotation. Since the Supergene ore is in general a little softer than the Hypogene, there would be no material difference in operating cost to achieve the finer grind at the same plant throughput.

An upward revision of the Supergene copper recovery is also considered warranted. The new model proposed (see below) would add over 2% to average Supergene copper recovery.

Gold Recovery

The strongest determinant of gold recovery in the concentrator is the sulfur grade of the ore. This is illustrated in Figure 16.2 where the gold recoveries from the Gold Fields tests are plotted alongside the data from the Minproc program. As can be seen, the agreement is extremely good. It can be seen from Figure 3 that at the average sulfur grade of the orebody, the gold recovery would be approximately 75%.

Figure 16.2 : Test Work Gold Recovery Dependence on Sulfur Grade



Since we do not have a sulfur block model for the Cerro Corona orebody, it is unfortunately not possible to estimate gold recoveries for the operation using the sulfur relationship. An alternate, though less rigorous, relationship with copper grade has had to be derived.

16.7 Recommended Recoveries for Further Evaluation

Based on the latest Gold Fields test work, along with the Minproc test results, the following revised recovery relationships are recommended:

1. Hypogene Cu Recovery = 90%
2. Supergene Cu Recovery, % =
$$[\text{Ore Cu Grade, \%}] / \{0.009934 * [\text{Ore Cu Grade, \%}] + 0.001785\}$$
3. Transition Cu Recovery, % = $86.553 - 5.696 / \{[\text{Ore Cu Grade, \%}]^{1.5}\}$
4. Sulfide Au Recovery, % = $78.041 - 6.1656 * [\text{Head Grade Cu, \%}]$
5. Transition Au Recovery = 35%
6. Oxide Au Recovery, % =
$$\{100 / [\text{Head Au, g/t}]\} * \{0.995 * [\text{Head Au, g/t}] - 0.136 * (\ln[\text{Head Au, g/t} + 1])\}$$

16.8 Upside Potential

- The Gold Fields test work program indicates potential to simplify the flotation reagent suite, thereby possibly lowering processing costs.
- There is some question as to the added value of the High Intensity Conditioning step in the process flowsheet. If further testing shows that this unit operation can be avoided, or used only intermittently, some capital and operating cost savings may be realized.
- Further work on Supergene ore might help to raise the copper recoveries to levels approaching those of the Hypogene material.
- Lower Hypogene material (at depth) exhibits **higher** copper flotation recoveries than Upper Hypogene material. Since this ore tends to be harder, and would require increased comminution costs, no recovery increments are currently being taken for this material in lieu of maintaining throughput and costs. It is conceivable that a cost-benefit analysis will show some cash-flow advantage when this material is processed.
- In view of uncertainties surrounding the downstream processing and concentrate grade requirements, copper recoveries have been conservatively stated. As the smelting and refining is firmed up, therecoveries can be reviewed.
- Much of the gold losses occur in the first cleaner scavenger tails (see Figure 16.1). Additional recovery of gold from this stream, possibly in concentrate form, will be investigated. One possible scheme would be to add such a concentrate to oxide ore, and bring forward the processing of the oxide and its corresponding cash flow. Processing of ROM oxide would also reduce stockpile and rehandling costs. As the oxide ore supply is depleted, the gold plant could be used to treat more product from the cleaner scavenger tails.
- Although Transition ore comprises a relatively small proportion of the ore reserve, it contributes to early cash flow. Very little test work has been carried out on this ore type. As a consequence, appropriately conservative recoveries for both copper and gold have been projected. With further test work, there is scope to raise the recoveries for this material.
- Projection of gold recoveries is currently less rigorous than might be desired due to the lack of a sulfur block model. An investigation is currently underway to determine if sulfur grades can be mapped in the orebody.

16.9 Issues and Risks

- The downstream smelting and refining of concentrate is as yet ill-defined. Depending on smelting options available, this could impact concentrator performance. Generally, this involves economic trade-offs.
- The absence of reliable information on sulfur (pyrite) deportment in the orebody could affect the determination of gold and copper recoveries. As noted above, the lack of a sulfur block model is being addressed.
- Clay in the plant feedstock will impact material handling and plant performance. Improving the definition of clay deportment will be of value in mitigating such impacts.

17.0 MINERAL RESOURCE ESTIMATES

The following discussion of the Cerro Corona Geological Block Model and Mineral Resource Estimate is excerpted from the Minproc DFS, Volume 3, Sections 3.6 through 3.9, which were originally authored by Mr. John Duke of ECSI..

17.1 Geological Block Model Development

Having constructed a resource block model of Cerro Corona for the RGC Due Diligence Study in late 1997, Mr. John Duke of ECSI was asked to improve on that model for the 40Mt Option DFS. The RGC interpretation was carried out by consulting geologist, Mr Phil Rosengren and RGC's senior geologist, Mr Ray Roberts. Both geologists assisted ECSI in the model and resource update for the Minproc DFS by providing further geological information and sharing their knowledge and experience.

ECSI also provided models of clay, pyrite and quartz stockwork distribution using geological drill hole logging data compiled by Barrick geologists and extended by RGC.

The DFS Resource Block Model has been based on the Hypogene Zone geological interpretation used in the RGC model, but the Oxide, Mixed (also referred to as "Transition") and, to some extent, the Supergene Zone interpretation has changed. Based on the geological logging and observations by Ironbark, the Oxide and Mixed Zones have been re-interpreted using copper assays as the major guide to identifying the zone boundaries.

To improve on the RGC Resource Block Model, ECSI has used the assay data from the nine new metallurgical test holes and provided more domain control in estimating block grades in the Oxide, Mixed and Supergene Zones.

17.1.1 Resource Database

A drill hole and surface channel sampling database was compiled from various sources (mostly from MRDI in digital form) and includes drilling carried out by RGC in 1997 and SMC in 2000. The database consists of the following:

Table 17.1
SUMMARY OF DRILL HOLE AND SAMPLING DATA IN THE CERRO CORONA RESOURCE
DATABASE USED IN THE DEVELOPMENT OF THE DFS RESOURCE BLOCK MODEL

Hole ID Type	No. Holes	No. Cu Samples	Length Cu Samples (m)	No. Au Samples	Length Au Samples (m)
CCCS – surface channel samples	(1750)	1750	Approx 6036	1750	Approx 6036
CO – early SMC DDH	9	1100	2197	1101	2199
CCD – Barrick DDH	115	16755	33482	16876	33723
CCR – Barrick RC	140	6136	9350	6159	9385
RGC – RGC DDH	5	1284	2573	1284	2573
MDH – SMC DDH	9	403	800	403	800

17.1.2: Definition of Ore Domains

The Cerro Corona deposit has been divided into a number of domains of mineralization for purposes of accurate block grade estimation. As with the Barrick block model, the domains have been identified on the basis of three criteria:

Host rock lithology – intrusive and limestone country rock.

Near surface oxidation/supergene mineralogy – oxide, transition and supergene zones.

Grade zones within the hypogene mineralization of the intrusive.

Table 17.2 : GEOLOGICAL DOMAINS USED IN THE DFS RESOURCE BLOCK MODEL

Domain 1	Oxide Zone
Domain 2	Transition Zone
Domain 4	Supergene Zone
Domain 3	Undifferentiated Hypogene Zone
Domain 5	Western High Grade Zone
Domain 6	Western Intermediate Grade Zone
Domain 9	Eastern High Grade Zones
Domain 10	Eastern Low Grade Core Zone
Domain 11	Local High Grade Pod in Domain 7
Domain 7	Western Barren Core Zone
Domain 8	Limestone/Sediments

Geological domains were defined on plans and sections largely on the basis of grade. The hypogene domains were digitized from the domain outlines on plan and then wireframed to form three-dimensional solid structures. The oxide, transition and Supergene Zones were created as gridded surfaces from interpreted drill hole intercepts. The domains are shown in plan and section in figure 17.1 below.

Domain 1 - Oxide Zone

At Cerro Corona, the Oxide Zone is the upper of the three defined horizons related to leaching and enrichment of copper and gold over the porphyry and stockwork mineralization. The Oxide Zone is a zone of copper depletion and gold enrichment, identified as a surface zone of secondary hematite and goethite in leached diorite porphyry and stockwork. It is evident in the drill core as an interval, usually up to several metres thick, but, in places, has been logged up to 50 m thick. Mineralization consists of free gold and the zone contains little in the way of secondary copper minerals. The current interpretation (October 2000) of the Oxide Zone has been made on largely on the basis of copper assays being 0.05% Cu or less.

The lower boundary used for the definition of the Oxide Zone was a 10 m x 10 m gridded surface (OXIDE) which fitted interpreted drill hole intercepts for the base of oxidation. Similarly, a 10 m x 10 m gridded surface (TOPO) of the topography was used to define the top of the Oxide Zone. The Oxide Zone within the current DFS Resource Block Model is defined as Domain 1. This domain has been used for all block grade updates, resource plotting and reporting in the current study. This revision in grade estimation, compared with that carried in the RGC Due Diligence Study, has involved the use of additional surface sampling data and estimation over the total Oxide Zone, coupled with updated estimation in local high grade and low grade sub-zones (as defined by the upward extension of Hypogene Zone wireframes).

Domain 2 - Mixed Zone

The Mixed (or Transition) and Supergene Zones both represent the zone of secondary copper enrichment below the copper depleted Oxide Zone. The Mixed Zone contains secondary copper minerals, mainly as covellite, as well as the primary sulfides, chalcopyrite, bornite and pyrite, between the oxide and primary (Hypogene Zone) mineralization.

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The upper boundary of the Mixed Zone is usually observable as a clear break between the highly weathered oxide minerals and the zone of secondary minerals. The lower boundary is less sharp and is, by definition, placed where only primary sulfide minerals are present.

The current interpretation (October 2000) of the Oxide Zone, based largely on copper assays, has been extended to a re-interpretation of the Mixed Zone and a review of the Supergene Zone interpretation carried out by RGC geologists for the 1998 Due Diligence Study. Typically, the Mixed Zone has been interpreted as a relatively thin zone. Interpretation has been carried out on the basis of copper assays - going downhole from where assays start exceeding 0.05-0.1 Cu% (i.e. the base of the Oxide Zone) to where they exceeded 0.3-0.4 Cu% (i.e. the top of the Supergene Zone). This re-interpretation of the upper zones at Cerro Corona was prompted by observations made during the logging of metallurgical test holes drilled during August and September 2000.

Domain 4 - Supergene Zone

The Supergene Zone is defined as that part of the zone of secondary copper enrichment containing secondary and primary sulfide copper minerals, and lying between oxide and hypogene (primary) mineralization. A range of secondary copper minerals has been identified, but the zone is identified in the field mainly on the basis of chalcocite, covellite and digenite.

Domain 3 - Undifferentiated Hypogene Zone

Mineralization in this zone contains a wide range of copper and gold values. It is distinguished from Domain 5 on the basis that, on average, gold grades are <1 g/t Au and copper grades are generally <0.6% Cu. The lower grade boundary of this zone, segregating it from low grade zones, has been placed at >0.3 g/t Au and >0.3% Cu.

In this zone, continuity between higher grade intervals in adjacent holes is more difficult to establish than that of the higher grade Domain 5 (see Appendix 3.9 for histograms of Domain 3 gold and copper assays).

Domain 5 - Western High Grade Hypogene Zone

This domain relates to clearly evident intervals of higher grade assays where gold is consistently >1 g/t Au and copper values are generally >0.5% Cu, in contrast to mineralization on either side which has lower values. In addition, adjacent drill holes contain similar higher grades, and the intervals can be correlated to define cohesive zones with regular outlines on plans and sections.

Chalcopyrite and/or bornite, on fine fractures and as disseminations in quartz stockwork veins, are observable continuously throughout these zones in proportion to the assay values. Copper and gold are closely related mineralogically, and the vein style is consistent, although the selected cut-off does not coincide with a major geological break.

Drill holes which intersect this shell, drilling towards the assay defined Barren Core, usually intersect a similar pattern of assays. These pass from intermediate through higher grades, then into more intermediate grades, before passing into very low values. This pattern indicates that the higher-grade shell conforms to the overall shape of other zones, such as the Barren Core.

This shell is sufficiently obvious on plans and sections in enough drill holes to suggest that assays of this tenor are unlikely to extend into adjacent zones, and the areas in which they occur should be treated as a separate domain.

Domain 6 - Western Intermediate Grade Hypogene Zone

This domain is used to define the zone between the higher grade shell (Domain 5) and the barren core (Domain 7). The boundaries, selected on the basis of visual estimation and averaging of assays in drill holes through Domains 3, 5, 6 and 7, are between 0.3 g/t and 1 g/t Au and 0.3% and 0.6 % Cu.

Domain 7 - Western Barren Hypogene Core Zone

This domain is defined by the identification of a consistent break in copper and gold values below 0.3 g/t Au and 0.3% Cu in assay sequences crossing into it from the adjacent higher and intermediate grade zones.

The main field criterion in all cases is simply a consistent reduction in observable chalcopyrite over, at most, 10-20 m of the drill core length. Alteration boundaries are not necessarily observed to coincide with this assay boundary. Within the zone, there is a range of alteration intensities, and levels of veining and stockworking. However, there are also significant intervals of texturally intact potassic altered porphyry considered to represent remnant low grade core material. The zone contains sections of orange and green clay-altered stockwork as mapped by Barrick, similar to the well mineralized zones. Adjacent to this alteration, magnetite greatly exceeds pyrite, as in drill hole CCD-181. The proportion of potassic and sericite-clay-pyrite alteration gives support to the concept that the zone is a remnant of the early intrusive, and, like Domain 10, contains predictably low copper and gold grades.

Domain 9 - Eastern Hypogene High Grade Pod Zones

This domain was identified on the basis of higher grade copper and gold values in drill holes to the north and south of Domain 10. The same field criteria (>1 g/t Au and >0.6% Cu) used for Domain 5 were used to define this domain. The southern pod of this domain is more clearly defined by drilling than the northern one, but drilling density is not sufficient to define either as well as Domain 5 in terms of their overall shape.

There is an observable and relatively sharp change in the geology between the eastern low grade core and the southern pod. The southern pod has intense quartz stockworking, which changes over a distance of several metres to potassic altered porphyry, with lower intensity veining and fracturing. There is no intermediate grade mineralization between these pods and Domain 10, but on the western margins they abut intermediate grades in Domain 3.

Domain 10 - Eastern Hypogene Low Grade Core Zone

This domain coincides relatively closely with the eastern potassic altered porphyry remnant. It is recognisable in the field by substantial intersections of selective to pervasive biotite and K-feldspar alteration, with average grades in the order of 0.2 g/t Au and 0.2% Cu.

Drill holes in adjacent higher grade pods to the north and south (Domain 9) and the intermediate grade zone to the west (Domain 3) contain continuous or semi-continuous intervals of quartz stockwork veining and clay alteration, which distinguish them geologically from this domain. As mentioned in relation to Domain 9, this change is particularly clear in relation to the southern pod of higher grade.

Domain 11 - Western Hypogene High Grade Pod Zone inside the Barren Core

This domain consists of significant, but isolated, intervals of higher grade copper and gold mineralization within the barren core (Domain 7). It was intersected in two drill holes, CCD-101 and CCD-145, which contained 18 m of 2.6 g/t Au and 2.6% Cu and 32 m of 1.49 g/t Au and 0.68% Cu, respectively.

Mineralization is contained in a highly clay-altered zone with massive pyrite and chalcopyrite veining between selectively clay altered diorite porphyry and pervasively clay altered stockwork. This association suggests that the mineralization may form a local pod of massive sulfide vein mineralization associated with the contact, which may be faulted. The zone was not intersected in adjacent holes CCD-202, CCD-198 and CCD-204 which, with a number of other holes, define the barren core (Domain 7). This style of mineralization is not typical geologically of the barren core and is, therefore, considered as a separate confined domain.

Domain 8 - Limestone Zone

This domain includes all the sedimentary rocks that surround the mineralized diorite porphyry intrusion. It consists mainly of limestone, but also contains minor porphyry dykes in the contact zone, and some mineralized limestone. This domain has been excluded from this Mineral Resource estimate, but potential exists for a limited tonnage of additional resources to be defined with more detailed study.

Although the limestone of Domain 8 is generally thought of as barren, some 20% of 2175 samples have grades exceeding 0.2 g/t Au, and about 8% of samples exceed 0.4% g/t Au. The statistical distribution of the sample assays

exhibits bimodality, with the upper population representing about 15% of the total number of samples. This population probably has a geological basis that is, at present, unidentified.

17.1.3 Statistical Analysis and Variography

The statistical analysis and variography for both gold and copper in each domain was carried out in a systematic and careful manner. The results of this analysis are documented in detail in ECSI's report. These results form the basis for determining the parameters used in the estimation of block grades.

Selection of Domain Intercepts

In order that drill hole gold and copper assay data could be analysed within each geological domain, drill hole intercepts passing through each domain were identified in the drill hole database. This process of exactly matching drill hole intercepts with geological domains was carried out carefully and checked on plans and sections. The result was a list of downhole depths in each drill hole showing domain intercepts.

Compositing

For purposes of statistical analysis and variography, assay values were composited to 5 m or 2 m (depending on the domain and number of samples within it), starting from the beginning of each domain intercept in each drill hole. Any residual length at the end of the domain intercept of less than 1 m was ignored. These compositing practices were selected as appropriate and were compatible with those used by Barrick.

Basic Statistics for Gold and Copper

Statistical analysis of both gold and copper grades within each domain generally confirmed the homogeneity of each domain, with the obvious exception of Domain 3, the undifferentiated intermediate grade zone. The results of the statistical analysis carried out for the RGC Due Diligence Study were summarised in the RGC Due Diligence Report. These results were the same in the Hypogene Zone domains as for the current DFS, but differed, to some extent, for the re-interpreted upper zones.

The summary statistics and histograms for gold in each domain generally confirm the expected distributions. Average gold values are relatively high in all three upper zones: the Oxide Zone (Domain 4), the Transition Zone (Domain 2) and the Supergene Zone (Domain 4). There is an order of magnitude difference in the average gold grades between the Western High Grade Zone (Domain 5) and the Low Grade Core (Domain 7).

The copper statistics confirm the depletion of copper mineralization in the Oxide Zone (Domain 1 shows an average of 0.05% Cu) and the consequent enrichment in the Supergene Zone (Domain 4 averages 0.93% Cu) and, to some extent, in the Mixed Zone (Domain 2 average = 0.25% Cu).

Variography

Variography was carried out on both gold and copper composited assays within each geological domain or subdomain. The detailed results of variography of both gold and copper, either as 2 m or 5 m composites for each domain, were documented and are included in ECSI's report. The Nugget value for each variogram was determined from the vertical direction variogram. Some first or second variogram points near the origin have not been modelled, as they represent very few sample pairs.

Oxide Variography

Assay intervals in the Oxide Zone were sub-divided based on the Hypogene domain below. Variography was then carried out for both copper and gold 2 m composite values for each sub-domain. The variograms showed a marked variation in both anisotropic direction and range. Horizontal range varied from 33-200 m and vertical range varied from 8-65 m.

Mixed Zone Variography

As with the Oxide Zone, assay intervals in the Mixed Zone were sub-divided based on the Hypogene domain below. Variography was then carried out for both copper and gold 2 m composite values for the complete Mixed Zone and for the largest of the sub-domains (Domain 3).

Supergene Zone Variography

As with the Oxide and Mixed Zones, assay intervals in the Supergene Zone were sub-divided based on the Hypogene domain below. Variography was then carried out for both copper and gold 2 m composite values for the complete Supergene Zone and for the larger and higher grade sub-domains (Domains 3 and 5).

Variography of Hypogene Zone Domains

The most obvious feature of the gold variography is the long vertical range in both Domain 3 and Domain 9, whilst Domain 5, the western high grade annulus, shows the shortest vertical range. For copper, all of the hypogene domains show an X and Y anisotropic direction of 90 degrees and 0 degrees respectively. This probably reflects the movement of copper during the oxide depletion/supergene enrichment process and the relative stability of primary hypogene copper mineralization.

17.1.4 Grade Interpolation and Performance

The Resource Estimation process involved creating a block model database based on the interpreted geological domains and then estimating both copper and gold block grades for each domain. These block grades were interpolated using domain controlled ordinary kriging in those domains where sufficient data were available, or inverse distance weighting in those domains which had inadequate drill hole sample data support for geostatistical methods to be used.

Gold and copper block grades were estimated separately for each geological domain, using either ordinary kriging or inverse distance squared interpolation methods. Geological control was maintained during the grade estimation process by using assay composites of the same domain. As for the data analysis, exact 5 m (for most of the Hypogene domains) or 2 m composites (for the Oxide, Mixed and Supergene domains and sub-domains) starting from uphole were used, with a minimum residual composite length of 1 m being used at the end of each domain intercept.

Block grade estimation was carried out with good sample support using search distances as defined by the single structure variogram ranges as modelled for each domain. The main block grade estimation process used separate kriging parameters for each domain as determined from the variogram models. In Domain 11, where no viable variogram models could be obtained due to insufficient sample support, inverse distance squared weighting has been used to estimate block grades.

Grade Interpolation Procedure

The approach to grade modelling within each domain and sub-domain has been to:

- carry out statistical and variogram analysis on gold and copper values to determine spatial continuity and the block modelling parameters to be used in grade estimation;
- carry out block grade estimation for both gold and copper as regularized block models;
- load each grade model into the DFS resource block model, and
- check the model both by systematic plan and section plotting and resource reports comparing them to the previous RGC Model.

Estimation of Oxide Zone Block Grades

Gold and copper block grades were estimated separately for the total Oxide Zone using ordinary kriging within subzones as defined by the vertical extension of the wireframes domain boundaries of the Hypogene Zones (Domains 3, 5, 6, 7, 9 and 10) below them. Geological control was maintained during the grade estimation process by using

assay composites only from the same domain. As for the data analysis, 2 m composites starting from uphole were used in each domain.

Block grade estimation was carried out with sample support using search distances as defined by the single structure variogram ranges as modelled for each element in sub-zones. The block grade estimation process used separate kriging parameters for each element as determined from the variogram models. The grades within the Oxide Zone reflect, to a large extent, the grade distribution seen in the Hypogene Zones it overlies. At the same time, the Oxide Zone exhibits typical gold enrichment and copper depletion (to >1 g/t Au and <0.05% Cu).

Estimation of Mixed Zone Block Grades

Gold and copper block grades were estimated separately for the Mixed Zone using ordinary kriging. Geological control was maintained during the grade estimation process by using assay composites of the same domain. As with the Oxide Zone, sub-domain control was used, but only for the largest Hypogene Domain 3. As for the data analysis, 2 m composites starting from uphole were used in each domain.

Block grade estimation was carried out with sample support using search distances as defined by the single structure variogram ranges as modelled for each element in sub-zones. The block grade estimation process used separate kriging parameters for each element as determined from the variogram models.

Estimation of Supergene Zone Block Grades

Gold and copper block grades were estimated separately for the Supergene Zone using ordinary kriging. Geological control was maintained during the grade estimation process by using 2 m assay composites of the same domain. As with the Mixed Zone, limited sub-domain control was used - for Hypogene Domains 3 and 5.

Block grade estimation was carried out with sample support using search distances as defined by the single structure variogram ranges as modelled for each element in sub-zones. The block grade estimation process used separate kriging parameters for each element as determined from the variogram models.

Estimation of High Grade Hypogene Zones

The High Grade Zones (Domains 5, 9 and 11) vary considerably in size and continuity. The most continuous zone is Domain 5 which forms an annulus structure around Domain 7 on the western side of the intrusion. Domain 5 averages 1.37 g/t Au and 0.58% Cu and, whilst it extends vertically, it appears to be thinning at depth.

Of the three high grade geological domains, Domain 5 and Domain 9 had sufficient grade data for ordinary kriging to be used in block grade estimation of both gold and copper. Inverse distance squared weighting was used to estimate block grades in Domain 11.

Estimation of Intermediate Grade Hypogene Zones

The two intermediate grade zones exhibit a highly variable grade character. The main Intermediate Zone (Domain 3) forms the remainder of the Hypogene Zone after the various high grade and low grade zones have been delineated. It is highly variable, but the higher grade areas within it can not be interpreted as separate domains with the current density of drilling. Domain 6 lies between the high grade annulus (Domain 5) and the Low Grade Core (Domain 7) and shows good vertical continuity for copper, but not for gold.

Estimation of Low Grade Hypogene Zones

Domains 7 and 10 are the Low Grade Core Zones. They both show good vertical continuity for gold mineralization and, less so for copper. Domain 7 corresponds to Barrick's barren core zone and, with an average grade of 0.14 g/t Au and 0.07% Cu is the weaker mineralized of the two zones.

Grade Estimation Performance

Validation of the block grade model was carried out over a period of time mainly using the simple process of visually checking block grades against drill hole assay data on plans and sections. Other methods used to check and evaluate the validity of estimated block grades included the following:

- Comparison with the RGC Block Grade Model – this had been checked against a bench composite grade estimation method.
- Statistical analysis of the block grade results compared with drill hole data composited to match the block size used.
- Statistical analysis of block grades, and support/block values.

Statistical Analysis of Block Versus Drill hole Grades

To check on the validity of block grade estimates, histograms have been plotted comparing block grades with drill hole assays composited to 20 m. Whilst this 20 m compositing of assays does not provide a true change of support comparison with 20 m x 20 m x 15 m block grades (or 20 m x 20 m x 7.5 m block size for Domains 1, 2 and 4), it does show the smoothing effect of block grade estimation.

Statistical Analysis of Block Grade Support

Some statistical analysis has been carried out on the Au block grade support values. These values record the number of 5 m composite assays used to compute the gold estimate for each block. These composites/block values provide a simple measure of the confidence of the block grade estimate and have been used to assist in classifying Resources.

Statistical Analysis of Au and Cu Block Grade Correlation

Some preliminary statistical analysis has been carried out on the correlation between Au block and Cu grades within Domains.

Plan and Section Plotting

The main method of block model display is based on colour coded grade blocks with annotated values. The ECSI report contains a full set of Cu and Au block grade plans and sections. The figure below is an example level plan through the gold block grade model and a section through the resource category model.

LEVEL PLAN LOCATION
Section 925200N Showing Resource Classes

RESOURCE CLASSES (JORC)

- 4 = Inferred Mineral Resource
- 3 = Indicated Mineral Resource
- 2 = Measured Mineral Resource
- 1 = Proven Mineral Resource

Block Model

DRILL-HOLE DATA

SURFACES

- Topography
- Base of Oxide Zone
- Base of Mixed (Transition) Zone
- Base of Supergene Zone

Scale 1:4000

Figure Level Plan 3800mRL Gold Block Grade Model 25m Drillhole Offsets

Prepared by ECS Mining Consultants
For SOCIEDAD MINERA CORONA S.A.

Scale 1:4000
Drawn JHD
Approved
Revision
Platform 3800mRL ALL OCT00

17.1.5 Modelling of Clay Type Mapping and Geological Logging Data

Part of the brief for ECSI in carrying out DFS resource modelling was to provide models of clay, pyrite and quartz stockwork distribution using clay type mapping data and geological drill hole logging data compiled by Barrick geologists and extended by RGC. Clay alteration along with pyrite content was of particular interest as a key factor in predicting metallurgical recoveries. Data, including clay alteration type, estimates of iron oxides and semi-quantitative pyrite grades, has been compiled and entered in the existing drill hole database. The clay alteration, iron oxide and pyrite data is available from the Barrick holes as subjective information (that is, a visual measure of clay and pyrite).

Clay alteration, iron oxide, sulfide analysis and core recovery data from the RGC drill holes was sourced and the sulfide analysis data was included in the current drill hole database. Clay alteration logging data were evaluated, along with plans and sections showing clay alteration types and boundaries. The available information (not necessarily the most quantitative or precise) for clay, pyrite and iron oxide distribution in the deposit is that contained in the Barrick geological logging, and in rock and alteration plans prepared by RGC during the 1997 due diligence study.

The Barrick logging was recorded as visual quantitative or relative estimates on every 2 m interval of core and drill cuttings, along with a range of other rock and alteration characteristics, including biotite, sericite, magnetite, silica (pervasive) and quartz veining.

Four models have been generated from this data – a clay alteration index model (ARGIL), a clay type model (CLAY), a quartz veining percent model (QVPER) and a visual sulfide percent model (SLPER). These models are discussed below. These qualitative models are considered to be reliable only insofar as they indicate the general abundance of clay, pyrite, iron oxides and quartz veining. Although the data has inherent limitations in terms of absolute clay, pyrite and quartz percentages, it is considered to reflect broadly the relative distribution of these characteristics of the deposit.

ECSI recommended that the need for future drilling should be assessed with a view to improving the quality of these models based on comparison between analytical and empirical estimates.

Clay Alteration Index Model – ARGIL

The clay model is based on the argillic alteration derived from the digital geological database from Barrick geological logs. This model, loaded into the DFS Resource Block Model as the attribute ARGIL, shows the intensity of clay development on a relative scale of 1-4 (Figure 17.3).

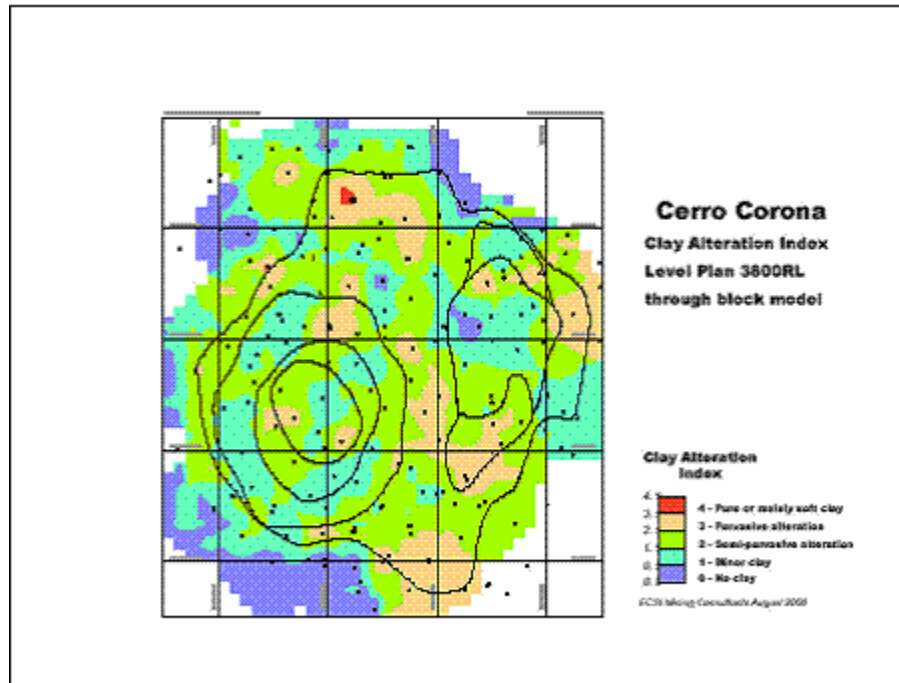
In addition to the data presented in the model, which comprises general clay alteration, the popcorn rock was specifically noted in the geological descriptions of the drill logs. Those logs were not available at the time of preparation of this model but would provide specific hole intercepts on which a detailed model of observable smectite or montmorillonite could be made.

The model reflects the underlying geology in the following respects:

- The potassic altered (biotite and K feldspar) units in the weakly mineralized intrusives on the eastern and southwestern sections, respectively resource model Domains 7 and 10. These contain relatively unaltered porphyry, with clay occurring in isolated feldspar crystals if present at all.
- Low to moderate clay content is outlined in sections of the quartz stockwork. Although pervasive clay alteration is present, the rock consists of a substantial proportion of quartz veining. Nevertheless, the nature and quantity of the clay in these zones are likely to have much greater metallurgical significance than in the low clay cores.

- High clay zones also occur within the stockwork associated with Domains 5, 6 and 7, consistent with the observation that intense clay alteration is not always coincident with intense stockwork quartz vein development.
- Resource Domain 3, the southern part of Domain 9 and part of Domain 9 north contain substantial sections of high clay, consistent with the distribution of intense, often pervasive clay alteration, interspersed with isolated zones of intense quartz stockwork development. In this zone, there are likely to be substantial sections of clay rich rock not supported by interlocking quartz veining.

Figure 17.3 : Level Plan 3800m RL, Clay Alteration Block Model Showing Clay Alteration Index Contours

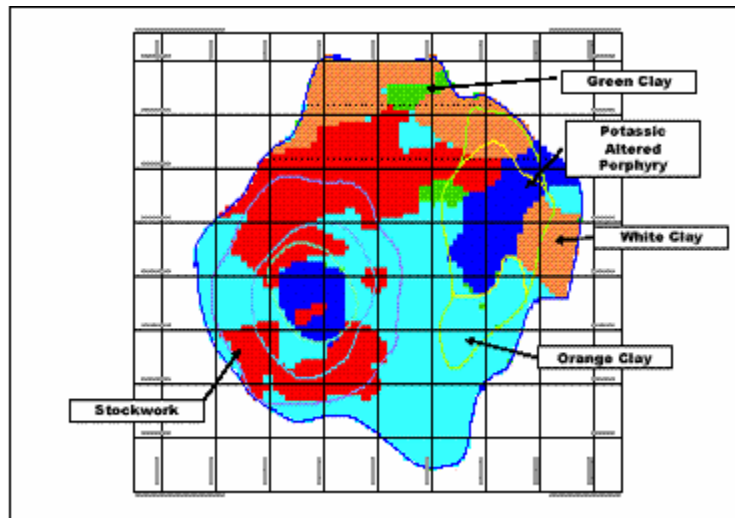


In terms of absolute clay contents throughout the deposit, it should be noted, firstly, that clays are widespread as the dominant constituent of the rock. Secondly, there are zones where the rock consists almost completely of clay, to the extent that core disintegrates unless supported by a sufficient array of interlocking quartz veins. This is in contrast to more classic porphyry styles such as those consisting largely of competent (although pervasively altered) porphyry with well defined veinlets and cracking containing the bulk of mineralization.

Clay Type Model – CLAY

Towards the end of the due diligence process, RGC geologists mapped lithologies and clay alteration. This was an exercise aimed specifically at determining the three-dimensional distribution of the various main rock units and their characteristics. This mapping is contained in a series of level plans on 1: 2000 scale at 50 m spacing through the deposit. These plans are discussed in more detail below. These maps have been used to create a block model by wireframing the outlines of the various units on each level plan. This clay and rock type model should provide a useful model for predicting the presence of popcorn rock going into the mining planning phase of the Cerro Corona DFS (Figure 17.4).

Figure 17.4 : Level Plan 3800m RL, Clay/Rock Type Block Model Showing Major Clay Types.



The units mapped consist of the porphyry intrusives exhibiting various clay alteration types and the quartz stockwork. The clay alteration types were mapped on the basis of dominant colour on a scale permitting correlation between holes. This, no doubt, involves some sacrifice in terms of detail, but, considering the complexity of the alteration, was considered justified in terms of completing a coherent map of the concentrations of particular materials.

These plans differentiate the system into potassic biotite/K-feldspar, white clay, green clay, orange clay, iron oxide alteration and quartz stockwork.

- Biotite/K- feldspar represents potassic alteration with largely intact porphyry, with altered feldspar and biotite phenocrysts through to a pervasively altered type with disseminated K-feldspar and biotite.

From assessment by Phil Rosengren and Ray Roberts (personal communication) of the core during the RGC due diligence, the ‘popcorn’ rock containing classic swelling clay spots, and the crumbly clay material, would appear to be contained within the Green Clay and Orange Clay outlines.

Quartz Stockwork is associated with and overlaps the other alteration types. The mapping suggests that the Green Clay and Orange Clay types are closely associated with the stockwork development, as distinct from the potassic Biotite/K-feldspar type porphyry. This association between stockwork and clays is more evident in the lower levels. In the upper levels, the clay appears to be more widely developed across the deposit, except for the isolated low grade potassic altered cores.

With respect to the intensity of clay development, there are substantial sections where it is pervasive and virtually the entire ‘rock’ mass consists of “clay” minerals. The only element providing structure to the rock in these zones of intense clay development is the network of quartz veining. Where this is absent, the core collapses on exposure to air. ECSI considered that there is a high proportion of reactive clays (smectite – montmorillonite) in these zones. This interpretation was not accepted by Ironbark on the basis of the holes drilled for the DFS.

17.1.6 Quartz Vein Intensity Model – QVPER

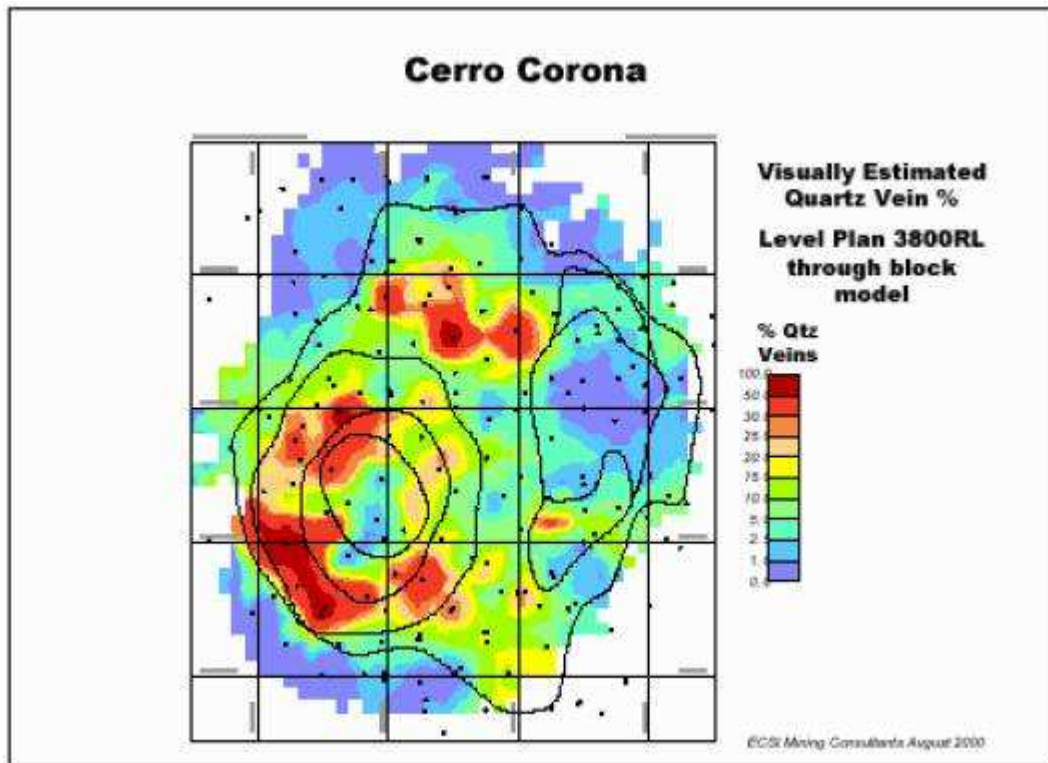
The quartz veining model (Figure 17.5), produced from the visual volume percentage of quartz veining, also reflects the underlying geological pattern, as expected.

It is indicative of the complex pattern of distribution of different geological elements in the overall system. In particular, it is indicative of the significant contrast that should be expected in terms of materials types and mineral concentrations.

As distinct from the more classic porphyry style in Domain 3, the stockwork reflected in the high quartz zone surrounding and forming part of Domain 7 is dominated by quartz and clay. The high quartz zone to the north of Domain 5 in Domain 3 is also expected to have similar properties.

The absence of high quartz in the far northern and central part of Domain 3 should also be noted, insofar as the significant clay alteration without stockwork development makes for a high probability of massive clay sections.

Figure 17.5 : Level Plan 3800 m RL, Quartz Vein Block Model Showing Visually Estimated Quartz Vein % Contours



17.1.7 Sulfide Content Model – SLPER

The total visual sulfide model is based on the visual estimates of total sulfide as recorded in the Barrick and RGC core logs. As with the clay model, the pyrite model is consistent with the underlying geology, insofar as the low grade potassic altered porphyries are less intensely altered and mineralized than the highly altered quartz stockwork and the zone between the two low grade cores.

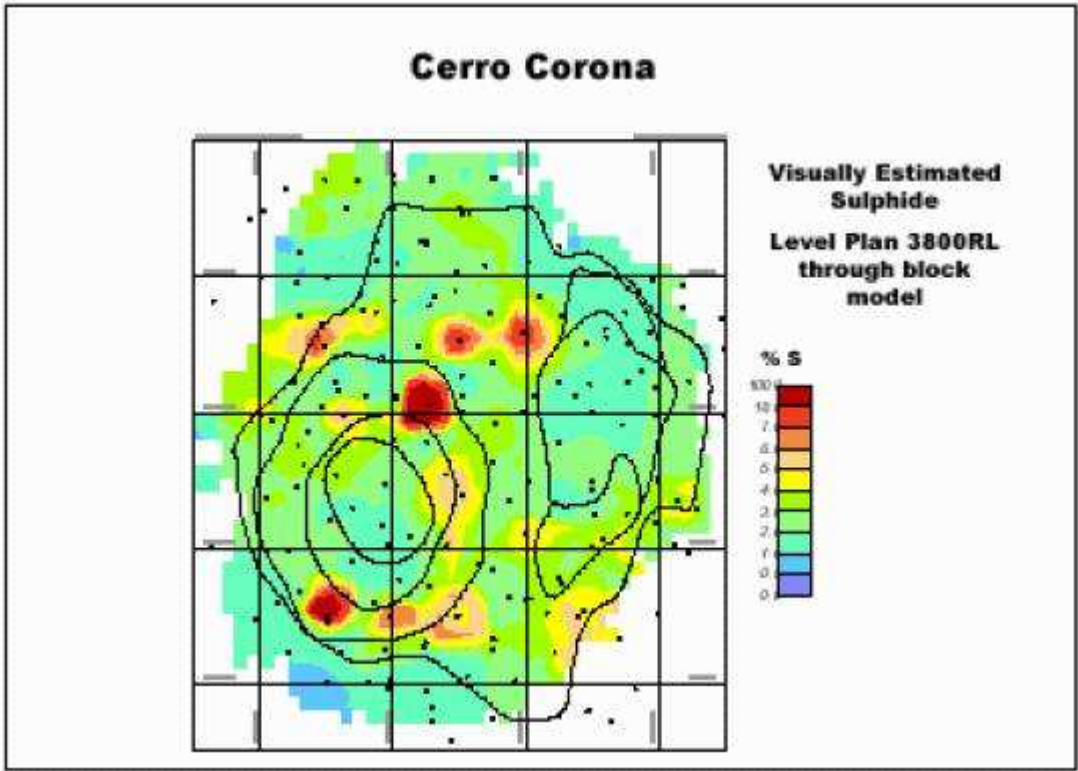
The stockwork zone largely co-incident with Domain 5 surrounding and forming part of the barren core in Domains 6 and 7 is identified in the model generated from the Barrick geological logs.

Metallurgical testwork samples for which total sulfur assays were carried out indicates that pyrite contents are frequently underestimated.

Detailed consideration by RGC geologists was given to the distribution of pyrite. Based on limited data from selected samples, but with the benefit of sulfur assays, a pyrite distribution map was established indicating a range of from 3.3% in the northeastern side of the deposit grading to 3-5% in the central part and to over 5% on the southwestern side.

This pattern is considered to be generally consistent with the pattern shown in the model produced from the drill logs, when considering the range of sulfur (hence pyrite) values used to establish the pyrite content and the size of the sample population. However, because of the large discrepancies of the visual sulfide estimates with sulfur assays (as discussed above), the SLPER model is not considered to be accurate for predicting pyrite content.

Figure 17.6 : Level Plan 3800m RL, Sulfide Block Model (SLPER) Showing Visually Estimated Sulfide % Contours



17.2 DEFINITION OF METALLURGICAL ZONES

As discussed above, models of clay, visual sulfide and quartz stockwork distribution have been generated using geological drill hole logging data compiled by Barrick geologists and extended by RGC. Clay alteration and pyrite

content are of particular interest as controls on metallurgical recoveries. However, subsequent to the modelling of these attributes, work carried out by consulting geologist Mr Geoffrey Keyte in logging nine new metallurgical test holes at Cerro Corona has raised some doubt about the validity of the Barrick logging data.

Barrick Metallurgical Model – METALL

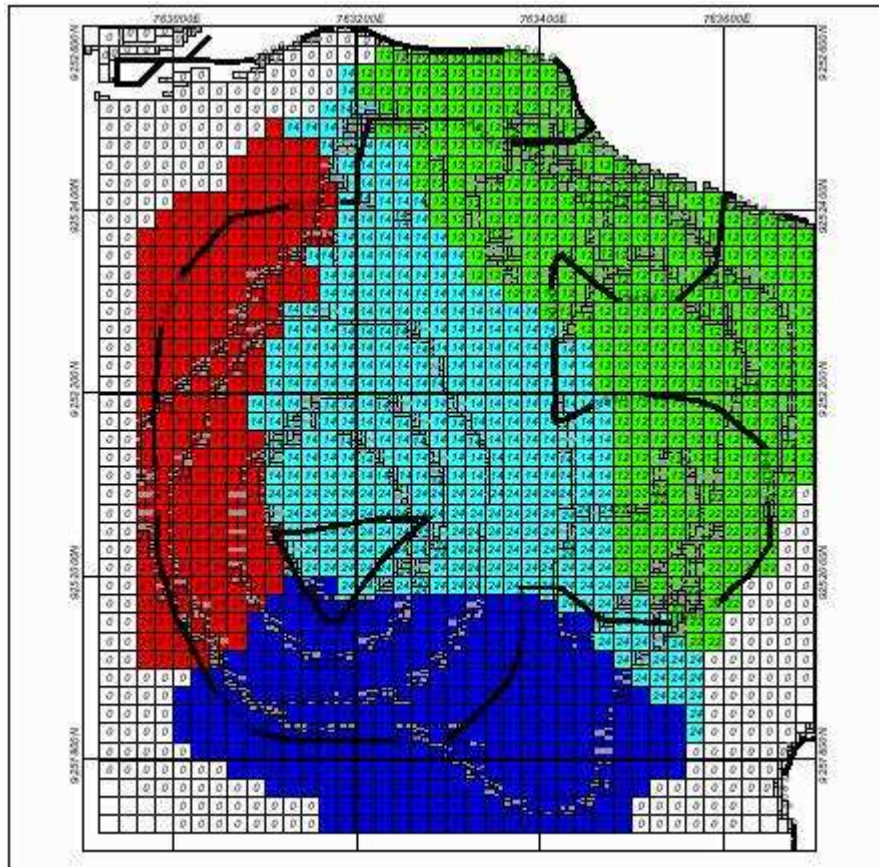
The block model of the various metallurgical zones as described by Lakefield in the Barrick study has been loaded into the DFS block model as the variable METALL.

According to MRDI geologists, Barrick's metallurgical domains were reportedly coded from digitized shapes.

- 11 = North portion of zone 1
- 12 = North portion of zone 2
- 14 = North portion of zone 4
- 21 = South Portion of zone 1
- 22 = South portion of zone 2
- 23 = Zone 3
- 24 = South portion of zone 4

Codes 11 and 21 make up zone 1; Codes 12 and 22 make up zone 2 and Codes 14 and 24 make up zone 4. MRDI mentioned that there were some small maps in the Barrick report showing these zones.

Figure 17.7 : Level Plan 3800m RL Showing Barrick's Metallurgical Zones Superimposed on The DFS Block Model and the 3800m RL Contour of a 45 Mt Pit Design



RED = Zone 1, Green = Zone 2, Dark Blue = Zone 3, Light Blue = Zone 4

17.3 DFS RESOURCE BLOCK MODEL DESCRIPTION

In 1998, a block model database (the RGC Block Model) was built as part of the RGC Due Diligence Study. The current study uses this RGC Block Model as a basis for building a new DFS Block Model. This current model was built within a geological wireframe model established for the RGC model using a primary block size of 20 m x 20 m x 7.5 m (X, Y and Z). The 20 m horizontal dimensions of the blocks represent about one quarter of the average drill hole spacing. Sub-blocking down to sub-block size of 5 m x 5 m x 3.75 m (X, Y and Z) was used to honour the edge of geological domain shapes.

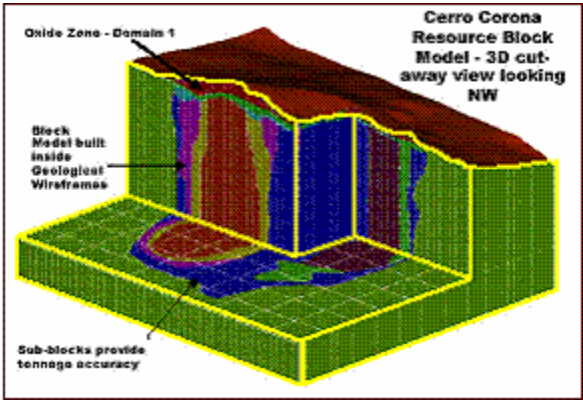
DFS Block Model Configuration

The DFS Block Model was set up using the following block configuration:

Table 17.3
BLOCK MODEL CONFIGURATION
DFS RESOURCE BLOCK MODEL: CC_OCT00

	X	Y	Z
Origin	762 699	9 251 499	3300
Extent	1400	1300	698
Block Size	20.00 m	20.00 m	7.50 m
No. Blocks	70	65	93
No. Sub Blocks	4	4	2
Smallest Sub Block	5 m	5 m	3.75 m
No. Primary Blocks = 254 388			
Total Blocks = 359 877			

Figure 17.8 : 3D Cut-Away View (Looking North-West), FS Resource Block Model Showing Geological Domains



Transfer of DFS Block Model to Regularized Block Model

This sub-blocked model was transferred to Minproc Perth for mine planning via two regularized block models:

- Upper regularized block model (Figure 17.4)
- Lower regularized block model (Figure 17.5)

Table 17.4
UPPER REGULARIZED DFS BLOCK MODEL CONFIGURATION
DFS RESOURCE BLOCK MODEL: UPPER_OCT00

	<u>X</u>	<u>Y</u>	<u>Z</u>
Origin	762 699	9 251 499	3800
Extent	1400	1300	195
Block Size	10 m	10 m	5 m
No. Blocks	140	130	39
Total Blocks = 150 027			

Table 17.5
LOWER REGULARIZED DFS BLOCK MODEL CONFIGURATION
DFS RESOURCE BLOCK MODEL: UPPER_OCT00

	<u>X</u>	<u>Y</u>	<u>Z</u>
Origin	762 699	9 251 499	3800
Extent	1400	1300	195
Block Size	10 m	10 m	10 m
No. Blocks	140	130	50
Total Blocks = 672 212			

The reason for regularizing the block model was to cater for Minproc using a different software system in its mine planning work which did not handle the sub-blocked model. The block height was changed from 10 m to 5 m above the 3800 m elevation to accommodate the need for smaller bench heights when mining the upper parts (mainly the Oxide Zone) of the deposit.

The transfer of block model data was carried out by loading into the two regularized models the same source block estimates used in establishing the DFS Sub-Blocked Resource Block Model.

Block Attributes

The DFS Block Model consists of number of block attributes which go to make up the Resource Model. These are summarised in Table 17.6. Each attribute has one or more source models. The generation of these various source models has been discussed in Section 17.1 above.

Table 17.6
DFS BLOCK MODEL ATTRIBUTES

<u>Attribute</u>	<u>Description</u>	<u>Source Model</u>
Domain	Geological Domains 1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Wireframes and gridded surfaces
SG	Bulk density values used in tonnage estimation	Default values for each Domain
Au	Gold block grades	One or more block model for each Domain
Cu	Copper block grades	One or more block model for each Domain
ARGIL	Clay alteration index	Block model ARGIL.GR3
SLPER	Visual sulfide percent estimate	Block model SLPER.GR3

QVPER	Visual quartz veining percent	Block model QVPER.GR3
CLASS	Resource classification index using JORC Guidelines 1= Measured 2 = Indicated 3 = Inferred	Derived using global kriged gold models of different sample support/search strategies
METALL	Barrick metallurgical zones	Barrick block model METALL.GR3
CLAY	Clay/rock type model – separate block model	Wireframes

17.4 Resource Classification

The estimated Resource for the DFS was classified to comply with the JORC guidelines using the following criteria:

- Measured Resource blocks were those for which both copper and gold values were estimated and for which gold values were estimated using search distances set at the variogram range. Additional constraints were applied such that blocks were selected only where the block search strategy included sample composites in at least four of the possible six sectors and that contained at least 15 out of a maximum of 24 samples per block.
- Indicated Resource blocks were those other than Measured blocks which had both gold and copper values estimated using search distances set at the variogram range and a search strategy for gold which included sample composites in at least two of the six possible sectors.
- Inferred Resource blocks were those other than Measured or Indicated blocks which had either gold or copper values estimated.

These criteria were used to create the DFS Resource Model attribute CLASS – with a value of 1 for Measured, 2 for Indicated and 3 for Inferred blocks.

17.5 Mineral Resource Statement

The Measured & Indicated Oxide and Sulfide Resource estimate by Minproc is contained within the diorite intrusion above 3325 RL. The estimate using a 0.5 g/t Au and 0.0 % Cu cut-off is tabulated by mineralization type and classification in the table below.

Table 17.7 : Measured & Indicated Oxide and Sulfide Resources at a 0.5 g/t Au and 0.0% Cu cut-off.

Classification	Tonnes (Mt)	Au (g/t)	Cu (%)	Contained Metal	
				Au ('000 oz)	Cu (kt)
Oxide Mineralization					
Measured	4.0	1.31	0.06	169.6	2.4
Indicated	4.5	1.27	0.05	182.6	2.2
Sub-Total Oxides	8.5	1.29	0.05	352.2	4.7
Sulfide Mineralization					
Measured	71.7	1.02	0.53	2,348.2	380.4
Indicated	39.5	0.94	0.46	1,190.9	181.7
Sub-Total Sulfides	111.2	0.99	0.51	3,539.1	562.1
Total M & I Resources	119.7	1.01	0.47	3,891.3	566.8

The Inferred Oxide and Sulfide Resource estimate at the same cut-off grades is shown in the table below.

Table 17.8 Inferred Oxide and Sulfide Resources at a 0.5 g/t Au and 0.0% Cu cut-off.

Classification	Tonnes (Mt)	Au (g/t)	Cu (%)	Contained Metal	
				Au ('000 oz)	Cu (kt)
Oxide Mineralization					
Inferred	0.1	0.90	0.04	2.5	0.0
Sulfide Mineralization					
Inferred	7.6	0.72	0.36	176.0	27.4
Total Inferred Resources	7.7	0.73	0.36	178.5	27.4

17.6 Discussion of Geological and Resource Model Quality

17.6.1 Geological Understanding and Mineralization Controls

The Cerro Corona deposit appears to be similar to a number of Au-Cu porphyry deposits in South East Asia in terms of host rock, alteration and mineralization. However, the geology is complex, with overlapping alteration events, deep erosion of the mineralizing system and the effects of weathering all contributing to this.

Several highly experienced porphyry geologists visited the property for Barrick, with many of the findings being summarised in a report by Leonardson (1995). It was noted in this report that field logging of drill material did not distinguish adequately between alteration styles, other than the presence of swelling clays, and, thus, detailed alteration patterns could not be defined. The general alteration styles were well established as follows:

- Early K⁺ alteration and associated quartz-iron oxide-chalcopyrite-Au stockwork veining. This was related to porphyry emplacement and the release of volatiles from the magma during initial cooling.
- A later phase of hydrothermal H⁺ hydrolysis giving rise to phyllic, argillic and propylitic alteration assemblages. Phyllic and stronger argillic alteration appear to have remobilised Cu and Au into a younger phase of quartz-pyrite+chalcopyrite veins.
- Supergene clay alteration (kaolinite, sericite and hydromicas) related to weathering.

On the basis of detailed core logging, Leonardson identified a barren core of weakly K⁺ altered porphyry, with an adjacent concentric zone of relatively intense, mineralized stockwork veining and K⁺ alteration developed, particularly on the western side. Indications of one or two concentric parallel zones were identified further to the east. According to Leonardson, these zones appear to be the loci for more intense phyllic (quartz-sericite-pyrite) and strong argillic (sericite-clay-pyrite) alteration, and associated quartz-sulfide veining. Weaker argillic (clay-sericite-pyrite) and propylitic (epidote-chlorite-carbonate-montmorillonite) alteration was generally present towards the periphery of the deposit, but was also developed to varying degrees between the more intense alteration zones.

Leonardson noted that H⁺ alteration was concentrated along zones of fracturing, which often appeared to follow zones of intense K⁺ stockwork alteration, while, elsewhere, primary rock textures were often well-preserved.

Hypogene mineralization is thought to be related both to the early K⁺-related stockwork veining and, due to remobilisation, to the later stage of H⁺ phyllic and strong argillic veining and alteration. These two phases of mineralization overlap to a considerable degree, being concentrated around the margin of the barren core, as well as in zones of structural weakness.

The boundaries of these zones are irregular and difficult to define on the basis of alteration assemblages. However, they are thought to be closely related to the mineralization domains determined by ECSI on the basis of metal grades. The latter display sub-vertical boundaries, within which grades display good continuity between drill holes.

The majority of structures, hypogene alteration and mineralization features appear to display steep dips, with the result that vertical drill holes provide poor definition of these features.

Weathering has produced an upper, oxidised zone, characterised by iron oxides and leaching, leading to very low copper values. This is underlain by a zone in which secondary copper sulfides rim and partly replace primary sulfides, giving rise to supergene enrichment. The contact between these two zones is sometimes sharp, but can extend over several metres, while the base of the supergene zone is sometimes indistinct. The thickness of the weathering profile and its individual components is irregular, with weathering extending to depths of 100 m or more along fractures.

While the original interpretation of the weathering zone was based on drill logs, the Oxide, Mixed and Supergene Zones were reinterpreted by ECSI following observations by Ironbark regarding the relationship between weathering zone and copper grade. In general, changes were relatively minor and would have limited impact on the resource model.

Differences of opinion have been expressed concerning the intensity of clay alteration and the type of clay minerals present in the Cerro Corona deposit. No definitive study has been made of this issue, and the apparently conflicting opinions may relate in part to the fact that the Barrick/RGC findings of widespread illite and montmorillonite alteration were based on relogging and thin section work on a large number of drill cores dominantly from the hypogene zone. By contrast, Ironbark's conclusions were derived from nine shallow vertical drill holes, sited to test better mineralized supergene parts of the deposit for metallurgical purposes. Its visual logging indicated large quantities of clay, even in fresh rocks, but limited thin-section work suggested that sericite is greatly dominant. XRD analysis on one sample supported this view.

Ironbark also recorded that no swelling clays were observed in its drilling, despite the fact that the Barrick/RGC model predicted the presence of popcorn rock from adjacent holes. Ironbark stated that true popcorn-style alteration was a localised feature, and that Barrick geologists must have extended the term to include all highly crumbly rock types, most of which do not contain swelling clays. However, Rosengren states that swelling clays were common in drill holes he logged on two cross-sections in 1997, both as replacements of felspar phenocrysts and as more pervasive alteration. Similarly, Leonardson (1995) recorded montmorillonite as part of the propylitic alteration assemblage, generally developed outboard of the best mineralization.

It may be that both sets of observations are valid, with sericite being the dominant "clay" alteration mineral in better mineralized parts of the deposit, associated with phyllic and strong argillic alteration, as noted by Ironbark. Equally, illite group clays would be expected to dominate in areas of weaker argillic alteration, giving way to montmorillonite group clays in propylitised areas. In general, illite and montmorillonite would be expected to occur in poorly mineralized parts of the porphyry, sometimes between ore grade zones, but more commonly distal to the deposit. Thus, these clays may have little impact on ore metallurgy. However, the presence of clays, particularly swelling clays, in the walls of the open pit could give rise to greater slope instability.

The importance of this issue should not be overstated. Representative metallurgical samples have been used to determine optimum process conditions and anticipated recoveries for different mineralization and alteration domains. Similarly, pit slope specifications should be determined on the basis of materials encountered in drilling pit wall positions, regardless of questions concerning clay mineralogy.

17.6.2 Au and Cu Resource Modelling and Resource Classification

Resource modelling procedures adopted by ECSI for the Minproc DFS are quite conventional, relying, primarily, on definition of different geological and grade domains to separate different populations of mineralization. All statistical and geostatistical analysis, and subsequent grade interpolation, has made use of the specific grade data within individual domains.

The hypogene mineralization has been separated into seven domains based on grade boundaries. These domains are believed to conform to geographic or structural zones within the porphyry body, with different alteration assemblages and intensities, although the alteration boundaries themselves are generally diffuse. Definition of

several of these domain boundaries is subjective, but the practice of isolating different grade populations to prevent smearing of grades during interpolation is correct.

The hypogene domains persist to surface and can be recognised as zones of higher and lower grades within the weathering zone, i.e. there has been limited lateral supergene redistribution. Consequently, these domains have been retained within the Oxide, Mixed and Supergene Zones. Boundaries between these three zones have been reinterpreted using copper assays rather than Barrick geological logs as a guide. This led to changes in positioning of the contacts by 10 m or more in some cases, but, typically, the difference was no more than 2 m, with relatively minor impact on the resultant resource.

Following variographic analysis of Au and Cu distributions for each domain, grades were interpolated using ordinary kriging with search ranges equivalent to the range of the variograms, i.e. typically in the order of 80-150 m in the horizontal plane, compared with the approximate drill hole spacing of 70 m. It should be noted that data is often insufficient to define the short range part of the variograms in the horizontal plane. For domains where inadequate data existed, inverse distance interpolation was used. A sector search was used, with restrictions in the number of samples used per sector. No top-cuts were employed.

The Au and Cu grade block models were compared to input assay data by ECSI, both visually and statistically, confirming reasonable agreement.

Given that geological understanding and database quality had been established, resource classification was based on the number of samples within the variogram range used to inform each block, with further constraints relating to the number of sectors and minimum numbers of samples when defining Measured and Indicated Resources. ECSI note that this gave rise to a complex pattern of Measured and Indicated blocks, particularly at depth, due to changes in sample spacing in areas dominated by inclined drilling.

Minproc would not necessarily complete resource estimation in exactly the same way. For example, where grade populations are skewed, indicator kriging could be expected to produce a more accurate block grade estimate. In the same manner, resource classification would probably have been adapted to ensure more internal cohesion of resource block classes than was reported by ECSI. However, the resource modelling approach adopted by ECSI should be adequate, particularly where mining will not be highly selective.

17.6.3 Clay , Quartz Vein and Sulfide Content Modelling

In order to assist in prediction of metallurgical recoveries, ECSI was asked to model clay type, clay alteration intensity, quartz vein intensity and sulfide content, based on Barrick logging data. The input data are subjective logging estimates and Leonardson (1995) noted limitations in terms of the minerals being identified and the quality of these estimates, particularly given the large number of geologists involved in logging. The alteration pattern is complex, with overprinting of styles over time, while identification of clay types and the contents of very fine grained sulfides and specularite is very difficult. These problems were also recorded by RGC and Ironbark for subsequent programs.

ECSI states that its models should be considered as qualitative and useful only in a general sense, broadly reflecting the distribution of these variables throughout the deposit. Furthermore, the models are probably more accurate for hypogene mineralization, where supergene effects are absent. The poor correlation between visual sulfide estimates and a limited number of sulfur assays confirms the short-comings of the sulfide model, although the highly pyritic phyllic alteration zone in the southwest can be recognised.

Ironbark has recorded reservations concerning identification of clay minerals by Barrick, and it is Minproc's opinion that little reliance should be placed on the ECSI models for prediction of metallurgical performance, unless further work is undertaken.

17.6.4 Geology and Resource Estimate Conclusions

Based on the information provided by others, Minproc believes that the geological understanding, database quality and resource modelling methods should be sufficient to provide adequate Au and Cu resource models for DFS mining studies.

Additional Measured and Indicated Resource potential exists in areas of Inferred Resources, including a significant number of blocks for which only Au grades have been interpolated. In addition, vertical extensions to high and medium grade domains remain untested. However, the quantity of additional resources accessible by open cut mining is likely to be limited.

In-fill drilling will be required to improve local grade estimates for short term planning, and to provide grade control during mining.

17.7 Gold Fields Due Diligence

17.7.1 Norwest Evaluation of the Block Model

As part of its due diligence program, Gold Fields asked Norwest Corp (Dr. Bruce Davis) to carry out a geostatistical evaluation of the ECSI block model utilized for the Minproc DFS. The evaluation focused on how well the model grades compared to drill hole composite sample grades for both gold and copper. These checks should be regarded as an assessment for fatal flaws and do not constitute a detailed investigation of all the aspects of grade estimation. Norwest's observations and recommendations are summarized below:

- Drift Analysis: Grades from the model and nearest neighbor (NN) estimates of grades were compared locally to investigate whether there is any systematic bias in the model. This was accomplished by comparing the average model grades by easting, northing, and elevation with the corresponding NN grade average over the model blocks in the model provided. The grade profiles show there are areas in the model where the model grades are consistently above or below the declustered drill hole grades. This is especially evident in the North and East plots for both gold and copper. The model grades are consistently above the drill hole grades for stretches in the gold model, and in the copper model the model grades are consistently below the drill hole grades. These trends indicate the possibility of local biases for gold and copper grades in the ECSI model. However, these local biases are not considered have a material impact on the global grade estimate.
- Change of Support: An independent check on the smoothing in the Cerro Corona model grade estimates of gold and copper was made using industry standard geostatistical methods. Results show that the gold grade estimates may be somewhat optimistic for 10 x 10 x 5m selective mining units for cut-off grades exceeding 0.5g/t. Copper grade estimates more likely are adequate predictions of the grade and tonnage that can be recovered by mining.
- Conclusions: The ECSI model may contain some relatively small local biases and the global gold grade distribution may be optimistic for cut-off grades exceeding 0.5g/t; however, the model does not appear to have major or fatal flaws and can be used for assessments of project viability provided the potential shortcomings are taken into account.
- Recommendations: If the project continues beyond the due diligence period, a suite of exploratory data analysis (EDA) is recommended to refine estimation domains and accommodate any new information as it becomes available. It would be especially important to determine how the geology influences areas of higher grades occurring within the hypogene domain. Development of domains based solely on grade often produces unrealistic grade changes near grade domain boundaries. The EDA may shed further light on those variables that influence the grade distribution within the deposit. Any domain refinements can then be incorporated in a new block model.

18.0 OTHER DATA AND INFORMATION

In Gold Fields’ opinion, this section is not applicable . There is no additional information or explanation necessary to make this technical report more understandable and not misleading.

19.0 REQUIREMENTS FOR TECHNICAL REPORTS ON PRODUCTION PROPERTIES

This section is not applicable. The property is not in production.

20.0 CONCLUSIONS AND RECOMMENDATIONS

Gold Fields has reviewed the Cerro Corona Project database and the Mineral Resource Estimate made by ECSI for the 2001 Minproc DFS. Gold Fields has also completed its own technical and legal due diligence on the project. Norwest Corp. has carried out a geostatistical evaluation of the ECSI block model. General conclusions and recommendations from this work are as follows:

- A single copper-gold deposit has been delineated at Cerro Corona. The deposit is hosted by a Tertiary diorite intrusive and is classified as a porphyry copper-gold deposit. The geology of the Cerro Corona Project, including the controls on mineralization are well understood.
- The database used to estimate the mineral resource for the Cerro Corona Project consists of samples from 130 diamond drill holes, 140 reverse circulation drill holes and 1,750 surface channel samples.
- All of the drill hole collar locations have been surveyed with a total station instrument, and most of the holes have undergone some type of down-hole surveying as well. Those holes that have not been subjected to down hole surveys will not have an adverse effect on the reliability of resource estimates due to their small number and short length. In Gold Fields' opinion, the methods used to collect samples at Cerro Corona are consistent with standard industry practices.
- The core logging procedures generally meet or exceed industry standard practices. Gold Fields also recommends that a copy of the original assay certificates be attached to each drill log to facilitate future checks and audits.
- The transfer of data to the resource database was verified with approximately a 5% check of the assay database and survey records against original records. The sampling procedures and assaying methods are consistent with standard industry practices. The project has followed a comprehensive quality assurance program that includes the submission of standards, blanks, field duplicates, and pulp duplicates. Program accuracy and overall precision were good. It is Gold Fields' opinion that the data used for the resource estimate is under sufficient control to form the basis of the mineral resource estimate.
- A three dimensional block model has been used to estimate the mineral resource at Cerro Corona. The model was constructed with ordinary kriging techniques on composited assays. The model has been subjected to several validation exercises and based on those results, Gold Fields considers the estimate to be robust.
- This mineral resource estimate conformed to the requirements of the Listing Rules of the Australian Stock Exchange Ltd, and the "Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves" (the JORC Code). The resource has been classified into Measured, Indicated or Inferred categories consistent with the CIM definitions referred to in NI43-101.
- Norwest concluded that the ECSI model may contain some relatively small local biases and the global gold grade distribution may be optimistic for cut-off grades exceeding 0.5g/t; however, the model does not appear to have major or fatal flaws and can be used for assessments of project viability provided the potential shortcomings are taken into account.
- Norwest recommended that if the project continues beyond the due diligence period, a suite of exploratory data analysis (EDA) be carried out to refine estimation domains and accommodate any new information as it becomes available. It would be especially important to determine how the geology influences areas of higher grades occurring within the hypogene domain. Development of domains based solely on grade often produces unrealistic grade changes near grade domain boundaries. The EDA may shed further light on those variables that influence the grade distribution within the deposit. Any domain refinements can then be incorporated in a new block model.
- Although no major problems were identified during its due diligence, Gold Fields did not validate the sample grades against original assay reports, nor verify other data such as specific gravity, drill hole surveys or geotechnical information. This decision was based on a review of results of a thorough due diligence study done by RGC. Based on the Gold Fields re-logging program, it was also decided not construct a new geological block model at the due diligence stage.

- Based on recommendations made by the author during the Gold Fields due diligence program, a thorough validation of the database is currently in progress. After this validation is done, a new block model and resource estimate will be made which will support a new feasibility study to be completed by April 2005.
- Gold Fields is currently also focused on community relations and consolidation of surface rights in the project area.
- An updated Environmental Impact Study (“EIS”) will be submitted in 2004.

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CERTIFICATE of AUTHOR

I, Nathan H. Brewer, Certified Professional Geologist, hereby certify that:

1. I am currently employed as:
Exploration Manager, North America
Gold Fields Exploration Inc.
6400 S. Fiddlers Green Circle, Suite 1620
Englewood, Colorado, USA, 80111.
2. During the Gold Fields due diligence period for the Cerro Corona Project between September 2003 and March 2004, I was employed as:
Exploration Manager, Peru
Minera Gold Peru S.A.
Avenida Paz Soldan 170, Oficina 401
San Isidro, Lima 27, Peru
3. I graduated with the following degree:
 - BA in Geology – University of California at Santa Barbara, December 1975
4. I hold the following professional qualifications:
 - Certified Professional Geologist, American Institute of Professional Geologists (“AIPG”), No. 7042
5. I have worked as an exploration geologist for a total of 29 years since my graduation from university.
6. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, that I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
7. I was responsible for the evaluation and due diligence work for Gold Fields on the Cerro Corona Project from September 2003 to March 2004. I have made numerous visits to the project site for variable durations of up to 5 days between September 2003 and May 2004. The longest sites visits were from October 29th through November 2nd, 2003 and from November 27th through November 29th, 2003 I am responsible for compiling and editing all sections of this report.

8. I have had no prior involvement with the properties that are the subject of the Technical Report.
9. As an employee of Gold Fields since February 2002, I am not independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 7th Day of October, 2004.

/s/ Nathan H. Brewer

Nathan H. Brewer

Regional Exploration Manager

Gold Fields Exploration Inc.

Certified Professional Geologist No. 7042, AIPG



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CERTIFICATE of AUTHOR

I, John H. Duke, MAusIMM (CP), MMICA, do hereby certify that:

1. I am a Senior Resource Geologist of:
SURPAC MINEX (DEVELOPMENT) PTY LTD (formerly ECS INTERNATIONAL PTY LTD),
Albert Street, Mittagong, NSW 2575, Australia
2. I graduated with the following degrees:
 - BA in Geology – Macquarie University, Sydney, Australia, 1971
 - BA (Hons) in Geology – Macquarie University, Sydney, Australia, 1978
3. I hold the following professional qualifications:
 - Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) Chartered Professional Geologist
 - Member Mineral Industry Consultants Association (MMICA).
4. I have worked as a geologist for a total of 28 years since my graduation from university.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, that I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am responsible for the geological modelling, the geostatistical analysis and resource estimation of the Cerro Corona resource prepared previously as part of a Due Diligence Study for Renison Goldfields Consolidated in 1997 and part of a Definitive Feasibility Study by Minproc in 2001. A summary of this

work is presented in the 'Mineral Resource Estimate' section of the technical report titled "Cerro Corona Resource & Reserves Estimates Department of Cajamarca, Peru".

7. I have had prior involvement with the property that is the subject of the Technical Report. The nature of my prior involvement was compilation of a geological model and resource estimate as part of the Due Diligence Study for RGC in 1997. This involved a field office and site visit for 12 days in September/October 1997. Further involvement with the property comprised preparation of a block model and resource estimate as part of the 2001 Definitive Feasibility Study by GRD Minproc Limited of Australia.

8. I am not aware of any material fact or material change with respect to the subject matter of the 'Mineral Resource Estimate' section of the Technical Report that is not reflected in that section of the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read National Instrument 43-101 and Form 43-101F1, and the 'Mineral Resource Estimate' section of the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the 'Mineral Resource Estimate' section of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 7th Day of October, 2004.

/s/ John H. Duke

John H. Duke



John H. Duke

22.3 BRUCE DAVIS

CERTIFICATE of AUTHOR

I, Bruce M. Davis, Ph.D., do hereby certify that:

1. I am currently employed as Chief Geostatistician by:
*Norwest Corporation
Suite 400, 205 - 9 Avenue SE.,
Calgary, Alberta, Canada
T2G 0R3*
2. I graduated with a Doctor of Philosophy degree from the University of Wyoming in 1978.
3. I am a Fellow of the Australasian Institute of Mining and Metallurgy (Registration No. 211185).
4. I have worked as a geostatistician for a total of twenty-six years since my graduation from university.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am responsible for the technical report titled Cerro Corona Project, Department of Cajamarca, Peru and dated October, 2004 (the “Technical Report”) relating to the property and was responsible for the preparation of Section 17.7.1 of the Technical Report. For the balance of the Technical Report, I relied upon the work done by Nathan H. Brewer and John H. Duke.
7. I have visited the Cerro Corona project site on September 1st, 2004 for one day.
8. I have not had prior involvement with the property that is the subject of the Technical Report.
9. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
10. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.

11. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 7th Day of October, 2004.

/s/ Bruce M. Davis
Signature of Qualified Person

Bruce M. Davis
Print name of Qualified Person

**APPENDIX 1 : CERRO CORONA PROJECT
DRILL HOLE LOCATIONS**

Drill Hole	UTM Easting	UTM Northing	Elevation (m)	Total Depth (m)	Drilled by:
CO-06U	763409.2	9251924.9	3860.1	400.6	SMC
CO-10E	763009.6	9252022.6	3912.2	89.0	SMC
CO-12E	763009.2	9252074.9	3904.2	477.0	SMC
CO-14G	763065.1	9252124.4	3909.2	113.4	SMC
CO-18K	763158.2	9252222.8	3899.5	100.0	SMC
CO-18M	763205.4	9252220.3	3915.1	437.0	SMC
CO-18U	763410.4	9252224.3	3876.0	117.6	SMC
CO-19I	763111.4	9252244.9	3881.7	91.5	SMC
CO-26M	763206.7	9252419.6	3848.3	400.0	SMC
CCD-004	763056.0	9252389.8	3841.0	389.5	Barrick
CCD-005	763003.1	9252196.7	3877.9	304.8	Barrick
CCD-006	763402.5	9252423.2	3829.6	404.0	Barrick
CCD-034	763302.9	9252217.7	3914.5	389.1	Barrick
CCD-035	763227.0	9252014.8	3923.6	320.2	Barrick
CCD-036	763101.1	9251899.7	3891.6	357.1	Barrick
CCD-037	763498.9	9252098.3	3877.3	334.1	Barrick
CCD-060	763303.6	9252076.3	3930.0	393.0	Barrick
CCD-061	763300.9	9252305.5	3891.4	393.7	Barrick
CCD-062	763401.4	9252500.1	3811.6	331.8	Barrick
CCD-063	763097.1	9252296.8	3867.5	364.6	Barrick
CCD-064	763491.7	9252302.5	3837.8	345.3	Barrick
CCD-100	763477.1	9251898.8	3835.5	250.3	Barrick
CCD-101	763189.1	9252093.5	3955.2	357.2	Barrick
CCD-102	763500.4	9251996.6	3866.2	322.9	Barrick
CCD-103	763127.8	9252500.7	3814.8	200.0	Barrick
CCD-104	763249.4	9252449.4	3829.2	454.4	Barrick
CCD-105	763594.6	9252194.4	3889.1	158.8	Barrick
CCD-106	763296.4	9251899.5	3867.0	500.0	Barrick
CCD-107	763383.6	9251798.7	3837.7	400.0	Barrick
CCD-108	762992.7	9251895.3	3891.9	332.8	Barrick
CCD-109	763194.4	9251803.7	3862.3	342.2	Barrick
CCD-140	763400.7	9252022.3	3895.0	381.2	Barrick
CCD-141	763259.8	9252546.0	3806.4	364.3	Barrick
CCD-142	763181.5	9252365.6	3860.5	383.5	Barrick
CCD-143	763629.8	9252068.6	3853.3	365.7	Barrick
CCD-144	763591.1	9252397.4	3807.5	363.0	Barrick
CCD-145	763088.8	9252008.4	3936.4	301.5	Barrick
CCD-146	763114.5	9252108.1	3934.4	367.9	Barrick
CCD-147	763396.2	9252199.5	3883.8	410.0	Barrick
CCD-148	763394.4	9252317.5	3878.8	415.9	Barrick
CCD-149	763197.7	9251898.0	3874.7	423.3	Barrick
CCD-170	763102.3	9252214.2	3886.6	478.0	Barrick
CCD-171	763039.9	9251958.6	3903.3	423.0	Barrick
CCD-172	763327.9	9251973.9	3892.6	400.0	Barrick
CCD-173	763339.0	9252417.1	3836.8	385.5	Barrick
CCD-174	763550.5	9252244.6	3861.5	321.4	Barrick

Drill Hole	UTM Easting	UTM Northing	Elevation (m)	Total Depth (m)	Drilled by:
CCD-175	763202.7	9252220.8	3916.7	602.0	Barrick
CCD-180	763099.7	9251800.8	3879.6	161.1	Barrick
CCD-181	763100.3	9251806.4	3879.6	336.3	Barrick
CCD-182	763300.8	9251799.8	3849.7	181.7	Barrick
CCD-183	763201.3	9251999.8	3913.3	312.0	Barrick
CCD-184	763397.3	9251903.5	3856.7	236.2	Barrick
CCD-185	763402.6	9252096.9	3917.1	227.0	Barrick
CCD-186	762994.8	9251925.1	3894.1	320.4	Barrick
CCD-187	763600.4	9252098.4	3865.1	100.2	Barrick
CCD-188	763500.1	9252199.9	3871.5	135.3	Barrick
CCD-189	763203.2	9252002.5	3913.9	308.0	Barrick
CCD-190	763348.8	9252047.9	3912.6	225.2	Barrick
CCD-191	763056.6	9252150.4	3897.3	310.0	Barrick
CCD-192	763101.4	9252399.7	3839.6	125.0	Barrick
CCD-193	763499.6	9251998.9	3867.2	130.4	Barrick
CCD-194	763050.0	9252243.5	3869.8	200.9	Barrick
CCD-195	763352.0	9252252.5	3896.9	250.0	Barrick
CCD-196	763398.7	9251998.2	3888.2	150.0	Barrick
CCD-197	763499.8	9252150.2	3891.4	134.7	Barrick
CCD-198	763348.4	9252248.3	3897.5	400.0	Barrick
CCD-199	763299.4	9252500.0	3820.4	101.5	Barrick
CCD-200	763397.9	9251997.5	3888.1	220.2	Barrick
CCD-201	763498.5	9252150.5	3890.6	221.6	Barrick
CCD-202	763096.1	9252004.0	3935.8	360.7	Barrick
CCD-203	763449.8	9252124.4	3897.8	213.4	Barrick
CCD-204	763252.3	9251945.6	3891.7	395.2	Barrick
CCD-205	763448.9	9252124.0	3897.7	300.8	Barrick
CCD-206	763347.3	9252252.3	3897.5	365.0	Barrick
CCD-207	763350.6	9252125.2	3909.0	270.7	Barrick
CCD-208	763349.7	9252274.4	3897.0	339.1	Barrick
CCD-209	763054.9	9252150.6	3897.9	258.2	Barrick
CCD-210	763243.4	9251850.0	3861.4	216.4	Barrick
CCD-211	763165.3	9251921.5	3882.7	280.1	Barrick
CCD-212	763088.2	9252309.1	3862.8	290.2	Barrick
CCD-213	763198.6	9252401.8	3846.0	331.6	Barrick
CCD-214	763151.2	9252375.1	3853.7	350.5	Barrick
CCD-215	762999.9	9252200.2	3877.2	393.8	Barrick
CCD-216	763250.3	9251744.9	3856.9	298.0	Barrick
CCD-217	763199.4	9252402.5	3846.0	178.4	Barrick
CCD-218	763163.7	9251917.7	3882.7	240.0	Barrick
CCD-219	763245.8	9252250.6	3911.7	323.4	Barrick
CCD-220	763547.9	9252243.8	3861.2	339.5	Barrick
CCD-221	763400.8	9252399.4	3837.5	180.6	Barrick
CCD-222	763199.8	9252549.5	3813.0	252.1	Barrick
CCD-223	763353.1	9252545.9	3805.1	322.9	Barrick
CCD-224	763049.2	9251852.2	3884.6	282.0	Barrick
CCD-225	763255.1	9252046.5	3933.7	405.1	Barrick
CCD-226	763343.6	9252546.0	3806.3	370.1	Barrick
CCD-227	763549.4	9252241.9	3861.3	343.6	Barrick

Drill Hole	UTM Easting	UTM Northing	Elevation (m)	Total Depth (m)	Drilled by:
CCD-228	763285.8	9252303.8	3892.3	333.7	Barrick
CCD-229	763499.4	9252249.0	3849.9	269.5	Barrick
CCD-230	763124.6	9251950.3	3908.7	400.0	Barrick
CCD-231	763199.9	9252159.4	3944.3	350.2	Barrick
CCD-232	763645.8	9252246.1	3853.9	128.4	Barrick
CCD-232A	763645.4	9252244.7	3853.0	350.0	Barrick
CCD-233	763025.0	9252224.0	3872.4	330.0	Barrick
CCD-234	763198.7	9252549.7	3811.7	395.3	Barrick
CCD-235	763530.8	9252276.3	3842.1	380.1	Barrick
CCD-236	763551.3	9252351.7	3831.6	281.4	Barrick
CCD-237	763098.3	9252543.4	3801.7	236.0	Barrick
CCD-238	763526.9	9252299.1	3834.9	252.1	Barrick
CCD-239	763252.3	9252358.6	3867.7	251.9	Barrick
CCD-240	763092.4	9252206.1	3885.7	252.3	Barrick
CCD-241	763057.3	9252153.1	3896.4	361.5	Barrick
CCD-242	763345.8	9252345.8	3868.0	248.2	Barrick
CCD-243	763304.6	9252223.0	3912.3	300.3	Barrick
CCD-244	763446.4	9252451.0	3809.9	119.5	Barrick
CCD-245	763185.4	9252282.9	3898.2	200.3	Barrick
CCD-246	763250.9	9252156.8	3944.5	240.0	Barrick
CCD-247	763116.6	9252233.5	3885.1	241.7	Barrick
CCD-248	763169.5	9251918.8	3882.3	240.0	Barrick
CCD-249	763203.1	9252226.5	3915.1	300.0	Barrick
CCD-250	763253.3	9251944.8	3889.4	239.7	Barrick
CCD-251	763000.8	9251999.8	3907.6	350.0	Barrick
CCD-252	763000.9	9252499.4	3806.0	275.0	Barrick
CCD-253	763258.3	9251715.2	3868.9	350.0	Barrick
CCD-254	763349.8	9252587.1	3797.2	275.0	Barrick
CCD-255	763775.7	9252204.7	3858.4	375.0	Barrick
CCD-256	763156.6	9251755.9	3876.2	275.0	Barrick
CCR-001	763095.9	9252210.1	3888.9	35.1	Barrick
CCR-002	763085.1	9252203.8	3889.5	42.7	Barrick
CCR-003	763115.4	9252236.5	3887.1	42.7	Barrick
CCR-007	763102.9	9252391.5	3840.3	18.3	Barrick
CCR-008	763296.6	9252409.0	3839.6	39.6	Barrick
CCR-009	763302.5	9252493.0	3819.7	39.6	Barrick
CCR-010	763304.0	9252493.1	3819.5	27.4	Barrick
CCR-011	763401.4	9252499.7	3811.1	42.7	Barrick
CCR-012	763199.4	9252500.5	3818.8	36.6	Barrick
CCR-013	763354.1	9252448.2	3824.7	15.2	Barrick
CCR-014	763248.8	9252451.8	3828.4	61.0	Barrick
CCR-015	763174.1	9252450.6	3829.9	36.6	Barrick
CCR-016	763097.8	9252295.8	3868.7	61.0	Barrick
CCR-017	763292.4	9252307.2	3890.5	38.1	Barrick
CCR-018	763300.9	9252305.3	3891.0	45.7	Barrick
CCR-019	763220.4	9252307.7	3888.9	30.5	Barrick
CCR-020	763499.0	9252098.3	3879.4	24.4	Barrick
CCR-021	763304.1	9252220.9	3913.7	45.7	Barrick
CCR-022	763301.1	9252002.6	3906.2	51.8	Barrick

Drill Hole	UTM Easting	UTM Northing	Elevation (m)	Total Depth (m)	Drilled by:
CCR-023	763302.5	9252003.3	3906.1	51.8	Barrick
CCR-024	763400.1	9252096.1	3917.2	45.7	Barrick
CCR-025	763347.6	9252048.8	3912.3	33.5	Barrick
CCR-026	763348.6	9252049.6	3912.6	39.6	Barrick
CCR-027	763248.4	9252250.1	3913.3	76.2	Barrick
CCR-028	763048.1	9251947.3	3903.2	73.2	Barrick
CCR-029	762997.4	9252005.3	3911.8	100.6	Barrick
CCR-030	763189.1	9252093.5	3954.9	73.2	Barrick
CCR-031	763136.6	9252063.2	3947.3	59.4	Barrick
CCR-032	763095.5	9252003.7	3935.7	91.4	Barrick
CCR-033	763251.2	9252156.7	3948.5	91.4	Barrick
CCR-038	763304.6	9252081.5	3932.6	99.1	Barrick
CCR-039	763258.5	9252044.0	3935.0	70.1	Barrick
CCR-040	763348.1	9252149.6	3907.3	45.7	Barrick
CCR-041	763351.8	9252251.7	3897.5	70.1	Barrick
CCR-042	763447.9	9252144.6	3892.0	70.1	Barrick
CCR-043	763447.3	9252050.1	3893.6	57.9	Barrick
CCR-044	763397.9	9251998.7	3889.4	70.1	Barrick
CCR-045	763354.3	9251955.4	3885.6	70.1	Barrick
CCR-046	763552.2	9252050.2	3861.6	70.1	Barrick
CCR-047	763501.9	9251997.6	3868.3	48.8	Barrick
CCR-048	763449.0	9251954.8	3864.7	70.1	Barrick
CCR-049	763399.9	9251898.5	3855.1	73.2	Barrick
CCR-050	763350.8	9251850.2	3848.9	70.1	Barrick
CCR-051	763443.3	9251843.6	3832.9	70.1	Barrick
CCR-052	763549.0	9251951.9	3840.5	79.3	Barrick
CCR-053	763485.6	9251907.4	3836.5	70.1	Barrick
CCR-054	763385.1	9251803.7	3837.5	70.1	Barrick
CCR-055	763247.0	9251853.8	3861.2	70.1	Barrick
CCR-056	763298.8	9251900.5	3866.8	70.1	Barrick
CCR-057	763287.9	9251896.0	3866.5	70.1	Barrick
CCR-058	763202.9	9251900.1	3873.9	70.1	Barrick
CCR-059	763143.1	9251853.1	3877.4	70.1	Barrick
CCR-065	763253.4	9251944.7	3891.7	79.3	Barrick
CCR-066	763168.0	9251956.6	3898.3	76.2	Barrick
CCR-067	763163.5	9251802.4	3869.6	76.2	Barrick
CCR-068	763098.9	9251801.8	3879.4	50.3	Barrick
CCR-069	763044.0	9251845.6	3884.0	85.3	Barrick
CCR-070	762992.7	9251895.1	3891.9	70.1	Barrick
CCR-071	763349.4	9251748.1	3839.2	117.4	Barrick
CCR-072	763449.6	9251750.6	3828.3	73.2	Barrick
CCR-073	763490.2	9252196.3	3871.8	70.1	Barrick
CCR-074	763396.8	9252198.0	3883.6	70.1	Barrick
CCR-075	763393.4	9252300.6	3878.8	70.1	Barrick
CCR-076	763450.5	9252246.4	3860.0	70.1	Barrick
CCR-077	763455.7	9252342.2	3841.6	70.1	Barrick
CCR-078	763491.8	9252301.2	3837.8	70.1	Barrick
CCR-079	763551.4	9252347.8	3831.6	70.1	Barrick
CCR-080	763552.1	9252244.2	3861.2	70.1	Barrick

Drill Hole	UTM Easting	UTM Northing	Elevation (m)	Total Depth (m)	Drilled by:
CCR-081	763545.5	9252151.3	3888.7	70.1	Barrick
CCR-082	763647.6	9252151.7	3887.9	70.1	Barrick
CCR-083	763701.6	9252095.9	3877.2	70.1	Barrick
CCR-084	763750.0	9252050.6	3873.7	70.1	Barrick
CCR-085	763703.7	9252013.5	3863.7	70.1	Barrick
CCR-086	763600.7	9252101.5	3865.4	70.1	Barrick
CCR-087	763657.2	9252057.2	3853.7	70.1	Barrick
CCR-088	763647.2	9251991.6	3844.3	61.0	Barrick
CCR-089	763599.5	9252194.2	3888.9	70.1	Barrick
CCR-090	763607.1	9252295.9	3853.2	70.1	Barrick
CCR-091	763591.6	9252397.2	3807.4	70.1	Barrick
CCR-092	763635.1	9252355.0	3816.1	70.1	Barrick
CCR-093	763637.2	9252389.4	3801.3	70.1	Barrick
CCR-094	763697.8	9252293.8	3834.6	70.1	Barrick
CCR-095	763736.3	9252248.1	3842.1	70.1	Barrick
CCR-096	763850.6	9252245.1	3834.5	61.0	Barrick
CCR-097	763886.9	9252287.7	3840.1	70.1	Barrick
CCR-098	763840.4	9252305.5	3821.1	70.1	Barrick
CCR-099	763646.6	9252246.2	3853.4	70.1	Barrick
CCR-110	763697.5	9252197.2	3866.1	70.1	Barrick
CCR-111	763778.4	9252205.5	3857.8	70.1	Barrick
CCR-112	763754.1	9252150.9	3881.4	70.1	Barrick
CCR-113	763057.4	9252153.4	3898.0	70.1	Barrick
CCR-114	763006.1	9252095.6	3904.1	70.1	Barrick
CCR-115	763055.3	9252053.0	3928.6	70.1	Barrick
CCR-116	763199.8	9252200.8	3920.9	70.1	Barrick
CCR-117	763148.8	9252256.3	3891.4	70.1	Barrick
CCR-118	763154.4	9252350.8	3861.8	70.1	Barrick
CCR-119	763255.3	9252356.7	3868.0	70.1	Barrick
CCR-120	763057.8	9252341.2	3848.3	68.6	Barrick
CCR-121	763198.8	9252402.5	3846.2	70.1	Barrick
CCR-122	762961.4	9252153.7	3880.3	70.1	Barrick
CCR-123	762947.3	9252355.7	3842.0	7.6	Barrick
CCR-124	762928.2	9252364.0	3843.2	70.1	Barrick
CCR-125	763002.6	9252398.9	3835.1	70.1	Barrick
CCR-126	763058.6	9252435.3	3830.9	70.1	Barrick
CCR-127	763146.0	9252543.5	3810.4	70.1	Barrick
CCR-128	763201.0	9252600.3	3799.8	41.2	Barrick
CCR-129	763353.3	9252545.2	3805.3	70.1	Barrick
CCR-130	763259.6	9252543.2	3806.4	70.1	Barrick
CCR-131	763345.9	9252345.9	3869.1	70.1	Barrick
CCR-132	763051.2	9252245.1	3870.6	33.5	Barrick
CCR-133	763626.0	9252003.6	3843.6	70.1	Barrick
CCR-134	763311.3	9251810.6	3848.9	70.1	Barrick
CCR-135	763599.0	9251903.5	3814.4	70.1	Barrick
CCR-136	763540.8	9251866.5	3810.0	70.1	Barrick
CCR-137	763528.3	9251743.4	3836.1	57.9	Barrick
CCR-138	763494.1	9251760.2	3824.0	149.4	Barrick
CCR-139	763257.5	9251745.3	3855.7	70.1	Barrick

Drill Hole	UTM Easting	UTM Northing	Elevation (m)	Total Depth (m)	Drilled by:
CCR-150	763286.4	9251714.4	3868.4	70.1	Barrick
CCR-151	763194.1	9251722.8	3874.2	70.1	Barrick
CCR-152	763156.1	9251754.5	3876.4	70.1	Barrick
CCR-153	763006.1	9251805.8	3897.8	70.1	Barrick
CCR-154	763419.8	9251696.8	3852.9	70.1	Barrick
CCR-155	763564.4	9251791.0	3810.2	70.1	Barrick
CCR-156	763297.7	9252045.0	3919.4	91.4	Barrick
CCR-157	763211.3	9252079.8	3958.2	91.4	Barrick
CCR-158	763113.2	9252107.6	3934.4	59.4	Barrick
CCR-159	763153.9	9252144.6	3927.6	91.4	Barrick
CCR-160	763617.2	9252018.1	3844.9	82.3	Barrick
CCR-161	763547.4	9252059.6	3860.1	91.4	Barrick
CCR-162	763038.5	9252529.1	3802.0	91.4	Barrick
CCR-163	762984.4	9252484.9	3808.2	91.4	Barrick
CCR-164	763352.4	9251865.2	3853.4	201.2	Barrick
CCR-165	763348.1	9251863.9	3854.0	100.6	Barrick
CCR-166	763489.6	9251757.8	3824.1	109.7	Barrick
CCR-167	763493.9	9251760.2	3824.1	149.4	Barrick
CCR-168	763651.3	9252447.6	3788.6	70.1	Barrick
CCR-169	763658.8	9252394.0	3798.9	70.1	Barrick
CCR-176	763696.8	9252339.1	3817.4	70.1	Barrick
CCR-177	762967.4	9252183.9	3874.0	70.1	Barrick
CCR-178	762927.9	9252145.5	3875.8	70.1	Barrick
CCR-179	762961.7	9252094.7	3888.1	70.1	Barrick
RGC01	763243.2	9252465.8	3826.3	550.0	RGC
RGC02	763094.1	9252347.9	3852.0	452.0	RGC
RGC03	763550.0	9252050.1	3859.9	512.0	RGC
RGC04	763533.0	9252307.1	3834.0	450.0	RGC
RGC05A	763250.0	9251818.1	3857.1	614.3	RGC
MDH1	763250.0	9252400.0	3846.0	85.0	SMC-Minproc
MDH2	763400.0	9252400.0	3837.0	97.8	SMC-Minproc
MDH3	763150.0	9252250.0	3891.0	100.0	SMC-Minproc
MDH4B	763050.0	9251970.0	3913.0	75.0	SMC-Minproc
MDH4A	763050.0	9251970.0	3913.0	115.0	SMC-Minproc
MDH5	763266.0	9251940.0	3887.0	87.0	SMC-Minproc
MDH6	763265.0	9252200.0	3931.0	132.0	SMC-Minproc
MDH7	763550.0	9252050.0	3860.0	113.0	SMC-Minproc
GFD-01	763267.0	9251942.0	3887.0	150.0	Gold Fields
GFD-02	763151.0	9252251.0	3891.0	100.0	Gold Fields
GFD-03	763264.0	9252201.0	3931.0	130.0	Gold Fields
GFD-04	763017.0	9251976.0	3903.0	120.3	Gold Fields
Total:	283	Drill Holes		51062.9	Meters

**APPENDIX 2 : CERRO CORONA PROJECT
SURFACE CHANNEL SAMPLE LIST**

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-62	763264.9	9252055.1	3932.1	4.5	0.41	0.010
CCCS-63	763261.6	9252052.8	3932.4	4.0	0.56	0.047
CCCS-64	763258.1	9252050.6	3932.7	4.3	0.36	0.015
CCCS-65	763254.7	9252048.3	3932.7	3.6	0.38	0.017
CCCS-66	763251.1	9252046.8	3933.0	3.3	0.37	0.027
CCCS-67	763248.4	9252045.5	3933.3	3.7	0.35	0.011
CCCS-68	763245.4	9252043.6	3933.9	3.6	0.60	0.095
CCCS-69	763296.4	9252070.1	3930.5	3.1	1.27	0.087
CCCS-70	763299.1	9252071.7	3930.5	3.7	0.18	0.081
CCCS-71	763302.3	9252073.6	3930.2	3.6	1.66	0.032
CCCS-72	763304.9	9252076.0	3930.0	3.3	1.06	0.023
CCCS-73	763306.9	9252078.6	3930.0	3.3	1.37	0.035
CCCS-74	763308.6	9252081.5	3929.5	3.5	0.96	0.037
CCCS-75	763307.8	9252084.9	3929.3	3.9	0.66	0.047
CCCS-76	763306.4	9252087.8	3931.5	3.9	1.25	0.059
CCCS-77	763304.5	9252091.2	3931.9	3.6	0.88	0.062
CCCS-78	763302.6	9252094.3	3932.3	3.8	1.55	0.061
CCCS-79	763301.0	9252097.7	3932.9	3.6	1.02	0.044
CCCS-80	763299.5	9252101.0	3933.3	3.7	2.23	0.078
CCCS-81	763298.0	9252104.3	3933.8	3.7	1.07	0.094
CCCS-82	763296.1	9252107.4	3934.3	3.8	1.26	0.038
CCCS-83	763293.8	9252110.5	3934.8	3.7	1.29	0.023
CCCS-84	763291.9	9252113.5	3935.5	3.8	1.45	0.015
CCCS-85	763290.2	9252116.9	3936.0	4.1	1.61	0.026
CCCS-86	763287.8	9252119.8	3937.5	4.1	1.50	0.009
CCCS-87	763285.4	9252123.0	3938.2	4.3	1.08	0.012
CCCS-88	763282.5	9252125.7	3939.6	4.3	0.84	0.012
CCCS-89	763279.3	9252128.3	3941.0	4.3	1.34	0.020
CCCS-91	763276.3	9252131.1	3942.1	4.0	1.11	0.027
CCCS-92	763273.9	9252134.3	3942.6	4.2	0.79	-1.000
CCCS-93	763271.3	9252137.6	3942.9	4.0	0.78	-1.000
CCCS-94	763269.3	9252140.9	3942.2	4.1	0.88	-1.000
CCCS-95	763266.7	9252144.0	3942.6	3.9	1.41	-1.000
CCCS-96	763264.1	9252146.5	3944.1	3.2	1.30	-1.000
CCCS-97	763261.7	9252148.3	3945.1	3.7	1.05	-1.000
CCCS-100	763253.2	9252153.7	3946.2	3.4	1.16	-1.000
CCCS-101	763250.3	9252155.3	3946.3	3.3	0.79	-1.000
CCCS-102	763247.4	9252156.8	3946.4	3.5	0.82	-1.000
CCCS-103	763244.4	9252158.7	3946.6	3.4	0.80	-1.000
CCCS-104	763241.8	9252160.8	3947.0	3.4	0.84	-1.000
CCCS-105	763228.5	9252155.6	3949.5	3.3	0.59	-1.000
CCCS-106	763230.4	9252152.9	3949.4	3.5	0.39	-1.000
CCCS-107	763232.4	9252150.1	3949.9	3.5	0.58	-1.000
CCCS-108	763234.4	9252147.6	3951.4	3.9	0.46	-1.000
CCCS-109	763235.7	9252144.5	3953.4	3.8	0.63	-1.000
CCCS-111	763237.3	9252141.1	3954.1	3.4	0.73	-1.000

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-112	763238.4	9252138.0	3954.9	3.8	0.67	-1.000
CCCS-113	763239.8	9252134.6	3955.5	3.2	0.76	-1.000
CCCS-114	763240.9	9252131.6	3955.6	3.5	0.78	-1.000
CCCS-115	763241.9	9252128.2	3955.8	3.4	0.42	-1.000
CCCS-116	763242.8	9252124.9	3955.7	3.3	0.81	-1.000
CCCS-117	763243.6	9252121.8	3955.1	3.0	1.21	-1.000
CCCS-118	763243.6	9252118.8	3955.1	3.1	0.51	-1.000
CCCS-119	763243.7	9252115.7	3955.7	3.1	0.99	-1.000
CCCS-120	763243.8	9252112.6	3955.9	2.7	1.11	-1.000
CCCS-121	763243.9	9252109.8	3955.9	3.1	1.07	-1.000
CCCS-122	763243.8	9252106.7	3955.9	2.9	1.08	-1.000
CCCS-123	763243.6	9252103.8	3955.8	2.9	0.41	-1.000
CCCS-124	763242.9	9252101.0	3955.8	3.2	0.81	-1.000
CCCS-125	763242.0	9252097.9	3955.8	2.7	0.55	-1.000
CCCS-126	763240.9	9252095.5	3955.8	3.4	0.84	-1.000
CCCS-127	763239.9	9252092.2	3955.7	2.6	0.95	-1.000
CCCS-128	763238.4	9252090.1	3955.8	3.1	0.65	-1.000
CCCS-129	763236.9	9252087.4	3955.8	2.7	0.58	-1.000
CCCS-131	763235.1	9252085.4	3956.0	2.6	0.49	-1.000
CCCS-132	763233.5	9252083.3	3956.2	3.1	0.76	-1.000
CCCS-133	763230.9	9252081.6	3956.6	2.5	0.30	-1.000
CCCS-134	763228.8	9252080.3	3957.0	2.8	0.41	0.002
CCCS-135	763226.2	9252079.4	3957.1	2.8	0.52	0.006
CCCS-136	763223.4	9252079.3	3957.4	2.6	0.30	0.007
CCCS-137	763220.8	9252079.5	3957.7	2.7	0.33	0.030
CCCS-138	763218.1	9252079.8	3958.0	2.8	0.30	0.028
CCCS-139	763215.4	9252080.6	3958.4	2.5	0.42	0.025
CCCS-140	763213.3	9252081.7	3958.8	3.0	0.35	0.025
CCCS-141	763210.8	9252083.4	3958.3	2.9	0.25	0.032
CCCS-142	763208.7	9252085.4	3958.7	3.7	0.37	0.020
CCCS-143	763206.1	9252087.8	3959.8	3.3	0.27	0.039
CCCS-144	763203.9	9252090.1	3960.5	3.5	0.26	0.029
CCCS-145	763201.1	9252092.2	3960.4	3.1	0.33	0.020
CCCS-146	763198.4	9252093.9	3960.4	3.8	0.18	0.130
CCCS-147	763195.2	9252095.4	3959.0	5.3	0.30	0.044
CCCS-148	763191.9	9252096.7	3955.0	3.1	0.46	0.040
CCCS-149	763188.9	9252097.5	3954.7	3.1	0.50	0.026
CCCS-151	763167.4	9252098.9	3952.0	2.7	0.48	0.030
CCCS-152	763165.2	9252097.5	3951.2	2.9	0.38	0.047
CCCS-153	763163.0	9252095.7	3950.6	2.5	0.32	0.007
CCCS-154	763161.1	9252094.1	3950.1	2.7	0.37	0.003
CCCS-155	763159.0	9252092.6	3949.7	3.0	0.60	0.008
CCCS-156	763156.6	9252091.0	3949.2	3.0	0.92	0.018
CCCS-157	763145.3	9252081.8	3947.9	3.2	0.57	0.061
CCCS-158	763143.3	9252079.3	3947.8	2.7	0.28	0.060
CCCS-159	763141.6	9252077.1	3947.7	3.2	0.44	0.044
CCCS-160	763139.9	9252074.5	3947.0	3.2	0.31	0.033
CCCS-161	763138.1	9252071.9	3946.8	2.8	0.51	0.017
CCCS-162	763136.7	9252069.5	3946.8	3.4	0.46	0.009

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-163	763134.9	9252066.6	3946.7	3.2	0.46	0.048
CCCS-164	763133.4	9252063.9	3946.7	2.9	0.73	0.058
CCCS-165	763131.8	9252061.5	3946.7	2.9	0.47	0.042
CCCS-166	763124.1	9252050.2	3945.8	3.9	0.79	0.039
CCCS-167	763121.5	9252047.3	3945.9	3.9	0.66	0.027
CCCS-168	763119.0	9252044.3	3945.6	4.5	0.71	0.030
CCCS-169	763116.4	9252040.7	3945.9	3.8	0.60	0.041
CCCS-171	763114.4	9252037.5	3945.4	4.1	0.72	0.021
CCCS-172	763111.4	9252034.8	3944.8	4.1	0.65	0.010
CCCS-173	763108.0	9252032.6	3944.6	4.2	0.79	0.042
CCCS-174	763104.2	9252030.8	3944.6	3.7	0.86	0.018
CCCS-175	763100.6	9252029.8	3944.7	4.1	0.95	0.011
CCCS-176	763096.6	9252029.0	3944.8	4.1	2.08	0.019
CCCS-177	763092.6	9252028.3	3944.2	4.3	1.40	0.030
CCCS-178	763088.4	9252027.8	3943.7	3.5	1.22	0.008
CCCS-179	763084.9	9252027.3	3943.2	4.8	0.74	0.023
CCCS-180	763080.4	9252026.0	3942.3	4.3	0.57	0.030
CCCS-181	763076.4	9252024.8	3941.1	4.6	2.11	0.029
CCCS-182	763072.6	9252022.8	3939.7	4.1	2.07	0.042
CCCS-183	763069.2	9252021.0	3938.3	4.7	1.66	0.074
CCCS-184	763065.9	9252018.3	3936.4	4.7	0.89	0.072
CCCS-185	763157.6	9251951.4	3898.8	3.3	1.73	0.016
CCCS-186	763160.0	9251953.7	3898.7	3.0	0.40	0.027
CCCS-187	763162.3	9251955.7	3898.7	3.2	0.54	0.038
CCCS-188	763164.4	9251958.1	3898.8	4.0	0.41	0.029
CCCS-189	763167.4	9251960.7	3898.8	4.8	0.32	0.021
CCCS-191	763171.2	9251963.6	3898.7	4.5	0.32	0.017
CCCS-192	763175.3	9251965.6	3898.6	3.3	0.45	0.019
CCCS-193	763178.4	9251965.6	3898.0	2.0	0.34	0.017
CCCS-194	763180.4	9251965.5	3897.9	2.3	0.27	0.031
CCCS-195	763182.8	9251965.4	3897.7	2.4	0.24	0.010
CCCS-196	763185.1	9251965.4	3897.6	3.1	0.40	0.022
CCCS-197	763188.2	9251964.9	3897.0	3.3	0.23	0.017
CCCS-198	763191.3	9251963.8	3896.7	3.2	0.23	0.018
CCCS-199	763194.3	9251962.9	3896.3	3.2	0.26	0.011
CCCS-200	763197.3	9251961.8	3896.0	3.6	0.18	0.014
CCCS-201	763200.6	9251960.6	3895.6	3.4	0.14	0.023
CCCS-202	763203.9	9251959.6	3895.2	3.5	0.27	0.043
CCCS-203	763207.1	9251958.3	3894.9	3.3	0.23	0.043
CCCS-204	763209.9	9251956.9	3894.1	3.3	0.22	0.044
CCCS-205	763212.9	9251955.5	3894.0	3.4	0.24	0.030
CCCS-206	763216.0	9251954.1	3893.6	3.2	0.30	0.032
CCCS-207	763219.0	9251953.1	3893.1	3.2	0.28	0.034
CCCS-208	763221.9	9251951.9	3892.9	3.1	0.34	0.032
CCCS-209	763224.9	9251950.8	3892.8	3.2	0.25	0.087
CCCS-211	763228.0	9251950.0	3892.8	3.2	0.41	0.062
CCCS-212	763231.1	9251949.1	3893.0	3.7	0.28	0.074
CCCS-213	763234.5	9251947.9	3893.9	3.8	0.52	0.048
CCCS-214	763237.2	9251945.5	3893.0	3.6	0.92	0.050

SAMPLE No.		UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
	CCCS-215	763239.8	9251942.9	3892.6	2.8	0.86	0.037
	CCCS-216	763242.6	9251943.0	3892.3	3.1	0.87	0.039
	CCCS-217	763245.5	9251944.0	3892.0	3.5	1.28	0.038
	CCCS-218	763248.6	9251945.6	3891.9	3.3	1.65	0.031
	CCCS-219	763251.5	9251947.2	3891.7	3.8	1.87	0.066
	CCCS-220	763254.8	9251949.1	3891.7	3.0	2.35	0.045
	CCCS-221	763257.4	9251950.5	3891.9	3.3	3.18	0.027
	CCCS-222	763260.3	9251952.2	3892.5	3.2	2.21	0.041
	CCCS-223	763262.8	9251954.0	3892.6	3.3	1.43	0.053
	CCCS-224	763265.6	9251955.7	3892.9	3.6	2.20	0.042
	CCCS-225	763268.4	9251958.0	3893.0	3.2	1.69	0.034
	CCCS-226	763270.9	9251960.0	3893.3	3.6	2.09	0.054
	CCCS-227	763273.5	9251962.4	3893.8	3.9	2.47	0.049
	CCCS-228	763276.5	9251964.9	3894.0	2.9	3.04	0.023
	CCCS-229	763278.9	9251966.6	3894.1	3.1	2.28	0.081
	CCCS-231	763281.1	9251968.7	3894.8	3.1	2.15	0.029
	CCCS-232	763283.3	9251970.8	3895.0	3.2	2.84	0.030
	CCCS-233	763285.8	9251972.9	3895.1	3.2	2.12	0.060
	CCCS-234	763305.3	9251982.9	3897.0	3.2	0.79	0.029
	CCCS-235	763308.2	9251984.4	3897.0	3.4	0.74	0.049
	CCCS-236	763311.2	9251986.1	3897.1	3.5	0.74	0.022
	CCCS-237	763314.4	9251987.3	3897.7	2.7	0.66	0.032
	CCCS-238	763316.8	9251988.4	3897.8	3.5	0.78	0.046
	CCCS-239	763320.1	9251989.7	3897.8	2.9	0.75	0.044
	CCCS-240	763322.8	9251990.8	3897.8	3.7	0.58	0.045
	CCCS-241	763326.3	9251992.0	3897.8	3.2	0.72	0.036
	CCCS-242	763329.2	9251993.5	3898.0	2.9	0.76	0.016
	CCCS-243	763331.9	9251994.6	3898.0	3.2	0.73	0.046
	CCCS-244	763334.9	9251995.8	3898.3	3.2	0.82	0.062
	CCCS-245	763337.8	9251997.2	3898.6	3.1	0.97	0.048
	CCCS-246	763340.6	9251998.5	3898.7	2.8	0.81	0.065
	CCCS-247	763343.2	9251999.3	3898.7	3.0	1.11	0.052
	CCCS-248	763345.9	9252000.7	3898.9	3.4	0.49	0.049
	CCCS-249	763349.0	9252002.2	3899.0	3.4	0.66	0.048
	CCCS-251	763287.4	9251950.2	3886.8	3.2	0.75	0.044
	CCCS-252	763290.5	9251950.6	3886.6	3.4	1.80	0.078
	CCCS-253	763293.9	9251951.1	3886.6	3.1	0.98	0.050
	CCCS-254	763296.9	9251951.7	3886.5	3.3	1.23	0.026
	CCCS-255	763300.1	9251952.5	3886.1	3.1	0.93	0.033
	CCCS-256	763303.1	9251953.4	3885.8	2.9	1.13	0.038
	CCCS-257	763305.9	9251954.0	3885.8	3.0	1.04	0.032
	CCCS-258	763308.6	9251955.2	3885.9	3.7	1.21	0.033
	CCCS-259	763312.2	9251956.2	3885.9	3.2	1.05	0.046
	CCCS-260	763315.2	9251957.1	3886.6	3.4	1.07	0.023
	CCCS-261	763318.6	9251957.5	3886.8	3.0	1.64	0.062
	CCCS-262	763321.5	9251958.2	3887.1	3.5	2.65	0.089
	CCCS-263	763324.9	9251958.8	3886.9	3.3	1.64	0.051
	CCCS-264	763328.2	9251959.0	3886.8	3.5	0.94	0.051
	CCCS-265	763331.6	9251959.0	3886.4	3.3	1.30	0.039

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-266	763334.9	9251959.0	3886.0	3.1	0.91	0.043
CCCS-267	763338.0	9251959.0	3885.6	3.4	0.59	0.031
CCCS-268	763341.4	9251959.2	3885.3	3.4	0.46	0.030
CCCS-269	763344.6	9251959.1	3884.3	3.4	0.51	0.021
CCCS-271	763347.9	9251958.7	3883.9	3.0	0.44	0.027
CCCS-272	763350.9	9251958.3	3883.7	2.7	0.23	0.030
CCCS-273	763353.5	9251958.7	3883.7	3.0	0.28	0.045
CCCS-274	763355.8	9251960.7	3883.9	3.2	0.39	0.037
CCCS-275	763357.9	9251963.0	3884.6	3.6	0.38	0.030
CCCS-276	763360.4	9251965.5	3885.0	2.9	0.35	0.018
CCCS-277	763362.4	9251967.5	3885.5	3.9	0.61	0.031
CCCS-278	763364.6	9251970.3	3887.0	3.2	0.35	0.034
CCCS-279	763367.0	9251972.5	3887.4	3.4	0.35	0.034
CCCS-280	763369.4	9251974.7	3888.0	3.0	0.37	0.032
CCCS-281	763371.6	9251976.8	3888.1	3.2	0.33	0.042
CCCS-282	763373.7	9251979.2	3888.2	3.2	0.31	0.036
CCCS-283	763387.4	9251993.8	3889.0	3.2	0.33	0.039
CCCS-284	763389.6	9251996.1	3888.9	3.5	0.34	0.031
CCCS-285	763392.3	9251998.4	3888.7	3.5	0.27	0.024
CCCS-286	763394.9	9252000.7	3888.4	3.4	0.23	0.037
CCCS-287	763397.2	9252003.3	3888.3	3.8	0.64	0.026
CCCS-288	763399.9	9252006.0	3888.5	3.3	0.27	0.021
CCCS-289	763402.4	9252008.1	3888.7	3.6	0.27	0.021
CCCS-291	763405.3	9252010.3	3889.0	3.5	0.26	0.047
CCCS-292	763408.4	9252011.7	3889.0	3.2	0.42	0.026
CCCS-293	763410.8	9252013.9	3889.2	2.9	0.27	0.026
CCCS-294	763412.9	9252015.8	3889.7	3.7	0.72	0.027
CCCS-295	763415.6	9252018.2	3890.1	3.0	0.35	0.041
CCCS-296	763417.9	9252020.2	3890.5	3.1	0.49	0.051
CCCS-297	763420.3	9252022.0	3890.6	3.3	0.33	0.033
CCCS-298	763422.7	9252024.2	3891.0	3.2	0.30	0.034
CCCS-299	763425.0	9252026.4	3891.5	3.4	0.41	0.026
CCCS-300	763427.4	9252028.7	3892.0	3.2	0.25	0.026
CCCS-301	763429.8	9252030.8	3892.0	3.2	0.33	0.041
CCCS-302	763430.9	9252028.6	3892.0	3.0	1.05	0.051
CCCS-303	763432.9	9252030.9	3892.0	3.7	1.15	0.033
CCCS-304	763435.3	9252033.7	3892.0	3.4	0.60	0.041
CCCS-305	763437.3	9252036.5	3892.0	3.0	1.78	0.041
CCCS-306	763438.8	9252039.1	3892.0	2.8	0.62	0.046
CCCS-307	763439.8	9252041.7	3892.0	2.8	0.57	0.034
CCCS-308	763440.8	9252044.2	3892.6	3.0	0.58	0.062
CCCS-309	763442.4	9252046.7	3893.0	3.0	0.51	0.045
CCCS-311	763444.2	9252049.2	3893.0	2.6	0.46	0.062
CCCS-312	763444.8	9252051.7	3893.0	2.6	0.46	0.093
CCCS-313	763445.4	9252054.3	3893.0	3.3	0.56	0.110
CCCS-314	763446.3	9252057.4	3893.0	3.1	0.57	0.086
CCCS-315	763446.9	9252060.5	3893.0	3.2	0.41	0.038
CCCS-316	763447.4	9252063.7	3893.0	3.3	0.57	0.029
CCCS-317	763448.1	9252066.8	3892.7	3.9	0.77	0.055

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-318	763449.1	9252070.6	3892.7	3.4	0.93	0.091
CCCS-319	763449.9	9252073.9	3892.7	3.2	0.27	0.040
CCCS-320	763450.8	9252077.0	3892.7	3.6	0.33	0.061
CCCS-321	763451.7	9252080.5	3892.7	3.6	0.48	0.078
CCCS-322	763453.0	9252083.8	3892.6	3.8	0.59	0.074
CCCS-323	763454.8	9252087.1	3892.5	2.9	0.37	0.078
CCCS-324	763455.5	9252089.9	3892.7	3.4	0.59	0.060
CCCS-325	763454.4	9252093.1	3893.2	3.4	0.94	0.085
CCCS-326	763453.2	9252096.2	3893.9	3.8	0.63	0.053
CCCS-327	763451.9	9252099.7	3894.4	3.2	0.56	0.058
CCCS-328	763450.6	9252102.7	3894.9	3.7	0.28	0.068
CCCS-329	763449.4	9252106.1	3895.5	3.5	0.65	0.063
CCCS-331	763448.0	9252109.3	3895.9	3.5	0.42	0.042
CCCS-332	763446.2	9252111.9	3897.3	4.2	0.79	0.063
CCCS-333	763443.9	9252114.3	3900.0	3.4	0.40	0.051
CCCS-334	763441.7	9252116.3	3901.4	3.8	0.27	0.056
CCCS-335	763438.9	9252118.1	3903.4	3.7	0.48	0.066
CCCS-336	763436.0	9252119.7	3904.9	3.4	0.99	0.063
CCCS-337	763451.2	9252113.4	3896.2	3.2	0.11	0.074
CCCS-338	763451.3	9252116.6	3896.7	3.2	0.20	0.038
CCCS-339	763450.9	9252119.7	3897.4	3.2	0.45	0.053
CCCS-340	763450.5	9252122.8	3898.0	3.2	0.81	0.048
CCCS-341	763450.1	9252125.9	3898.1	2.9	0.97	0.094
CCCS-342	763449.4	9252128.7	3898.3	3.4	0.81	0.068
CCCS-343	763448.9	9252132.1	3898.1	3.0	0.40	0.038
CCCS-344	763448.1	9252135.0	3898.0	3.3	0.21	0.044
CCCS-345	763447.4	9252138.0	3896.9	3.6	0.19	0.040
CCCS-346	763446.3	9252141.1	3895.5	2.9	0.23	0.064
CCCS-347	763445.0	9252143.5	3894.5	3.7	0.51	0.065
CCCS-348	763443.0	9252146.4	3893.3	2.9	0.34	0.076
CCCS-349	763441.1	9252148.3	3892.2	3.1	0.24	0.032
CCCS-350	763439.1	9252150.6	3891.8	3.5	0.15	0.093
CCCS-351	763436.8	9252153.2	3891.9	3.5	0.27	0.032
CCCS-352	763432.9	9252120.6	3905.9	3.2	1.13	0.065
CCCS-353	763429.8	9252121.3	3906.4	3.5	0.67	0.055
CCCS-354	763426.4	9252121.8	3907.1	3.1	0.73	0.048
CCCS-355	763423.4	9252122.5	3907.7	3.3	0.96	0.044
CCCS-356	763420.2	9252122.7	3908.6	3.2	2.10	0.064
CCCS-357	763417.1	9252122.8	3909.5	3.7	1.75	0.047
CCCS-358	763413.4	9252123.0	3909.5	3.0	0.92	0.070
CCCS-359	763410.4	9252122.6	3909.4	3.7	0.65	0.082
CCCS-360	763406.8	9252122.6	3909.0	3.0	1.49	0.057
CCCS-361	763403.9	9252122.3	3908.3	3.0	1.78	0.053
CCCS-362	763411.8	9252116.7	3911.1	3.2	1.39	0.040
CCCS-363	763409.3	9252115.0	3911.9	3.6	2.10	0.037
CCCS-364	763406.8	9252112.7	3913.1	3.8	1.43	0.037
CCCS-365	763404.1	9252110.5	3914.6	3.7	1.53	0.050
CCCS-366	763401.3	9252108.3	3915.5	3.2	1.33	0.029
CCCS-367	763398.5	9252106.8	3915.4	3.5	0.82	0.026

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-368	763395.2	9252105.8	3915.1	3.5	1.22	0.035
CCCS-369	763391.8	9252104.8	3915.1	3.1	1.19	0.037
CCCS-371	763388.9	9252103.7	3915.1	3.4	0.47	0.038
CCCS-372	763385.6	9252103.2	3914.4	3.7	0.01	0.004
CCCS-373	763382.1	9252102.5	3913.8	3.0	0.44	0.058
CCCS-374	763379.1	9252102.0	3913.6	3.6	0.60	0.040
CCCS-375	763375.6	9252101.3	3913.7	3.2	0.64	0.044
CCCS-376	763372.6	9252100.6	3913.8	3.6	0.47	0.031
CCCS-377	763369.0	9252100.2	3913.7	3.5	1.12	0.026
CCCS-378	763365.6	9252100.9	3913.0	3.7	1.51	0.032
CCCS-379	763362.3	9252101.9	3911.8	3.7	0.75	0.039
CCCS-380	763344.3	9252136.8	3910.0	1.7	2.11	0.082
CCCS-381	763343.9	9252138.5	3910.0	1.8	1.00	0.049
CCCS-382	763343.9	9252140.3	3909.8	1.6	1.10	0.048
CCCS-383	763343.8	9252142.0	3909.8	1.8	0.86	0.080
CCCS-384	763343.8	9252143.7	3909.5	1.7	0.88	0.055
CCCS-385	763343.6	9252145.3	3909.3	1.7	1.58	0.120
CCCS-386	763343.6	9252147.1	3909.0	1.7	2.13	0.046
CCCS-387	763343.5	9252148.7	3908.6	1.6	1.57	0.091
CCCS-388	763343.4	9252150.3	3908.5	1.6	2.32	0.078
CCCS-389	763342.3	9252161.4	3909.0	2.0	1.12	0.073
CCCS-391	763342.7	9252169.7	3908.0	2.0	0.52	0.073
CCCS-392	763343.6	9252182.9	3904.0	6.6	0.59	0.032
CCCS-393	763341.8	9252189.2	3904.5	7.3	0.66	0.068
CCCS-394	763341.9	9252196.2	3902.4	6.6	0.72	0.047
CCCS-395	763341.8	9252202.8	3902.0	6.5	1.11	0.054
CCCS-396	763342.6	9252209.2	3901.9	6.5	0.75	0.044
CCCS-397	763343.4	9252215.6	3901.7	6.5	0.69	0.040
CCCS-398	763346.2	9252234.7	3899.6	2.0	0.59	0.071
CCCS-399	763347.3	9252243.9	3897.7	3.7	0.25	0.130
CCCS-400	763347.4	9252247.6	3897.6	3.2	0.02	0.031
CCCS-401	763347.3	9252250.8	3897.5	3.8	0.02	0.016
CCCS-402	763347.0	9252254.6	3897.5	3.6	0.04	0.031
CCCS-403	763346.1	9252258.0	3897.7	3.5	0.04	0.051
CCCS-404	763345.6	9252261.5	3897.8	3.3	0.93	0.130
CCCS-405	763345.6	9252264.7	3898.2	3.7	0.72	0.110
CCCS-406	763345.5	9252268.4	3898.7	3.4	0.70	0.067
CCCS-407	763345.8	9252271.8	3898.6	3.7	0.84	0.060
CCCS-408	763346.5	9252275.4	3898.1	3.7	1.58	0.094
CCCS-409	763348.3	9251902.8	3865.3	0.2	0.13	0.029
CCCS-410	763348.1	9251902.8	3865.4	3.1	1.81	0.570
CCCS-411	763351.2	9251903.3	3865.0	3.3	0.14	0.035
CCCS-412	763354.4	9251903.8	3865.0	3.2	0.17	0.040
CCCS-413	763357.6	9251904.4	3864.8	3.7	0.17	0.036
CCCS-414	763361.3	9251905.0	3864.3	2.9	0.27	0.036
CCCS-415	763364.1	9251905.5	3864.0	3.2	0.23	0.038
CCCS-416	763367.3	9251906.0	3863.6	2.7	0.26	0.043
CCCS-417	763369.9	9251906.4	3863.1	3.4	0.21	0.031
CCCS-418	763373.3	9251907.0	3863.0	3.4	0.16	0.038

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-419	763383.8	9251908.8	3862.4	4.1	0.26	0.041
CCCS-420	763387.0	9251911.2	3862.5	3.0	0.21	0.028
CCCS-421	763389.8	9251912.5	3862.5	3.1	0.36	0.038
CCCS-422	763392.4	9251914.1	3862.6	3.2	0.18	0.043
CCCS-423	763395.0	9251915.9	3862.6	3.4	0.13	0.050
CCCS-424	763397.0	9251918.7	3862.7	3.6	0.09	0.093
CCCS-425	763399.0	9251921.7	3862.6	3.0	0.22	0.065
CCCS-426	763400.6	9251924.3	3862.6	3.8	0.26	0.033
CCCS-427	763403.4	9251926.8	3862.4	3.4	0.27	0.092
CCCS-428	763406.1	9251928.9	3862.3	3.5	0.28	0.052
CCCS-429	763408.7	9251931.2	3862.4	3.5	0.28	0.053
CCCS-431	763411.5	9251933.3	3862.5	3.5	0.22	0.043
CCCS-432	763414.9	9251934.2	3862.5	2.9	0.23	0.046
CCCS-433	763417.7	9251934.8	3862.7	3.6	0.30	0.039
CCCS-434	763420.1	9251937.3	3863.3	3.5	0.37	0.030
CCCS-435	763423.1	9251939.1	3863.6	3.1	0.31	0.031
CCCS-436	763426.1	9251940.1	3863.6	3.4	0.31	0.030
CCCS-437	763429.1	9251941.5	3863.5	3.1	0.33	0.025
CCCS-438	763431.6	9251943.4	3863.5	3.0	0.30	0.026
CCCS-439	763434.1	9251945.2	3863.5	2.9	0.27	0.035
CCCS-440	763435.9	9251947.4	3863.6	3.6	0.35	0.035
CCCS-441	763438.3	9251950.1	3863.8	3.1	0.44	0.059
CCCS-442	763440.9	9251951.7	3863.9	3.2	0.35	0.032
CCCS-443	763443.6	9251953.5	3864.2	3.5	0.44	0.057
CCCS-444	763446.4	9251955.6	3864.4	2.9	0.32	0.047
CCCS-445	763448.8	9251957.2	3864.5	3.6	0.27	0.042
CCCS-446	763451.7	9251959.4	3864.6	3.2	0.80	0.062
CCCS-447	763454.5	9251960.8	3864.5	3.2	0.50	0.039
CCCS-448	763457.4	9251962.0	3864.2	3.4	0.91	0.037
CCCS-449	763460.5	9251963.3	3864.4	3.3	1.02	0.033
CCCS-451	763463.3	9251965.1	3864.6	3.4	1.11	0.038
CCCS-452	763466.5	9251966.2	3864.7	3.1	2.52	0.053
CCCS-453	763469.4	9251967.4	3865.0	2.9	3.89	0.082
CCCS-454	763472.1	9251968.5	3865.4	3.0	3.73	0.080
CCCS-455	763474.4	9251970.3	3865.6	3.4	3.53	0.093
CCCS-456	763477.3	9251972.2	3865.6	3.5	3.15	0.079
CCCS-457	763480.0	9251974.3	3866.1	3.3	3.73	0.072
CCCS-458	763482.4	9251976.6	3866.2	3.6	7.28	0.082
CCCS-459	763484.8	9251979.3	3866.3	3.2	12.00	0.120
CCCS-460	763486.3	9251982.2	3866.5	3.5	4.80	0.083
CCCS-461	763488.1	9251985.2	3866.6	3.2	2.45	0.061
CCCS-462	763490.0	9251987.8	3866.6	2.3	1.76	0.110
CCCS-463	763491.6	9251989.5	3866.5	3.1	1.58	0.130
CCCS-464	763493.5	9251991.9	3866.5	2.7	0.74	0.072
CCCS-465	763495.3	9251993.9	3866.5	3.0	1.19	0.075
CCCS-466	763497.4	9251996.1	3866.4	2.5	0.84	0.051
CCCS-467	763499.4	9251997.5	3866.2	2.8	1.28	0.026
CCCS-468	763501.8	9251999.1	3865.9	2.8	1.33	0.097
CCCS-469	763504.1	9252000.7	3865.6	3.0	1.43	0.049

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-471	763506.9	9252001.8	3865.4	3.5	3.24	0.056
CCCS-472	763510.1	9252003.3	3864.8	3.5	2.96	0.048
CCCS-473	763538.4	9252023.0	3860.8	3.2	2.34	0.067
CCCS-474	763540.8	9252025.1	3860.7	3.3	2.36	0.082
CCCS-475	763543.2	9252027.3	3860.7	3.4	2.66	0.072
CCCS-476	763545.3	9252030.1	3860.7	3.4	3.61	0.059
CCCS-477	763546.9	9252033.0	3860.5	3.0	2.28	0.061
CCCS-478	763548.3	9252035.6	3860.1	3.0	4.41	0.044
CCCS-479	763548.3	9252038.6	3860.0	3.3	3.81	0.060
CCCS-480	763547.9	9252041.8	3860.0	3.4	1.87	0.067
CCCS-481	763547.4	9252045.2	3860.0	3.5	1.89	0.079
CCCS-482	763547.3	9252048.6	3860.0	3.3	1.15	0.078
CCCS-483	763548.0	9252051.9	3860.0	3.5	1.01	0.082
CCCS-484	763549.6	9252055.0	3860.0	3.2	0.79	0.057
CCCS-485	763551.0	9252057.9	3860.0	3.4	1.30	0.079
CCCS-486	763552.6	9252060.8	3860.0	3.4	1.50	0.051
CCCS-487	763494.3	9252098.1	3880.1	2.0	0.37	0.065
CCCS-488	763484.6	9252052.2	3880.9	3.1	0.50	0.120
CCCS-489	763482.9	9252049.7	3880.9	3.6	0.45	0.110
CCCS-491	763480.8	9252046.8	3881.5	3.2	0.42	0.052
CCCS-492	763478.8	9252044.4	3881.8	3.5	0.29	0.140
CCCS-493	763476.4	9252041.8	3882.0	3.2	0.64	0.100
CCCS-494	763474.1	9252039.6	3882.5	3.2	0.54	0.042
CCCS-495	763450.8	9252000.5	3881.4	3.1	0.43	0.019
CCCS-496	763451.9	9252003.3	3882.0	2.7	0.28	0.025
CCCS-497	763452.6	9252005.9	3882.0	2.3	0.51	0.031
CCCS-498	763453.1	9252008.2	3882.0	2.8	1.02	0.023
CCCS-499	763453.7	9252011.0	3882.2	3.5	1.38	0.076
CCCS-500	763455.1	9252014.2	3882.4	2.7	1.22	0.057
CCCS-501	763456.2	9252016.7	3882.3	3.5	1.44	0.059
CCCS-502	763457.2	9252020.0	3882.4	2.7	0.69	0.076
CCCS-503	763457.1	9252022.8	3882.6	3.2	0.54	0.067
CCCS-504	763456.3	9252025.9	3882.9	3.4	0.43	0.046
CCCS-505	763456.0	9252029.2	3883.2	3.7	0.39	0.043
CCCS-506	763456.9	9252032.8	3883.5	3.2	1.14	0.120
CCCS-507	763457.9	9252035.8	3883.9	3.2	0.70	0.200
CCCS-508	763462.3	9252050.5	3886.8	3.8	0.42	0.067
CCCS-509	763461.9	9252054.2	3887.2	3.2	0.89	0.059
CCCS-511	763461.9	9252057.4	3887.9	3.4	0.63	0.067
CCCS-512	763461.3	9252060.6	3888.8	2.9	0.80	0.097
CCCS-513	763460.9	9252063.5	3889.0	2.9	0.19	0.060
CCCS-514	763459.6	9252074.1	3890.5	3.2	0.32	0.041
CCCS-515	763458.8	9252077.1	3891.0	3.2	0.58	0.070
CCCS-516	763402.4	9251908.2	3856.8	2.9	0.41	0.025
CCCS-517	763400.3	9251906.2	3856.7	3.8	0.43	0.042
CCCS-518	763397.3	9251903.9	3856.6	3.0	0.23	0.043
CCCS-519	763394.5	9251902.7	3856.9	3.3	0.16	0.032
CCCS-520	763391.4	9251901.5	3857.2	3.5	0.22	0.030
CCCS-521	763388.2	9251900.2	3857.6	3.9	0.38	0.041

SAMPLE No.	SAMPLE EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-522	763384.6	9251898.8	3857.8	4.2	0.31	0.042
CCCS-523	763380.7	9251897.3	3858.0	3.2	0.14	0.027
CCCS-524	763377.8	9251896.1	3858.4	3.5	0.23	0.049
CCCS-525	763374.4	9251894.9	3858.8	3.3	0.26	0.045
CCCS-526	763371.3	9251894.9	3859.6	3.5	0.21	0.038
CCCS-527	763367.8	9251894.5	3859.7	3.3	0.31	0.046
CCCS-528	763364.6	9251893.8	3859.8	3.5	0.20	0.036
CCCS-529	763361.3	9251892.8	3860.4	3.4	0.36	0.042
CCCS-531	763358.1	9251891.6	3860.6	3.1	0.15	0.030
CCCS-532	763355.1	9251890.8	3860.9	3.5	0.18	0.048
CCCS-533	763351.7	9251890.0	3861.5	3.2	0.20	0.036
CCCS-534	763348.6	9251889.7	3861.7	3.6	0.16	0.049
CCCS-535	763345.0	9251889.3	3861.7	3.7	0.16	0.032
CCCS-536	763341.4	9251888.5	3861.7	3.4	0.10	0.039
CCCS-537	763338.1	9251887.8	3861.7	3.0	0.08	0.037
CCCS-538	763335.1	9251887.5	3861.8	3.7	0.07	0.031
CCCS-539	763331.4	9251887.4	3862.0	3.7	0.06	0.041
CCCS-540	763248.1	9251924.0	3883.0	3.1	2.80	0.063
CCCS-541	763251.0	9251922.7	3883.0	4.1	1.25	0.055
CCCS-542	763254.8	9251924.3	3883.0	3.1	1.59	0.075
CCCS-543	763257.8	9251924.3	3882.5	3.0	1.69	0.041
CCCS-544	763260.8	9251924.6	3882.0	3.5	1.23	0.019
CCCS-545	763264.2	9251925.4	3881.6	3.0	0.75	0.050
CCCS-546	763267.1	9251926.1	3881.1	2.2	0.38	0.053
CCCS-547	763269.2	9251926.4	3881.0	2.3	0.69	0.130
CCCS-548	763271.4	9251927.3	3880.8	2.2	0.91	0.074
CCCS-549	763273.6	9251927.7	3880.5	2.7	0.33	0.120
CCCS-551	763276.2	9251928.3	3880.0	3.3	0.70	0.063
CCCS-552	763279.3	9251929.7	3879.7	3.4	0.58	0.028
CCCS-553	763282.4	9251930.6	3879.1	3.6	0.55	0.031
CCCS-554	763286.0	9251931.0	3879.0	3.4	0.66	0.043
CCCS-555	763289.4	9251931.2	3878.6	3.3	0.71	0.049
CCCS-556	763292.6	9251931.4	3878.0	3.3	0.98	0.062
CCCS-557	763295.9	9251931.6	3878.0	3.3	1.89	0.025
CCCS-558	763299.2	9251931.7	3877.9	2.6	0.82	0.029
CCCS-559	763301.7	9251931.9	3877.3	3.1	1.25	0.046
CCCS-560	763304.8	9251932.0	3877.0	3.6	1.87	0.063
CCCS-561	763308.4	9251931.8	3877.0	3.8	1.19	0.033
CCCS-562	763312.2	9251931.6	3876.6	2.8	0.83	0.029
CCCS-563	763314.9	9251931.5	3876.0	3.3	1.07	0.037
CCCS-564	763318.2	9251931.5	3876.0	4.7	0.72	0.035
CCCS-565	763322.8	9251931.2	3875.4	4.9	0.75	0.031
CCCS-566	763327.5	9251929.8	3875.0	5.2	0.64	0.048
CCCS-567	763332.5	9251928.7	3874.2	4.2	0.40	0.034
CCCS-568	763336.7	9251928.3	3873.6	3.5	0.62	0.047
CCCS-569	763340.1	9251928.3	3873.2	3.4	0.39	0.043
CCCS-571	763343.5	9251928.2	3873.0	2.9	0.82	0.037
CCCS-572	763346.4	9251928.4	3872.8	3.7	0.23	0.037
CCCS-573	763350.0	9251928.7	3872.0	3.4	0.30	0.037

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-574	763353.4	9251928.2	3871.8	3.4	0.37	0.038
CCCS-575	763356.7	9251927.7	3871.1	3.4	0.26	0.029
CCCS-576	763360.0	9251927.4	3870.7	3.0	0.35	0.034
CCCS-577	763363.0	9251927.7	3870.6	3.8	0.27	0.028
CCCS-578	763366.6	9251928.7	3870.7	3.4	0.23	0.030
CCCS-579	763369.7	9251930.1	3871.0	3.6	0.17	0.022
CCCS-580	763372.8	9251931.8	3871.7	3.4	0.23	0.032
CCCS-581	763375.6	9251933.5	3872.3	3.2	0.28	0.032
CCCS-582	763378.3	9251935.3	3872.7	3.2	0.33	0.029
CCCS-583	763381.1	9251936.8	3873.2	3.8	0.26	0.042
CCCS-584	763384.1	9251939.1	3873.4	3.3	0.14	0.065
CCCS-585	763386.4	9251941.4	3873.2	3.7	0.14	0.049
CCCS-586	763389.1	9251943.9	3872.7	3.3	0.36	0.036
CCCS-587	763391.6	9251946.1	3872.5	3.3	0.23	0.028
CCCS-588	763400.5	9251947.8	3871.7	3.4	0.24	0.039
CCCS-589	763403.3	9251949.7	3872.2	3.4	0.29	0.037
CCCS-591	763406.1	9251951.6	3872.6	3.1	0.21	0.026
CCCS-592	763408.7	9251953.2	3872.7	3.3	0.36	0.037
CCCS-593	763411.5	9251955.1	3872.8	3.3	0.61	0.041
CCCS-594	763414.1	9251957.1	3872.9	3.9	0.34	0.033
CCCS-595	763417.2	9251959.4	3872.9	3.3	0.39	0.031
CCCS-596	763420.1	9251961.1	3872.9	3.0	0.38	0.028
CCCS-597	763422.8	9251962.3	3872.9	3.5	0.27	0.047
CCCS-598	763426.1	9251963.4	3873.0	3.5	0.34	0.031
CCCS-599	763234.6	9251927.5	3882.8	3.0	0.76	0.035
CCCS-600	763231.6	9251926.9	3882.6	2.9	0.76	0.041
CCCS-601	763228.8	9251927.0	3882.4	3.7	0.54	0.051
CCCS-602	763225.1	9251927.5	3881.9	2.9	0.35	0.060
CCCS-603	763222.3	9251928.0	3881.8	3.1	0.58	0.043
CCCS-604	763219.3	9251928.6	3881.9	3.1	0.65	0.053
CCCS-605	763216.1	9251929.1	3881.9	3.5	0.54	0.058
CCCS-606	763212.7	9251929.4	3881.8	3.5	1.70	0.056
CCCS-607	763209.3	9251929.1	3881.0	3.0	0.67	0.037
CCCS-608	763206.3	9251928.6	3880.8	2.6	0.67	0.037
CCCS-609	763203.8	9251928.2	3880.7	3.4	0.66	0.049
CCCS-611	763200.5	9251927.4	3880.4	3.2	0.70	0.044
CCCS-612	763197.6	9251926.2	3879.9	3.3	0.44	0.020
CCCS-613	763195.0	9251924.3	3879.6	3.4	0.56	0.039
CCCS-614	763192.8	9251921.7	3879.1	2.8	0.70	0.035
CCCS-615	763190.9	9251919.7	3878.6	3.2	0.53	0.014
CCCS-616	763188.2	9251918.1	3878.0	4.3	0.72	0.017
CCCS-617	763184.6	9251915.9	3877.0	4.5	0.67	0.023
CCCS-618	763180.9	9251913.5	3876.5	4.6	0.69	0.018
CCCS-619	763177.1	9251911.1	3876.0	3.7	0.97	0.014
CCCS-620	763174.0	9251908.9	3876.0	3.4	1.18	0.044
CCCS-621	763171.2	9251907.1	3876.0	2.6	1.99	0.031
CCCS-622	763168.9	9251905.9	3876.4	3.2	2.52	0.051
CCCS-623	763166.3	9251904.1	3876.8	3.0	3.19	0.032
CCCS-624	763164.2	9251902.0	3877.3	3.1	3.69	0.031

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-625	763162.3	9251899.7	3878.0	3.0	2.54	0.033
CCCS-626	763160.2	9251897.5	3878.3	3.1	2.69	0.034
CCCS-627	763158.1	9251895.3	3878.9	3.9	2.60	0.032
CCCS-628	763155.4	9251892.4	3879.3	3.8	2.19	0.031
CCCS-629	763152.9	9251889.6	3880.0	4.1	3.04	0.046
CCCS-631	763150.3	9251886.5	3880.0	3.5	2.21	0.047
CCCS-632	763147.8	9251884.2	3880.7	3.3	1.70	0.058
CCCS-633	763145.6	9251881.8	3881.0	2.7	2.00	0.046
CCCS-634	763143.4	9251880.1	3881.0	3.3	1.65	0.059
CCCS-635	763140.9	9251878.1	3881.6	2.6	2.13	0.068
CCCS-636	763139.0	9251876.4	3882.0	2.9	2.26	0.070
CCCS-637	763136.6	9251874.7	3882.5	3.1	1.62	0.071
CCCS-638	763134.4	9251872.7	3882.9	2.9	1.59	0.044
CCCS-639	763132.3	9251870.6	3883.4	2.6	0.97	0.043
CCCS-640	763130.6	9251868.7	3883.4	2.6	1.10	0.055
CCCS-641	763128.1	9251867.9	3883.2	2.6	0.82	0.044
CCCS-642	763167.5	9251894.3	3876.0	3.4	2.43	0.030
CCCS-643	763166.6	9251891.0	3876.0	3.8	3.25	0.040
CCCS-644	763164.8	9251887.6	3875.8	3.3	3.84	0.100
CCCS-645	763163.3	9251884.7	3875.8	3.2	2.69	0.053
CCCS-646	763161.8	9251881.9	3875.7	3.5	1.62	0.041
CCCS-647	763160.1	9251878.8	3875.8	3.1	3.69	0.094
CCCS-648	763158.6	9251876.1	3875.8	2.9	2.53	0.072
CCCS-649	763157.6	9251873.3	3875.8	3.6	1.74	0.050
CCCS-651	763156.0	9251870.1	3875.7	3.3	1.46	0.012
CCCS-652	763154.4	9251867.2	3875.7	3.6	1.89	0.010
CCCS-653	763152.6	9251864.1	3875.5	3.7	1.09	0.048
CCCS-654	763150.8	9251860.8	3875.2	3.0	1.26	0.039
CCCS-655	763148.6	9251858.6	3875.0	3.3	0.99	0.044
CCCS-656	763145.6	9251857.4	3875.0	3.8	0.96	0.040
CCCS-657	763142.1	9251856.0	3875.8	3.8	0.93	0.044
CCCS-658	763138.9	9251854.4	3877.1	3.0	0.92	0.041
CCCS-659	763136.1	9251853.3	3877.6	3.2	0.88	0.039
CCCS-660	763132.9	9251852.8	3877.9	3.2	0.80	0.039
CCCS-661	763141.3	9251848.3	3874.6	3.1	0.77	0.036
CCCS-662	763138.9	9251846.4	3874.7	2.9	0.93	0.043
CCCS-663	763136.6	9251844.5	3874.5	3.1	0.83	0.039
CCCS-664	763134.9	9251841.9	3874.1	2.6	0.80	0.029
CCCS-665	763133.8	9251839.7	3873.9	2.6	0.89	0.065
CCCS-666	763133.6	9251832.5	3873.0	3.2	0.15	0.115
CCCS-667	763133.6	9251829.3	3872.5	3.2	0.10	0.091
CCCS-668	763136.5	9251819.5	3872.6	3.5	0.72	0.037
CCCS-669	763139.0	9251817.5	3871.4	3.3	0.66	0.055
CCCS-671	763141.6	9251815.6	3870.9	3.5	0.38	0.099
CCCS-672	763144.4	9251813.4	3870.6	2.9	0.31	0.159
CCCS-673	763146.6	9251811.6	3871.3	2.9	0.14	0.058
CCCS-678	763197.1	9251789.5	3861.7	3.5	0.01	0.003
CCCS-679	763200.4	9251788.4	3861.0	3.1	0.02	0.020
CCCS-680	763202.1	9251785.8	3861.0	3.3	0.14	0.012

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-681	763203.4	9251782.8	3861.4	3.5	0.01	0.015
CCCS-682	763205.3	9251779.9	3862.0	3.5	0.01	0.016
CCCS-683	763207.4	9251777.2	3862.7	3.5	0.04	0.022
CCCS-684	763209.4	9251774.5	3861.9	3.0	0.01	0.008
CCCS-685	763211.5	9251772.4	3861.5	3.5	0.01	0.014
CCCS-686	763213.6	9251769.6	3861.3	3.3	0.01	0.008
CCCS-687	763215.8	9251767.2	3860.9	3.2	0.01	0.002
CCCS-688	763217.9	9251764.9	3860.1	3.5	0.01	0.013
CCCS-689	763220.2	9251762.5	3859.3	3.3	0.03	0.010
CCCS-691	763222.4	9251760.1	3858.6	6.3	0.03	0.017
CCCS-692	763226.3	9251755.2	3859.4	6.3	0.04	0.006
CCCS-693	763276.3	9251763.6	3853.0	2.7	0.03	0.021
CCCS-694	763278.7	9251762.4	3852.9	2.7	0.10	0.070
CCCS-695	763373.1	9251743.1	3838.0	3.7	0.02	0.017
CCCS-696	763376.7	9251742.6	3838.0	3.3	0.05	0.020
CCCS-697	763379.9	9251742.7	3837.7	3.7	0.03	0.032
CCCS-698	763383.6	9251742.6	3837.0	3.7	0.07	0.026
CCCS-699	763395.8	9251743.3	3835.1	3.0	0.06	0.056
CCCS-701	763401.8	9251744.5	3834.0	3.5	0.04	0.065
CCCS-702	763405.2	9251745.1	3833.6	3.3	0.01	0.015
CCCS-703	763408.4	9251745.5	3833.1	3.3	0.03	0.009
CCCS-704	763411.7	9251746.0	3832.6	2.9	0.04	0.014
CCCS-705	763414.6	9251745.9	3832.1	3.5	0.03	0.024
CCCS-706	763418.1	9251746.3	3831.8	3.2	0.04	0.006
CCCS-707	763421.3	9251746.3	3831.4	3.5	0.05	0.011
CCCS-708	763424.7	9251746.4	3830.9	3.3	0.03	0.026
CCCS-709	763428.0	9251746.6	3830.7	3.3	0.01	0.029
CCCS-711	763434.3	9251747.1	3831.6	3.4	0.03	0.031
CCCS-712	763437.6	9251747.1	3831.5	3.3	0.01	0.022
CCCS-713	763440.9	9251747.0	3831.2	3.6	0.01	0.007
CCCS-714	763444.4	9251747.1	3830.8	3.2	0.01	0.010
CCCS-715	763447.4	9251747.6	3829.8	3.3	0.03	0.019
CCCS-716	763450.8	9251747.9	3829.5	3.1	0.03	0.016
CCCS-717	763453.8	9251748.5	3829.4	3.1	0.15	0.119
CCCS-722	762980.5	9251895.1	3894.5	3.9	0.03	0.023
CCCS-723	762983.4	9251892.5	3893.9	4.3	0.01	0.011
CCCS-724	762986.4	9251889.5	3893.2	4.2	0.01	0.017
CCCS-725	762989.5	9251886.7	3892.6	4.5	0.01	0.024
CCCS-726	762992.6	9251883.6	3891.9	4.2	0.02	0.049
CCCS-727	762995.8	9251880.8	3891.3	3.7	0.01	0.029
CCCS-728	762998.3	9251878.1	3890.9	3.7	0.01	0.012
CCCS-729	763020.9	9251862.7	3888.2	3.3	0.02	0.008
CCCS-731	763023.9	9251861.4	3887.7	3.4	0.09	0.010
CCCS-732	763027.0	9251860.1	3887.2	3.4	0.01	0.013
CCCS-734	763239.1	9251896.1	3869.6	3.3	0.82	0.777
CCCS-735	763242.3	9251895.3	3869.0	3.3	0.86	0.181
CCCS-736	763245.4	9251894.4	3869.0	3.3	0.78	0.307
CCCS-737	763248.5	9251893.6	3868.2	3.5	1.33	0.073
CCCS-738	763251.9	9251892.8	3868.0	3.0	0.80	0.057

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-739	763254.8	9251892.1	3867.7	3.3	0.34	0.024
CCCS-740	763258.1	9251891.8	3867.5	3.3	0.39	0.045
CCCS-741	763261.3	9251892.0	3867.3	2.9	0.49	0.049
CCCS-742	763264.2	9251892.0	3866.8	3.2	0.35	0.027
CCCS-743	763267.3	9251892.8	3866.9	3.7	0.35	0.029
CCCS-744	763269.8	9251894.9	3868.7	3.4	0.43	0.025
CCCS-745	763271.6	9251897.6	3869.6	3.2	0.52	0.029
CCCS-746	763273.8	9251899.9	3870.1	3.5	0.63	0.024
CCCS-747	763276.1	9251902.4	3870.7	3.1	0.36	0.011
CCCS-748	763278.8	9251903.9	3870.8	3.6	0.34	0.023
CCCS-749	763282.1	9251905.4	3870.8	2.9	0.51	0.024
CCCS-751	763284.9	9251906.2	3870.7	0.4	0.69	0.030
CCCS-752	763285.3	9251906.3	3870.8	0.4	0.08	0.008
CCCS-762	763311.9	9251822.5	3851.4	4.2	0.11	0.318
CCCS-763	763315.8	9251821.3	3850.2	4.2	0.12	0.198
CCCS-764	763319.8	9251820.4	3849.3	5.1	0.10	0.086
CCCS-765	763324.5	9251818.4	3848.8	4.7	0.09	0.022
CCCS-766	763328.0	9251815.4	3847.7	4.3	0.10	0.076
CCCS-767	763331.4	9251812.9	3846.8	4.8	0.12	0.122
CCCS-768	763334.9	9251809.8	3846.0	4.8	0.09	0.088
CCCS-769	763355.6	9251794.4	3842.7	2.8	0.12	0.122
CCCS-771	763358.3	9251793.6	3842.3	2.8	0.11	0.214
CCCS-772	763372.1	9251794.4	3839.7	3.3	0.09	0.084
CCCS-773	763374.2	9251796.9	3839.1	3.3	0.07	0.046
CCCS-774	763381.6	9251807.5	3837.7	3.7	0.05	0.066
CCCS-775	763383.6	9251810.5	3837.3	4.0	0.07	0.173
CCCS-776	763386.4	9251813.2	3836.6	4.0	0.05	0.089
CCCS-777	763397.8	9251827.4	3835.4	3.2	0.13	0.053
CCCS-778	763400.7	9251828.4	3835.0	3.2	0.09	0.033
CCCS-779	763403.8	9251829.2	3835.0	3.0	0.06	0.030
CCCS-780	763406.7	9251829.8	3834.9	3.2	0.03	0.019
CCCS-781	763409.8	9251830.5	3834.7	3.2	0.10	0.024
CCCS-782	763412.9	9251831.4	3834.7	3.2	0.09	0.019
CCCS-783	763415.9	9251832.5	3834.7	3.5	0.06	0.018
CCCS-784	763419.1	9251833.7	3834.6	3.3	0.09	0.024
CCCS-785	763422.2	9251834.8	3834.5	3.5	0.11	0.019
CCCS-786	763425.3	9251836.4	3834.1	3.4	0.10	0.026
CCCS-787	763428.3	9251837.9	3833.7	3.3	0.08	0.023
CCCS-788	763431.3	9251839.2	3833.3	3.7	0.10	0.020
CCCS-789	763434.3	9251841.5	3832.8	3.0	0.21	0.032
CCCS-791	763435.1	9251844.4	3832.8	2.9	0.14	0.033
CCCS-792	763434.8	9251847.3	3832.8	3.5	0.10	0.018
CCCS-793	763434.0	9251850.6	3833.2	3.3	0.13	0.018
CCCS-794	763433.4	9251853.8	3833.8	3.4	0.10	0.021
CCCS-795	763433.3	9251857.2	3833.8	3.1	0.15	0.026
CCCS-796	763433.1	9251860.3	3834.0	3.5	0.16	0.031
CCCS-797	763432.9	9251863.8	3834.5	3.5	0.14	0.025
CCCS-798	763433.7	9251874.6	3834.4	3.2	0.16	0.020
CCCS-799	763435.1	9251877.4	3834.0	2.6	0.14	0.029

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-800	763436.6	9251879.5	3834.0	3.5	0.13	0.027
CCCS-801	763438.4	9251882.5	3834.0	3.0	0.19	0.058
CCCS-802	763439.9	9251885.1	3834.3	3.0	0.12	0.036
CCCS-803	763450.8	9251888.0	3835.0	3.3	0.08	0.031
CCCS-804	763453.3	9251890.2	3835.5	3.2	0.08	0.023
CCCS-805	763455.9	9251891.9	3835.9	3.3	0.07	0.031
CCCS-806	763458.9	9251893.4	3835.9	3.0	0.07	0.030
CCCS-807	763461.5	9251894.8	3835.8	3.5	0.08	0.034
CCCS-808	763464.5	9251896.6	3835.7	3.4	0.14	0.058
CCCS-809	763467.4	9251898.3	3835.8	4.0	0.17	0.087
CCCS-811	763470.8	9251900.5	3835.8	3.3	0.27	0.037
CCCS-812	763473.1	9251902.8	3835.8	3.5	0.09	0.061
CCCS-813	763475.0	9251905.6	3836.1	3.4	0.12	0.028
CCCS-814	763477.3	9251908.1	3836.7	2.8	0.13	0.032
CCCS-815	763479.6	9251909.7	3836.8	3.4	0.17	0.054
CCCS-816	763482.4	9251911.3	3837.3	2.8	0.18	0.017
CCCS-817	763484.8	9251912.7	3837.7	3.3	1.11	0.033
CCCS-818	763487.4	9251914.5	3838.2	3.3	0.30	0.032
CCCS-819	763490.1	9251916.4	3838.6	3.3	0.73	0.030
CCCS-820	763499.1	9251922.2	3840.0	3.8	0.95	0.073
CCCS-821	763502.5	9251923.8	3840.5	3.0	0.06	0.020
CCCS-822	763505.1	9251925.4	3840.7	3.1	0.03	0.011
CCCS-823	763507.7	9251926.9	3841.1	3.7	0.10	0.048
CCCS-824	763510.8	9251928.9	3841.7	3.1	0.03	0.031
CCCS-825	763513.4	9251930.5	3841.7	3.1	0.03	0.022
CCCS-826	763034.3	9251850.2	3886.0	3.4	0.01	0.021
CCCS-827	763037.1	9251848.6	3885.0	3.1	0.01	0.010
CCCS-828	763039.6	9251846.8	3884.9	3.4	0.01	0.011
CCCS-829	763042.3	9251844.9	3884.2	3.1	0.01	0.004
CCCS-831	763044.8	9251843.0	3884.0	3.3	0.01	0.005
CCCS-832	763047.4	9251840.9	3884.0	3.0	0.01	0.007
CCCS-833	763049.8	9251839.1	3883.9	3.3	0.01	0.012
CCCS-834	763052.4	9251837.3	3883.0	3.2	0.01	0.027
CCCS-835	763054.8	9251835.3	3883.0	3.2	0.01	0.007
CCCS-836	763099.4	9251799.2	3879.2	3.7	0.01	0.018
CCCS-837	763102.9	9251798.0	3879.0	3.7	0.01	0.004
CCCS-838	763106.4	9251796.7	3879.0	3.2	0.01	0.006
CCCS-839	763109.0	9251795.2	3880.2	3.2	0.01	0.010
CCCS-840	763111.9	9251793.9	3880.0	3.4	0.01	0.029
CCCS-841	763115.0	9251792.7	3879.4	3.1	0.03	0.022
CCCS-842	763117.8	9251791.2	3879.2	3.2	0.02	0.020
CCCS-843	763120.2	9251789.2	3879.6	3.3	0.01	0.009
CCCS-844	763122.9	9251787.4	3879.2	3.1	0.01	0.013
CCCS-845	763125.5	9251785.7	3878.9	3.5	0.02	0.007
CCCS-846	763128.3	9251783.6	3878.4	2.8	0.01	0.017
CCCS-847	763130.4	9251781.9	3878.2	3.3	0.01	0.012
CCCS-848	763133.2	9251780.0	3878.0	3.3	0.01	0.003
CCCS-849	763135.9	9251778.2	3877.9	3.2	0.01	0.004
CCCS-850	763138.7	9251776.6	3877.8	3.3	1.42	0.064

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-852	763141.5	9251774.8	3877.5	3.4	0.02	0.002
CCCS-853	763144.4	9251773.2	3877.1	3.2	0.01	0.003
CCCS-854	763147.1	9251771.5	3876.9	3.5	0.70	0.004
CCCS-855	763149.9	9251769.5	3876.8	3.1	1.03	0.004
CCCS-856	763152.0	9251767.2	3876.3	3.1	0.57	0.007
CCCS-857	763154.3	9251765.2	3876.2	3.1	0.01	0.039
CCCS-858	763118.1	9251792.9	3878.3	3.7	0.01	0.060
CCCS-859	763121.4	9251794.0	3877.5	4.0	0.01	0.026
CCCS-860	763125.3	9251795.0	3877.0	3.4	0.01	0.005
CCCS-861	763128.4	9251795.8	3875.9	4.0	0.01	0.015
CCCS-862	763132.1	9251796.7	3874.9	3.8	0.03	0.013
CCCS-863	763135.8	9251797.3	3874.2	3.9	0.01	0.005
CCCS-864	763139.6	9251798.3	3873.6	3.4	0.06	0.044
CCCS-865	763142.8	9251799.1	3872.9	3.9	0.02	0.013
CCCS-866	763146.4	9251800.2	3871.7	3.9	0.01	0.006
CCCS-867	763184.6	9251791.4	3864.8	3.4	0.03	0.016
CCCS-868	763187.4	9251789.6	3864.7	3.4	0.01	0.007
CCCS-870	763214.8	9252018.2	3923.8	3.1	0.14	0.024
CCCS-871	763217.8	9252018.2	3923.8	2.9	0.42	0.017
CCCS-872	763220.8	9252018.2	3923.8	3.4	0.77	0.014
CCCS-873	763224.1	9252018.5	3923.9	3.2	0.71	0.021
CCCS-874	763227.3	9252018.5	3924.0	3.3	0.36	0.025
CCCS-875	763230.6	9252018.2	3924.2	2.6	0.44	0.015
CCCS-876	763233.3	9252018.3	3924.6	3.4	0.43	0.023
CCCS-877	763236.6	9252018.4	3924.9	3.0	0.68	0.050
CCCS-878	763239.6	9252018.3	3925.2	3.1	0.40	0.006
CCCS-879	763242.7	9252018.4	3925.2	3.1	0.47	0.028
CCCS-880	763245.8	9252018.7	3925.3	3.2	0.26	0.023
CCCS-881	763248.9	9252019.2	3925.4	3.2	0.41	0.038
CCCS-882	763251.9	9252020.2	3925.5	2.7	0.30	0.027
CCCS-883	763254.4	9252021.2	3925.4	3.1	0.44	0.027
CCCS-884	763257.2	9252022.6	3925.2	3.3	0.36	0.034
CCCS-885	763260.1	9252024.1	3924.9	3.1	0.35	0.018
CCCS-886	763262.8	9252025.6	3924.7	3.2	0.29	0.016
CCCS-887	763265.4	9252027.3	3924.6	3.3	0.38	0.025
CCCS-888	763268.2	9252029.1	3924.4	3.3	0.36	0.021
CCCS-889	763271.0	9252030.7	3923.9	3.2	0.46	0.045
CCCS-891	763273.5	9252032.6	3923.5	3.0	0.39	0.033
CCCS-892	763276.1	9252034.1	3923.2	3.1	0.85	0.042
CCCS-893	763278.5	9252036.1	3923.2	3.1	0.46	0.031
CCCS-894	763281.1	9252037.8	3923.1	3.1	0.43	0.049
CCCS-895	763283.6	9252039.5	3923.0	4.3	0.40	0.022
CCCS-896	763286.2	9252041.4	3920.2	3.3	0.54	0.049
CCCS-897	763289.0	9252043.0	3920.0	3.2	0.62	0.061
CCCS-898	763291.6	9252044.9	3919.8	3.1	0.47	0.020
CCCS-899	763294.3	9252046.5	3919.8	3.0	0.40	0.040
CCCS-900	763296.8	9252048.3	3919.8	3.5	0.54	0.039
CCCS-901	763299.4	9252050.4	3919.8	2.9	0.58	0.029
CCCS-902	763301.9	9252052.1	3919.9	3.3	0.91	0.023

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-903	763304.5	9252054.1	3920.2	3.2	0.95	0.036
CCCS-904	763307.2	9252055.7	3921.1	3.3	1.06	0.026
CCCS-905	763309.8	9252057.5	3922.2	3.1	0.70	0.015
CCCS-906	763312.6	9252058.9	3922.2	3.2	1.00	0.042
CCCS-907	763315.6	9252060.1	3921.8	3.0	2.27	0.061
CCCS-908	763318.3	9252061.4	3921.6	3.3	1.17	0.058
CCCS-909	763321.3	9252062.7	3921.3	3.0	1.71	0.046
CCCS-911	763324.0	9252063.8	3921.2	3.3	1.00	0.034
CCCS-912	763327.1	9252065.1	3920.7	2.8	0.45	0.050
CCCS-913	763329.6	9252066.3	3920.6	3.3	0.40	0.034
CCCS-914	763332.6	9252067.6	3920.4	3.2	0.68	0.046
CCCS-915	763335.4	9252069.2	3920.3	3.1	0.94	0.031
CCCS-916	763338.1	9252070.6	3920.1	3.4	1.26	0.055
CCCS-917	763341.2	9252071.9	3919.6	3.1	0.92	0.053
CCCS-918	763343.9	9252073.2	3919.2	3.2	0.76	0.065
CCCS-919	763346.7	9252074.8	3918.9	3.2	0.58	0.056
CCCS-920	763349.4	9252076.4	3918.5	3.1	0.36	0.075
CCCS-921	763352.0	9252078.0	3918.2	3.4	0.29	0.058
CCCS-922	763354.8	9252079.7	3917.6	3.4	0.54	0.056
CCCS-923	763394.8	9252079.4	3912.8	3.6	1.28	0.057
CCCS-924	763398.3	9252079.9	3912.0	3.3	1.01	0.045
CCCS-925	763401.4	9252080.7	3912.0	3.4	1.63	0.053
CCCS-926	763404.8	9252081.5	3912.0	3.5	1.79	0.077
CCCS-927	763408.1	9252082.4	3912.0	3.4	2.09	0.061
CCCS-928	763411.4	9252083.5	3912.0	3.4	2.07	0.061
CCCS-929	763367.1	9252116.7	3907.8	4.0	1.13	0.057
CCCS-930	763364.3	9252119.4	3906.9	3.8	1.07	0.058
CCCS-931	763361.1	9252121.4	3907.0	4.4	0.84	0.051
CCCS-933	763358.6	9252124.9	3907.6	3.8	0.53	0.049
CCCS-934	763357.8	9252128.6	3907.0	4.1	0.62	0.068
CCCS-935	763358.3	9252132.5	3905.7	3.7	0.85	0.075
CCCS-936	763358.4	9252136.2	3905.1	4.1	0.69	0.050
CCCS-937	763358.6	9252140.2	3904.3	4.0	0.93	0.091
CCCS-938	763359.1	9252144.0	3903.5	3.9	0.60	0.055
CCCS-939	763359.3	9252147.9	3903.1	4.1	1.47	0.062
CCCS-940	763359.5	9252151.9	3902.2	3.9	0.93	0.053
CCCS-941	763359.9	9252155.6	3901.0	3.8	1.20	0.065
CCCS-942	763360.3	9252159.4	3900.4	4.2	0.57	0.073
CCCS-943	763360.9	9252163.5	3899.6	3.8	1.35	0.063
CCCS-944	763361.4	9252167.2	3899.0	3.8	0.89	0.049
CCCS-945	763361.6	9252171.0	3898.6	3.8	0.84	0.036
CCCS-946	763362.1	9252174.7	3897.9	3.6	1.24	0.043
CCCS-947	763362.3	9252178.3	3897.3	3.6	0.92	0.035
CCCS-948	763369.8	9252228.8	3891.4	3.6	0.70	0.071
CCCS-949	763371.4	9252232.0	3891.0	3.6	0.45	0.067
CCCS-950	763378.4	9252263.5	3884.7	2.2	0.42	0.121
CCCS-951	763379.1	9252265.5	3884.3	2.2	0.44	0.154
CCCS-952	763379.8	9252267.6	3884.4	2.2	0.74	0.111
CCCS-953	763380.6	9252269.6	3884.1	2.0	0.55	0.289

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-955	763381.3	9252271.5	3884.0	2.0	1.40	0.131
CCCS-956	763382.1	9252273.2	3883.5	2.3	0.76	0.080
CCCS-957	763382.6	9252275.4	3882.9	2.1	0.78	0.073
CCCS-958	763383.4	9252277.2	3882.6	2.2	0.98	0.090
CCCS-959	763384.1	9252279.3	3882.4	2.2	1.00	0.096
CCCS-960	763388.3	9252287.8	3881.9	3.3	1.55	0.090
CCCS-961	763390.0	9252290.4	3880.8	3.3	1.38	0.057
CCCS-962	763391.3	9252293.4	3880.3	3.1	1.19	0.065
CCCS-963	763392.4	9252296.3	3880.0	3.0	1.74	0.031
CCCS-964	763393.4	9252299.2	3880.0	2.8	0.72	0.025
CCCS-965	763394.1	9252301.9	3880.2	3.0	0.61	0.034
CCCS-966	763395.1	9252304.7	3880.5	2.8	0.51	0.043
CCCS-967	763396.3	9252307.2	3880.2	3.9	0.82	0.036
CCCS-968	763396.7	9252311.0	3879.6	3.9	0.67	0.041
CCCS-37001	763293.0	9252359.5	3870.0	2.7	4.82	0.022
CCCS-37002	763290.3	9252359.5	3870.4	2.7	6.09	0.070
CCCS-37003	763287.7	9252359.4	3870.8	2.6	3.25	0.077
CCCS-37004	763285.1	9252359.1	3871.4	3.1	3.33	0.056
CCCS-37005	763282.3	9252358.8	3872.4	3.2	2.11	0.056
CCCS-37006	763279.3	9252358.2	3873.3	2.9	2.05	0.058
CCCS-37007	763276.4	9252357.6	3873.6	2.9	1.67	0.072
CCCS-37008	763273.7	9252356.6	3873.5	3.4	3.33	0.078
CCCS-37009	763270.4	9252356.1	3872.5	3.4	1.96	0.045
CCCS-37011	763267.4	9252355.3	3871.2	2.5	1.23	0.065
CCCS-37012	763265.0	9252354.7	3870.7	3.0	1.30	0.064
CCCS-37013	763262.1	9252354.5	3871.1	3.4	1.47	0.070
CCCS-37014	763259.1	9252353.8	3872.6	3.0	0.97	0.057
CCCS-37015	763256.3	9252352.8	3873.2	3.3	1.57	0.070
CCCS-37016	763253.0	9252352.8	3872.8	3.4	0.91	0.041
CCCS-37017	763249.6	9252353.0	3872.8	3.4	0.69	0.047
CCCS-37018	763246.3	9252353.5	3872.1	3.9	1.36	0.038
CCCS-37019	763242.8	9252354.2	3870.7	3.1	0.66	0.033
CCCS-37020	763239.9	9252355.1	3869.9	2.5	0.45	0.018
CCCS-37021	763237.5	9252355.7	3869.8	3.3	0.94	0.019
CCCS-37022	763234.4	9252356.5	3870.2	3.1	0.20	0.024
CCCS-37023	763231.4	9252357.3	3870.7	2.9	0.85	0.022
CCCS-37024	763228.8	9252358.3	3870.8	3.4	0.85	0.048
CCCS-37025	763225.4	9252359.2	3870.3	3.7	0.36	0.053
CCCS-37026	763222.1	9252360.3	3868.9	2.9	0.26	0.040
CCCS-37027	763219.4	9252361.0	3868.4	3.2	0.41	0.043
CCCS-37028	763216.3	9252361.3	3868.8	3.1	0.36	0.032
CCCS-37029	763213.1	9252361.5	3869.0	3.3	0.49	0.033
CCCS-37030	763209.9	9252361.9	3869.3	2.6	0.89	0.025
CCCS-37031	763207.3	9252362.1	3869.5	3.6	0.91	0.036
CCCS-37033	763203.7	9252362.5	3869.5	2.9	1.22	0.034
CCCS-37034	763200.9	9252362.7	3868.8	2.9	1.19	0.032
CCCS-37035	763198.1	9252362.6	3868.1	3.2	1.50	0.040
CCCS-37036	763195.0	9252362.5	3867.4	3.2	1.42	0.051
CCCS-37037	763191.9	9252362.4	3866.6	3.1	1.48	0.028

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37038	763189.1	9252362.3	3865.3	3.6	1.72	0.025
CCCS-37039	763185.8	9252361.7	3864.1	3.3	1.84	0.027
CCCS-37040	763182.8	9252361.2	3863.0	3.2	2.05	0.029
CCCS-37041	763179.7	9252360.2	3863.0	2.9	2.03	0.041
CCCS-37042	763176.9	9252359.3	3863.0	3.4	1.90	0.035
CCCS-37043	763173.9	9252358.0	3864.1	3.5	1.30	0.018
CCCS-37044	763171.2	9252356.3	3865.4	2.7	1.83	0.030
CCCS-37045	763169.2	9252354.6	3866.0	3.9	1.15	0.041
CCCS-37046	763166.2	9252352.2	3866.5	2.8	0.70	0.055
CCCS-37047	763163.9	9252350.4	3866.7	2.6	0.30	0.064
CCCS-37048	763162.0	9252348.7	3866.8	3.4	0.65	0.060
CCCS-37049	763159.9	9252346.1	3867.2	3.0	0.78	0.062
CCCS-37050	763157.6	9252344.2	3867.0	2.8	0.49	0.072
CCCS-37051	763155.9	9252342.0	3867.0	3.1	0.56	0.037
CCCS-37052	763153.8	9252339.7	3867.1	3.1	0.55	0.029
CCCS-37053	763152.0	9252337.3	3867.8	3.4	0.89	0.041
CCCS-37055	763149.8	9252334.9	3868.5	2.8	0.57	0.061
CCCS-37056	763147.7	9252333.0	3868.8	3.6	0.62	0.080
CCCS-37057	763145.1	9252330.5	3869.1	3.9	0.81	0.058
CCCS-37058	763142.1	9252327.9	3869.5	2.5	0.87	0.025
CCCS-37059	763140.3	9252326.3	3869.7	2.6	0.53	0.020
CCCS-37060	763138.1	9252324.9	3870.0	3.1	0.49	0.025
CCCS-37061	763135.9	9252322.7	3870.6	3.3	0.68	0.030
CCCS-37062	763133.3	9252320.6	3870.9	2.6	0.29	0.024
CCCS-37063	763131.4	9252318.8	3871.0	3.4	0.24	0.032
CCCS-37064	763129.0	9252316.4	3871.2	3.2	0.61	0.018
CCCS-37065	763126.5	9252314.4	3871.3	2.8	0.14	0.034
CCCS-37066	763124.3	9252312.6	3871.3	2.9	0.47	0.091
CCCS-37067	763122.4	9252310.5	3871.5	3.1	0.42	0.067
CCCS-37068	763120.6	9252308.0	3871.7	3.4	0.64	0.085
CCCS-37069	763118.0	9252305.6	3871.7	2.7	0.12	0.079
CCCS-37070	763115.9	9252303.9	3871.6	3.1	0.05	0.020
CCCS-37071	763113.8	9252301.6	3871.7	3.3	0.14	0.018
CCCS-37072	763111.6	9252299.2	3871.7	2.9	0.17	0.035
CCCS-37073	763109.3	9252297.5	3871.6	3.0	0.18	0.047
CCCS-37074	763107.0	9252295.6	3871.6	3.6	0.10	0.058
CCCS-37075	763104.2	9252293.4	3871.5	3.1	0.13	0.073
CCCS-37076	763102.2	9252291.1	3871.6	2.9	2.51	0.098
CCCS-37077	763100.0	9252289.1	3871.6	3.1	0.15	0.065
CCCS-37078	763097.9	9252287.0	3871.0	3.1	1.07	0.260
CCCS-37079	763095.8	9252284.8	3870.6	3.2	0.42	0.089
CCCS-37080	763093.6	9252282.5	3870.2	2.8	0.09	0.032
CCCS-37081	763091.5	9252280.7	3869.7	3.6	0.11	0.025
CCCS-37082	763089.0	9252278.1	3869.8	3.6	0.16	0.067
CCCS-37084	763077.3	9252263.8	3871.0	3.3	0.83	0.161
CCCS-37085	763074.8	9252261.6	3871.3	3.4	0.36	0.156
CCCS-37086	763072.7	9252258.8	3871.5	3.5	0.54	0.075
CCCS-37087	763070.9	9252255.9	3872.2	3.9	1.93	0.248
CCCS-37088	763068.8	9252252.7	3872.6	3.3	1.43	0.082

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37089	763067.1	9252249.9	3873.2	4.0	0.71	0.059
CCCS-37090	763064.8	9252246.8	3873.8	2.9	0.82	0.047
CCCS-37091	763063.1	9252244.4	3873.9	3.3	0.76	0.041
CCCS-37092	763061.0	9252241.9	3874.4	3.4	1.03	0.087
CCCS-37093	763058.7	9252239.4	3874.6	3.5	0.53	0.116
CCCS-37094	763056.2	9252237.0	3874.8	2.9	0.62	0.276
CCCS-37095	763054.0	9252235.1	3874.9	3.0	0.93	0.163
CCCS-37096	763052.2	9252232.8	3875.1	3.3	1.49	0.166
CCCS-37097	763049.6	9252230.7	3875.3	3.5	1.14	0.084
CCCS-37099	763047.3	9252228.1	3875.8	3.2	0.52	0.053
CCCS-37100	763044.9	9252226.0	3875.8	3.4	0.80	0.064
CCCS-37101	763042.1	9252224.1	3876.0	4.1	1.20	0.105
CCCS-37102	763039.5	9252220.9	3876.4	3.5	2.07	0.052
CCCS-37103	763036.6	9252218.9	3876.8	3.3	0.94	0.037
CCCS-37104	763034.1	9252216.8	3877.0	3.3	0.86	0.036
CCCS-37105	763031.4	9252214.9	3877.1	3.1	0.65	0.044
CCCS-37106	763029.1	9252212.8	3877.5	3.6	0.98	0.049
CCCS-37107	763026.7	9252210.1	3877.8	3.2	0.55	0.044
CCCS-37108	763024.2	9252208.1	3878.0	3.2	0.49	0.063
CCCS-37109	763021.8	9252206.0	3878.0	3.9	0.90	0.069
CCCS-37110	763019.4	9252202.9	3878.0	4.0	0.40	0.047
CCCS-37111	763017.1	9252199.7	3878.6	2.7	0.84	0.053
CCCS-37112	763015.2	9252197.8	3879.0	4.0	0.55	0.027
CCCS-37113	763012.7	9252194.8	3879.9	3.7	0.87	0.044
CCCS-37114	763010.3	9252191.9	3880.2	3.7	1.89	0.035
CCCS-37115	763008.4	9252188.8	3881.1	3.8	0.85	0.043
CCCS-37116	763006.1	9252185.8	3881.7	3.6	0.49	0.021
CCCS-37117	763004.2	9252182.9	3882.4	3.5	0.44	0.035
CCCS-37118	763002.4	9252179.9	3882.9	4.0	0.46	0.038
CCCS-37119	762999.8	9252177.0	3882.8	4.0	0.46	0.016
CCCS-37122	762991.8	9252158.1	3884.1	3.3	0.22	0.017
CCCS-37123	762989.9	9252155.4	3884.0	3.5	0.22	0.023
CCCS-37124	762987.9	9252152.5	3884.2	3.9	0.32	0.026
CCCS-37125	762985.5	9252149.4	3884.1	3.5	0.31	0.025
CCCS-37126	762983.3	9252146.8	3883.6	3.7	0.29	0.015
CCCS-37127	762980.8	9252144.0	3883.9	4.0	0.30	0.019
CCCS-37128	762977.9	9252141.3	3884.5	3.6	0.27	0.023
CCCS-37129	762975.3	9252138.9	3884.1	3.7	0.32	0.015
CCCS-37130	762972.5	9252136.5	3883.9	3.4	0.21	0.021
CCCS-37131	762969.9	9252134.3	3883.8	3.7	0.36	0.019
CCCS-37132	762966.9	9252132.0	3883.8	3.6	1.59	0.014
CCCS-37133	762964.2	9252129.6	3884.0	3.6	1.17	0.011
CCCS-37134	763196.6	9252370.8	3861.7	3.3	1.69	0.033
CCCS-37135	763199.3	9252372.8	3861.4	2.8	2.12	0.051
CCCS-37136	763201.4	9252374.4	3860.7	3.3	0.95	0.036
CCCS-37137	763204.1	9252376.1	3859.9	3.1	1.24	0.035
CCCS-37138	763206.8	9252377.6	3859.0	2.9	1.33	0.052
CCCS-37139	763209.1	9252379.2	3858.1	2.9	1.79	0.044
CCCS-37140	763211.4	9252380.6	3857.3	3.4	1.09	0.040

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37141	763213.9	9252382.6	3856.0	3.2	1.28	0.050
CCCS-37143	763216.7	9252383.9	3855.2	3.2	0.89	0.037
CCCS-37144	763219.4	9252385.4	3854.2	3.0	0.72	0.035
CCCS-37145	763221.9	9252386.8	3853.6	3.7	1.02	0.040
CCCS-37146	763225.0	9252388.8	3852.7	3.2	0.85	0.056
CCCS-37147	763227.8	9252390.2	3852.1	2.8	0.93	0.047
CCCS-37148	763230.2	9252391.6	3851.6	2.8	1.23	0.051
CCCS-37149	763214.1	9252414.3	3843.7	3.1	0.78	0.054
CCCS-37150	763211.1	9252414.0	3844.3	3.2	0.53	0.036
CCCS-37151	763207.9	9252413.8	3844.7	3.2	0.71	0.050
CCCS-37152	763204.8	9252413.3	3845.0	3.1	0.78	0.046
CCCS-37153	763201.7	9252412.8	3845.1	3.1	1.11	0.053
CCCS-37154	763198.6	9252412.6	3845.0	3.7	0.95	0.049
CCCS-37155	763195.0	9252412.2	3845.5	3.8	0.91	0.048
CCCS-37156	763191.3	9252411.7	3845.9	2.8	0.87	0.027
CCCS-37157	763188.5	9252411.5	3845.8	3.3	0.72	0.048
CCCS-37158	763185.3	9252410.7	3845.8	3.0	0.80	0.041
CCCS-37159	763182.4	9252410.1	3845.7	3.5	0.89	0.032
CCCS-37160	763179.0	9252409.1	3845.6	3.5	0.82	0.023
CCCS-37162	763124.2	9252359.6	3854.1	3.5	0.23	0.023
CCCS-37163	763120.8	9252358.9	3854.0	3.1	0.10	0.066
CCCS-37165	763117.8	9252358.3	3854.0	3.6	0.13	0.018
CCCS-37166	763114.3	9252357.8	3854.0	2.8	0.10	0.059
CCCS-37167	763111.5	9252357.2	3854.0	3.1	0.26	0.034
CCCS-37168	763108.5	9252356.5	3854.0	3.1	0.16	0.038
CCCS-37169	763105.4	9252355.8	3854.0	3.5	0.14	0.080
CCCS-37170	763102.1	9252355.0	3853.4	3.5	0.11	0.114
CCCS-37171	763098.8	9252354.1	3853.0	3.5	0.11	0.103
CCCS-37172	763066.3	9252383.8	3842.7	3.3	0.10	0.308
CCCS-37173	763063.0	9252383.8	3842.9	3.3	0.11	0.366
CCCS-37174	763059.8	9252384.1	3843.0	3.4	0.16	0.224
CCCS-37175	763056.4	9252383.7	3843.5	3.5	0.05	0.176
CCCS-37176	763052.9	9252383.6	3844.1	3.8	0.08	0.157
CCCS-37177	763049.1	9252383.5	3843.8	3.2	0.08	0.204
CCCS-37178	763046.0	9252383.4	3843.4	3.2	0.11	0.303
CCCS-37179	763054.0	9252440.1	3829.5	3.8	0.78	0.091
CCCS-37180	763050.6	9252441.6	3829.7	4.2	0.85	0.073
CCCS-37181	763046.6	9252443.1	3829.8	4.2	0.87	0.091
CCCS-37182	763117.6	9252491.4	3816.8	3.3	0.24	0.145
CCCS-37183	763120.4	9252493.0	3817.1	3.5	0.12	0.046
CCCS-37184	763123.3	9252495.0	3817.5	3.3	0.04	0.034
CCCS-37185	763126.1	9252496.8	3817.6	3.5	0.14	0.226
CCCS-37187	763129.3	9252498.0	3818.1	3.4	0.09	0.066
CCCS-37188	763132.4	9252499.1	3818.6	3.8	0.17	0.161
CCCS-37189	763135.8	9252500.8	3818.0	3.3	0.68	0.349
CCCS-37190	763138.9	9252501.7	3818.0	3.4	0.62	0.182
CCCS-37191	763142.3	9252502.2	3818.3	3.2	0.34	1.264
CCCS-37192	763145.3	9252502.6	3819.0	3.6	0.24	0.073
CCCS-37193	763148.8	9252502.8	3820.0	3.4	0.22	0.078

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37194	763152.1	9252502.8	3820.7	3.7	0.08	0.119
CCCS-37195	763155.8	9252502.3	3820.6	3.6	0.15	0.053
CCCS-37196	763159.3	9252502.1	3820.2	2.9	0.23	0.015
CCCS-37197	763162.2	9252501.5	3820.4	3.6	0.07	0.169
CCCS-37198	763165.8	9252500.9	3820.9	3.6	0.09	0.029
CCCS-37199	763169.3	9252500.3	3821.3	2.9	0.10	0.061
CCCS-37200	763172.1	9252499.6	3821.3	3.2	0.11	0.283
CCCS-37201	763175.2	9252499.1	3821.1	3.5	0.20	0.240
CCCS-37202	763178.6	9252498.2	3820.9	3.4	0.17	0.083
CCCS-37203	763181.9	9252497.3	3821.0	3.5	0.08	0.035
CCCS-37204	763185.3	9252496.4	3821.4	3.2	0.09	0.071
CCCS-37205	763188.3	9252495.3	3821.9	3.5	0.09	0.067
CCCS-37206	763191.6	9252494.1	3821.8	3.5	0.32	0.072
CCCS-37207	763206.1	9252492.5	3822.2	3.0	0.41	0.024
CCCS-37209	763209.1	9252492.7	3822.2	3.6	0.66	0.068
CCCS-37210	763212.6	9252491.9	3822.4	3.6	0.53	0.028
CCCS-37211	763216.2	9252491.8	3822.3	3.1	0.36	0.042
CCCS-37212	763219.3	9252491.8	3822.2	3.5	0.41	0.034
CCCS-37213	763222.7	9252491.4	3822.2	3.4	0.98	0.053
CCCS-37214	763226.1	9252490.8	3822.2	2.9	0.38	0.019
CCCS-37215	763228.9	9252490.5	3822.4	3.1	1.12	0.037
CCCS-37216	763232.0	9252490.3	3822.3	3.7	1.14	0.079
CCCS-37217	763235.6	9252489.9	3822.2	3.2	0.72	0.048
CCCS-37218	763238.8	9252489.2	3822.3	3.8	0.57	0.034
CCCS-37219	763242.4	9252488.3	3822.5	4.1	0.32	0.083
CCCS-37220	763246.4	9252487.8	3822.7	3.2	0.23	0.044
CCCS-37221	763249.6	9252487.5	3822.8	3.1	0.24	0.061
CCCS-37222	763252.7	9252487.1	3822.8	3.5	0.39	0.017
CCCS-37223	763256.1	9252486.2	3823.0	2.8	0.34	0.022
CCCS-37224	763258.8	9252486.3	3823.0	4.6	0.58	0.028
CCCS-37225	763263.4	9252486.1	3823.1	3.4	0.57	0.022
CCCS-37226	763266.8	9252486.3	3823.0	3.1	0.14	0.015
CCCS-37227	763269.9	9252486.2	3823.1	3.5	0.18	0.047
CCCS-37228	763273.4	9252486.4	3823.0	3.1	0.64	0.016
CCCS-37229	763276.5	9252486.7	3822.8	3.0	0.16	0.011
CCCS-37230	763279.5	9252486.9	3822.4	3.7	1.31	0.057
CCCS-37231	763283.2	9252486.7	3822.2	3.7	1.20	0.020
CCCS-37232	763274.3	9252473.9	3824.4	3.7	0.48	0.040
CCCS-37233	763277.5	9252475.7	3824.4	4.0	0.66	0.068
CCCS-37234	763281.1	9252477.4	3824.2	3.5	0.52	0.053
CCCS-37235	763284.4	9252478.5	3823.9	3.5	1.09	0.024
CCCS-37236	763287.8	9252479.5	3823.4	3.3	0.76	0.034
CCCS-37237	763290.9	9252480.5	3823.2	3.1	0.42	0.036
CCCS-37238	763293.4	9252482.2	3822.9	3.7	1.25	0.049
CCCS-37239	763296.6	9252484.0	3822.3	3.9	0.78	0.032
CCCS-37240	763300.1	9252485.8	3821.7	3.6	0.67	0.056
CCCS-37241	763303.5	9252486.6	3821.1	3.1	0.44	0.051
CCCS-37242	763306.4	9252487.6	3820.5	3.6	1.07	0.067
CCCS-37243	763309.9	9252487.5	3819.9	4.5	0.60	0.057

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37244	763314.4	9252487.0	3819.2	4.2	0.34	0.029
CCCS-37245	763318.1	9252485.1	3819.4	4.2	0.47	0.069
CCCS-37246	763242.4	9252448.8	3831.2	3.2	0.67	0.034
CCCS-37247	763245.6	9252449.0	3831.1	2.8	0.77	0.022
CCCS-37248	763248.4	9252449.2	3830.6	2.8	1.79	0.017
CCCS-37249	763251.2	9252449.1	3830.5	2.9	0.84	0.032
CCCS-37250	763254.1	9252449.1	3830.3	2.9	1.13	0.037
CCCS-37251	763371.1	9252533.5	3812.9	2.7	0.16	0.275
CCCS-37252	763373.8	9252533.1	3813.2	2.5	2.60	0.085
CCCS-37253	763376.2	9252532.8	3813.5	3.0	0.08	0.238
CCCS-37254	763379.1	9252532.2	3813.6	3.0	0.71	0.203
CCCS-37255	763367.9	9252515.2	3816.7	3.3	0.11	0.166
CCCS-37256	763371.1	9252516.4	3816.5	2.9	0.12	0.209
CCCS-37257	763373.8	9252517.4	3816.4	3.8	0.14	0.247
CCCS-37258	763377.4	9252518.6	3816.1	3.2	0.28	0.174
CCCS-37259	763380.3	9252520.0	3815.8	3.3	0.21	0.214
CCCS-37260	763383.6	9252520.3	3815.3	3.0	0.07	0.112
CCCS-37261	763386.4	9252519.5	3815.0	2.8	0.11	0.166
CCCS-37262	763388.4	9252517.5	3814.8	2.7	0.11	0.071
CCCS-37263	763389.8	9252515.2	3814.6	3.0	0.07	0.102
CCCS-37264	763390.6	9252512.3	3814.5	3.5	0.24	0.181
CCCS-37265	763391.3	9252509.0	3814.3	2.9	0.30	0.125
CCCS-37266	763391.5	9252506.1	3814.2	3.1	0.14	0.191
CCCS-37267	763391.9	9252503.0	3814.1	3.2	0.18	0.123
CCCS-37268	763392.1	9252499.8	3814.1	3.3	0.15	0.234
CCCS-37269	763392.9	9252496.6	3813.7	2.8	0.19	0.245
CCCS-37270	763393.9	9252494.0	3813.3	2.8	0.14	0.360
CCCS-37271	763394.3	9252491.3	3813.1	3.0	0.18	0.402
CCCS-37272	763392.9	9252488.7	3813.5	2.8	0.41	0.224
CCCS-37273	763391.1	9252486.6	3814.0	2.6	1.36	0.174
CCCS-37275	763389.5	9252484.6	3814.5	3.8	0.15	0.218
CCCS-37276	763386.3	9252483.1	3815.5	3.8	0.23	0.083
CCCS-37277	763415.9	9252509.7	3806.9	2.6	0.10	0.300
CCCS-37278	763417.1	9252507.7	3806.0	2.6	0.09	0.401
CCCS-37279	763418.4	9252505.5	3805.3	2.6	0.14	0.292
CCCS-37280	763419.4	9252503.2	3804.7	2.6	0.15	0.260
CCCS-37281	763420.6	9252500.9	3804.1	2.5	0.09	0.341
CCCS-37282	763421.4	9252498.6	3803.9	2.8	0.06	0.280
CCCS-37283	763421.9	9252495.9	3804.1	2.5	0.45	0.062
CCCS-37284	763422.2	9252493.5	3804.4	3.2	0.29	0.086
CCCS-37285	763422.9	9252490.4	3804.9	3.2	0.24	0.083
CCCS-37286	763346.6	9252442.6	3828.7	3.7	2.58	0.169
CCCS-37287	763350.0	9252441.4	3829.6	3.8	0.35	0.489
CCCS-37288	763353.7	9252440.4	3829.7	4.0	1.90	0.103
CCCS-37289	763357.3	9252438.6	3829.4	3.9	1.37	0.294
CCCS-37290	763360.8	9252437.0	3829.7	3.9	1.79	0.060
CCCS-37291	763397.1	9252417.8	3834.4	4.0	1.97	0.030
CCCS-37292	763401.0	9252417.5	3833.6	3.0	2.45	0.038
CCCS-37293	763404.0	9252417.4	3833.1	3.4	1.27	0.036

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37294	763407.3	9252416.8	3832.4	3.9	1.15	0.036
CCCS-37295	763410.9	9252416.4	3830.9	3.9	1.27	0.040
CCCS-37298	763263.1	9252394.0	3851.1	2.7	1.03	0.062
CCCS-37299	763265.7	9252394.1	3850.6	3.2	1.54	0.040
CCCS-37300	763268.9	9252394.3	3850.3	3.2	1.28	0.032
CCCS-37301	763272.0	9252394.6	3850.0	3.5	2.84	0.041
CCCS-37302	763275.4	9252395.4	3849.3	3.3	2.75	0.052
CCCS-37303	763278.5	9252396.4	3848.8	3.5	2.34	0.037
CCCS-37304	763281.8	9252397.5	3848.0	3.5	2.71	0.050
CCCS-37305	763284.9	9252398.8	3847.4	3.8	3.88	0.054
CCCS-37306	763288.3	9252400.5	3846.8	3.5	1.77	0.034
CCCS-37307	763291.5	9252401.6	3845.9	3.6	1.38	0.025
CCCS-37308	763294.7	9252402.5	3844.5	3.8	2.91	0.031
CCCS-37325	763413.8	9252366.7	3852.7	3.6	0.62	0.065
CCCS-37326	763415.9	9252363.9	3853.7	3.6	0.74	0.114
CCCS-37327	763417.6	9252360.7	3853.4	3.3	0.44	0.082
CCCS-37328	763419.3	9252357.8	3853.3	3.3	0.65	0.077
CCCS-37329	763421.0	9252355.0	3853.6	3.2	1.03	0.078
CCCS-37330	763422.5	9252352.2	3854.0	3.3	0.72	0.056
CCCS-37331	763424.3	9252349.5	3854.2	3.4	0.36	0.036
CCCS-37332	763426.1	9252346.7	3853.9	3.0	0.50	0.057
CCCS-37333	763427.3	9252344.0	3854.6	3.9	0.41	0.036
CCCS-37334	763429.0	9252340.8	3855.8	3.7	0.42	0.022
CCCS-37335	763430.8	9252337.8	3857.0	3.3	0.44	0.042
CCCS-37336	763432.3	9252334.9	3857.7	3.1	0.50	0.042
CCCS-37337	763433.8	9252332.2	3857.6	3.0	0.24	0.037
CCCS-37338	763435.1	9252329.5	3857.1	3.3	0.39	0.086
CCCS-37339	763436.6	9252326.6	3856.9	4.6	0.41	0.110
CCCS-37341	763438.6	9252323.4	3854.3	3.6	0.28	0.054
CCCS-37342	763440.2	9252320.2	3854.0	3.3	0.39	0.053
CCCS-37343	763441.1	9252317.1	3854.9	3.1	1.01	0.067
CCCS-37344	763442.3	9252314.3	3855.0	3.4	0.49	0.058
CCCS-37345	763443.6	9252311.3	3855.8	3.4	0.81	0.051
CCCS-37346	763421.8	9252374.0	3843.6	2.9	0.73	0.119
CCCS-37347	763424.0	9252372.1	3843.9	3.1	0.65	0.087
CCCS-37348	763426.3	9252370.1	3844.0	3.7	0.51	0.061
CCCS-37349	763428.9	9252367.4	3844.2	3.3	0.59	0.073
CCCS-37350	763431.1	9252365.0	3844.0	3.3	0.48	0.034
CCCS-37351	763433.1	9252362.4	3843.8	3.9	0.65	0.032
CCCS-37352	763435.6	9252359.4	3843.9	4.2	0.78	0.038
CCCS-37353	763437.4	9252356.3	3846.2	3.3	1.13	0.038
CCCS-37354	763439.4	9252353.9	3847.2	3.1	0.87	0.047
CCCS-37355	763441.2	9252351.4	3847.3	3.3	1.15	0.032
CCCS-37356	763443.1	9252348.8	3846.6	3.5	1.61	0.043
CCCS-37357	763445.6	9252346.3	3847.2	3.3	0.59	0.040
CCCS-37358	763447.4	9252343.7	3847.8	3.5	0.59	0.067
CCCS-37360	763452.9	9252339.3	3845.7	4.1	0.13	0.072
CCCS-37361	763455.8	9252337.4	3843.3	3.6	0.16	0.114
CCCS-37362	763458.4	9252335.3	3842.3	3.8	2.39	0.101

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37363	763461.5	9252333.1	3841.9	3.8	0.22	0.237
CCCS-37364	763485.1	9252303.2	3842.0	3.6	0.32	0.138
CCCS-37365	763486.4	9252299.9	3841.0	3.4	0.76	0.122
CCCS-37366	763488.0	9252297.0	3840.3	3.7	0.61	0.175
CCCS-37367	763489.9	9252293.9	3839.8	3.0	0.27	0.235
CCCS-37368	763491.5	9252291.4	3839.4	3.5	0.51	0.191
CCCS-37369	763493.6	9252288.7	3838.8	3.5	0.22	0.119
CCCS-37370	763525.4	9252307.1	3833.7	3.4	0.26	0.060
CCCS-37371	763527.8	9252309.6	3833.6	3.7	0.40	0.041
CCCS-37372	763530.3	9252312.4	3833.5	3.5	0.27	0.035
CCCS-37373	763532.8	9252314.8	3833.4	3.9	0.24	0.011
CCCS-37374	763535.6	9252317.6	3833.0	3.2	0.28	0.046
CCCS-37375	763537.8	9252319.9	3833.0	3.5	0.22	0.025
CCCS-37376	763539.9	9252322.7	3833.0	3.3	0.75	0.010
CCCS-37377	763541.9	9252325.3	3833.0	5.6	0.63	0.017
CCCS-37378	763544.2	9252327.8	3837.5	3.9	1.82	0.033
CCCS-37379	763546.3	9252330.7	3839.0	3.5	1.19	0.028
CCCS-37380	763547.9	9252333.8	3838.9	3.1	1.23	0.044
CCCS-37381	763549.5	9252336.6	3839.2	3.2	1.00	0.042
CCCS-37382	763550.6	9252339.5	3839.0	3.5	0.61	0.022
CCCS-37385	763552.4	9252342.6	3838.9	2.9	0.78	0.038
CCCS-37386	763553.6	9252345.1	3838.8	3.6	1.22	0.030
CCCS-37387	763554.9	9252348.6	3838.5	3.2	0.79	0.027
CCCS-37388	763556.2	9252351.5	3838.3	3.3	1.44	0.023
CCCS-37389	763557.7	9252354.4	3837.4	3.5	1.11	0.022
CCCS-37390	763559.3	9252357.3	3836.4	3.5	1.13	0.025
CCCS-37391	763506.8	9252147.0	3891.0	2.6	0.09	0.050
CCCS-37392	763509.3	9252146.6	3890.9	2.6	0.21	0.040
CCCS-37393	763511.9	9252146.8	3890.8	2.6	0.11	0.044
CCCS-37394	763514.5	9252147.1	3890.7	2.5	0.21	0.058
CCCS-37395	763516.9	9252147.7	3890.4	2.3	0.17	0.042
CCCS-37396	763516.9	9252147.7	3890.4	2.7	0.10	0.053
CCCS-37397	763519.1	9252148.3	3890.3	2.9	0.24	0.071
CCCS-37398	763521.8	9252148.9	3890.2	2.8	0.44	0.039
CCCS-37399	763524.7	9252149.3	3890.0	2.3	0.39	0.046
CCCS-37400	763527.4	9252149.6	3890.0	2.8	0.13	0.025
CCCS-37401	763529.8	9252149.9	3889.9	2.4	0.12	0.056
CCCS-37402	763532.5	9252150.4	3889.5	2.7	0.63	0.040
CCCS-37403	763534.8	9252151.0	3889.2	2.5	0.15	0.034
CCCS-37404	763537.5	9252151.5	3889.0	2.8	0.18	0.080
CCCS-37405	763539.9	9252152.0	3889.0	2.8	0.15	0.071
CCCS-37406	763542.6	9252152.7	3889.0		0.11	0.025
CCCS-37407	763547.8	9252153.7	3888.7	2.7	0.08	0.037
CCCS-37408	763550.4	9252154.1	3888.7	2.6	0.55	0.070
CCCS-37409	763553.0	9252154.5	3888.7	2.9	0.08	0.030
CCCS-37410	763555.8	9252155.0	3888.2	2.5	0.14	0.036
CCCS-37411	763558.3	9252155.2	3888.0	2.8	0.12	0.029
CCCS-37412	763561.0	9252155.2	3888.0	2.6	0.19	0.029
CCCS-37413	763563.5	9252155.7	3887.8	2.4	0.15	0.028

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37414	763565.9	9252155.8	3887.7	2.7	0.18	0.022
CCCS-37415	763568.6	9252155.9	3887.7	2.9	0.24	0.027
CCCS-37416	763571.5	9252155.7	3887.7	2.5	0.12	0.035
CCCS-37417	763574.0	9252155.5	3888.0	2.7	0.23	0.015
CCCS-37418	763576.7	9252155.2	3888.0	2.7	0.28	0.021
CCCS-37419	763579.4	9252155.0	3888.0	2.6	0.64	0.024
CCCS-37420	763581.9	9252154.7	3888.0	2.5	0.09	0.011
CCCS-37421	763584.4	9252154.0	3888.0	2.5	0.10	0.017
CCCS-37422	763586.9	9252153.7	3888.0	2.7	0.18	0.016
CCCS-37423	763589.6	9252153.4	3888.0	2.8	0.20	0.010
CCCS-37424	763592.3	9252153.3	3888.1	3.0	0.13	0.006
CCCS-37425	763595.3	9252153.1	3888.5	3.1	0.04	0.013
CCCS-37426	763598.4	9252153.1	3888.8	3.3	0.10	0.015
CCCS-37427	763601.6	9252152.9	3889.0	3.3	0.06	0.010
CCCS-37429	763608.0	9252151.5	3889.4	3.1	0.08	0.036
CCCS-37430	763611.0	9252150.7	3889.3	6.7	0.13	0.032
CCCS-37431	763611.0	9252150.7	3889.3	6.6	0.10	0.019
CCCS-37432	763617.4	9252148.9	3889.0	6.0	0.25	0.014
CCCS-37433	763617.4	9252148.9	3889.0	6.3	0.11	0.005
CCCS-37434	763623.8	9252147.4	3887.9	6.7	0.11	0.010
CCCS-37435	763623.8	9252147.4	3887.9	6.4	0.14	0.012
CCCS-37436	763629.7	9252147.2	3887.0	6.4	0.09	0.021
CCCS-37437	763629.7	9252147.2	3887.0	6.7	0.09	0.020
CCCS-37438	763635.1	9252150.5	3886.5	6.6	0.43	0.018
CCCS-37439	763635.1	9252150.5	3886.5	6.0	0.41	0.023
CCCS-37440	763640.8	9252154.0	3886.5	6.3	0.04	0.014
CCCS-37441	763640.8	9252154.0	3886.5	6.7	0.07	0.014
CCCS-37442	763646.7	9252156.3	3885.9	6.4	0.04	0.020
CCCS-37443	763646.7	9252156.3	3885.9	3.4	0.17	0.018
CCCS-37444	763650.1	9252156.7	3885.8	3.4	0.07	0.008
CCCS-37445	763642.3	9252146.3	3884.5	3.4	0.21	0.036
CCCS-37446	763645.4	9252145.2	3884.0	3.5	0.12	0.076
CCCS-37447	763648.8	9252144.7	3883.3	3.7	0.14	0.043
CCCS-37448	763652.4	9252144.2	3882.7	3.3	0.15	0.020
CCCS-37449	763655.6	9252143.7	3882.2	10.6	0.13	0.045
CCCS-37451	763666.1	9252143.4	3880.6	3.8	0.27	0.025
CCCS-37452	763669.8	9252142.8	3880.0	3.8	1.84	0.035
CCCS-37453	763676.1	9252130.2	3872.8	2.6	0.14	0.022
CCCS-37454	763673.8	9252129.1	3872.8	3.3	0.13	0.046
CCCS-37455	763670.6	9252128.0	3872.7	3.3	0.08	0.017
CCCS-37456	763667.7	9252126.6	3872.7	3.1	3.08	0.049
CCCS-37457	763665.0	9252125.3	3872.1	3.3	0.28	0.024
CCCS-37458	763661.9	9252123.9	3872.0	3.0	0.06	0.050
CCCS-37459	763659.2	9252122.9	3872.0	2.9	0.08	0.025
CCCS-37460	763656.4	9252122.0	3872.0	3.2	0.08	0.014
CCCS-37461	763653.4	9252120.9	3872.0	3.0	0.14	0.016
CCCS-37462	763650.6	9252120.0	3871.6	3.4	0.07	0.016
CCCS-37463	763647.3	9252119.2	3871.6	3.0	0.09	0.018
CCCS-37464	763644.4	9252118.3	3871.5	3.1	0.07	0.026

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37465	763641.3	9252117.8	3871.0	3.3	0.06	0.018
CCCS-37466	763638.3	9252116.7	3871.0	3.0	0.09	0.019
CCCS-37467	763635.4	9252115.6	3870.5	3.1	0.51	0.020
CCCS-37468	763632.7	9252114.3	3870.0	3.3	0.14	0.028
CCCS-37469	763629.6	9252113.1	3870.2	3.2	0.66	0.037
CCCS-37470	763626.8	9252111.8	3870.2	2.9	0.23	0.027
CCCS-37471	763624.1	9252110.5	3870.1	8.7	0.45	0.028
CCCS-37473	763615.8	9252108.6	3871.5	3.1	0.38	0.027
CCCS-37474	763612.6	9252108.3	3871.8	3.3	0.14	0.025
CCCS-37475	763609.3	9252108.4	3871.4	3.3	0.13	0.014
CCCS-37476	763606.2	9252108.8	3870.6	4.5	0.04	0.014
CCCS-37477	763603.1	9252108.4	3867.4	3.9	0.09	0.011
CCCS-37478	763600.0	9252108.0	3865.0	2.9	7.48	0.029
CCCS-37479	763597.1	9252107.7	3864.9	3.2	1.59	0.037
CCCS-37480	763593.9	9252107.3	3864.9	3.1	0.78	0.050
CCCS-37481	763590.9	9252107.2	3864.9	3.5	1.53	0.041
CCCS-37482	763587.4	9252106.6	3865.0	3.5	0.73	0.066
CCCS-37483	763617.0	9252097.8	3866.7	4.4	0.64	0.056
CCCS-37484	763621.2	9252096.6	3866.1	5.5	0.35	0.023
CCCS-37485	763625.7	9252096.1	3863.0	5.2	0.38	0.044
CCCS-37486	763630.8	9252096.1	3862.0	4.5	0.43	0.036
CCCS-37487	763635.3	9252096.1	3861.8	5.1	0.36	0.026
CCCS-37488	763640.3	9252095.5	3860.9	5.0	0.25	0.010
CCCS-37489	763644.9	9252093.8	3860.4	5.0	0.19	0.028
CCCS-37490	763648.7	9252090.6	3859.4	5.0	0.19	0.023
CCCS-37491	763657.4	9252075.5	3857.2	3.4	0.15	0.035
CCCS-37492	763658.4	9252072.3	3856.4	6.5	0.08	0.020
CCCS-37495	763660.2	9252066.1	3855.2	3.4	0.08	0.027
CCCS-37496	763660.7	9252062.9	3854.1	3.3	0.09	0.018
CCCS-37497	763661.1	9252059.6	3854.0	3.4	0.13	0.023
CCCS-37498	763661.4	9252056.3	3854.0	3.3	0.11	0.016
CCCS-37499	763661.4	9252053.0	3853.9	3.0	0.08	0.024
CCCS-37500	763662.1	9252050.1	3854.0	3.2	0.09	0.037
CCCS-37501	763662.3	9252046.9	3853.9	3.4	0.04	0.026
CCCS-37502	763662.7	9252043.5	3853.6	2.9	0.08	0.024
CCCS-37503	763663.2	9252040.6	3853.2	2.9	0.01	0.065
CCCS-37504	763664.4	9251957.7	3840.6	3.4	0.01	0.001
CCCS-37505	763667.1	9251955.8	3839.9	3.4	0.01	0.002
CCCS-37506	763667.2	9251995.8	3853.9	3.3	0.01	0.003
CCCS-37507	763667.0	9251999.0	3854.7	3.3	0.01	0.002
CCCS-37508	763666.9	9252002.3	3855.0	3.3	0.01	0.007
CCCS-37509	763688.0	9252076.0	3871.1	3.1	0.04	0.012
CCCS-37510	763689.3	9252073.3	3871.0	2.6	0.04	0.020
CCCS-37511	763690.4	9252070.9	3870.8	2.9	0.03	0.022
CCCS-37512	763691.6	9252068.3	3870.2	2.9	0.01	0.031
CCCS-37513	763692.6	9252065.9	3869.0	3.0	0.13	0.027
CCCS-37514	763693.8	9252063.3	3867.9	2.7	0.28	0.031
CCCS-37515	763695.3	9252061.0	3867.7	2.7	0.03	0.024
CCCS-37517	763698.6	9252057.1	3867.0	2.9	0.63	0.052

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37518	763700.5	9252054.9	3866.7	2.9	0.02	0.026
CCCS-37519	763701.9	9252052.3	3866.6	2.9	0.01	0.024
CCCS-37520	763702.7	9252049.6	3865.9	2.9	0.01	0.038
CCCS-37521	763703.5	9252046.8	3865.7	2.7	1.42	0.050
CCCS-37522	763703.9	9252044.2	3865.6	2.9	1.94	0.078
CCCS-37523	763704.5	9252041.4	3865.0	2.9	0.03	0.018
CCCS-37524	763704.7	9252038.4	3864.8	2.6	0.01	0.016
CCCS-37525	763704.9	9252035.8	3864.7	2.7	0.03	0.022
CCCS-37526	763705.1	9252033.2	3864.6	2.8	0.09	0.076
CCCS-37527	763705.3	9252030.4	3864.7	2.7	0.26	0.333
CCCS-37528	763705.5	9252027.7	3864.8	2.9	0.01	0.118
CCCS-37529	763705.8	9252024.8	3865.5	2.8	0.01	0.063
CCCS-37530	763706.0	9252022.1	3866.0	2.6	0.03	0.083
CCCS-37531	763706.3	9252019.5	3865.6	2.8	0.01	0.200
CCCS-37532	763706.8	9252016.7	3865.3	2.5	0.01	0.008
CCCS-37533	763707.6	9252014.4	3865.0	2.5	0.01	0.002
CCCS-37534	763685.8	9252101.1	3872.0	2.7	0.03	0.015
CCCS-37535	763685.3	9252098.4	3871.9	2.8	0.01	0.009
CCCS-37536	763684.8	9252095.7	3871.9	2.8	0.03	0.010
CCCS-37537	763735.0	9252063.8	3875.8	4.0	0.01	0.017
CCCS-37538	763732.4	9252065.8	3878.1	3.7	0.44	0.332
CCCS-37539	763730.1	9252068.5	3879.3	3.7	0.09	0.158
CCCS-37541	763725.1	9252072.7	3880.4	3.8	0.49	0.106
CCCS-37542	763722.1	9252075.0	3880.7	3.2	0.01	0.037
CCCS-37543	763719.8	9252077.2	3881.1	3.9	0.01	0.055
CCCS-37544	763716.9	9252079.9	3881.9	3.2	0.41	0.072
CCCS-37545	763715.1	9252082.4	3882.7	3.6	0.16	0.048
CCCS-37546	763712.9	9252085.2	3882.9	3.4	0.03	0.071
CCCS-37547	763711.4	9252088.2	3883.1	3.6	0.01	0.061
CCCS-37548	763709.9	9252091.5	3882.9	3.4	0.24	0.039
CCCS-37549	763707.8	9252094.0	3882.1	3.3	0.06	0.034
CCCS-37550	763706.3	9252096.8	3881.4	4.0	0.07	0.016
CCCS-37551	763704.4	9252100.0	3880.0	3.9	0.05	0.013
CCCS-37552	763702.5	9252102.5	3877.7	3.9	0.05	0.018
CCCS-37553	763702.9	9252105.0	3877.9	4.4	0.03	0.031
CCCS-37554	763705.7	9252107.0	3880.7	3.6	0.02	0.016
CCCS-37555	763708.6	9252108.9	3881.9	3.7	0.01	0.013
CCCS-37556	763711.3	9252111.3	3882.8	3.4	0.01	0.023
CCCS-37557	763714.0	9252113.2	3883.2	3.5	0.02	0.015
CCCS-37558	763716.6	9252115.5	3883.7	3.5	0.03	0.015
CCCS-37559	763719.4	9252117.5	3884.0	3.4	0.02	0.020
CCCS-37560	763722.1	9252119.6	3884.0	3.4	0.03	0.011
CCCS-37561	763724.8	9252121.5	3883.8	3.4	0.01	0.013
CCCS-37562	763730.4	9252125.5	3883.5	3.4	0.14	0.027
CCCS-37563	763733.3	9252127.3	3882.7	3.5	0.01	0.013
CCCS-37564	763736.1	9252129.4	3883.0	3.6	0.04	0.035
CCCS-37565	763738.3	9252132.0	3884.0	3.3	0.04	0.093
CCCS-37566	763740.7	9252134.1	3884.8	3.7	0.09	0.080
CCCS-37567	763743.2	9252136.9	3885.2	3.4	0.23	0.704

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37568	763745.6	9252139.1	3885.9	3.7	0.17	0.092
CCCS-37569	763748.3	9252141.8	3886.2	3.2	0.10	0.151
CCCS-37570	763750.7	9252143.9	3885.9	3.5	0.07	0.213
CCCS-37571	763752.9	9252146.4	3885.1	3.6	0.31	0.110
CCCS-37572	763755.9	9252148.3	3884.5	3.4	0.36	0.166
CCCS-37573	763758.8	9252149.9	3883.6	3.8	0.39	0.218
CCCS-37574	763761.9	9252151.6	3882.4	3.8	0.21	0.125
CCCS-37575	763703.9	9252121.0	3879.1	4.6	0.19	0.289
CCCS-37579	763712.9	9252140.5	3875.3	6.2	0.03	0.015
CCCS-37580	763715.6	9252145.9	3874.2	5.8	0.04	0.017
CCCS-37581	763718.5	9252150.9	3873.5	5.9	0.02	0.017
CCCS-37582	763721.8	9252155.7	3873.8	5.8	0.01	0.023
CCCS-37585	763725.1	9252160.5	3874.0	4.6	0.04	0.016
CCCS-37586	763727.9	9252164.0	3874.2	3.4	0.03	0.027
CCCS-37587	763730.1	9252166.6	3874.2	3.0	0.04	0.035
CCCS-37588	763732.2	9252168.7	3873.8	3.0	0.17	0.031
CCCS-37589	763734.2	9252170.9	3873.1	3.4	0.27	0.025
CCCS-37590	763736.4	9252173.2	3872.1	3.3	0.01	0.025
CCCS-37591	763738.6	9252175.4	3871.0	3.4	0.05	0.073
CCCS-37592	763740.8	9252177.8	3870.3	3.2	0.01	0.067
CCCS-37593	763743.1	9252180.1	3869.8	3.2	0.01	0.020
CCCS-37594	763745.2	9252182.4	3869.2	2.8	0.01	0.013
CCCS-37595	763747.2	9252184.4	3868.9	3.7	0.01	0.018
CCCS-37596	763749.5	9252187.2	3868.3	3.4	0.04	0.023
CCCS-37597	763751.9	9252189.5	3867.9	3.9	0.16	0.065
CCCS-37598	763754.3	9252192.2	3866.3	4.3	0.04	0.040
CCCS-37599	763757.1	9252194.6	3864.0	3.7	0.05	0.424
CCCS-37600	763759.8	9252197.1	3863.4	3.6	0.01	0.754
CCCS-37601	763762.7	9252199.1	3862.4	3.3	0.20	0.415
CCCS-37602	763765.8	9252199.7	3863.4	3.5	0.01	0.072
CCCS-37603	763769.3	9252200.4	3862.9	3.7	0.01	0.035
CCCS-37604	763772.9	9252200.3	3863.4	3.6	0.01	0.031
CCCS-37605	763776.4	9252199.7	3863.2	3.6	0.16	0.101
CCCS-37607	763779.9	9252199.9	3862.6	4.0	0.49	0.233
CCCS-37608	763783.9	9252199.9	3862.0	4.0	0.11	0.105
CCCS-37610	763793.6	9252197.5	3859.3	5.2	0.01	0.081
CCCS-37611	763798.2	9252195.4	3858.3	4.6	0.01	0.013
CCCS-37612	763801.9	9252193.6	3856.2	4.6	0.01	0.010
CCCS-37613	763690.6	9252151.6	3875.0	3.3	0.01	0.009
CCCS-37614	763690.9	9252154.8	3874.5	3.7	0.01	0.015
CCCS-37615	763691.1	9252158.4	3873.6	3.2	0.01	0.035
CCCS-37616	763691.1	9252161.5	3872.8	3.6	0.15	0.015
CCCS-37617	763690.9	9252165.1	3871.9	3.2	0.02	0.040
CCCS-37618	763691.1	9252168.2	3871.2	3.4	0.04	0.023
CCCS-37619	763691.4	9252171.6	3870.6	3.4	0.02	0.038
CCCS-37620	763691.3	9252174.9	3870.1	3.6	0.02	0.024
CCCS-37621	763691.6	9252178.4	3869.5	3.3	0.01	0.018
CCCS-37622	763691.7	9252181.7	3869.1	3.4	0.02	0.008
CCCS-37623	763691.9	9252185.1	3868.5	3.6	0.01	0.023

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37624	763692.7	9252188.5	3867.9	3.2	0.01	0.011
CCCS-37625	763693.3	9252191.6	3867.4	3.7	0.01	0.011
CCCS-37626	763693.9	9252195.2	3866.8	3.4	0.01	0.012
CCCS-37627	763694.6	9252198.5	3866.3	3.5	0.06	0.011
CCCS-37629	763695.3	9252201.8	3866.0	3.2	0.01	0.062
CCCS-37630	763695.8	9252205.0	3866.0	3.4	0.02	0.015
CCCS-37631	763696.1	9252208.4	3866.0	3.3	0.02	0.019
CCCS-37632	763695.6	9252211.7	3865.7	3.0	0.02	0.024
CCCS-37633	763694.4	9252214.4	3865.3	3.3	0.01	0.021
CCCS-37634	763692.4	9252217.0	3865.0	3.2	0.06	0.013
CCCS-37635	763690.3	9252219.4	3865.0	3.5	0.05	-1.000
CCCS-37636	763688.2	9252222.1	3864.9	3.0	0.56	-1.000
CCCS-37637	763686.4	9252224.4	3864.4	3.1	0.08	-1.000
CCCS-37638	763684.1	9252226.3	3863.7	3.6	0.06	-1.000
CCCS-37639	763681.2	9252228.3	3862.9	3.3	0.09	-1.000
CCCS-37640	763678.5	9252229.8	3861.9	3.2	0.21	-1.000
CCCS-37641	763675.9	9252231.4	3860.9	3.4	0.13	-1.000
CCCS-37642	763673.0	9252232.9	3860.1	3.6	0.05	-1.000
CCCS-37643	763669.8	9252234.3	3859.3	3.1	0.05	-1.000
CCCS-37644	763667.1	9252235.7	3858.5	3.4	0.13	-1.000
CCCS-37645	763664.2	9252237.2	3857.6	3.2	0.09	-1.000
CCCS-37646	763661.2	9252238.1	3856.9	3.2	0.07	-1.000
CCCS-37647	763658.3	9252239.0	3856.1	2.9	0.11	-1.000
CCCS-37648	763655.6	9252239.8	3855.4	3.5	0.47	-1.000
CCCS-37649	763652.3	9252240.9	3855.0	3.5	2.26	-1.000
CCCS-37652	763674.4	9252250.5	3852.8	3.0	0.10	-1.000
CCCS-37653	763677.2	9252251.4	3852.7	2.9	0.05	0.008
CCCS-37654	763679.9	9252252.3	3852.2	3.2	0.05	0.037
CCCS-37655	763682.9	9252253.3	3851.9	3.1	0.08	0.044
CCCS-37656	763685.9	9252254.1	3852.3	3.3	0.04	0.019
CCCS-37657	763688.6	9252254.6	3854.0	3.2	0.03	0.045
CCCS-37658	763691.8	9252255.3	3854.2	2.9	0.01	0.042
CCCS-37659	763694.6	9252256.0	3854.2	3.2	0.01	0.031
CCCS-37660	763697.5	9252256.4	3853.0	3.5	0.01	0.043
CCCS-37661	763700.5	9252256.6	3851.1	3.5	0.04	0.040
CCCS-37662	763703.7	9252256.6	3849.7	3.1	0.03	0.050
CCCS-37663	763706.7	9252256.6	3848.8	3.0	0.07	0.040
CCCS-37664	763709.6	9252256.3	3848.0	3.2	0.09	0.023
CCCS-37665	763712.6	9252255.4	3848.5	3.4	0.10	0.061
CCCS-37666	763715.4	9252254.3	3850.1	3.3	0.01	0.329
CCCS-37667	763718.6	9252253.5	3849.6	2.9	0.01	0.258
CCCS-37700	763806.1	9252232.4	3842.5	2.8	0.02	0.021
CCCS-37701	763808.8	9252232.4	3841.7	2.9	0.03	0.036
CCCS-37702	763811.7	9252232.0	3841.3	2.9	0.03	0.035
CCCS-37703	763814.6	9252231.8	3841.0	2.9	0.05	0.028
CCCS-37704	763846.2	9252237.4	3838.1	2.6	0.06	0.098
CCCS-37705	763848.2	9252239.1	3838.0	2.6	0.05	0.090
CCCS-37706	763850.3	9252240.6	3837.9	3.0	0.08	0.064
CCCS-37707	763852.6	9252242.5	3838.1	3.3	0.04	0.107

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37708	763854.8	9252245.0	3838.4	2.9	0.13	0.204
CCCS-37709	763856.5	9252247.3	3838.6	3.0	0.02	0.054
CCCS-37710	763858.4	9252249.7	3838.9	2.9	0.03	0.069
CCCS-37711	763860.0	9252252.1	3839.1	2.6	0.34	0.358
CCCS-37712	763861.4	9252254.3	3839.2	3.0	0.04	0.036
CCCS-37713	763862.6	9252257.0	3839.1	3.6	0.11	0.065
CCCS-37714	763863.9	9252260.4	3839.0	2.7	0.01	0.041
CCCS-37715	763865.2	9252262.7	3839.1	2.7	0.23	0.099
CCCS-37717	763866.8	9252264.9	3839.2	2.8	0.31	0.277
CCCS-37718	763868.8	9252266.8	3839.7	3.1	0.03	0.099
CCCS-37719	763870.8	9252269.0	3840.3	3.1	0.01	0.080
CCCS-37720	763873.0	9252271.1	3841.1	3.2	0.03	0.140
CCCS-37721	763875.3	9252273.2	3841.9	3.4	0.19	0.119
CCCS-37722	763877.9	9252275.3	3842.6	3.2	0.01	0.229
CCCS-37723	763880.2	9252277.5	3842.8	3.6	0.08	0.043
CCCS-37724	763882.9	9252279.7	3843.0	2.8	0.06	0.013
CCCS-37725	763884.9	9252281.6	3843.7	2.8	0.02	0.030
CCCS-37726	763886.9	9252283.3	3844.7	3.2	0.12	0.033
CCCS-37727	763888.9	9252285.3	3845.9	3.5	0.03	0.005
CCCS-37728	763891.6	9252287.6	3846.2	3.5	0.03	0.008
CCCS-37729	763646.1	9252242.6	3855.0	3.2	0.41	0.019
CCCS-37730	763643.0	9252243.4	3855.5	3.5	2.47	0.033
CCCS-37731	763639.8	9252244.4	3856.6	3.2	0.83	0.047
CCCS-37732	763636.9	9252245.4	3857.4	3.5	0.91	0.093
CCCS-37733	763633.7	9252246.8	3857.7	3.2	6.60	0.057
CCCS-37734	763630.9	9252248.3	3857.4	3.2	0.37	0.058
CCCS-37735	763628.3	9252250.0	3856.6	3.6	0.42	0.012
CCCS-37736	763626.3	9252252.8	3855.3	3.5	0.28	0.034
CCCS-37737	763624.3	9252255.3	3854.0	3.0	0.32	0.020
CCCS-37739	763621.9	9252257.1	3853.9	3.1	0.28	0.015
CCCS-37740	763619.5	9252258.9	3854.2	3.4	0.55	0.024
CCCS-37741	763616.9	9252261.1	3854.7	3.4	0.16	0.017
CCCS-37742	763615.1	9252263.8	3854.1	2.6	0.27	0.022
CCCS-37743	763613.8	9252266.1	3854.0	3.1	0.33	0.009
CCCS-37744	763612.8	9252269.1	3853.9	2.8	0.43	0.008
CCCS-37745	763612.3	9252271.8	3853.8	3.1	0.19	0.004
CCCS-37746	763612.1	9252274.9	3853.7	2.6	0.35	0.008
CCCS-37747	763611.7	9252277.5	3853.7	2.8	0.16	0.011
CCCS-37748	763611.1	9252280.2	3853.7	2.5	0.25	0.007
CCCS-37749	763610.0	9252282.4	3853.8	2.8	0.23	0.021
CCCS-37750	763608.6	9252284.8	3853.9	2.7	0.43	0.020
CCCS-37751	763607.1	9252287.0	3854.0	3.0	0.13	0.007
CCCS-37752	763605.2	9252289.3	3854.0	2.7	0.21	0.011
CCCS-37753	763603.2	9252291.2	3853.9	2.7	0.30	0.015
CCCS-37754	763601.0	9252292.8	3853.9	2.5	0.27	0.027
CCCS-37755	763598.9	9252294.0	3854.7	3.1	0.24	0.050
CCCS-37756	763596.5	9252295.6	3855.7	2.4	0.47	0.036
CCCS-37757	763594.6	9252297.0	3855.5	3.1	0.30	0.028
CCCS-37758	763592.6	9252298.9	3854.1	2.5	0.76	0.041

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37759	763590.5	9252300.3	3854.2	3.2	0.34	0.027
CCCS-37761	763588.1	9252302.4	3853.8	3.2	2.83	0.023
CCCS-37765	763722.1	9252269.9	3841.0	3.7	0.04	0.004
CCCS-37766	763719.4	9252272.5	3840.5	3.6	0.01	0.016
CCCS-37767	763716.8	9252274.8	3839.9	3.4	0.01	0.009
CCCS-37768	763714.2	9252276.8	3839.5	3.8	0.01	0.009
CCCS-37769	763711.3	9252279.1	3838.9	3.2	0.01	0.034
CCCS-37770	763708.9	9252281.2	3838.4	3.3	0.01	0.067
CCCS-37771	763706.4	9252283.3	3837.9	3.4	0.11	0.050
CCCS-37772	763703.9	9252285.6	3837.5	3.2	0.41	0.112
CCCS-37773	763701.8	9252287.9	3836.7	2.8	0.04	0.051
CCCS-37774	763699.8	9252289.9	3836.3	2.9	0.08	0.078
CCCS-37775	763697.2	9252291.3	3836.3	3.7	0.07	0.050
CCCS-37776	763694.3	9252292.5	3838.3	3.1	0.10	0.068
CCCS-37777	763691.3	9252293.2	3838.4	2.9	0.03	0.066
CCCS-37778	763688.4	9252293.8	3838.1	3.1	0.01	0.034
CCCS-37779	763685.5	9252294.7	3837.5	3.0	0.01	0.059
CCCS-37780	763682.7	9252295.5	3836.9	3.2	0.01	0.040
CCCS-37781	763679.6	9252296.1	3836.4	4.0	0.01	0.069
CCCS-37783	763675.7	9252296.6	3835.6	4.9	0.02	0.048
CCCS-37784	763670.8	9252296.6	3835.6	5.0	0.10	0.057
CCCS-37785	763665.8	9252296.7	3835.3	5.5	0.03	0.050
CCCS-37786	763660.8	9252297.2	3832.9	4.7	0.03	0.020
CCCS-37787	763656.3	9252298.1	3832.2	5.1	0.15	0.028
CCCS-37788	763651.8	9252300.3	3831.9	5.2	0.44	0.022
CCCS-37789	763647.6	9252303.5	3831.8	5.1	0.56	0.025
CCCS-37790	763645.3	9252307.9	3830.9	5.0	0.29	0.009
CCCS-37791	763643.9	9252312.7	3830.3	4.1	0.25	0.021
CCCS-37792	763641.4	9252316.0	3829.7	3.0	0.45	0.032
CCCS-37793	763640.1	9252318.6	3829.0	2.8	0.18	0.524
CCCS-37794	763638.5	9252320.9	3828.9	3.1	0.40	0.113
CCCS-37795	763637.0	9252323.6	3828.7	3.2	0.36	0.093
CCCS-37796	763635.6	9252326.3	3828.0	2.9	0.65	0.121
CCCS-37797	763633.8	9252328.6	3828.4	2.8	0.12	0.021
CCCS-37798	763632.3	9252330.8	3829.1	3.3	0.12	0.015
CCCS-37799	763630.3	9252333.1	3830.4	2.8	0.13	0.010
CCCS-37800	763628.6	9252335.3	3830.3	2.8	0.16	0.007
CCCS-37801	763626.8	9252337.4	3829.9	3.4	0.20	0.006
CCCS-37802	763624.6	9252340.0	3829.1	3.4	0.20	0.008
CCCS-37803	763622.1	9252342.2	3828.3	4.0	0.12	0.008
CCCS-37805	763618.6	9252343.9	3827.5	3.9	0.12	0.007
CCCS-37806	763615.0	9252345.1	3828.6	4.6	0.22	0.004
CCCS-37807	763611.3	9252346.7	3826.5	4.4	0.22	0.011
CCCS-37808	763607.6	9252348.5	3824.8	4.2	0.28	0.010
CCCS-37809	763604.1	9252350.8	3824.3	4.0	0.24	0.016
CCCS-37810	763601.0	9252353.0	3823.2	3.8	0.14	0.011
CCCS-37811	763597.8	9252355.0	3823.2	4.2	0.21	0.009
CCCS-37812	763594.2	9252357.1	3823.5	4.3	0.28	0.009
CCCS-37813	763590.8	9252359.6	3822.7	3.6	0.14	0.011

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37814	763588.7	9252361.8	3820.9	2.9	0.47	0.007
CCCS-37815	763587.3	9252364.1	3819.9	2.8	0.20	0.013
CCCS-37816	763585.9	9252366.6	3819.5	2.6	0.16	0.007
CCCS-37817	763584.4	9252368.6	3819.0	2.5	0.59	0.007
CCCS-37818	763582.9	9252370.6	3818.5	3.0	0.43	0.007
CCCS-37819	763581.3	9252373.0	3818.0	2.7	0.16	0.003
CCCS-37820	763579.8	9252375.3	3817.8	2.7	0.53	0.011
CCCS-37821	763578.3	9252377.5	3817.8	2.6	0.51	0.012
CCCS-37822	763576.7	9252379.5	3817.8	2.9	0.95	0.011
CCCS-37823	763574.5	9252381.4	3817.9	3.0	2.47	0.012
CCCS-37824	763572.2	9252383.3	3818.0	4.4	1.79	0.023
CCCS-37825	763569.6	9252384.6	3821.2	3.2	1.36	0.023
CCCS-37826	763566.7	9252386.0	3821.4	3.0	0.15	0.026
CCCS-37827	763563.9	9252387.1	3821.3	2.6	0.66	0.028
CCCS-37828	763561.3	9252387.7	3821.3	2.8	0.51	0.045
CCCS-37829	763558.6	9252388.4	3821.0	3.0	0.95	0.029
CCCS-37830	763555.8	9252389.3	3820.6	2.9	0.71	0.022
CCCS-37831	763552.9	9252389.8	3820.1	3.0	0.61	0.020
CCCS-37832	763550.0	9252390.1	3819.6	3.0	0.57	0.017
CCCS-37833	763547.1	9252389.5	3819.5	3.6	0.74	0.019
CCCS-37834	763543.7	9252388.4	3819.5	2.8	0.67	0.026
CCCS-37835	763541.1	9252387.1	3819.5	3.5	1.14	0.037
CCCS-37836	763537.9	9252386.2	3818.8	2.8	0.49	0.025
CCCS-37837	763535.4	9252384.9	3818.1	3.5	0.70	0.010
CCCS-37838	763532.4	9252383.5	3817.2	3.4	0.88	0.020
CCCS-37839	763529.4	9252381.9	3816.5	3.7	0.71	0.017
CCCS-37840	763526.3	9252379.9	3815.8	3.7	0.74	0.027
CCCS-37841	763558.3	9252396.1	3817.3	2.6	0.71	0.019
CCCS-37842	763560.9	9252396.0	3817.0	3.0	0.31	0.061
CCCS-37843	763563.8	9252396.4	3816.8	3.7	0.22	0.057
CCCS-37844	763567.5	9252396.5	3816.9	3.1	0.17	0.058
CCCS-37845	763570.6	9252396.3	3816.3	3.2	0.17	0.047
CCCS-37846	763573.6	9252396.4	3815.5	3.1	0.41	0.013
CCCS-37849	763576.5	9252396.3	3814.4	3.3	0.14	0.012
CCCS-37850	763579.6	9252396.3	3813.3	3.5	0.18	0.012
CCCS-37851	763583.1	9252395.9	3813.3	2.4	0.20	0.013
CCCS-37852	763585.3	9252395.5	3812.3	3.5	0.30	0.016
CCCS-37853	763588.4	9252395.2	3810.7	3.8	0.37	0.016
CCCS-37854	763591.8	9252394.7	3809.3	3.8	0.09	0.039
CCCS-37869	763399.6	9252182.4	3884.7	3.6	0.47	0.102
CCCS-37870	763399.9	9252178.7	3884.8	4.5	0.14	0.125
CCCS-37871	763400.2	9252174.2	3884.9	4.5	0.49	0.142
CCCS-37872	763400.2	9252174.2	3884.9		0.31	0.070
CCCS-37873	763407.1	9252170.4	3884.9	4.3	0.39	0.055
CCCS-37874	763411.3	9252169.3	3884.9	4.1	0.26	0.069
CCCS-37875	763415.3	9252168.5	3885.4	4.6	0.25	0.050
CCCS-37876	763419.6	9252168.1	3886.7	4.4	0.21	0.164
CCCS-37877	763423.9	9252167.7	3887.3	3.5	0.13	0.200
CCCS-37878	763427.4	9252167.2	3887.5	6.0	0.18	0.095

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37879	763427.4	9252167.2	3887.5	6.3	0.22	0.071
CCCS-37880	763433.2	9252165.4	3888.0	6.5	0.08	0.051
CCCS-37881	763433.2	9252165.4	3888.0	6.8	0.11	0.072
CCCS-37882	763439.1	9252163.0	3888.6	6.1	0.13	0.026
CCCS-37883	763439.1	9252163.0	3888.6	6.1	0.14	0.075
CCCS-37884	763445.0	9252160.5	3888.6	6.0	0.25	0.075
CCCS-37885	763445.0	9252160.5	3888.6	6.3	0.13	0.390
CCCS-37886	763451.0	9252158.2	3886.5	6.5	1.22	0.102
CCCS-37887	763451.0	9252158.2	3886.5	6.8	0.14	0.063
CCCS-37888	763456.8	9252156.4	3886.8	6.8	0.09	0.060
CCCS-37889	763478.9	9252157.0	3886.5	5.8	0.25	0.034
CCCS-37890	763478.9	9252157.0	3886.5	6.0	0.10	0.059
CCCS-37891	763483.6	9252160.3	3887.1	5.8	0.37	0.078
CCCS-37892	763483.6	9252160.3	3887.1	5.9	0.09	0.047
CCCS-37893	763488.3	9252164.1	3887.4	6.2	0.18	0.119
CCCS-37894	763488.3	9252164.1	3887.4	6.2	0.29	0.110
CCCS-37895	763492.1	9252168.4	3886.6	5.8	0.17	0.117
CCCS-37896	763492.1	9252168.4	3886.6	6.0	0.05	0.078
CCCS-37897	763496.0	9252172.7	3885.9	5.8	0.50	0.046
CCCS-37898	763496.0	9252172.7	3885.9	5.9	1.10	0.059
CCCS-37899	763500.0	9252177.1	3884.4	6.2	0.05	0.049
CCCS-37900	763500.0	9252177.1	3884.4	3.3	0.05	0.051
CCCS-37901	763502.0	9252179.5	3883.4	3.2	0.02	0.019
CCCS-37902	763504.3	9252181.7	3883.0	3.0	0.07	0.068
CCCS-37903	763506.8	9252183.4	3882.5	3.1	0.04	0.037
CCCS-37904	763509.4	9252185.0	3882.1	3.4	0.06	0.062
CCCS-37905	763512.3	9252186.6	3881.2	3.2	0.05	0.055
CCCS-37906	763515.4	9252187.5	3881.4	3.0	0.05	0.053
CCCS-37907	763518.1	9252188.7	3881.5	3.5	0.03	0.033
CCCS-37908	763521.3	9252189.9	3881.9	3.2	0.07	0.073
CCCS-37909	763524.4	9252190.9	3881.9	3.4	0.09	0.086
CCCS-37910	763527.6	9252192.1	3881.7	2.9	0.10	0.101
CCCS-37911	763530.3	9252193.2	3881.5	3.6	0.14	0.141
CCCS-37912	763533.6	9252194.5	3881.1	4.2	0.14	0.138
CCCS-37913	763536.9	9252196.9	3880.1	3.2	0.08	0.079
CCCS-37914	763539.5	9252198.7	3880.5	3.5	0.05	0.054
CCCS-37915	763542.0	9252200.9	3881.4	3.8	0.05	0.055
CCCS-37916	763544.9	9252203.4	3881.8	3.6	0.10	0.051
CCCS-37917	763547.9	9252205.5	3881.4	3.2	0.14	0.048
CCCS-37918	763550.4	9252207.4	3881.3	3.8	0.08	0.048
CCCS-37919	763553.8	9252208.9	3882.2	3.5	0.06	0.011
CCCS-37920	763556.7	9252210.8	3881.8	3.8	2.17	0.024
CCCS-37921	763559.9	9252212.7	3881.1	3.8	0.44	0.034
CCCS-37922	763530.4	9252200.7	3875.9	3.7	0.10	0.115
CCCS-37923	763526.9	9252201.9	3875.4	4.0	0.07	0.077
CCCS-37924	763522.9	9252202.2	3875.3	4.0	0.45	0.157
CCCS-37925	763519.0	9252201.8	3875.6	4.0	0.07	0.104
CCCS-37927	763511.1	9252199.5	3874.2	3.9	0.08	0.122
CCCS-37928	763507.4	9252198.3	3874.5	4.3	0.11	0.082

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-37929	763503.4	9252196.7	3873.9	4.1	0.10	0.056
CCCS-37930	763499.8	9252194.9	3873.9	3.4	0.13	0.107
CCCS-37931	763496.7	9252193.5	3874.3	4.5	0.08	0.033
CCCS-37932	763492.5	9252192.3	3875.4	4.2	0.10	0.052
CCCS-37933	763488.4	9252191.5	3876.0	4.5	0.08	0.056
CCCS-37934	763484.3	9252191.7	3874.2	3.7	0.13	0.038
CCCS-37935	763481.3	9252192.9	3872.5	3.7	0.05	0.055
CCCS-37936	763511.1	9252206.7	3872.9	3.5	0.14	0.080
CCCS-37937	763513.4	9252209.2	3873.4	4.1	0.13	0.043
CCCS-37938	763516.2	9252212.2	3873.0	3.2	0.13	0.077
CCCS-37939	763518.5	9252214.3	3872.2	4.2	0.31	0.040
CCCS-37940	763521.6	9252217.0	3871.1	3.8	0.76	0.020
CCCS-37941	763524.1	9252219.5	3869.9	4.1	0.12	0.026
CCCS-37942	763526.9	9252222.3	3868.7	4.7	0.06	0.042
CCCS-37943	763530.3	9252225.2	3867.4	4.2	0.09	0.037
CCCS-37944	763533.3	9252228.1	3866.8	4.7	0.24	0.188
CCCS-37945	763537.3	9252230.5	3867.2	4.4	0.45	0.140
CCCS-37946	763540.8	9252233.2	3867.7	4.5	0.20	0.142
CCCS-37947	763544.6	9252235.2	3868.7	4.5	0.28	0.082
CCCS-37949	763552.3	9252239.9	3867.2	4.3	0.13	0.111
CCCS-37950	763555.9	9252241.9	3866.3	4.3	0.07	0.105
CCCS-37951	763558.6	9252245.0	3864.9	3.7	0.15	0.083
CCCS-37952	763560.9	9252247.6	3863.8	3.7	0.23	0.018
CCCS-37995	763361.3	9252342.9	3872.8	2.5	0.85	0.053
CCCS-37996	763356.9	9252342.6	3873.9	2.5	0.01	0.026
CCCS-37997	763351.3	9252342.2	3873.1	3.8	0.05	0.024
CCCS-37998	763347.5	9252341.8	3873.3	3.8	0.04	0.018
CCCS-38004	763075.9	9252462.9	3825.5	5.2	0.01	0.019
CCCS-38005	763071.9	9252465.1	3823.1	5.8	0.30	0.030
CCCS-38006	763067.6	9252468.5	3821.5	5.8	0.01	0.086
CCCS-38007	763063.1	9252472.0	3820.2	5.8	0.01	0.014
CCCS-38008	763058.7	9252475.5	3818.9	5.9	0.01	0.045
CCCS-38009	763054.2	9252479.2	3818.0	5.6	0.01	0.019
CCCS-38010	763049.9	9252482.8	3817.5	5.5	0.01	0.045
CCCS-38011	763045.6	9252486.2	3816.9	5.9	0.01	0.010
CCCS-38012	763040.6	9252488.9	3815.4	5.6	0.01	0.032
CCCS-38013	763035.7	9252491.2	3813.9	5.3	0.01	0.020
CCCS-38015	763030.6	9252492.5	3813.2	5.6	0.01	0.015
CCCS-38016	763025.0	9252492.9	3812.7	5.9	0.02	0.013
CCCS-38017	763019.1	9252493.0	3812.5	5.5	0.01	0.017
CCCS-38018	763013.7	9252492.1	3812.9	5.1	0.09	0.013
CCCS-38019	763008.9	9252490.4	3813.1	6.0	0.01	0.016
CCCS-38020	763003.3	9252488.1	3812.6	5.3	0.01	0.007
CCCS-38021	762998.4	9252485.9	3812.4	5.6	0.01	0.005
CCCS-38022	762993.4	9252483.7	3811.6	5.7	0.02	0.023
CCCS-38023	762988.3	9252481.6	3810.5	4.8	0.01	0.013
CCCS-38024	762983.8	9252480.1	3809.7	4.8	0.01	0.022
CCCS-38066	763370.4	9252551.8	3807.3	3.8	0.16	0.073
CCCS-38067	763373.7	9252553.6	3807.1	4.2	0.12	0.069

SAMPLE No.	UTM EASTING	UTM NORTHING	ELEVATION (m)	HORIZONTAL WIDTH (m)	Au (g/t)	Cu %
CCCS-38068	763377.6	9252554.8	3806.7	4.3	0.11	-1.000
CCCS-38069	763381.8	9252555.9	3806.2	4.0	0.35	-1.000
CCCS-38070	763385.6	9252556.7	3805.4	4.0	0.17	-1.000
CCCS-38071	763389.5	9252557.2	3804.7	4.6	0.06	-1.000
CCCS-38072	763394.0	9252557.6	3804.0	3.9	0.08	-1.000
CCCS-38073	763397.9	9252557.6	3803.5	3.5	0.14	-1.000
CCCS-38074	763401.3	9252557.1	3803.3	3.5	0.12	-1.000
CCCS-38085	763355.4	9252570.9	3801.3	5.4	0.11	-1.000
CCCS-38095	763270.5	9252598.3	3795.0	2.8	3.96	-1.000
CCCS-38147	763390.1	9251732.8	3838.2	3.3	0.03	-1.000
CCCS-38148	763393.4	9251732.8	3837.8	3.9	0.05	-1.000
CCCS-38149	763397.3	9251732.1	3837.7	3.6	0.24	-1.000
CCCS-38150	763400.6	9251730.8	3838.4	4.1	0.06	-1.000
CCCS-38151	763404.6	9251729.9	3839.0	3.9	0.07	-1.000
CCCS-38152	763408.5	9251729.8	3839.1	3.8	0.06	-1.000
CCCS-38153	763412.3	9251729.8	3839.0	4.0	0.30	-1.000
CCCS-38154	763415.9	9251730.9	3837.5	3.8	0.57	-1.000
CCCS-38155	763419.5	9251729.9	3838.0	3.6	0.19	-1.000
CCCS-38156	763423.1	9251729.8	3838.3	4.2	0.11	-1.000
CCCS-38157	763427.3	9251729.8	3838.0	3.4	0.04	-1.000
CCCS-38158	763430.7	9251729.8	3837.9	3.6	0.05	-1.000
CCCS-38160	763437.7	9251729.8	3837.7	3.7	0.10	-1.000
CCCS-38161	763441.3	9251728.9	3837.7	3.8	0.04	-1.000
CCCS-38162	763445.1	9251728.8	3837.6	3.3	0.03	-1.000
CCCS-38163	763448.3	9251727.9	3837.7	4.1	0.26	-1.000
CCCS-38164	763451.8	9251725.8	3838.3	4.1	0.08	-1.000
CCCS-38165	763455.9	9251725.8	3838.6	3.9	0.08	-1.000
CCCS-38166	763459.8	9251725.8	3838.7	3.9	0.20	-1.000
CCCS-38167	763463.6	9251726.8	3838.6	3.8	0.08	-1.000
CCCS-38169	763467.3	9251726.8	3838.8	3.8	0.04	-1.000
CCCS-38170	763471.1	9251726.8	3839.4	3.5	0.04	-1.000
CCCS-38171	763474.4	9251727.8	3839.6	4.2	0.07	-1.000
CCCS-38172	763478.4	9251728.9	3839.3	4.0	0.11	-1.000
CCCS-38173	763482.3	9251729.7	3839.0	3.5	0.18	-1.000
CCCS-38174	763485.8	9251729.7	3839.3	4.2	0.08	-1.000
CCCS-38175	763489.7	9251731.1	3839.0	2.9	0.02	-1.000
CCCS-38176	763492.6	9251731.1	3839.2	4.3	0.01	-1.000
CCCS-38177	763496.8	9251731.0	3840.0	4.3	0.01	-1.000

**APPENDIX 3: CERRO CORONA PROJECT
DRILL HOLE SAMPLE LIST**

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2701	CO-06U	0	2	2	0.870	0.040
2702	CO-06U	2	4	2	0.670	0.030
2703	CO-06U	4	6	2	0.230	0.040
2704	CO-06U	6	8	2	0.210	0.040
2705	CO-06U	8	10	2	0.160	0.030
2706	CO-06U	10	12	2	0.190	0.040
2707	CO-06U	12	14	2	0.320	0.050
2708	CO-06U	14	16	2	0.270	0.190
2709	CO-06U	16	18	2	0.310	0.240
2710	CO-06U	18	20	2	0.120	0.280
2711	CO-06U	20	22	2	0.230	0.540
2712	CO-06U	22	24	2	0.430	0.540
2713	CO-06U	24	26	2	0.280	0.530
2714	CO-06U	26	28	2	0.330	0.520
2715	CO-06U	28	30	2	0.240	0.500
2716	CO-06U	30	32	2	0.190	0.490
2717	CO-06U	32	34	2	0.180	0.190
2718	CO-06U	34	36	2	0.140	0.270
2719	CO-06U	36	38	2	0.260	0.350
2720	CO-06U	38	40	2	0.170	0.250
2721	CO-06U	40	42	2	0.270	0.320
2722	CO-06U	42	44	2	0.120	0.390
2724	CO-06U	44	46	2	0.120	0.490
2725	CO-06U	46	48	2	0.080	0.460
2726	CO-06U	48	50	2	0.140	0.420
2727	CO-06U	50	52	2	0.080	0.430
2728	CO-06U	52	54	2	0.040	0.550
2729	CO-06U	54	56	2	0.070	0.670
2730	CO-06U	56	58	2	0.120	0.520
2731	CO-06U	58	60	2	0.180	0.360
2732	CO-06U	60	62	2	0.110	0.190
2733	CO-06U	62	64	2	0.110	0.230
2734	CO-06U	64	66	2	0.220	0.200
2735	CO-06U	66	68	2	0.140	0.170
2736	CO-06U	68	70	2	0.080	0.090
2737	CO-06U	70	72	2	0.310	0.210
2738	CO-06U	72	74	2	0.210	0.330
2739	CO-06U	74	76	2	0.200	0.270
2740	CO-06U	76	78	2	0.230	0.240
2741	CO-06U	78	80	2	0.150	0.210
2742	CO-06U	80	82	2	0.180	0.180
2743	CO-06U	82	84	2	0.080	0.170
2744	CO-06U	84	86	2	0.130	0.160
2746	CO-06U	86	88	2	0.110	0.180
2747	CO-06U	88	90	2	0.070	0.150
2748	CO-06U	90	92	2	0.110	0.110
2749	CO-06U	92	94	2	0.130	0.110
2975	CO-06U	94	96	2	0.130	0.110
2976	CO-06U	96	98	2	0.120	0.100
2977	CO-06U	98	100	2	0.070	0.080
2978	CO-06U	100	102	2	0.100	0.080
2979	CO-06U	102	104	2	0.050	0.080

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2980	CO-06U	104	106	2	0.120	0.100
2981	CO-06U	106	108	2	0.120	0.150
2982	CO-06U	108	110	2	0.140	0.200
2983	CO-06U	110	112	2	0.100	0.160
2984	CO-06U	112	114	2	0.110	0.170
2985	CO-06U	114	116	2	0.170	0.180
2986	CO-06U	116	118	2	0.100	0.250
2987	CO-06U	118	120	2	0.110	0.270
2988	CO-06U	120	122	2	0.130	0.280
2989	CO-06U	122	124	2	0.110	0.120
2990	CO-06U	124	126	2	0.250	0.140
2991	CO-06U	126	128	2	0.130	0.160
2993	CO-06U	128	130	2	0.140	0.150
2994	CO-06U	130	132	2	0.100	0.130
2995	CO-06U	132	134	2	0.140	0.110
2996	CO-06U	134	136	2	0.130	0.150
2997	CO-06U	136	138	2	0.150	0.200
2998	CO-06U	138	140	2	0.170	0.240
2999	CO-06U	140	142	2	0.170	0.170
3000	CO-06U	142	144	2	0.180	0.230
3401	CO-06U	144	146	2	0.290	0.290
3402	CO-06U	146	148	2	0.200	0.350
3403	CO-06U	148	150	2	0.250	0.340
3404	CO-06U	150	152	2	0.480	0.330
3405	CO-06U	152	154	2	0.230	0.210
3406	CO-06U	154	156	2	0.180	0.440
3407	CO-06U	156	158	2	0.320	0.660
3408	CO-06U	158	160	2	0.250	0.310
3409	CO-06U	160	162	2	0.120	0.230
3410	CO-06U	162	164	2	0.150	0.140
3411	CO-06U	164	166	2	0.160	0.160
3412	CO-06U	166	168	2	0.120	0.150
3413	CO-06U	168	170	2	0.100	0.130
3415	CO-06U	170	172	2	0.160	0.130
3416	CO-06U	172	174	2	0.130	0.130
3417	CO-06U	174	176	2	0.120	0.130
3418	CO-06U	176	178	2	0.130	0.170
3419	CO-06U	178	180	2	0.150	0.210
3420	CO-06U	180	182	2	0.180	0.240
3421	CO-06U	182	184	2	0.140	0.190
3422	CO-06U	184	186	2	0.130	0.180
3423	CO-06U	186	188	2	0.170	0.160
3424	CO-06U	188	190	2	0.180	0.210
3425	CO-06U	190	192	2	0.170	0.140
3426	CO-06U	192	194	2	0.080	0.070
3427	CO-06U	194	196	2	0.180	0.220
3428	CO-06U	196	198	2	0.100	0.210
3429	CO-06U	198	200	2	0.100	0.200
3430	CO-06U	200	202	2	0.110	0.170
3431	CO-06U	202	204	2	0.140	0.260
3432	CO-06U	204	206	2	0.160	0.350
3433	CO-06U	206	208	2	0.190	0.250
3434	CO-06U	208	210	2	0.150	0.210
3435	CO-06U	210	212	2	0.140	0.170
3437	CO-06U	212	214	2	0.160	0.150

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3438	CO-06U	214	216	2	0.110	0.150
3439	CO-06U	216	218	2	0.100	0.150
3440	CO-06U	218	220	2	0.180	0.200
3441	CO-06U	220	222	2	0.160	0.200
3442	CO-06U	222	224	2	0.180	0.190
3443	CO-06U	224	226	2	0.150	0.250
3444	CO-06U	226	228	2	0.180	0.230
3445	CO-06U	228	230	2	0.200	0.210
3446	CO-06U	230	232	2	0.190	0.130
3447	CO-06U	232	234	2	0.140	0.160
3448	CO-06U	234	236	2	0.190	0.190
3449	CO-06U	236	238	2	0.100	0.210
3450	CO-06U	238	240	2	0.310	0.240
3451	CO-06U	240	242	2	0.200	0.270
3452	CO-06U	242	244	2	0.120	0.120
3453	CO-06U	244	246	2	0.100	0.140
3454	CO-06U	246	248	2	0.160	0.160
3455	CO-06U	248	250	2	0.120	0.210
3456	CO-06U	250	252	2	0.240	0.220
3457	CO-06U	252	254	2	0.180	0.220
3459	CO-06U	254	256	2	0.310	0.240
3460	CO-06U	256	258	2	0.220	0.190
3461	CO-06U	258	260	2	0.090	0.140
3462	CO-06U	260	262	2	0.140	0.150
3463	CO-06U	262	264	2	0.190	0.160
3464	CO-06U	264	266	2	0.090	0.170
3465	CO-06U	266	268	2	0.100	0.140
3466	CO-06U	268	270	2	0.130	0.150
3467	CO-06U	270	272	2	0.080	0.150
3468	CO-06U	272	274	2	0.140	0.140
3469	CO-06U	274	276	2	0.140	0.150
3470	CO-06U	276	278	2	0.130	0.160
3471	CO-06U	278	280	2	0.130	0.250
3472	CO-06U	280	282	2	0.120	0.250
3473	CO-06U	282	284	2	0.140	0.250
3474	CO-06U	284	286	2	0.070	0.120
3475	CO-06U	286	288	2	0.160	0.220
3476	CO-06U	288	290	2	0.300	0.320
3477	CO-06U	290	292	2	0.170	0.140
3478	CO-06U	292	294	2	0.100	0.130
3479	CO-06U	294	296	2	0.100	0.120
3481	CO-06U	296	298	2	0.070	0.100
3482	CO-06U	298	300	2	0.060	0.120
3483	CO-06U	300	302	2	0.100	0.130
3484	CO-06U	302	304	2	0.150	0.250
3485	CO-06U	304	306	2	0.150	0.170
3486	CO-06U	306	308	2	0.070	0.090
3487	CO-06U	308	310	2	0.050	0.090
3488	CO-06U	310	312	2	0.060	0.090
3489	CO-06U	312	314	2	0.040	0.080
3490	CO-06U	314	316	2	0.270	0.210
3491	CO-06U	316	318	2	0.120	0.210
3492	CO-06U	318	320	2	0.150	0.200
3493	CO-06U	320	322	2	0.220	0.240
3494	CO-06U	322	324	2	0.100	0.240

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3495	CO-06U	324	326	2	0.140	0.230
3496	CO-06U	326	328	2	0.200	0.200
3497	CO-06U	328	330	2	0.100	0.150
3498	CO-06U	330	332	2	0.090	0.100
3499	CO-06U	332	334	2	0.030	0.050
3500	CO-06U	334	336	2	0.080	0.080
3500.01	CO-06U	336	338	2	0.120	0.110
5902	CO-06U	338	340	2	0.080	0.080
5903	CO-06U	340	342	2	0.050	0.100
5904	CO-06U	342	344	2	0.070	0.120
5905	CO-06U	344	346	2	0.060	0.150
5906	CO-06U	346	348	2	0.080	0.150
5907	CO-06U	348	350	2	0.120	0.150
5908	CO-06U	350	352	2	0.160	0.200
5909	CO-06U	352	354	2	0.010	0.140
5910	CO-06U	354	356	2	0.050	0.070
5911	CO-06U	356	358	2	0.110	0.140
5912	CO-06U	358	360	2	0.100	0.100
5913	CO-06U	360	362	2	0.030	0.060
5914	CO-06U	362	364	2	0.040	0.130
5915	CO-06U	364	366	2	0.120	0.160
5916	CO-06U	366	368	2	0.090	0.190
5917	CO-06U	368	370	2	0.090	0.120
5918	CO-06U	370	372	2	0.020	0.100
5919	CO-06U	372	374	2	0.070	0.080
5920	CO-06U	374	376	2	0.070	0.130
5921	CO-06U	376	378	2	0.100	0.120
5922	CO-06U	378	380	2	0.070	0.120
5924	CO-06U	380	382	2	0.100	0.110
5925	CO-06U	382	384	2	0.130	0.150
5926	CO-06U	384	386	2	0.140	0.190
5927	CO-06U	386	388	2	0.090	0.140
5928	CO-06U	388	390	2	0.100	0.160
5929	CO-06U	390	392	2	0.150	0.180
5930	CO-06U	392	394	2	0.180	0.410
5931	CO-06U	394	396	2	0.150	0.350
5932	CO-06U	396	398	2	0.090	0.280
5933	CO-06U	398	400	2	0.200	0.080
900001	CO-10E	0	2	2	0.850	0.090
900002	CO-10E	2	4	2	0.960	0.080
900003	CO-10E	4	6	2	0.500	0.220
900004	CO-10E	6	8	2	0.430	0.160
900005	CO-10E	8	10	2	0.500	0.180
900006	CO-10E	10	12	2	0.580	0.230
900007	CO-10E	12	14	2	0.520	0.300
900008	CO-10E	14	16	2	0.660	0.550
900009	CO-10E	16	18	2	0.830	0.710
900010	CO-10E	18	20	2	0.620	0.550
900011	CO-10E	20	22	2	0.620	0.770
900012	CO-10E	22	24	2	0.650	0.450
900013	CO-10E	24	26	2	0.500	0.350
900014	CO-10E	26	28	2	0.380	0.450
900015	CO-10E	28	30	2	0.650	0.640
900016	CO-10E	30	32	2	0.550	0.340
900017	CO-10E	32	34	2	0.590	0.450

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
900018	CO-10E	34	36	2	0.590	0.340
900019	CO-10E	36	38	2	0.520	0.470
900020	CO-10E	38	40	2	0.960	0.600
900021	CO-10E	40	42	2	1.080	1.680
900022	CO-10E	42	44	2	0.930	6.530
900023	CO-10E	44	46	2	1.100	2.010
900024	CO-10E	46	48	2	0.920	2.540
900025	CO-10E	48	50	2	1.250	1.700
900026	CO-10E	50	52	2	1.140	0.950
900027	CO-10E	52	54	2	1.330	1.240
6188	CO-10E	54	56	2	0.870	1.020
6189	CO-10E	56	58	2	0.890	0.320
6190	CO-10E	58	60	2	0.567	0.236
6191	CO-10E	60	62	2	0.580	0.230
6192	CO-10E	62	64	2	0.420	0.245
6193	CO-10E	64	66	2	0.420	0.212
6194	CO-10E	66	68	2	0.280	0.233
6195	CO-10E	68	70	2	0.590	0.380
6196	CO-10E	70	72	2	0.260	0.209
6197	CO-10E	72	74	2	1.260	1.450
6198	CO-10E	74	76	2	1.050	0.530
6199	CO-10E	76	78	2	0.470	0.200
6200	CO-10E	78	80	2	0.350	0.192
6497	CO-10E	80	82	2	0.300	0.146
6498	CO-10E	82	84	2	0.600	1.170
6499	CO-10E	84	86	2	0.510	0.300
6500	CO-10E	86	88	2	0.600	0.213
900101	CO-12E	0	2	2	2.180	0.070
900102	CO-12E	2	4	2	2.100	0.090
900103	CO-12E	4	6	2	2.070	0.100
900104	CO-12E	6	8	2	1.540	0.100
900105	CO-12E	8	10	2	1.570	0.080
900106	CO-12E	10	12	2	1.080	0.080
900107	CO-12E	12	14	2	1.500	0.080
900108	CO-12E	14	16	2	1.950	0.080
900109	CO-12E	16	18	2	1.930	0.220
900110	CO-12E	18	20	2	1.670	0.310
900111	CO-12E	20	22	2	1.410	0.700
900112	CO-12E	22	24	2	1.380	0.480
900113	CO-12E	24	26	2	1.040	0.730
900114	CO-12E	26	28	2	0.840	0.850
900115	CO-12E	28	30	2	0.550	0.910
900116	CO-12E	30	32	2	0.710	0.760
900117	CO-12E	32	34	2	0.670	0.940
900118	CO-12E	34	36	2	0.460	0.580
900119	CO-12E	36	38	2	0.600	1.250
900120	CO-12E	38	40	2	0.480	0.850
900121	CO-12E	40	42	2	0.590	0.950
900122	CO-12E	42	44	2	0.500	1.370
900123	CO-12E	44	46	2	0.450	0.890
6201	CO-12E	46	48	2	0.650	0.730
6202	CO-12E	48	50	2	0.320	0.415
6203	CO-12E	50	52	2	0.560	0.790
6204	CO-12E	52	54	2	0.680	0.770
6205	CO-12E	54	56	2	0.320	0.420

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6206	CO-12E	56	58	2	0.620	0.900
6207	CO-12E	58	60	2	0.370	0.610
6208	CO-12E	60	62	2	0.460	2.940
6209	CO-12E	62	64	2	0.670	0.920
6210	CO-12E	64	66	2	0.710	1.070
6211	CO-12E	66	68	2	0.760	1.180
6212	CO-12E	68	70	2	1.030	0.430
6213	CO-12E	70	72	2	0.870	0.700
6214	CO-12E	72	74	2	0.800	0.600
6215	CO-12E	74	76	2	1.060	0.645
6216	CO-12E	76	78	2	1.060	0.695
6217	CO-12E	78	80	2	0.750	0.400
6218	CO-12E	80	82	2	1.020	0.650
6219	CO-12E	82	84	2	0.950	0.560
6220	CO-12E	84	86	2	1.030	0.655
6222	CO-12E	86	88	2	0.950	0.450
6223	CO-12E	88	90	2	0.640	1.500
6224	CO-12E	90	92	2	0.810	0.520
6225	CO-12E	92	94	2	0.960	0.790
6226	CO-12E	94	96	2	1.060	0.600
6227	CO-12E	96	98	2	1.210	0.760
6228	CO-12E	98	100	2	1.410	0.840
6229	CO-12E	100	102	2	2.170	1.440
6230	CO-12E	102	104	2	2.110	1.140
6231	CO-12E	104	106	2	1.080	0.760
6232	CO-12E	106	108	2	1.230	0.970
6233	CO-12E	108	110	2	1.870	0.830
6234	CO-12E	110	112	2	1.710	1.010
6235	CO-12E	112	114	2	0.890	0.430
6236	CO-12E	114	116	2	1.100	0.680
6237	CO-12E	116	118	2	1.600	0.520
6238	CO-12E	118	120	2	0.470	0.620
6239	CO-12E	120	122	2	1.100	0.870
6240	CO-12E	122	124	2	2.160	0.850
6241	CO-12E	124	126	2	1.640	0.820
6242	CO-12E	126	128	2	0.810	0.250
6244	CO-12E	128	130	2	0.730	0.410
6245	CO-12E	130	132	2	2.450	1.100
6246	CO-12E	132	134	2	1.000	0.520
6247	CO-12E	134	136	2	0.750	0.440
6248	CO-12E	136	138	2	1.260	0.304
6249	CO-12E	138	140	2	1.150	0.780
6250	CO-12E	140	142	2	1.620	0.570
6251	CO-12E	142	144	2	1.180	0.460
6252	CO-12E	144	146	2	0.830	0.490
6253	CO-12E	146	148	2	0.890	0.450
6254	CO-12E	148	150	2	0.690	1.280
6255	CO-12E	150	152	2	0.920	0.790
6256	CO-12E	152	154	2	0.420	0.420
6257	CO-12E	154	156	2	0.750	0.610
6258	CO-12E	156	158	2	1.030	0.385
6259	CO-12E	158	160	2	1.140	0.420
6260	CO-12E	160	162	2	1.310	0.490
6261	CO-12E	162	164	2	0.860	0.440
6262	CO-12E	164	166	2	1.140	0.530

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6263	CO-12E	166	168	2	1.340	0.500
6264	CO-12E	168	170	2	1.930	0.940
6266	CO-12E	170	172	2	1.630	0.730
6267	CO-12E	172	174	2	1.510	0.600
6268	CO-12E	174	176	2	0.900	0.340
6269	CO-12E	176	178	2	0.520	0.730
6270	CO-12E	178	180	2	0.840	0.800
12077	CO-12E	180	182	2	1.710	0.870
12078	CO-12E	182	184	2	1.050	0.360
12079	CO-12E	184	186	2	1.420	0.830
12080	CO-12E	186	188	2	0.890	0.680
12081	CO-12E	188	190	2	1.030	0.440
12082	CO-12E	190	192	2	3.750	0.300
12083	CO-12E	192	194	2	3.530	0.580
12084	CO-12E	194	196	2	0.920	0.420
12085	CO-12E	196	198	2	0.960	0.450
12086	CO-12E	198	200	2	1.390	0.670
6281	CO-12E	200	202	2	0.770	0.870
6282	CO-12E	202	204	2	0.920	0.800
6283	CO-12E	204	206	2	0.550	0.750
6284	CO-12E	206	208	2	1.230	0.700
6285	CO-12E	208	210	2	1.090	0.840
6286	CO-12E	210	212	2	1.110	0.770
6288	CO-12E	212	214	2	1.330	0.990
6289	CO-12E	214	216	2	0.970	0.900
6290	CO-12E	216	218	2	1.290	0.640
6291	CO-12E	218	220	2	1.130	1.170
6292	CO-12E	220	222	2	1.250	1.260
6293	CO-12E	222	224	2	0.650	0.950
6294	CO-12E	224	226	2	0.630	0.810
6295	CO-12E	226	228	2	0.630	0.710
6296	CO-12E	228	230	2	1.200	0.490
6297	CO-12E	230	232	2	0.790	0.440
6298	CO-12E	232	234	2	1.230	0.625
6299	CO-12E	234	236	2	1.250	1.305
6300	CO-12E	236	238	2	0.840	0.910
6301	CO-12E	238	240	2	1.470	0.625
6302	CO-12E	240	242	2	0.550	0.555
6303	CO-12E	242	244	2	0.650	0.715
6304	CO-12E	244	246	2	0.450	1.030
6305	CO-12E	246	248	2	1.070	1.070
6306	CO-12E	248	250	2	1.870	1.090
6307	CO-12E	250	252	2	2.000	1.010
6308	CO-12E	252	254	2	1.290	0.700
6310	CO-12E	254	256	2	1.320	0.300
6311	CO-12E	256	258	2	1.270	0.450
6312	CO-12E	258	260	2	0.780	1.300
6313	CO-12E	260	262	2	1.600	0.920
6314	CO-12E	262	264	2	1.080	0.830
6315	CO-12E	264	266	2	0.840	0.570
6316	CO-12E	266	268	2	1.010	0.700
6317	CO-12E	268	270	2	1.080	0.750
6318	CO-12E	270	272	2	1.360	0.690
6319	CO-12E	272	274	2	1.930	0.820
6320	CO-12E	274	276	2	1.480	0.720

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6321	CO-12E	276	278	2	1.530	0.850
6322	CO-12E	278	280	2	1.210	1.120
6323	CO-12E	280	282	2	1.200	1.360
6324	CO-12E	282	284	2	2.200	1.300
6325	CO-12E	284	286	2	2.070	1.200
6326	CO-12E	286	288	2	1.530	1.220
6327	CO-12E	288	290	2	1.470	0.885
6328	CO-12E	290	292	2	1.070	0.660
6329	CO-12E	292	294	2	1.560	0.850
6330	CO-12E	294	296	2	2.110	0.945
6332	CO-12E	296	298	2	1.430	0.800
6333	CO-12E	298	300	2	1.230	0.640
6334	CO-12E	300	302	2	1.170	0.550
6335	CO-12E	302	304	2	0.900	0.420
6336	CO-12E	304	306	2	0.780	0.385
6337	CO-12E	306	308	2	1.790	1.150
6338	CO-12E	308	310	2	1.130	0.540
6339	CO-12E	310	312	2	0.960	0.530
6340	CO-12E	312	314	2	0.930	0.610
6341	CO-12E	314	316	2	1.130	0.730
6342	CO-12E	316	318	2	0.900	0.495
6343	CO-12E	318	320	2	0.570	0.348
6344	CO-12E	320	322	2	0.990	0.465
6345	CO-12E	322	324	2	0.430	0.261
6346	CO-12E	324	326	2	0.580	0.645
6347	CO-12E	326	328	2	0.990	0.635
6348	CO-12E	328	330	2	1.340	0.700
6349	CO-12E	330	332	2	1.100	0.640
6350	CO-12E	332	334	2	0.770	0.745
6351	CO-12E	334	336	2	0.200	0.105
6352	CO-12E	336	338	2	0.710	0.350
6354	CO-12E	338	340	2	0.680	0.367
6355	CO-12E	340	342	2	0.190	0.129
6356	CO-12E	342	344	2	0.410	0.256
6357	CO-12E	344	346	2	0.970	0.590
6358	CO-12E	346	348	2	0.480	0.236
6359	CO-12E	348	350	2	0.140	0.107
6360	CO-12E	350	352	2	0.140	0.565
6361	CO-12E	352	354	2	0.280	0.610
6362	CO-12E	354	356	2	0.150	0.540
6363	CO-12E	356	358	2	0.300	0.374
6364	CO-12E	358	360	2	0.500	0.530
6365	CO-12E	360	362	2	0.420	0.570
6366	CO-12E	362	364	2	0.300	0.630
6367	CO-12E	364	366	2	0.510	0.560
6368	CO-12E	366	368	2	0.520	0.500
6369	CO-12E	368	370	2	0.300	0.229
6370	CO-12E	370	372	2	0.220	0.211
6371	CO-12E	372	374	2	0.180	0.283
6372	CO-12E	374	376	2	0.260	0.470
6373	CO-12E	376	378	2	0.450	0.322
6374	CO-12E	378	380	2	0.400	0.420
6376	CO-12E	380	382	2	0.760	0.485
6377	CO-12E	382	384	2	0.550	0.332
6378	CO-12E	384	386	2	0.420	0.306

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6379	CO-12E	386	388	2	0.510	0.302
6380	CO-12E	388	390	2	0.730	0.475
6381	CO-12E	390	392	2	0.490	0.380
6382	CO-12E	392	394	2	0.920	0.500
6383	CO-12E	394	396	2	0.680	0.465
6384	CO-12E	396	398	2	0.950	0.580
6385	CO-12E	398	400	2	1.120	0.790
6386	CO-12E	400	402	2	0.940	0.710
6387	CO-12E	402	404	2	0.590	0.460
6388	CO-12E	404	406	2	0.700	0.465
6389	CO-12E	406	408	2	0.580	0.321
6390	CO-12E	408	410	2	0.270	0.271
6391	CO-12E	410	412	2	0.280	0.154
6392	CO-12E	412	414	2	0.220	0.193
6393	CO-12E	414	416	2	0.200	0.128
6394	CO-12E	416	418	2	0.320	0.188
6395	CO-12E	418	420	2	0.150	0.097
6396	CO-12E	420	422	2	0.140	0.107
6398	CO-12E	422	424	2	0.160	0.140
6399	CO-12E	424	426	2	0.230	0.145
6400	CO-12E	426	428	2	0.360	0.287
6401	CO-12E	428	430	2	0.530	0.327
6402	CO-12E	430	432	2	0.560	0.450
6403	CO-12E	432	434	2	0.580	0.400
6404	CO-12E	434	436	2	0.330	0.157
6405	CO-12E	436	438	2	0.350	0.236
6406	CO-12E	438	440	2	0.410	0.323
6407	CO-12E	440	442	2	0.310	0.266
6408	CO-12E	442	444	2	0.280	0.362
6409	CO-12E	444	446	2	0.430	0.343
6410	CO-12E	446	448	2	0.590	0.490
6411	CO-12E	448	450	2	0.470	0.268
6412	CO-12E	450	452	2	0.640	0.294
6413	CO-12E	452	454	2	0.940	0.625
6414	CO-12E	454	456	2	0.520	0.328
6415	CO-12E	456	458	2	0.360	0.253
6416	CO-12E	458	460	2	0.340	0.234
6417	CO-12E	460	462	2	0.350	0.212
6418	CO-12E	462	464	2	0.290	0.570
6420	CO-12E	464	466	2	0.350	0.234
6421	CO-12E	466	468	2	0.350	0.223
6422	CO-12E	468	470	2	0.390	0.450
6423	CO-12E	470	472	2	0.390	0.490
6424	CO-12E	472	474	2	0.570	0.835
6425	CO-12E	474	476	2	0.400	0.430
6426	CO-12E	476	477	1	0.140	0.155
900201	CO-14G	0	2	2	1.450	0.090
900202	CO-14G	2	4	2	1.420	0.080
900203	CO-14G	4	6	2	1.160	0.080
900204	CO-14G	6	8	2	1.500	0.090
900205	CO-14G	8	10	2	0.920	0.110
900206	CO-14G	10	12	2	0.670	0.120
900207	CO-14G	12	14	2	1.580	0.110
900208	CO-14G	14	16	2	1.680	0.120
900209	CO-14G	16	18	2	1.580	0.100

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
900210	CO-14G	18	20	2	2.020	0.110
900211	CO-14G	20	22	2	1.950	0.110
900212	CO-14G	22	24	2	1.880	0.160
900213	CO-14G	24	26	2	1.700	0.120
900214	CO-14G	26	28	2	2.330	0.110
6451	CO-14G	28	30	2	2.510	0.070
6452	CO-14G	30	32	2	2.260	0.050
6453	CO-14G	32	34	2	1.840	0.100
6454	CO-14G	34	36	2	1.750	0.100
6455	CO-14G	36	38	2	2.480	0.090
6456	CO-14G	38	40	2	0.820	0.080
6457	CO-14G	40	42	2	1.670	0.045
6458	CO-14G	42	44	2	2.430	0.048
6460	CO-14G	44	46	2	1.830	0.007
6461	CO-14G	46	48	2	1.980	0.028
6462	CO-14G	48	50	2	2.630	0.082
6463	CO-14G	50	52	2	2.000	0.500
6464	CO-14G	52	54	2	1.130	0.610
6465	CO-14G	54	56	2	1.800	0.620
6466	CO-14G	56	58	2	1.730	1.020
6467	CO-14G	58	60	2	1.380	1.090
6468	CO-14G	60	62	2	0.820	0.900
6469	CO-14G	62	64	2	1.090	0.480
6470	CO-14G	64	66	2	1.240	0.440
6471	CO-14G	66	68	2	1.960	0.730
6472	CO-14G	68	70	2	2.460	0.900
6473	CO-14G	70	72	2	2.100	0.890
6474	CO-14G	72	74	2	1.500	0.630
6475	CO-14G	74	76	2	0.590	0.560
6476	CO-14G	76	78	2	1.260	0.370
6477	CO-14G	78	80	2	1.520	0.620
6478	CO-14G	80	82	2	1.220	0.540
6479	CO-14G	82	84	2	1.870	0.580
6480	CO-14G	84	86	2	1.890	0.780
6482	CO-14G	86	88	2	1.410	0.600
6483	CO-14G	88	90	2	1.180	0.460
6484	CO-14G	90	92	2	1.410	0.450
6485	CO-14G	92	94	2	1.170	0.420
6486	CO-14G	94	96	2	1.480	0.620
6487	CO-14G	96	98	2	1.830	0.850
6488	CO-14G	98	100	2	1.790	0.740
6489	CO-14G	100	102	2	1.100	0.630
6490	CO-14G	102	104	2	1.240	0.620
6491	CO-14G	104	106	2	1.280	0.460
6492	CO-14G	106	108	2	1.610	0.640
6493	CO-14G	108	110	2	1.270	0.960
6494	CO-14G	110	112	2	2.690	0.940
6495	CO-14G	112	114	2	1.570	0.610
900301	CO-18K	0	2	2	1.500	0.140
900302	CO-18K	2	4	2	1.600	0.130
900303	CO-18K	4	6	2	1.830	0.140
900304	CO-18K	6	8	2	2.270	0.160
900305	CO-18K	8	10	2	2.170	0.100
900306	CO-18K	10	12	2	2.670	0.160
900307	CO-18K	12	14	2	1.670	0.110

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
900308	CO-18K	14	16	2	1.500	0.100
900309	CO-18K	16	18	2	1.670	0.190
900310	CO-18K	18	20	2	1.670	0.030
900311	CO-18K	20	22	2	1.430	0.040
900312	CO-18K	22	24	2	1.330	0.020
900313	CO-18K	24	26	2	2.170	0.020
900314	CO-18K	26	28	2	2.400	0.040
900315	CO-18K	28	30	2	2.900	0.740
900316	CO-18K	30	32	2	2.200	0.350
900317	CO-18K	32	34	2	2.190	1.400
900318	CO-18K	34	36	2	2.160	1.640
900319	CO-18K	36	38	2	1.660	1.350
900320	CO-18K	38	40	2	2.260	1.200
900321	CO-18K	40	42	2	2.200	2.100
900322	CO-18K	42	44	2	2.160	1.450
900323	CO-18K	44	46	2	2.260	1.390
900324	CO-18K	46	48	2	2.230	1.600
900325	CO-18K	48	50	2	1.270	1.200
900326	CO-18K	50	52	2	1.500	1.360
900327	CO-18K	52	54	2	1.870	2.400
900328	CO-18K	54	56	2	1.830	2.500
900329	CO-18K	56	58	2	1.830	2.050
900330	CO-18K	58	60	2	1.730	1.650
900331	CO-18K	60	62	2	1.730	1.160
900332	CO-18K	62	64	2	1.600	0.650
900333	CO-18K	64	66	2	2.000	1.040
6160	CO-18K	66.4	68	1.6	1.280	0.430
6161	CO-18K	68	70	2	1.190	0.370
180001	CO-18K	70	72	2	2.030	0.570
180002	CO-18K	72	74	2	1.500	0.550
180003	CO-18K	74	76	2	1.620	0.660
180004	CO-18K	76	78	2	1.780	0.570
180005	CO-18K	78	80	2	2.180	0.640
180006	CO-18K	80	82	2	1.540	0.680
180007	CO-18K	82	84	2	1.520	0.690
180008	CO-18K	84	86	2	1.080	0.950
180009	CO-18K	86	88	2	2.300	0.740
180010	CO-18K	88	90	2	2.070	0.840
6162	CO-18K	90	92	2	1.980	0.730
6163	CO-18K	92	94	2	3.040	0.910
6164	CO-18K	94	96	2	3.370	0.830
6165	CO-18K	96	98	2	2.700	0.790
6166	CO-18K	98	100	2	2.180	0.700
2751	CO-18M	0	2	2	1.880	0.028
2752	CO-18M	2	4	2	2.710	0.067
2753	CO-18M	4	6	2	2.390	0.084
2754	CO-18M	6	8	2	1.210	0.108
2755	CO-18M	8	10	2	1.070	0.100
2756	CO-18M	10	12	2	0.690	0.087
2757	CO-18M	12	14	2	0.410	0.078
2758	CO-18M	14	16	2	1.820	0.041
2759	CO-18M	16	18	2	3.000	0.064
2760	CO-18M	18	20	2	2.430	0.065
2761	CO-18M	20	22	2	2.880	0.043
2762	CO-18M	22	24	2	1.750	0.031

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2763	CO-18M	24	26	2	1.610	0.027
2764	CO-18M	26	28	2	1.920	0.042
2765	CO-18M	28	30	2	1.890	0.046
2766	CO-18M	30	32	2	1.950	0.047
2767	CO-18M	32	34	2	2.200	0.079
2768	CO-18M	34	36	2	1.990	0.058
2769	CO-18M	36	38	2	1.430	0.048
2770	CO-18M	38	40	2	1.410	0.180
2771	CO-18M	40	42	2	1.570	0.450
2772	CO-18M	42	44	2	1.730	0.638
2773	CO-18M	44	46	2	1.750	0.788
2774	CO-18M	46	48	2	1.160	0.258
2775	CO-18M	48	50	2	1.410	0.500
2776	CO-18M	50	52	2	1.580	1.163
2777	CO-18M	52	54	2	1.490	1.300
2778	CO-18M	54	56	2	1.320	1.200
2779	CO-18M	56	58	2	1.420	2.412
2780	CO-18M	58	60	2	1.100	2.119
2781	CO-18M	60	62	2	0.910	0.763
2782	CO-18M	62	64	2	0.880	0.731
2783	CO-18M	64	66	2	0.630	0.913
2784	CO-18M	66	68	2	1.400	1.631
2785	CO-18M	68	70	2	1.060	0.305
2786	CO-18M	70	72	2	0.890	0.331
2787	CO-18M	72	74	2	0.400	0.185
2788	CO-18M	74	76	2	0.730	0.207
2789	CO-18M	76	78	2	1.070	0.299
2790	CO-18M	78	80	2	0.960	0.256
2791	CO-18M	80	82	2	0.860	0.278
2792	CO-18M	82	84	2	1.370	0.400
2793	CO-18M	84	86	2	1.770	0.550
2794	CO-18M	86	88	2	1.690	0.480
2795	CO-18M	88	90	2	1.600	0.410
2796	CO-18M	90	92	2	1.170	0.390
2797	CO-18M	92	94	2	1.330	0.370
2798	CO-18M	94	96	2	0.840	0.249
2799	CO-18M	96	98	2	0.810	0.224
2800	CO-18M	98	100	2	0.490	0.224
2801	CO-18M	100	102	2	1.620	0.638
2802	CO-18M	102	104	2	1.620	0.638
2803	CO-18M	104	106	2	1.000	0.637
2804	CO-18M	106	108	2	1.690	0.606
2805	CO-18M	108	110	2	1.080	0.334
2806	CO-18M	110	112	2	1.630	0.600
2807	CO-18M	112	114	2	1.570	0.538
2808	CO-18M	114	116	2	1.000	0.336
2809	CO-18M	116	118	2	1.240	0.525
2810	CO-18M	118	120	2	1.310	0.525
2811	CO-18M	120	122	2	1.390	0.351
2812	CO-18M	122	124	2	1.080	0.344
2813	CO-18M	124	126	2	1.930	0.788
2814	CO-18M	126	128	2	1.090	0.306
2815	CO-18M	128	130	2	1.360	0.488
2816	CO-18M	130	132	2	1.540	0.500
2817	CO-18M	132	134	2	1.580	0.500

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2818	CO-18M	134	136	2	1.510	0.443
2819	CO-18M	136	138	2	1.200	0.663
2820	CO-18M	138	140	2	1.480	0.440
2821	CO-18M	140	142	2	1.830	0.588
2822	CO-18M	142	144	2	2.760	0.713
2823	CO-18M	144	146	2	2.540	0.769
2824	CO-18M	146	148	2	1.650	0.506
2825	CO-18M	148	150	2	1.720	0.525
2826	CO-18M	150	152	2	1.360	0.224
2827	CO-18M	152	154	2	1.360	0.265
2828	CO-18M	154	156	2	1.300	0.266
2829	CO-18M	156	158	2	1.490	0.481
2830	CO-18M	158	160	2	1.250	0.500
2831	CO-18M	160	162	2	1.860	0.469
2832	CO-18M	162	164	2	2.210	0.525
2833	CO-18M	164	166	2	2.330	0.638
2834	CO-18M	166	168	2	2.430	0.653
2835	CO-18M	168	170	2	2.330	0.481
2836	CO-18M	170	172	2	1.650	0.650
2837	CO-18M	172	174	2	1.670	0.353
2838	CO-18M	174	176	2	1.270	0.365
2839	CO-18M	176	178	2	1.230	0.525
2840	CO-18M	178	180	2	2.070	0.520
2843	CO-18M	184	186	2	2.230	0.600
2844	CO-18M	186	188	2	2.230	0.600
2845	CO-18M	188	190	2	2.230	0.600
2846	CO-18M	190	192	2	2.230	0.600
2847	CO-18M	192	194	2	2.000	0.600
2848	CO-18M	194	196	2	2.000	0.600
2849	CO-18M	196	198	2	2.000	0.600
2851	CO-18M	200	202	2	0.850	0.600
2852	CO-18M	202	204	2	1.000	0.323
2853	CO-18M	204	206	2	1.310	0.323
2854	CO-18M	206	208	2	1.680	0.445
2855	CO-18M	208	210	2	1.570	0.395
2856	CO-18M	210	212	2	1.920	0.343
2857	CO-18M	212	214	2	1.150	0.314
2858	CO-18M	214	216	2	1.100	0.247
2859	CO-18M	216	218	2	1.940	0.430
2860	CO-18M	218	220	2	2.890	0.838
2861	CO-18M	220	222	2	7.210	1.347
2862	CO-18M	222	224	2	4.440	1.025
2863	CO-18M	224	226	2	4.310	1.188
2864	CO-18M	226	228	2	1.730	0.763
2865	CO-18M	228	230	2	2.330	1.088
2866	CO-18M	230	232	2	2.520	1.163
2867	CO-18M	232	234	2	1.840	1.169
2868	CO-18M	234	236	2	1.610	0.938
2869	CO-18M	236	238	2	1.650	0.875
2870	CO-18M	238	240	2	3.240	1.125
2871	CO-18M	240	242	2	4.310	1.753
2873	CO-18M	242	244	2	10.670	3.488
2874	CO-18M	244	246	2	10.530	2.919
2875	CO-18M	246	248	2	12.930	4.013
2876	CO-18M	248	250	2	12.330	3.800

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2877	CO-18M	250	252	2	11.670	3.806
2878	CO-18M	252	254	2	7.090	3.413
2879	CO-18M	254	256	2	5.530	3.100
2880	CO-18M	256	258	2	3.260	1.775
2881	CO-18M	258	260	2	4.560	1.784
2882	CO-18M	260	262	2	2.000	1.006
2883	CO-18M	262	264	2	2.010	0.900
2884	CO-18M	264	266	2	0.530	0.850
2885	CO-18M	266	268	2	0.930	0.600
2886	CO-18M	268	270	2	1.780	0.538
2887	CO-18M	270	272	2	2.210	0.850
2888	CO-18M	272	274	2	2.080	0.800
2889	CO-18M	274	276	2	0.930	0.336
2890	CO-18M	276	278	2	1.230	0.375
2891	CO-18M	278	280	2	1.100	0.368
2892	CO-18M	280	282	2	0.960	0.606
2893	CO-18M	282	284	2	1.240	0.581
2895	CO-18M	284	286	2	1.760	0.428
2896	CO-18M	286	288	2	1.290	0.475
2897	CO-18M	288	290	2	1.410	0.556
2898	CO-18M	290	292	2	1.050	0.403
2899	CO-18M	292	294	2	2.170	0.763
2900	CO-18M	294	296	2	0.780	0.278
2901	CO-18M	296	298	2	0.560	0.192
2902	CO-18M	298	300	2	0.580	0.215
2903	CO-18M	300	302	2	0.530	0.227
2904	CO-18M	302	304	2	0.790	0.347
2905	CO-18M	304	306	2	0.780	0.294
2906	CO-18M	306	308	2	0.600	0.230
2907	CO-18M	308	310	2	1.730	0.838
2908	CO-18M	310	312	2	0.930	0.337
2909	CO-18M	312	314	2	0.250	0.182
2910	CO-18M	314	316	2	0.590	0.345
2911	CO-18M	316	318	2	1.740	0.844
2912	CO-18M	318	320	2	1.240	0.581
2913	CO-18M	320	322	2	0.880	0.311
2914	CO-18M	322	324	2	1.290	0.500
2915	CO-18M	324	326	2	1.520	0.694
2917	CO-18M	326	328	2	1.580	0.600
2918	CO-18M	328	330	2	1.190	0.374
2919	CO-18M	330	332	2	0.870	0.429
2920	CO-18M	332	334	2	0.690	0.431
2921	CO-18M	334	336	2	0.780	0.312
2922	CO-18M	336	338	2	0.480	0.278
2923	CO-18M	338	340	2	0.750	0.226
2924	CO-18M	340	342	2	0.930	0.348
2925	CO-18M	342	344	2	1.750	0.875
2926	CO-18M	344	346	2	0.920	0.418
2927	CO-18M	346	348	2	0.910	0.345
2928	CO-18M	348	350	2	1.270	0.675
2929	CO-18M	350	352	2	0.540	0.237
2930	CO-18M	352	354	2	0.640	0.262
2931	CO-18M	354	356	2	0.780	0.292
2932	CO-18M	356	358	2	1.270	0.575
2933	CO-18M	358	360	2	1.250	0.638

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2934	CO-18M	360	362	2	0.650	0.269
2935	CO-18M	362	364	2	0.740	0.339
2936	CO-18M	364	366	2	0.630	0.292
2937	CO-18M	366	368	2	0.610	0.275
2939	CO-18M	368	370	2	1.010	0.525
2940	CO-18M	370	372	2	1.330	0.675
2941	CO-18M	372	374	2	1.900	1.038
2942	CO-18M	374	376	2	0.870	0.556
2943	CO-18M	376	378	2	0.830	0.513
2944	CO-18M	378	380	2	1.020	0.538
2945	CO-18M	380	382	2	0.840	0.436
2946	CO-18M	382	384	2	0.850	0.488
2947	CO-18M	384	386	2	0.940	0.513
2948	CO-18M	386	388	2	0.700	0.475
2949	CO-18M	388	390	2	1.260	0.725
2950	CO-18M	390	392	2	0.930	0.481
2951	CO-18M	392	394	2	0.490	0.274
2952	CO-18M	394	396	2	0.790	0.320
2953	CO-18M	396	398	2	0.780	0.321
2954	CO-18M	398	400	2	0.880	0.334
2955	CO-18M	400	402	2	0.600	0.331
2956	CO-18M	402	404	2	0.720	0.354
2957	CO-18M	404	406	2	0.510	0.272
2958	CO-18M	406	408	2	0.620	0.328
2959	CO-18M	408	410	2	0.660	0.355
2961	CO-18M	410	412	2	0.390	0.249
2962	CO-18M	412	414	2	0.460	0.243
2963	CO-18M	414	416	2	0.360	0.215
2964	CO-18M	416	418	2	0.330	0.192
2965	CO-18M	418	420	2	0.300	0.190
2966	CO-18M	420	422	2	0.240	0.151
2967	CO-18M	422	424	2	0.290	0.206
2968	CO-18M	424	426	2	0.510	0.343
2969	CO-18M	426	428	2	0.600	0.310
2970	CO-18M	428	430	2	0.250	0.231
2971	CO-18M	430	432	2	0.470	0.310
2972	CO-18M	432	434	2	0.530	0.317
2973	CO-18M	434	436	2	0.380	0.233
2974	CO-18M	436	437	1	0.500	0.350
18001	CO-18U	0	2	2	0.750	0.140
18002	CO-18U	2	4	2	5.980	0.120
18003	CO-18U	4	6	2	1.480	0.570
18004	CO-18U	6	8	2	1.480	0.570
18005	CO-18U	8	10	2	1.480	0.570
18006	CO-18U	10	12	2	1.480	0.570
6427	CO-18U	12	14	2	1.540	1.030
6428	CO-18U	14	16	2	1.490	0.950
6429	CO-18U	16	18	2	0.620	0.380
6430	CO-18U	18	20	2	0.430	0.270
6431	CO-18U	20	22	2	0.490	0.310
6501	CO-18U	22	24	2	0.370	0.225
6502	CO-18U	24	26	2	0.190	0.120
6503	CO-18U	26	28	2	0.150	0.086
6504	CO-18U	28	30	2	0.140	0.077
6505	CO-18U	30	32	2	0.140	0.136

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6506	CO-18U	32	34	2	0.150	0.250
6507	CO-18U	34	36	2	0.130	0.220
6508	CO-18U	36	38	2	0.220	0.400
6509	CO-18U	38	40	2	0.360	0.400
6510	CO-18U	40	42	2	0.210	0.400
6511	CO-18U	42	44	2	0.800	0.650
6513	CO-18U	44	46	2	0.380	0.460
6514	CO-18U	46	48	2	0.200	0.260
6515	CO-18U	48	50	2	0.260	0.300
6516	CO-18U	50	52	2	0.180	0.280
6517	CO-18U	52	54	2	0.250	0.250
6518	CO-18U	54	56	2	0.280	0.300
6519	CO-18U	56	58	2	0.270	0.310
6520	CO-18U	58	60	2	0.220	0.310
6521	CO-18U	60	62	2	0.610	1.000
6522	CO-18U	62	64	2	0.450	0.300
6523	CO-18U	64	66	2	0.180	0.134
6524	CO-18U	66	68	2	0.190	0.144
6525	CO-18U	68	70	2	0.220	0.123
6526	CO-18U	70	72	2	0.280	0.170
6527	CO-18U	72	74	2	0.410	0.270
6528	CO-18U	74	76	2	0.240	0.154
6529	CO-18U	76	78	2	0.280	0.168
6530	CO-18U	78	80	2	0.230	0.168
6531	CO-18U	80	82	2	0.400	0.155
6532	CO-18U	82	84	2	0.220	0.115
6533	CO-18U	84	86	2	0.910	0.670
6535	CO-18U	86	88	2	0.570	0.310
6536	CO-18U	88	90	2	0.640	0.390
6537	CO-18U	90	92	2	0.480	0.204
6538	CO-18U	92	94	2	0.300	0.142
6539	CO-18U	94	96	2	0.310	0.186
6540	CO-18U	96	98	2	0.230	0.260
6541	CO-18U	98	100	2	0.240	0.250
6542	CO-18U	100	102	2	0.290	0.240
6543	CO-18U	102	104	2	0.290	0.230
6544	CO-18U	104	106	2	0.280	0.220
6545	CO-18U	106	108	2	0.230	0.200
6546	CO-18U	108	110	2	0.260	0.200
6547	CO-18U	110	112	2	0.260	0.200
6548	CO-18U	112	114	2	0.180	0.190
6549	CO-18U	114	116	2	0.210	0.250
6550	CO-18U	116	118	2	0.150	-1.000
900401	CO-19I	0	2	2	1.590	0.390
900402	CO-19I	2	4	2	1.330	0.100
900403	CO-19I	4	6	2	0.920	0.120
900404	CO-19I	6	8	2	0.920	0.100
900405	CO-19I	8	10	2	0.750	0.330
900406	CO-19I	10	12	2	0.800	0.120
900407	CO-19I	12	14	2	1.000	0.120
900408	CO-19I	14	16	2	1.200	0.100
900409	CO-19I	16	18	2	1.750	0.120
900410	CO-19I	18	20	2	1.740	0.060
6167	CO-19I	40	42	2	1.930	2.220
6168	CO-19I	42	44	2	1.620	1.390

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6169	CO-19I	44	46	2	1.740	1.270
6170	CO-19I	46	48	2	1.240	0.990
6171	CO-19I	48	50	2	0.630	0.300
6172	CO-19I	50	52	2	0.770	0.340
6173	CO-19I	52	54	2	0.940	0.250
19001	CO-19I	54	56	2	1.510	0.700
19002	CO-19I	56	58	2	1.590	0.650
19003	CO-19I	58	60	2	2.020	1.230
19004	CO-19I	60	62	2	2.550	1.150
19005	CO-19I	62	64	2	1.470	0.780
19006	CO-19I	64	66	2	2.520	1.400
19007	CO-19I	66	68	2	2.170	0.830
19008	CO-19I	68	70	2	2.170	0.830
19009	CO-19I	70	72	2	2.170	0.830
6174	CO-19I	72	74	2	1.510	0.620
6175	CO-19I	74	76	2	0.530	0.670
6176	CO-19I	76	78	2	1.520	0.640
6177	CO-19I	78	80	2	1.490	0.620
6178	CO-19I	80	82	2	1.530	0.590
6179	CO-19I	82	84	2	1.400	0.670
6180	CO-19I	84	86	2	1.440	0.490
6181	CO-19I	86	88	2	1.470	0.620
6182	CO-19I	88	90	2	1.930	0.815
6183	CO-19I	90	91.5	1.5	1.610	0.700
5951	CO-26M	0	2	2	0.500	0.038
5952	CO-26M	2	4	2	1.090	0.033
5953	CO-26M	4	6	2	0.660	0.042
5954	CO-26M	6	8	2	1.350	0.029
5955	CO-26M	8	10	2	0.500	0.022
5956	CO-26M	10	12	2	1.060	0.024
5957	CO-26M	12	14	2	0.670	0.029
5958	CO-26M	14	16	2	0.630	0.044
5959	CO-26M	16	18	2	0.720	1.260
5960	CO-26M	18	20	2	0.660	0.570
5961	CO-26M	20	22	2	0.400	0.244
5962	CO-26M	22	24	2	0.540	0.660
5963	CO-26M	24	26	2	0.570	1.530
5964	CO-26M	26	28	2	0.700	1.430
5965	CO-26M	28	30	2	0.870	0.780
5966	CO-26M	30	32	2	0.840	0.590
5967	CO-26M	32	34	2	0.410	0.540
5968	CO-26M	34	36	2	0.270	0.263
5969	CO-26M	36	38	2	0.670	0.213
5970	CO-26M	38	40	2	0.650	0.185
5971	CO-26M	40	42	2	0.420	0.294
5972	CO-26M	42	44	2	0.260	0.174
5974	CO-26M	44	46	2	0.300	0.199
5975	CO-26M	46	48	2	0.980	0.342
5976	CO-26M	48	50	2	0.690	0.165
5977	CO-26M	50	52	2	0.300	0.159
5978	CO-26M	52	54	2	0.220	0.530
5979	CO-26M	54	56	2	0.190	0.242
5980	CO-26M	56	58	2	0.540	0.295
5981	CO-26M	58	60	2	0.550	0.700
5982	CO-26M	60	62	2	0.640	0.520

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5983	CO-26M	62	64	2	0.820	0.560
5984	CO-26M	64	66	2	0.630	0.331
5985	CO-26M	66	68	2	0.370	0.185
5986	CO-26M	68	70	2	1.830	0.261
5987	CO-26M	70	72	2	0.290	0.187
5988	CO-26M	72	74	2	0.310	0.205
5989	CO-26M	74	76	2	0.670	0.199
5990	CO-26M	76	78	2	0.190	0.046
5991	CO-26M	78	80	2	0.610	0.297
5992	CO-26M	80	82	2	0.310	0.247
5993	CO-26M	82	84	2	0.160	0.094
5994	CO-26M	84	86	2	0.120	0.122
5996	CO-26M	86	88	2	0.270	0.202
5997	CO-26M	88	90	2	0.320	0.199
5998	CO-26M	90	92	2	0.650	0.340
5999	CO-26M	92	94	2	0.920	0.420
6000	CO-26M	94	96	2	1.100	0.520
6001	CO-26M	96	98	2	0.600	0.323
6002	CO-26M	98	100	2	1.170	0.510
6003	CO-26M	100	102	2	0.350	0.097
6004	CO-26M	102	104	2	0.280	0.139
6005	CO-26M	104	106	2	0.130	0.128
6006	CO-26M	106	108	2	0.210	0.273
6007	CO-26M	108	110	2	0.230	0.178
6008	CO-26M	110	112	2	0.330	0.183
6009	CO-26M	112	114	2	0.250	0.133
6010	CO-26M	114	116	2	0.220	0.082
6011	CO-26M	116	118	2	0.240	0.143
6012	CO-26M	118	120	2	0.150	0.063
6013	CO-26M	120	122	2	0.130	0.055
6014	CO-26M	122	124	2	0.220	0.090
6015	CO-26M	124	126	2	0.120	0.225
6016	CO-26M	126	128	2	0.200	0.085
6018	CO-26M	128	130	2	0.170	0.068
6019	CO-26M	130	132	2	0.180	0.100
6020	CO-26M	132	134	2	0.150	0.098
6021	CO-26M	134	136	2	0.650	0.109
6022	CO-26M	136	138	2	0.150	0.078
6023	CO-26M	138	140	2	0.150	0.072
6024	CO-26M	140	142	2	0.340	0.190
6025	CO-26M	142	144	2	0.170	0.101
6026	CO-26M	144	146	2	0.060	0.070
6027	CO-26M	146	148	2	0.110	0.098
6028	CO-26M	148	150	2	0.110	0.038
6029	CO-26M	150	152	2	0.040	0.031
6030	CO-26M	152	154	2	0.240	0.074
6031	CO-26M	154	156	2	0.420	0.144
6032	CO-26M	156	158	2	0.160	0.103
6033	CO-26M	158	160	2	0.180	0.126
6034	CO-26M	160	162	2	0.340	0.218
6035	CO-26M	162	164	2	0.140	0.043
6036	CO-26M	164	166	2	0.130	0.057
6037	CO-26M	166	168	2	0.200	0.068
6038	CO-26M	168	170	2	0.220	0.087
6040	CO-26M	170	172	2	0.300	0.084

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6041	CO-26M	172	174	2	0.060	0.040
6042	CO-26M	174	176	2	0.220	0.134
6043	CO-26M	176	178	2	0.400	0.213
6044	CO-26M	178	180	2	0.280	0.143
6045	CO-26M	180	182	2	0.320	0.162
6046	CO-26M	182	184	2	0.460	0.264
6047	CO-26M	184	186	2	0.380	0.246
6048	CO-26M	186	188	2	0.570	0.290
6049	CO-26M	188	190	2	0.190	0.072
6050	CO-26M	190	192	2	0.240	0.108
6051	CO-26M	192	194	2	0.470	0.160
6052	CO-26M	194	196	2	0.440	0.183
6053	CO-26M	196	198	2	0.300	0.120
6054	CO-26M	198	200	2	0.390	0.211
6055	CO-26M	200	202	2	0.340	0.176
6056	CO-26M	202	204	2	0.750	0.157
6057	CO-26M	204	206	2	0.580	0.262
6058	CO-26M	206	208	2	0.710	0.310
6059	CO-26M	208	210	2	0.720	0.358
6060	CO-26M	210	212	2	0.560	0.306
6062	CO-26M	212	214	2	0.640	0.460
6063	CO-26M	214	216	2	0.200	0.109
6064	CO-26M	216	218	2	1.130	0.138
6065	CO-26M	218	220	2	0.240	0.150
6066	CO-26M	220	222	2	0.270	0.430
6067	CO-26M	222	224	2	0.130	0.680
6068	CO-26M	224	226	2	0.050	0.184
6069	CO-26M	226	228	2	0.200	0.390
6070	CO-26M	228	230	2	0.590	0.510
6071	CO-26M	230	232	2	0.430	0.310
6072	CO-26M	232	234	2	0.220	0.154
6073	CO-26M	234	236	2	0.360	0.171
6074	CO-26M	236	238	2	0.320	0.159
6075	CO-26M	238	240	2	0.270	0.129
6076	CO-26M	240	242	2	0.290	0.139
6077	CO-26M	242	244	2	0.470	0.227
6078	CO-26M	244	246	2	0.260	0.116
6079	CO-26M	246	248	2	0.200	0.106
6080	CO-26M	248	250	2	0.570	0.187
6081	CO-26M	250	252	2	0.240	0.185
6082	CO-26M	252	254	2	0.660	0.168
6084	CO-26M	254	256	2	0.770	0.390
6085	CO-26M	256	258	2	0.380	0.320
6086	CO-26M	258	260	2	0.530	0.239
6087	CO-26M	260	262	2	0.380	0.207
6088	CO-26M	262	264	2	0.260	0.348
6089	CO-26M	264	266	2	1.050	0.730
6090	CO-26M	266	268	2	0.510	0.362
6091	CO-26M	268	270	2	0.880	0.560
26001	CO-26M	270	272	2	0.750	0.330
26002	CO-26M	272	274	2	0.730	0.420
26003	CO-26M	274	276	2	1.830	0.700
26004	CO-26M	276	278	2	1.530	0.750
26005	CO-26M	278	280	2	1.230	0.800
26006	CO-26M	280	282	2	1.630	1.050

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
26007	CO-26M	282	284	2	1.700	1.100
26008	CO-26M	284	286	2	1.770	1.140
26009	CO-26M	286	288	2	0.670	0.550
26010	CO-26M	288	290	2	0.500	0.480
26011	CO-26M	290	292	2	0.330	0.400
6103	CO-26M	292	294	2	0.190	0.430
6104	CO-26M	294	296	2	0.170	0.380
6106	CO-26M	296	298	2	0.640	0.490
6107	CO-26M	298	300	2	1.270	0.670
6108	CO-26M	300	302	2	0.660	0.580
6109	CO-26M	302	304	2	0.790	0.365
6110	CO-26M	304	306	2	0.580	0.202
6111	CO-26M	306	308	2	0.390	0.194
6112	CO-26M	308	310	2	0.670	0.280
6113	CO-26M	310	312	2	0.380	0.160
6114	CO-26M	312	314	2	0.320	0.140
6115	CO-26M	314	316	2	0.580	0.156
6116	CO-26M	316	318	2	0.300	0.155
6117	CO-26M	318	320	2	0.260	0.099
6118	CO-26M	320	322	2	0.460	0.170
6119	CO-26M	322	324	2	0.410	0.197
6120	CO-26M	324	326	2	0.340	0.282
6121	CO-26M	326	328	2	0.230	0.106
6122	CO-26M	328	330	2	0.130	0.063
6123	CO-26M	330	332	2	0.300	0.133
6124	CO-26M	332	334	2	0.260	0.152
6125	CO-26M	334	336	2	0.310	0.172
6126	CO-26M	336	338	2	0.370	0.202
6128	CO-26M	338	340	2	0.270	0.153
6129	CO-26M	340	342	2	0.110	0.076
6130	CO-26M	342	344	2	0.400	0.149
6131	CO-26M	344	346	2	0.170	0.081
6132	CO-26M	346	348	2	0.230	0.150
6133	CO-26M	348	350	2	0.440	0.311
6134	CO-26M	350	352	2	0.240	0.226
6135	CO-26M	352	354	2	0.190	0.132
6136	CO-26M	354	356	2	0.210	0.323
6137	CO-26M	356	358	2	0.170	0.089
6138	CO-26M	358	360	2	0.130	0.092
6139	CO-26M	360	362	2	0.190	0.250
6140	CO-26M	362	364	2	0.620	0.430
6141	CO-26M	364	366	2	0.440	0.268
6142	CO-26M	366	368	2	0.370	0.234
6143	CO-26M	368	370	2	0.290	0.620
6144	CO-26M	370	372	2	0.310	0.340
6145	CO-26M	372	374	2	0.130	0.138
6146	CO-26M	374	376	2	0.200	0.160
6147	CO-26M	376	378	2	0.090	0.181
6148	CO-26M	378	380	2	1.310	0.194
6150	CO-26M	380	382	2	0.010	0.312
6151	CO-26M	382	384	2	0.010	0.187
6152	CO-26M	384	386	2	0.060	0.168
6153	CO-26M	386	388	2	0.130	0.233
6154	CO-26M	388	390	2	0.180	0.332
6155	CO-26M	390	392	2	0.100	0.132

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6156	CO-26M	392	394	2	0.030	0.189
6157	CO-26M	394	396	2	0.100	0.324
6158	CO-26M	396	398	2	0.050	0.450
6159	CO-26M	398	400	2	0.090	0.354
1	CCD-004	0	2	2	0.110	0.230
2	CCD-004	2	4	2	0.100	0.110
3	CCD-004	4	6	2	0.050	0.069
4	CCD-004	6	8	2	0.100	0.270
5	CCD-004	8	10	2	0.100	0.190
6	CCD-004	10	12	2	0.120	0.200
7	CCD-004	12	14	2	0.080	0.140
8	CCD-004	14	16	2	0.070	0.120
9	CCD-004	16	18	2	0.080	0.180
10	CCD-004	18	20	2	0.140	0.240
11	CCD-004	20	22	2	0.100	0.150
12	CCD-004	22	24	2	0.120	0.270
13	CCD-004	24	26	2	0.100	0.230
14	CCD-004	26	28	2	0.050	0.220
16	CCD-004	28	30	2	0.080	0.200
17	CCD-004	30	32	2	0.080	0.150
18	CCD-004	32	34	2	0.120	0.290
19	CCD-004	34	36	2	0.090	0.360
20	CCD-004	36	38	2	0.130	0.300
21	CCD-004	38	40	2	0.130	0.270
22	CCD-004	40	42	2	0.100	0.290
23	CCD-004	42	44	2	0.070	0.210
24	CCD-004	44	46	2	0.090	0.280
25	CCD-004	46	48	2	0.150	0.180
26	CCD-004	48	50	2	0.090	0.170
27	CCD-004	50	52	2	0.050	0.130
28	CCD-004	52	54	2	0.090	0.210
29	CCD-004	54	56	2	0.100	0.260
31	CCD-004	56	58	2	0.110	0.290
32	CCD-004	58	60	2	0.100	0.360
33	CCD-004	60	62	2	0.060	0.120
34	CCD-004	62	64	2	0.040	0.100
35	CCD-004	64	66	2	0.080	0.170
36	CCD-004	66	68	2	0.070	0.130
37	CCD-004	68	70	2	0.050	0.140
38	CCD-004	70	72	2	0.050	0.086
39	CCD-004	72	74	2	0.070	0.180
40	CCD-004	74	76	2	0.070	0.160
41	CCD-004	76	78	2	0.070	0.140
42	CCD-004	78	80	2	0.050	0.120
43	CCD-004	80	82	2	0.070	0.160
44	CCD-004	82	84	2	0.060	0.150
46	CCD-004	84	86	2	0.050	0.090
47	CCD-004	86	88	2	0.050	0.140
48	CCD-004	88	90	2	0.070	0.170
49	CCD-004	90	92	2	0.050	0.190
50	CCD-004	92	94	2	0.070	0.180
51	CCD-004	94	96	2	0.090	0.230
52	CCD-004	96	98	2	0.050	0.077
53	CCD-004	98	100	2	0.080	0.120
54	CCD-004	100	102	2	0.040	0.042

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
55	CCD-004	102	104	2	0.020	0.029
56	CCD-004	104	106	2	0.010	0.019
57	CCD-004	106	108	2	0.010	0.016
58	CCD-004	108	110	2	0.010	0.014
59	CCD-004	110	112	2	0.010	0.010
61	CCD-004	112	114	2	0.010	0.010
62	CCD-004	114	116	2	0.020	0.011
63	CCD-004	116	118	2	0.010	0.048
64	CCD-004	118	120	2	0.010	0.016
65	CCD-004	120	122	2	0.030	0.018
66	CCD-004	122	124	2	0.040	0.029
67	CCD-004	124	126	2	0.060	0.012
68	CCD-004	126	128	2	0.040	0.097
69	CCD-004	128	130	2	0.030	0.092
70	CCD-004	130	132	2	0.050	0.084
71	CCD-004	132	134	2	0.040	0.033
72	CCD-004	134	136	2	0.030	0.020
73	CCD-004	136	138	2	0.020	0.022
74	CCD-004	138	140	2	0.030	0.014
76	CCD-004	140	142	2	0.050	0.015
77	CCD-004	142	144	2	0.020	0.018
78	CCD-004	144	146	2	0.020	0.018
79	CCD-004	146	148	2	0.010	0.021
80	CCD-004	148	150	2	0.060	0.025
81	CCD-004	150	152	2	0.050	0.043
82	CCD-004	152	154	2	0.040	0.034
83	CCD-004	154	156	2	0.060	0.061
84	CCD-004	156	158	2	0.060	0.045
85	CCD-004	158	160	2	0.030	0.019
86	CCD-004	160	162	2	0.040	0.018
87	CCD-004	162	164	2	0.180	0.200
88	CCD-004	164	166	2	0.040	0.040
89	CCD-004	166	168	2	0.070	0.050
91	CCD-004	168	170	2	0.030	0.093
92	CCD-004	170	172	2	0.010	0.034
93	CCD-004	172	174	2	0.030	0.046
94	CCD-004	174	176	2	0.030	0.038
95	CCD-004	176	178	2	0.020	0.036
96	CCD-004	178	180	2	0.040	0.017
97	CCD-004	180	182	2	0.030	0.025
98	CCD-004	182	184	2	0.030	0.052
99	CCD-004	184	186	2	0.030	0.034
100	CCD-004	186	188	2	0.010	0.029
101	CCD-004	188	190	2	0.030	0.016
102	CCD-004	190	192	2	0.030	0.020
103	CCD-004	192	194	2	0.040	0.037
104	CCD-004	194	196	2	0.020	0.036
106	CCD-004	196	198	2	0.050	0.044
107	CCD-004	198	200	2	0.030	0.016
108	CCD-004	200	202	2	0.010	0.019
109	CCD-004	202	204	2	0.010	0.020
110	CCD-004	204	206	2	0.010	0.081
111	CCD-004	206	208	2	0.020	0.008
112	CCD-004	208	210	2	0.030	0.004
113	CCD-004	210	212	2	0.030	0.006

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
114	CCD-004	212	214	2	0.040	0.009
115	CCD-004	214	216	2	0.020	0.007
116	CCD-004	216	218	2	0.050	0.015
117	CCD-004	218	220	2	0.050	0.029
118	CCD-004	220	222	2	0.030	0.022
119	CCD-004	222	224	2	0.020	0.036
121	CCD-004	224	226	2	0.120	0.033
122	CCD-004	226	228	2	0.080	0.026
123	CCD-004	228	230	2	0.030	0.014
124	CCD-004	230	232	2	0.020	0.017
125	CCD-004	232	234	2	0.030	0.061
126	CCD-004	234	236	2	0.040	0.023
127	CCD-004	236	238	2	0.040	0.033
128	CCD-004	238	240	2	0.060	0.013
129	CCD-004	240	242	2	0.040	0.009
130	CCD-004	242	244	2	0.100	0.085
131	CCD-004	244	246	2	0.180	0.010
132	CCD-004	246	248	2	0.050	0.026
133	CCD-004	248	250	2	0.100	0.016
134	CCD-004	250	252	2	0.050	0.065
136	CCD-004	252	254	2	0.060	0.077
137	CCD-004	254	256	2	0.110	0.150
138	CCD-004	256	258	2	0.140	0.210
139	CCD-004	258	260	2	0.120	0.150
140	CCD-004	260	262	2	0.110	0.094
141	CCD-004	262	264	2	0.080	0.063
142	CCD-004	264	266	2	0.100	0.093
143	CCD-004	266	268	2	0.120	0.130
144	CCD-004	268	270	2	0.120	0.120
145	CCD-004	270	272	2	0.120	0.083
146	CCD-004	272	274	2	0.090	0.087
147	CCD-004	274	276	2	0.130	0.120
148	CCD-004	276	278	2	0.140	0.100
149	CCD-004	278	280	2	0.120	0.110
151	CCD-004	280	282	2	0.110	0.100
152	CCD-004	282	284	2	0.130	0.130
153	CCD-004	284	286	2	0.080	0.039
154	CCD-004	286	288	2	0.110	0.110
155	CCD-004	288	290	2	0.130	0.170
156	CCD-004	290	292	2	0.200	0.190
157	CCD-004	292	294	2	0.160	0.130
158	CCD-004	294	296	2	0.160	0.200
159	CCD-004	296	298	2	0.200	0.360
160	CCD-004	298	300	2	0.100	0.280
161	CCD-004	300	302	2	0.090	0.091
162	CCD-004	302	304	2	0.120	0.160
163	CCD-004	304	306	2	0.120	0.110
164	CCD-004	306	308	2	0.120	0.140
166	CCD-004	308	310	2	0.080	0.093
167	CCD-004	310	312	2	0.120	0.120
168	CCD-004	312	314	2	0.070	0.072
169	CCD-004	314	316	2	0.090	0.080
170	CCD-004	316	318	2	0.070	0.098
171	CCD-004	318	320	2	0.080	0.082
172	CCD-004	320	322	2	0.110	0.120

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
173	CCD-004	322	324	2	0.120	0.140
174	CCD-004	324	326	2	0.070	0.023
175	CCD-004	326	328	2	0.130	0.110
176	CCD-004	328	330	2	0.100	0.079
177	CCD-004	330	332	2	0.120	0.073
178	CCD-004	332	334	2	0.080	0.094
179	CCD-004	334	336	2	0.140	0.033
181	CCD-004	336	338	2	0.130	0.150
182	CCD-004	338	340	2	0.180	0.220
183	CCD-004	340	342	2	0.220	0.350
184	CCD-004	342	344	2	0.230	0.340
185	CCD-004	344	346	2	0.210	0.410
186	CCD-004	346	348	2	0.170	0.320
187	CCD-004	348	350	2	0.040	0.045
188	CCD-004	350	352	2	0.100	0.180
189	CCD-004	352	354	2	0.130	0.260
190	CCD-004	354	356	2	0.050	0.049
191	CCD-004	356	358	2	0.040	0.025
192	CCD-004	358	360	2	0.120	0.140
193	CCD-004	360	362	2	0.060	0.097
194	CCD-004	362	364	2	0.050	0.045
196	CCD-004	364	366	2	0.110	0.040
197	CCD-004	366	368	2	0.060	0.079
198	CCD-004	368	370	2	0.040	0.044
199	CCD-004	370	372	2	0.050	0.092
200	CCD-004	372	374	2	0.050	0.030
201	CCD-004	374	376	2	0.040	0.032
202	CCD-004	376	378	2	0.030	0.031
203	CCD-004	378	380	2	0.050	0.046
204	CCD-004	380	382	2	0.070	0.045
205	CCD-004	382	384	2	0.060	0.080
206	CCD-004	384	386	2	0.090	0.100
211	CCD-005	0	2	2	0.480	0.046
212	CCD-005	2	4	2	0.280	0.047
213	CCD-005	4	6	2	0.430	0.310
214	CCD-005	6	8	2	0.570	0.074
215	CCD-005	8	10	2	0.580	0.690
216	CCD-005	10	12	2	0.340	1.400
217	CCD-005	12	14	2	0.430	1.700
218	CCD-005	14	16	2	0.420	0.910
219	CCD-005	16	18	2	0.270	0.720
220	CCD-005	18	20	2	0.190	0.450
221	CCD-005	20	22	2	0.220	0.440
222	CCD-005	22	24	2	0.330	0.430
223	CCD-005	24	26	2	0.400	0.640
224	CCD-005	26	28	2	0.340	0.260
226	CCD-005	28	30	2	0.260	0.280
227	CCD-005	30	32	2	0.340	0.200
228	CCD-005	32	34	2	0.570	0.530
229	CCD-005	34	36	2	0.410	0.370
230	CCD-005	36	38	2	0.360	0.340
231	CCD-005	38	40	2	0.190	0.180
232	CCD-005	40	42	2	0.150	0.170
233	CCD-005	42	44	2	0.230	0.260
234	CCD-005	44	46	2	0.190	0.180

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
235	CCD-005	46	48	2	0.330	0.300
236	CCD-005	48	50	2	0.260	0.180
237	CCD-005	50	52	2	0.330	0.390
238	CCD-005	52	54	2	0.140	0.290
239	CCD-005	54	56	2	0.170	0.260
241	CCD-005	56	58	2	0.250	0.180
242	CCD-005	58	60	2	0.200	0.260
243	CCD-005	60	62	2	0.220	0.180
244	CCD-005	62	64	2	0.250	0.160
245	CCD-005	64	66	2	0.240	0.180
246	CCD-005	66	68	2	0.390	0.200
247	CCD-005	68	70	2	0.170	0.140
248	CCD-005	70	72	2	0.170	0.150
249	CCD-005	72	74	2	0.260	0.260
250	CCD-005	74	76	2	0.360	0.500
251	CCD-005	76	78	2	0.710	0.760
252	CCD-005	78	80	2	0.460	0.410
253	CCD-005	80	82	2	0.330	0.250
254	CCD-005	82	84	2	0.280	0.390
256	CCD-005	84	86	2	0.290	0.200
257	CCD-005	86	88	2	0.200	0.180
258	CCD-005	88	90	2	0.480	0.160
259	CCD-005	90	92	2	0.280	0.220
260	CCD-005	92	94	2	0.450	0.300
261	CCD-005	94	96	2	0.480	0.170
262	CCD-005	96	98	2	0.450	0.240
263	CCD-005	98	100	2	0.340	0.140
264	CCD-005	100	102	2	1.210	0.350
265	CCD-005	102	104	2	0.340	0.130
266	CCD-005	104	106	2	0.230	0.200
267	CCD-005	106	108	2	0.210	0.170
268	CCD-005	108	110	2	0.140	0.140
269	CCD-005	110	112	2	0.250	0.150
271	CCD-005	112	114	2	0.250	0.220
272	CCD-005	114	116	2	0.210	0.100
273	CCD-005	116	118	2	0.210	0.180
274	CCD-005	118	120	2	0.190	0.190
275	CCD-005	120	122	2	0.230	0.110
276	CCD-005	122	124	2	0.310	0.150
277	CCD-005	124	126	2	0.330	0.140
278	CCD-005	126	128	2	0.120	0.100
279	CCD-005	128	130	2	0.250	0.110
280	CCD-005	130	132	2	0.190	0.093
281	CCD-005	132	134	2	0.080	0.043
282	CCD-005	134	136	2	0.050	0.042
283	CCD-005	136	138	2	0.080	0.071
284	CCD-005	138	140	2	0.140	0.070
286	CCD-005	140	142	2	0.070	0.190
287	CCD-005	142	144	2	0.070	0.049
288	CCD-005	144	146	2	0.070	0.037
289	CCD-005	146	148	2	0.070	0.053
290	CCD-005	148	150	2	0.070	0.053
291	CCD-005	150	152	2	0.050	0.049
292	CCD-005	152	154	2	0.050	0.042
293	CCD-005	154	156	2	0.060	0.048

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
294	CCD-005	156	158	2	0.050	0.053
295	CCD-005	158	160	2	0.050	0.058
296	CCD-005	160	162	2	0.110	0.130
297	CCD-005	162	164	2	0.040	0.051
298	CCD-005	164	166	2	0.050	0.071
299	CCD-005	166	168	2	0.060	0.088
301	CCD-005	168	170	2	0.050	0.120
302	CCD-005	170	172	2	0.050	0.110
303	CCD-005	172	174	2	0.290	0.530
304	CCD-005	174	176	2	0.050	0.110
305	CCD-005	176	178	2	0.030	0.053
306	CCD-005	178	180	2	0.060	0.068
307	CCD-005	180	182	2	0.070	0.034
308	CCD-005	182	184	2	0.090	0.014
309	CCD-005	184	186	2	0.180	0.043
310	CCD-005	186	188	2	0.600	0.037
311	CCD-005	188	190	2	0.850	0.062
312	CCD-005	190	192	2	0.070	0.093
313	CCD-005	192	194	2	0.050	0.110
314	CCD-005	194	196	2	0.090	0.086
316	CCD-005	196	198	2	0.030	0.029
317	CCD-005	198	200	2	0.070	0.055
318	CCD-005	200	202	2	0.040	0.091
319	CCD-005	202	204	2	0.090	0.040
320	CCD-005	204	206	2	0.050	0.061
321	CCD-005	206	208	2	0.100	0.078
322	CCD-005	208	210	2	0.040	0.074
323	CCD-005	210	212	2	0.040	0.078
324	CCD-005	212	214	2	0.080	0.060
325	CCD-005	214	216	2	0.050	0.085
326	CCD-005	216	218	2	0.460	0.053
327	CCD-005	218	220	2	0.050	0.058
328	CCD-005	220	222	2	0.070	0.068
329	CCD-005	222	224	2	0.090	0.063
331	CCD-005	224	226	2	0.090	0.042
332	CCD-005	226	228	2	0.120	0.063
333	CCD-005	228	230	2	0.070	0.051
334	CCD-005	230	232	2	0.060	0.056
335	CCD-005	232	234	2	0.050	0.066
336	CCD-005	234	236	2	0.030	0.063
337	CCD-005	236	238	2	0.040	0.074
338	CCD-005	238	240	2	0.040	0.014
339	CCD-005	240	242	2	0.030	0.014
340	CCD-005	242	244	2	0.040	0.019
341	CCD-005	244	246	2	0.020	0.027
342	CCD-005	246	248	2	0.030	0.023
343	CCD-005	248	250	2	0.010	0.018
344	CCD-005	250	252	2	0.030	0.026
346	CCD-005	252	254	2	0.040	0.016
347	CCD-005	254	256	2	0.040	0.029
348	CCD-005	256	258	2	0.030	0.014
349	CCD-005	258	260	2	0.050	0.028
350	CCD-005	260	262	2	0.060	0.043
351	CCD-005	262	264	2	0.130	0.110
352	CCD-005	264	266	2	0.100	0.110

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
353	CCD-005	266	268	2	0.120	0.140
354	CCD-005	268	270	2	0.070	0.094
355	CCD-005	270	272	2	0.090	0.180
356	CCD-005	272	274	2	0.120	0.150
357	CCD-005	274	276	2	0.070	0.027
358	CCD-005	276	278	2	0.060	0.027
359	CCD-005	278	280	2	0.090	0.082
361	CCD-005	280	282	2	0.070	0.053
362	CCD-005	282	284	2	0.040	0.040
363	CCD-005	284	286	2	0.090	0.037
364	CCD-005	286	288	2	0.060	0.037
365	CCD-005	288	290	2	0.050	0.050
366	CCD-005	290	292	2	0.060	0.029
367	CCD-005	292	294	2	0.050	0.026
368	CCD-005	294	296	2	0.060	0.035
369	CCD-005	296	298	2	0.210	0.037
370	CCD-005	298	300	2	0.220	0.580
371	CCD-005	300	302	2	0.170	0.038
372	CCD-005	302	303.5	1.5	0.150	0.004
381	CCD-006	0	2	2	1.210	0.049
382	CCD-006	2	4	2	0.710	0.048
383	CCD-006	4	6	2	1.170	0.080
384	CCD-006	6	8	2	1.340	0.055
385	CCD-006	8	10	2	0.810	0.120
386	CCD-006	10	12	2	0.890	0.046
387	CCD-006	12	14	2	0.920	0.091
388	CCD-006	14	16	2	0.910	0.078
389	CCD-006	16	18	2	0.650	0.073
390	CCD-006	18	20	2	1.150	0.060
391	CCD-006	20	22	2	1.970	0.073
392	CCD-006	22	24	2	0.830	0.032
393	CCD-006	24	26	2	1.600	0.068
394	CCD-006	26	28	2	4.400	0.047
401	CCD-006	28	30	2	2.270	0.016
402	CCD-006	30	32	2	1.770	0.031
403	CCD-006	32	34	2	6.440	0.051
404	CCD-006	34	36	2	4.200	0.130
405	CCD-006	36	38	2	1.740	0.110
406	CCD-006	38	40	2	2.380	0.067
407	CCD-006	40	42	2	2.100	0.060
408	CCD-006	42	44	2	1.060	0.094
409	CCD-006	44	46	2	0.900	0.029
410	CCD-006	46	48	2	2.000	0.530
411	CCD-006	48	50	2	1.280	0.034
412	CCD-006	50	52	2	0.780	0.036
413	CCD-006	52	54	2	0.790	0.034
414	CCD-006	54	56	2	1.150	0.031
416	CCD-006	56	58	2	0.940	0.038
417	CCD-006	58	60	2	0.750	0.033
418	CCD-006	60	62	2	1.010	0.039
419	CCD-006	62	64	2	0.650	0.038
420	CCD-006	64	66	2	1.190	0.027
421	CCD-006	66	68	2	1.260	0.034
422	CCD-006	68	70	2	1.290	0.039
423	CCD-006	70	72	2	1.080	0.045

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
424	CCD-006	72	74	2	0.490	0.091
425	CCD-006	74	76	2	0.770	0.065
426	CCD-006	76	78	2	0.630	0.034
427	CCD-006	78	80	2	0.390	0.086
428	CCD-006	80	82	2	0.380	0.050
429	CCD-006	82	84	2	0.490	0.051
431	CCD-006	84	86	2	0.670	0.043
432	CCD-006	86	88	2	0.440	0.046
433	CCD-006	88	90	2	0.350	0.039
434	CCD-006	90	92	2	0.970	0.030
435	CCD-006	92	94	2	0.460	0.031
436	CCD-006	94	96	2	0.440	0.030
437	CCD-006	96	98	2	0.640	0.025
438	CCD-006	98	100	2	4.300	0.026
439	CCD-006	100	102	2	1.760	0.035
440	CCD-006	102	104	2	0.480	0.035
441	CCD-006	104	106	2	0.930	0.059
442	CCD-006	106	108	2	0.620	0.032
443	CCD-006	108	110	2	0.720	0.057
444	CCD-006	110	112	2	0.580	0.047
446	CCD-006	112	114	2	0.400	0.042
447	CCD-006	114	116	2	0.360	0.062
448	CCD-006	116	118	2	0.780	0.037
449	CCD-006	118	120	2	1.100	0.033
450	CCD-006	120	122	2	1.630	0.091
451	CCD-006	122	124	2	0.870	0.038
452	CCD-006	124	126	2	3.330	0.053
453	CCD-006	126	128	2	1.550	0.082
454	CCD-006	128	130	2	0.800	0.080
455	CCD-006	130	132	2	0.620	0.093
456	CCD-006	132	134	2	0.670	0.079
457	CCD-006	134	136	2	0.610	0.072
458	CCD-006	136	138	2	1.330	0.082
459	CCD-006	138	140	2	3.470	0.120
461	CCD-006	140	142	2	1.680	0.061
462	CCD-006	142	144	2	0.570	0.110
463	CCD-006	144	146	2	1.070	0.130
464	CCD-006	146	148	2	1.100	0.072
465	CCD-006	148	150	2	1.290	0.075
466	CCD-006	150	152	2	0.830	0.051
467	CCD-006	152	154	2	1.090	0.026
468	CCD-006	154	156	2	1.460	0.097
469	CCD-006	156	158	2	1.660	0.049
470	CCD-006	158	160	2	0.470	0.095
471	CCD-006	160	162	2	0.530	0.056
472	CCD-006	162	164	2	0.510	0.048
473	CCD-006	164	166	2	0.450	0.067
474	CCD-006	166	168	2	0.640	0.082
476	CCD-006	168	170	2	0.750	0.059
477	CCD-006	170	172	2	0.880	0.061
478	CCD-006	172	174	2	0.710	0.044
479	CCD-006	174	176	2	0.800	0.060
480	CCD-006	176	178	2	0.600	0.067
481	CCD-006	178	180	2	0.560	0.079
482	CCD-006	180	182	2	0.790	0.078

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
483	CCD-006	182	184	2	0.710	0.082
484	CCD-006	184	186	2	1.850	0.057
485	CCD-006	186	188	2	1.130	0.079
486	CCD-006	188	190	2	0.740	0.051
487	CCD-006	190	192	2	0.380	0.065
488	CCD-006	192	194	2	1.080	0.120
489	CCD-006	194	196	2	1.230	0.110
491	CCD-006	196	198	2	0.650	0.052
492	CCD-006	198	200	2	0.630	0.140
493	CCD-006	200	202	2	0.610	0.100
494	CCD-006	202	204	2	1.090	0.042
495	CCD-006	204	206	2	0.310	0.019
496	CCD-006	206	208	2	0.430	0.025
497	CCD-006	208	210	2	0.410	0.031
498	CCD-006	210	212	2	0.530	0.023
499	CCD-006	212	214	2	0.470	0.076
500	CCD-006	214	216	2	0.800	0.057
501	CCD-006	216	218	2	0.890	0.059
502	CCD-006	218	220	2	0.440	0.076
503	CCD-006	220	222	2	0.680	0.067
504	CCD-006	222	224	2	1.540	0.046
506	CCD-006	224	226	2	0.860	0.120
507	CCD-006	226	228	2	0.610	0.200
508	CCD-006	228	230	2	0.380	0.067
509	CCD-006	230	232	2	0.350	0.059
510	CCD-006	232	234	2	0.380	0.096
511	CCD-006	234	236	2	0.510	0.067
512	CCD-006	236	238	2	0.700	0.097
513	CCD-006	238	240	2	1.100	0.060
514	CCD-006	240	242	2	1.570	0.041
515	CCD-006	242	244	2	0.420	0.070
516	CCD-006	244	246	2	0.730	0.025
517	CCD-006	246	248	2	0.660	0.042
518	CCD-006	248	250	2	0.540	0.043
519	CCD-006	250	252	2	0.350	0.032
521	CCD-006	252	254	2	0.420	0.041
522	CCD-006	254	256	2	0.530	0.042
523	CCD-006	256	258	2	0.580	0.027
524	CCD-006	258	260	2	0.830	0.049
525	CCD-006	260	262	2	0.500	0.045
526	CCD-006	262	264	2	0.520	0.038
527	CCD-006	264	266	2	0.390	0.046
528	CCD-006	266	268	2	0.560	0.036
529	CCD-006	268	270	2	1.410	0.042
530	CCD-006	270	272	2	0.680	0.065
531	CCD-006	272	274	2	0.600	0.030
532	CCD-006	274	276	2	0.330	0.048
533	CCD-006	276	278	2	0.310	0.036
534	CCD-006	278	280	2	0.730	0.049
536	CCD-006	280	282	2	0.650	0.039
537	CCD-006	282	284	2	1.600	0.037
538	CCD-006	284	286	2	0.870	0.031
539	CCD-006	286	288	2	0.490	0.041
540	CCD-006	288	290	2	0.680	0.063
541	CCD-006	290	292	2	0.760	0.055

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
542	CCD-006	292	294	2	1.180	0.075
543	CCD-006	294	296	2	0.860	0.041
544	CCD-006	296	298	2	0.930	0.019
545	CCD-006	298	300	2	1.140	0.050
546	CCD-006	300	302	2	1.270	0.053
547	CCD-006	302	304	2	0.770	0.130
548	CCD-006	304	306	2	0.780	0.074
549	CCD-006	306	308	2	0.500	0.120
551	CCD-006	308	310	2	1.060	0.063
552	CCD-006	310	312	2	0.820	0.028
553	CCD-006	312	314	2	0.610	0.031
554	CCD-006	314	316	2	1.200	0.043
555	CCD-006	316	318	2	0.770	0.049
556	CCD-006	318	320	2	0.580	0.062
557	CCD-006	320	322	2	0.600	0.025
558	CCD-006	322	324	2	0.820	0.029
559	CCD-006	324	326	2	0.960	0.046
560	CCD-006	326	328	2	0.490	0.063
561	CCD-006	328	330	2	0.690	0.033
562	CCD-006	330	332	2	0.540	0.029
563	CCD-006	332	334	2	0.550	0.037
564	CCD-006	334	336	2	0.490	0.035
566	CCD-006	336	338	2	0.440	0.048
567	CCD-006	338	340	2	0.400	0.034
568	CCD-006	340	342	2	0.420	0.047
569	CCD-006	342	344	2	0.400	0.043
570	CCD-006	344	346	2	0.310	0.097
571	CCD-006	346	348	2	0.430	0.037
572	CCD-006	348	350	2	0.490	0.037
573	CCD-006	350	352	2	0.350	0.037
574	CCD-006	352	354	2	0.450	0.038
575	CCD-006	354	356	2	0.400	0.029
576	CCD-006	356	358	2	0.350	0.034
577	CCD-006	358	360	2	0.520	0.028
578	CCD-006	360	362	2	0.940	0.030
579	CCD-006	362	364	2	0.790	0.022
581	CCD-006	364	366	2	1.800	0.032
582	CCD-006	366	368	2	0.970	0.029
583	CCD-006	368	370	2	1.170	0.042
584	CCD-006	370	372	2	0.870	0.065
585	CCD-006	372	374	2	1.370	0.049
586	CCD-006	374	376	2	1.130	0.036
587	CCD-006	376	378	2	0.590	0.028
588	CCD-006	378	380	2	0.230	0.039
589	CCD-006	380	382	2	0.250	0.037
590	CCD-006	382	384	2	0.360	0.095
591	CCD-006	384	386	2	0.620	0.026
592	CCD-006	386	388	2	0.780	0.037
593	CCD-006	388	390	2	0.630	0.041
594	CCD-006	390	392	2	0.890	0.033
596	CCD-006	392	394	2	0.210	0.028
597	CCD-006	394	396	2	0.180	0.047
598	CCD-006	396	398	2	0.210	0.031
599	CCD-006	398	400	2	0.300	0.035
600	CCD-006	400	402	2	0.360	0.041

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
601	CCD-006	402	404	2	0.150	0.051
602	CCD-034	0	2	2	1.320	0.060
603	CCD-034	2	4	2	1.280	0.043
604	CCD-034	4	6	2	1.030	0.053
605	CCD-034	6	8	2	0.940	0.058
606	CCD-034	8	10	2	0.860	0.100
607	CCD-034	10	12	2	0.810	0.110
608	CCD-034	12	14	2	1.110	0.120
609	CCD-034	14	16	2	0.690	0.160
610	CCD-034	16	18	2	1.930	0.180
611	CCD-034	18	20	2	1.350	0.093
612	CCD-034	20	22	2	0.980	0.020
613	CCD-034	22	24	2	3.110	0.078
614	CCD-034	24	26	2	1.510	0.079
615	CCD-034	26	28	2	0.710	0.064
617	CCD-034	28	30	2	1.650	0.072
618	CCD-034	30	32	2	1.750	0.074
619	CCD-034	32	34	2	2.560	0.082
620	CCD-034	34	36	2	3.320	1.200
621	CCD-034	36	38	2	3.740	3.820
622	CCD-034	38	40	2	1.920	2.930
623	CCD-034	40	42	2	1.850	2.750
624	CCD-034	42	44	2	1.470	2.260
625	CCD-034	44	46	2	1.140	1.370
626	CCD-034	46	48	2	1.130	1.160
627	CCD-034	48	50	2	0.920	0.940
628	CCD-034	50	52	2	1.430	1.430
629	CCD-034	52	54	2	1.900	1.470
630	CCD-034	54	56	2	2.340	1.010
632	CCD-034	56	58	2	3.550	1.480
633	CCD-034	58	60	2	3.150	1.270
634	CCD-034	60	62	2	1.830	0.520
635	CCD-034	62	64	2	1.230	0.380
636	CCD-034	64	66	2	1.570	0.440
637	CCD-034	66	68	2	1.410	0.510
638	CCD-034	68	70	2	1.910	0.750
639	CCD-034	70	72	2	2.900	1.480
640	CCD-034	72	74	2	2.710	1.110
641	CCD-034	74	76	2	4.600	2.230
642	CCD-034	76	78	2	1.990	0.940
643	CCD-034	78	80	2	2.260	1.010
644	CCD-034	80	82	2	1.750	0.660
645	CCD-034	82	84	2	1.860	0.660
647	CCD-034	84	86	2	1.980	0.730
648	CCD-034	86	88	2	1.760	0.640
649	CCD-034	88	90	2	1.740	0.600
650	CCD-034	90	92	2	1.270	0.460
651	CCD-034	92	94	2	1.810	0.720
652	CCD-034	94	96	2	1.570	0.490
653	CCD-034	96	98	2	2.090	0.750
654	CCD-034	98	100	2	2.240	0.660
655	CCD-034	100	102	2	1.520	0.470
656	CCD-034	102	104	2	3.130	1.210
657	CCD-034	104	106	2	5.590	1.690
658	CCD-034	106	108	2	2.490	0.970

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
659	CCD-034	108	110	2	3.320	0.920
660	CCD-034	110	112	2	2.880	0.710
662	CCD-034	112	114	2	2.980	0.880
663	CCD-034	114	116	2	4.090	1.340
664	CCD-034	116	118	2	2.490	0.890
665	CCD-034	118	120	2	2.490	0.850
666	CCD-034	120	122	2	2.550	0.770
667	CCD-034	122	124	2	1.840	0.590
668	CCD-034	124	126	2	4.060	1.160
669	CCD-034	126	128	2	2.020	0.610
670	CCD-034	128	130	2	2.370	0.960
671	CCD-034	130	132	2	2.280	0.780
701	CCD-034	132	134	2	2.590	0.920
702	CCD-034	134	136	2	2.210	0.770
703	CCD-034	136	138	2	1.940	0.650
704	CCD-034	138	140	2	2.140	0.610
706	CCD-034	140	142	2	2.500	0.850
707	CCD-034	142	144	2	2.340	0.640
708	CCD-034	144	146	2	2.200	0.910
709	CCD-034	146	148	2	2.400	0.640
710	CCD-034	148	150	2	4.950	1.490
711	CCD-034	150	152	2	2.260	0.610
712	CCD-034	152	154	2	2.310	0.740
713	CCD-034	154	156	2	2.960	0.760
714	CCD-034	156	158	2	2.150	0.570
715	CCD-034	158	160	2	2.370	0.500
716	CCD-034	160	162	2	1.860	0.510
717	CCD-034	162	164	2	1.770	0.550
718	CCD-034	164	166	2	1.980	0.800
719	CCD-034	166	168	2	2.150	0.590
721	CCD-034	168	170	2	2.450	0.660
722	CCD-034	170	172	2	1.430	0.250
723	CCD-034	172	174	2	2.330	0.570
724	CCD-034	174	176	2	2.740	0.570
725	CCD-034	176	178	2	3.870	0.770
726	CCD-034	178	180	2	2.490	0.520
727	CCD-034	180	182	2	2.690	0.610
728	CCD-034	182	184	2	2.850	0.530
729	CCD-034	184	186	2	1.980	0.430
730	CCD-034	186	188	2	2.010	0.410
731	CCD-034	188	190	2	2.000	0.420
732	CCD-034	190	192	2	2.190	0.350
733	CCD-034	192	194	2	1.420	0.330
734	CCD-034	194	196	2	1.850	0.380
736	CCD-034	196	198	2	1.040	0.230
737	CCD-034	198	200	2	0.650	0.200
738	CCD-034	200	202	2	0.670	0.190
739	CCD-034	202	204	2	0.480	0.110
740	CCD-034	204	206	2	0.770	0.180
741	CCD-034	206	208	2	0.590	0.250
742	CCD-034	208	210	2	0.520	0.170
743	CCD-034	210	212	2	1.060	0.210
744	CCD-034	212	214	2	0.790	0.230
745	CCD-034	214	216	2	2.020	0.480
746	CCD-034	216	218	2	1.430	0.390

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
747	CCD-034	218	220	2	2.350	0.530
748	CCD-034	220	222	2	1.900	0.430
749	CCD-034	222	224	2	1.800	0.400
751	CCD-034	224	226	2	1.360	0.320
752	CCD-034	226	228	2	1.780	0.380
753	CCD-034	228	230	2	0.960	0.300
754	CCD-034	230	232	2	1.440	0.310
755	CCD-034	232	234	2	0.980	0.190
756	CCD-034	234	236	2	0.690	0.220
757	CCD-034	236	238	2	0.990	0.340
758	CCD-034	238	240	2	0.690	0.250
759	CCD-034	240	242	2	0.680	0.240
760	CCD-034	242	244	2	0.680	0.240
761	CCD-034	244	246	2	0.690	0.210
762	CCD-034	246	248	2	0.820	0.220
763	CCD-034	248	250	2	1.990	0.420
764	CCD-034	250	252	2	1.960	0.520
766	CCD-034	252	254	2	1.660	0.470
767	CCD-034	254	256	2	3.410	0.810
768	CCD-034	256	258	2	2.550	0.790
769	CCD-034	258	260	2	0.870	0.760
770	CCD-034	260	262	2	0.890	0.380
771	CCD-034	262	264	2	1.330	0.400
772	CCD-034	264	266	2	2.040	0.550
773	CCD-034	266	268	2	1.200	0.380
774	CCD-034	268	270	2	1.530	0.440
775	CCD-034	270	272	2	1.360	0.380
776	CCD-034	272	274	2	0.990	0.300
777	CCD-034	274	276	2	1.530	0.440
778	CCD-034	276	278	2	1.230	0.360
779	CCD-034	278	280	2	1.190	0.310
781	CCD-034	280	282	2	0.770	0.320
782	CCD-034	282	284	2	0.560	0.420
783	CCD-034	284	286	2	0.400	0.210
784	CCD-034	286	288	2	0.210	0.170
785	CCD-034	288	290	2	0.470	0.380
786	CCD-034	290	292	2	0.470	0.210
787	CCD-034	292	294	2	0.140	0.340
788	CCD-034	294	296	2	0.830	0.460
789	CCD-034	296	298	2	1.160	0.320
790	CCD-034	298	300	2	0.540	0.170
791	CCD-034	300	302	2	0.470	0.150
792	CCD-034	302	304	2	0.380	0.370
793	CCD-034	304	306	2	0.720	0.470
794	CCD-034	306	308	2	0.830	0.380
796	CCD-034	308	310	2	0.660	0.270
797	CCD-034	310	312	2	0.210	0.200
798	CCD-034	312	314	2	0.530	0.200
799	CCD-034	314	316	2	0.670	0.260
800	CCD-034	316	318	2	0.730	0.260
801	CCD-034	318	320	2	0.940	0.270
802	CCD-034	320	322	2	0.570	0.310
803	CCD-034	322	324	2	0.810	0.310
804	CCD-034	324	326	2	0.670	0.240
805	CCD-034	326	328	2	0.910	0.400

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
806	CCD-034	328	330	2	0.710	0.280
807	CCD-034	330	332	2	0.470	0.180
808	CCD-034	332	334	2	0.490	0.260
809	CCD-034	334	336	2	0.260	0.160
811	CCD-034	336	338	2	0.580	0.180
812	CCD-034	338	340	2	0.350	0.130
813	CCD-034	340	342	2	0.280	0.110
814	CCD-034	342	344	2	0.570	0.220
815	CCD-034	344	346	2	0.440	0.120
816	CCD-034	346	348	2	0.270	0.089
817	CCD-034	348	350	2	0.210	0.074
818	CCD-034	350	352	2	0.320	0.120
819	CCD-034	352	354	2	0.260	0.094
820	CCD-034	354	356	2	0.350	0.120
821	CCD-034	356	358	2	0.720	0.260
822	CCD-034	358	360	2	0.320	0.110
823	CCD-034	360	362	2	0.480	0.190
824	CCD-034	362	364	2	0.380	0.140
826	CCD-034	364	366	2	0.830	0.370
827	CCD-034	366	368	2	0.400	0.160
828	CCD-034	368	370	2	0.260	0.098
829	CCD-034	370	372	2	0.150	0.051
830	CCD-034	372	374	2	0.280	0.180
831	CCD-034	374	376	2	0.250	0.120
832	CCD-034	376	378	2	0.180	0.089
833	CCD-034	378	380	2	0.330	0.170
834	CCD-034	380	382	2	0.480	0.230
835	CCD-034	382	384	2	0.530	0.220
836	CCD-034	384	386	2	0.220	0.100
837	CCD-034	386	388	2	0.260	0.120
838	CCD-034	388	390	2	0.190	0.099
1101	CCD-035	0	2	2	0.370	0.010
1102	CCD-035	2	4	2	0.280	0.017
1103	CCD-035	4	6	2	0.200	0.022
1104	CCD-035	6	8	2	0.250	0.034
1105	CCD-035	8	10	2	0.380	0.051
1106	CCD-035	10	12	2	0.390	0.001
1107	CCD-035	12	14	2	0.710	0.044
1108	CCD-035	14	16	2	0.750	0.035
1109	CCD-035	16	18	2	0.390	0.031
1110	CCD-035	18	20	2	0.560	0.058
1111	CCD-035	20	22	2	0.420	0.070
1112	CCD-035	22	24	2	0.540	0.073
1113	CCD-035	24	26	2	0.140	0.080
1114	CCD-035	26	28	2	0.110	0.160
1115	CCD-035	28	30	2	0.090	0.200
1116	CCD-035	30	32	2	0.130	0.190
1117	CCD-035	32	34	2	0.180	0.300
1118	CCD-035	34	36	2	0.180	0.076
1119	CCD-035	36	38	2	0.140	0.066
1120	CCD-035	38	40	2	0.210	0.068
1121	CCD-035	40	42	2	0.260	0.130
1123	CCD-035	42	44	2	0.240	0.099
1124	CCD-035	44	46	2	0.260	0.150
1125	CCD-035	46	48	2	0.170	0.086

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1126	CCD-035	48	50	2	0.200	0.130
1127	CCD-035	50	52	2	0.120	0.150
1128	CCD-035	52	54	2	0.170	0.250
1129	CCD-035	54	56	2	0.180	0.170
1130	CCD-035	56	58	2	0.160	0.240
1131	CCD-035	58	60	2	0.100	0.120
1132	CCD-035	60	62	2	0.120	0.110
1133	CCD-035	62	64	2	0.130	0.110
1134	CCD-035	64	66	2	0.140	0.044
1135	CCD-035	66	68	2	0.100	0.029
1136	CCD-035	68	70	2	0.130	0.035
1137	CCD-035	70	72	2	0.160	0.053
1138	CCD-035	72	74	2	0.110	0.019
1139	CCD-035	74	76	2	0.080	0.020
1140	CCD-035	76	78	2	0.170	0.040
1141	CCD-035	78	80	2	0.100	0.031
1142	CCD-035	80	82	2	0.080	0.029
1143	CCD-035	82	84	2	0.130	0.038
1145	CCD-035	84	86	2	0.260	0.100
1146	CCD-035	86	88	2	0.190	0.074
1147	CCD-035	88	90	2	0.150	0.049
1148	CCD-035	90	92	2	0.100	0.034
1149	CCD-035	92	94	2	0.110	0.031
1150	CCD-035	94	96	2	0.100	0.032
1151	CCD-035	96	98	2	0.100	0.039
1152	CCD-035	98	100	2	0.080	0.020
1153	CCD-035	100	102	2	0.290	0.068
1154	CCD-035	102	104	2	0.440	0.160
1155	CCD-035	104	106	2	0.550	0.160
1156	CCD-035	106	108	2	0.130	0.054
1157	CCD-035	108	110	2	0.170	0.063
1158	CCD-035	110	112	2	0.080	0.025
1159	CCD-035	112	114	2	0.140	0.046
1160	CCD-035	114	116	2	0.080	0.027
1161	CCD-035	116	118	2	0.070	0.027
1162	CCD-035	118	120	2	0.070	0.032
1163	CCD-035	120	122	2	0.080	0.020
1164	CCD-035	122	124	2	0.060	0.024
1165	CCD-035	124	126	2	0.090	0.035
1167	CCD-035	126	128	2	0.080	0.050
1168	CCD-035	128	130	2	0.080	0.024
1169	CCD-035	130	132	2	0.050	0.016
1170	CCD-035	132	134	2	0.080	0.036
1171	CCD-035	134	136	2	0.070	0.028
1172	CCD-035	136	138	2	0.050	0.022
1173	CCD-035	138	140	2	0.060	0.025
1174	CCD-035	140	142	2	0.070	0.023
1175	CCD-035	142	144	2	0.120	0.064
1176	CCD-035	144	146	2	0.140	0.049
1177	CCD-035	146	148	2	0.070	0.022
1178	CCD-035	148	150	2	0.100	0.035
1179	CCD-035	150	152	2	0.060	0.020
1180	CCD-035	152	154	2	0.080	0.029
1181	CCD-035	154	156	2	0.170	0.077
1182	CCD-035	156	158	2	0.470	0.150

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1183	CCD-035	158	160	2	0.540	0.210
1184	CCD-035	160	162	2	0.120	0.067
1185	CCD-035	162	164	2	0.060	0.024
1186	CCD-035	164	166	2	0.140	0.053
1187	CCD-035	166	168	2	0.070	0.033
1189	CCD-035	168	170	2	0.100	0.250
1190	CCD-035	170	172	2	0.160	0.250
1191	CCD-035	172	174	2	0.140	0.250
1192	CCD-035	174	176	2	0.150	0.250
1193	CCD-035	176	178	2	0.140	0.250
1194	CCD-035	178	180	2	0.190	0.250
1195	CCD-035	180	182	2	0.250	0.250
1196	CCD-035	182	184	2	0.220	0.250
1197	CCD-035	184	186	2	0.150	0.250
1198	CCD-035	186	188	2	0.130	0.250
1199	CCD-035	188	190	2	0.090	0.250
1200	CCD-035	190	192	2	0.140	0.250
1201	CCD-035	192	194	2	0.150	0.250
1202	CCD-035	194	196	2	0.140	0.250
1203	CCD-035	196	198	2	0.210	0.250
1204	CCD-035	198	200	2	0.330	0.250
1205	CCD-035	200	202	2	0.190	0.055
1206	CCD-035	202	204	2	0.060	0.018
1207	CCD-035	204	206	2	0.080	0.025
1208	CCD-035	206	208	2	0.110	0.046
1209	CCD-035	208	210	2	0.160	0.061
1211	CCD-035	210	212	2	0.160	0.087
1212	CCD-035	212	214	2	0.200	0.087
1213	CCD-035	214	216	2	0.110	0.046
1214	CCD-035	216	218	2	0.140	0.058
1215	CCD-035	218	220	2	0.260	0.140
1216	CCD-035	220	222	2	0.170	0.090
1217	CCD-035	222	224	2	0.070	0.011
1218	CCD-035	224	226	2	0.100	0.052
1219	CCD-035	226	228	2	0.100	0.041
1220	CCD-035	228	230	2	0.080	0.043
1221	CCD-035	230	232	2	0.050	0.018
1222	CCD-035	232	234	2	0.050	0.031
1223	CCD-035	234	236	2	0.070	0.033
1224	CCD-035	236	238	2	0.140	0.063
1225	CCD-035	238	240	2	0.100	0.036
1226	CCD-035	240	242	2	0.110	0.047
1227	CCD-035	242	244	2	0.090	0.017
1228	CCD-035	244	246	2	0.100	0.073
1229	CCD-035	246	248	2	0.090	0.030
1230	CCD-035	248	250	2	0.140	0.031
1231	CCD-035	250	252	2	0.040	0.015
1233	CCD-035	252	254	2	0.030	0.012
1234	CCD-035	254	256	2	0.060	0.015
1235	CCD-035	256	258	2	0.060	0.035
1236	CCD-035	258	260	2	0.090	0.046
1237	CCD-035	260	262	2	0.070	0.030
1238	CCD-035	262	264	2	0.050	0.025
1239	CCD-035	264	266	2	0.040	0.021
1240	CCD-035	266	268	2	0.020	0.010

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1241	CCD-035	268	270	2	0.020	0.013
1242	CCD-035	270	272	2	0.040	0.023
1243	CCD-035	272	274	2	0.030	0.018
1244	CCD-035	274	276	2	0.030	0.018
1245	CCD-035	276	278	2	0.060	0.028
1246	CCD-035	278	280	2	0.050	0.029
1247	CCD-035	280	282	2	0.040	0.019
1248	CCD-035	282	284	2	0.070	0.040
1249	CCD-035	284	286	2	0.050	0.028
1250	CCD-035	286	288	2	0.040	0.029
1251	CCD-035	288	290	2	0.040	0.025
1252	CCD-035	290	292	2	0.030	0.018
1253	CCD-035	292	294	2	0.020	0.013
1255	CCD-035	294	296	2	0.030	0.018
1256	CCD-035	296	298	2	0.030	0.017
1257	CCD-035	298	300	2	0.040	0.038
1258	CCD-035	300	302	2	0.020	0.022
1259	CCD-035	302	304	2	0.030	0.025
1260	CCD-035	304	306	2	0.040	0.033
1261	CCD-035	306	308	2	0.040	0.022
1262	CCD-035	308	310	2	0.030	0.015
1263	CCD-035	310	312	2	0.050	0.043
1264	CCD-035	312	314	2	0.070	0.046
1265	CCD-035	314	316	2	0.170	0.077
1266	CCD-035	316	318	2	0.030	0.021
1267	CCD-035	318	320	2	0.040	0.027
672	CCD-036	0	2	2	0.790	0.062
673	CCD-036	2	4	2	1.340	0.084
674	CCD-036	4	6	2	0.780	0.080
675	CCD-036	6	8	2	1.100	0.054
676	CCD-036	8	10	2	0.640	0.027
677	CCD-036	10	12	2	0.760	0.062
678	CCD-036	12	14	2	0.770	0.069
679	CCD-036	14	16	2	1.900	0.130
680	CCD-036	16	18	2	0.800	0.066
681	CCD-036	18	20	2	0.980	0.410
682	CCD-036	20	22	2	1.330	1.180
683	CCD-036	22	24	2	2.330	2.520
684	CCD-036	24	26	2	2.400	2.570
685	CCD-036	26	28	2	1.400	2.540
687	CCD-036	28	30	2	0.870	1.240
688	CCD-036	30	32	2	1.230	0.990
689	CCD-036	32	34	2	0.880	0.630
690	CCD-036	34	36	2	1.620	1.340
691	CCD-036	36	38	2	1.510	1.320
692	CCD-036	38	40	2	1.090	0.650
693	CCD-036	40	42	2	1.560	0.890
839	CCD-036	42	44	2	1.620	0.920
840	CCD-036	44	46	2	1.870	1.090
841	CCD-036	46	48	2	1.580	1.000
842	CCD-036	48	50	2	1.800	1.200
843	CCD-036	50	52	2	1.420	1.560
844	CCD-036	52	54	2	1.340	1.010
845	CCD-036	54	56	2	2.390	1.220
846	CCD-036	56	58	2	1.810	1.750

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
847	CCD-036	58	60	2	2.070	0.970
848	CCD-036	60	62	2	1.780	1.010
849	CCD-036	62	64	2	1.880	0.950
850	CCD-036	64	66	2	1.900	1.090
851	CCD-036	66	68	2	1.390	1.230
852	CCD-036	68	70	2	1.340	0.650
854	CCD-036	70	72	2	2.550	1.340
855	CCD-036	72	74	2	2.770	1.650
856	CCD-036	74	76	2	2.600	1.310
857	CCD-036	76	78	2	3.400	1.020
858	CCD-036	78	80	2	2.650	1.010
859	CCD-036	80	82	2	2.270	1.150
860	CCD-036	82	84	2	2.530	0.100
861	CCD-036	84	86	2	1.890	0.870
862	CCD-036	86	88	2	1.880	0.730
863	CCD-036	88	90	2	2.170	0.790
864	CCD-036	90	92	2	1.880	0.860
865	CCD-036	92	94	2	3.210	1.280
866	CCD-036	94	96	2	1.820	0.660
867	CCD-036	96	98	2	1.800	0.640
868	CCD-036	98	100	2	1.770	0.750
869	CCD-036	100	102	2	2.550	1.310
870	CCD-036	102	104	2	2.470	0.820
871	CCD-036	104	106	2	2.590	2.860
872	CCD-036	106	108	2	1.930	1.550
873	CCD-036	108	110	2	2.450	0.860
874	CCD-036	110	112	2	2.030	1.100
876	CCD-036	112	114	2	2.500	0.920
877	CCD-036	114	116	2	2.790	1.100
878	CCD-036	116	118	2	2.670	1.580
879	CCD-036	118	120	2	1.150	1.070
880	CCD-036	120	122	2	0.920	1.140
881	CCD-036	122	124	2	1.120	0.660
882	CCD-036	124	126	2	1.160	0.068
883	CCD-036	126	128	2	0.820	0.390
884	CCD-036	128	130	2	1.480	0.900
885	CCD-036	130	132	2	2.090	0.530
886	CCD-036	132	134	2	2.010	0.610
887	CCD-036	134	136	2	3.150	0.730
888	CCD-036	136	138	2	5.080	1.700
889	CCD-036	138	140	2	2.040	0.870
890	CCD-036	140	142	2	1.990	0.660
891	CCD-036	142	144	2	2.380	0.620
892	CCD-036	144	146	2	1.690	0.580
893	CCD-036	146	148	2	1.540	0.560
894	CCD-036	148	150	2	1.040	0.200
895	CCD-036	150	152	2	2.130	0.520
896	CCD-036	152	154	2	1.160	0.330
897	CCD-036	154	156	2	3.280	0.550
898	CCD-036	156	158	2	2.410	0.540
899	CCD-036	158	160	2	1.990	0.510
900	CCD-036	160	162	2	0.910	0.520
901	CCD-036	162	164	2	1.380	0.350
902	CCD-036	164	166	2	0.840	0.430
903	CCD-036	166	168	2	0.610	0.250

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
905	CCD-036	168	170	2	0.710	0.190
906	CCD-036	170	172	2	0.510	0.160
907	CCD-036	172	174	2	1.270	0.390
908	CCD-036	174	176	2	0.960	0.130
909	CCD-036	176	178	2	0.670	0.150
910	CCD-036	178	180	2	1.180	0.200
911	CCD-036	180	182	2	0.970	0.150
912	CCD-036	182	184	2	0.550	0.071
913	CCD-036	184	186	2	0.520	0.150
914	CCD-036	186	188	2	0.560	0.210
915	CCD-036	188	190	2	0.450	0.250
916	CCD-036	190	192	2	0.360	0.310
917	CCD-036	192	194	2	0.510	0.200
1301	CCD-036	194	196	2	0.420	0.130
1303	CCD-036	196	198	2	0.370	0.074
1304	CCD-036	198	200	2	0.550	0.160
1305	CCD-036	200	202	2	0.680	0.190
1306	CCD-036	202	204	2	0.510	0.120
1307	CCD-036	204	206	2	0.350	0.096
1308	CCD-036	206	208	2	0.340	0.190
1309	CCD-036	208	210	2	0.160	0.120
1310	CCD-036	210	212	2	0.230	0.140
1311	CCD-036	212	214	2	0.300	0.058
1312	CCD-036	214	216	2	0.250	0.082
1313	CCD-036	216	218	2	0.270	0.062
1314	CCD-036	218	220	2	0.420	0.100
1315	CCD-036	220	222	2	0.280	0.110
1316	CCD-036	222	224	2	0.360	0.087
1317	CCD-036	224	226	2	0.280	0.085
1318	CCD-036	226	228	2	0.130	0.044
1319	CCD-036	228	230	2	0.250	0.060
1320	CCD-036	230	232	2	0.320	0.049
1321	CCD-036	232	234	2	0.140	0.045
1322	CCD-036	234	236	2	0.080	0.037
1323	CCD-036	236	238	2	0.170	0.057
1325	CCD-036	238	240	2	0.150	0.076
1326	CCD-036	240	242	2	0.160	0.058
1327	CCD-036	242	244	2	1.710	0.880
1328	CCD-036	244	246	2	0.820	0.340
1329	CCD-036	246	248	2	0.800	0.420
1330	CCD-036	248	250	2	0.510	0.200
1331	CCD-036	250	252	2	0.820	0.360
1332	CCD-036	252	254	2	0.200	0.054
1333	CCD-036	254	256	2	0.200	0.087
1334	CCD-036	256	258	2	0.170	0.075
1335	CCD-036	258	260	2	1.890	0.370
1336	CCD-036	260	262	2	1.030	0.710
1337	CCD-036	262	264	2	0.340	0.140
1338	CCD-036	264	266	2	0.210	0.073
1339	CCD-036	266	268	2	0.210	0.077
1340	CCD-036	268	270	2	0.140	0.076
1341	CCD-036	270	272	2	0.080	0.030
1342	CCD-036	272	274	2	0.170	0.099
1343	CCD-036	274	276	2	0.230	0.094
1344	CCD-036	276	278	2	0.150	0.080

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1345	CCD-036	278	280	2	0.170	0.075
1347	CCD-036	280	282	2	0.800	0.110
1348	CCD-036	282	284	2	0.150	0.200
1349	CCD-036	284	286	2	0.160	0.098
1350	CCD-036	286	288	2	0.150	0.100
1351	CCD-036	288	290	2	0.170	0.160
1352	CCD-036	290	292	2	0.140	0.160
1353	CCD-036	292	294	2	0.270	0.190
1354	CCD-036	294	296	2	0.200	0.076
1355	CCD-036	296	298	2	0.100	0.062
1356	CCD-036	298	300	2	0.120	0.120
1357	CCD-036	300	302	2	0.100	0.120
1358	CCD-036	302	304	2	0.170	0.110
1359	CCD-036	304	306	2	0.170	0.091
1360	CCD-036	306	308	2	0.050	0.028
1361	CCD-036	308	310	2	0.060	0.047
1362	CCD-036	310	312	2	0.180	0.120
1363	CCD-036	312	314	2	0.110	0.049
1364	CCD-036	314	316	2	0.110	0.094
1365	CCD-036	316	318	2	0.140	0.130
1366	CCD-036	318	320	2	0.110	0.065
1367	CCD-036	320	322	2	0.090	0.036
1369	CCD-036	322	324	2	0.130	0.057
1370	CCD-036	324	326	2	0.160	0.068
1371	CCD-036	326	328	2	0.090	0.064
1372	CCD-036	328	330	2	0.180	0.140
1373	CCD-036	330	332	2	0.130	0.089
1374	CCD-036	332	334	2	0.110	0.075
1375	CCD-036	334	336	2	0.130	0.057
1376	CCD-036	336	338	2	0.130	0.055
1377	CCD-036	338	340	2	0.170	0.082
1378	CCD-036	340	342	2	0.100	0.059
1379	CCD-036	342	344	2	0.120	0.077
1380	CCD-036	344	346	2	0.060	0.043
1381	CCD-036	346	348	2	0.080	0.050
1382	CCD-036	348	350	2	0.110	0.073
1383	CCD-036	350	352	2	0.150	0.094
1384	CCD-036	352	354	2	0.100	0.055
1385	CCD-036	354	356	2	0.140	0.068
1386	CCD-036	356	358	2	0.050	0.023
1451	CCD-037	24	26	2	0.200	0.140
1452	CCD-037	26	28	2	0.140	0.076
1453	CCD-037	28	30	2	0.100	0.043
1454	CCD-037	30	32	2	0.100	0.066
1455	CCD-037	32	34	2	0.160	0.110
1456	CCD-037	34	36	2	0.220	0.150
1457	CCD-037	36	38	2	0.220	0.130
1458	CCD-037	38	40	2	0.110	0.091
1459	CCD-037	40	42	2	0.260	0.140
1461	CCD-037	42	44	2	0.500	0.360
1462	CCD-037	44	46	2	0.440	0.280
1463	CCD-037	46	48	2	0.270	0.190
1464	CCD-037	48	50	2	0.190	0.190
1465	CCD-037	50	52	2	0.230	0.200
1466	CCD-037	52	54	2	0.150	0.110

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1467	CCD-037	54	56	2	0.340	0.250
1468	CCD-037	56	58	2	0.140	0.140
1469	CCD-037	58	60	2	0.290	0.220
1470	CCD-037	60	62	2	1.480	0.750
1471	CCD-037	62	64	2	0.240	0.210
1472	CCD-037	64	66	2	0.230	0.210
1473	CCD-037	66	68	2	0.320	0.240
1474	CCD-037	68	70	2	0.340	0.210
1475	CCD-037	70	72	2	0.250	0.140
1476	CCD-037	72	74	2	0.220	0.130
1477	CCD-037	74	76	2	0.230	0.140
1478	CCD-037	76	78	2	0.230	0.150
1479	CCD-037	78	80	2	0.140	0.070
1480	CCD-037	80	82	2	0.150	0.085
1481	CCD-037	82	84	2	0.130	0.069
1483	CCD-037	84	86	2	0.170	0.075
1484	CCD-037	86	88	2	0.160	0.082
1485	CCD-037	88	90	2	0.110	0.057
1486	CCD-037	90	92	2	0.220	0.067
1487	CCD-037	92	94	2	0.270	0.087
1488	CCD-037	94	96	2	0.080	0.017
1489	CCD-037	96	98	2	0.190	0.100
1490	CCD-037	98	100	2	0.150	0.093
1491	CCD-037	100	102	2	0.100	0.047
1492	CCD-037	102	104	2	0.490	0.120
1493	CCD-037	104	106	2	0.160	0.090
1494	CCD-037	106	108	2	0.090	0.055
1495	CCD-037	108	110	2	0.160	0.090
1496	CCD-037	110	112	2	0.230	0.100
1497	CCD-037	112	114	2	0.220	0.250
1498	CCD-037	114	116	2	0.090	0.280
1499	CCD-037	116	118	2	0.080	0.360
1500	CCD-037	118	120	2	0.080	0.350
1501	CCD-037	120	122	2	0.130	0.420
1502	CCD-037	122	124	2	0.090	0.620
1503	CCD-037	124	126	2	0.480	0.410
1505	CCD-037	126	128	2	0.710	0.370
1506	CCD-037	128	130	2	0.220	0.150
1507	CCD-037	130	132	2	0.120	0.062
1508	CCD-037	132	134	2	0.060	0.031
1509	CCD-037	134	136	2	0.110	0.062
1510	CCD-037	136	138	2	0.050	0.034
1511	CCD-037	138	140	2	0.040	0.021
1512	CCD-037	140	142	2	0.150	0.110
1513	CCD-037	142	144	2	0.180	0.120
1514	CCD-037	144	146	2	0.120	0.063
1515	CCD-037	146	148	2	0.150	0.090
1516	CCD-037	148	150	2	0.150	0.110
1517	CCD-037	150	152	2	0.090	0.056
1518	CCD-037	152	154	2	0.110	0.067
1519	CCD-037	154	156	2	0.140	0.077
1520	CCD-037	156	158	2	0.150	0.060
1521	CCD-037	158	160	2	0.090	0.051
1522	CCD-037	160	162	2	0.070	0.028
1523	CCD-037	162	164	2	0.170	0.100

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1524	CCD-037	164	166	2	0.270	0.180
1525	CCD-037	166	168	2	0.190	0.092
1527	CCD-037	168	170	2	0.090	0.064
1528	CCD-037	170	172	2	0.200	0.120
1529	CCD-037	172	174	2	0.170	0.098
1530	CCD-037	174	176	2	0.060	0.030
1531	CCD-037	176	178	2	0.130	0.066
1532	CCD-037	178	180	2	0.070	0.026
1533	CCD-037	180	182	2	0.140	0.068
1534	CCD-037	182	184	2	0.250	0.160
1535	CCD-037	184	186	2	0.140	0.081
1536	CCD-037	186	188	2	0.100	0.053
1537	CCD-037	188	190	2	0.220	0.130
1538	CCD-037	190	192	2	0.150	0.091
1539	CCD-037	192	194	2	0.120	0.074
1540	CCD-037	194	196	2	0.050	0.028
1541	CCD-037	196	198	2	0.180	0.099
1542	CCD-037	198	200	2	0.100	0.067
1543	CCD-037	200	202	2	0.110	0.067
1544	CCD-037	202	204	2	0.170	0.110
1545	CCD-037	204	206	2	0.110	0.076
1546	CCD-037	206	208	2	0.150	0.110
1547	CCD-037	208	210	2	0.340	0.250
1549	CCD-037	210	212	2	1.370	0.820
1550	CCD-037	212	214	2	0.600	0.390
1551	CCD-037	214	216	2	0.780	0.480
1552	CCD-037	216	218	2	0.940	0.630
1553	CCD-037	218	220	2	0.240	0.160
1554	CCD-037	220	222	2	0.500	0.390
1555	CCD-037	222	224	2	0.230	0.170
1556	CCD-037	224	226	2	0.160	0.100
1557	CCD-037	226	228	2	0.070	0.049
1558	CCD-037	228	230	2	0.150	0.084
1559	CCD-037	230	232	2	0.040	0.020
1560	CCD-037	232	234	2	0.090	0.059
1561	CCD-037	234	236	2	0.110	0.064
1562	CCD-037	236	238	2	0.180	0.150
1563	CCD-037	238	240	2	0.160	0.140
1564	CCD-037	240	242	2	0.190	0.130
1565	CCD-037	242	244	2	0.290	0.190
1566	CCD-037	244	246	2	1.120	0.610
1567	CCD-037	246	248	2	0.380	0.280
1568	CCD-037	248	250	2	0.200	0.140
1569	CCD-037	250	252	2	0.270	0.260
1571	CCD-037	252	254	2	0.410	0.260
1572	CCD-037	254	256	2	0.150	0.070
1573	CCD-037	256	258	2	0.040	0.025
1574	CCD-037	258	260	2	0.260	0.220
1575	CCD-037	260	262	2	0.130	0.130
1576	CCD-037	262	264	2	0.120	0.280
1577	CCD-037	264	266	2	0.410	0.290
1578	CCD-037	266	268	2	0.380	0.260
1579	CCD-037	268	270	2	0.270	0.200
1580	CCD-037	270	272	2	0.240	0.200
1581	CCD-037	272	274	2	0.300	0.190

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1582	CCD-037	274	276	2	0.320	0.260
1583	CCD-037	276	278	2	0.390	0.310
1584	CCD-037	278	280	2	0.430	0.270
1585	CCD-037	280	282	2	0.170	0.130
1586	CCD-037	282	284	2	0.170	0.160
1587	CCD-037	284	286	2	0.120	0.130
1588	CCD-037	286	288	2	0.140	0.160
1589	CCD-037	288	290	2	0.290	0.200
1590	CCD-037	290	292	2	0.610	0.320
1591	CCD-037	292	294	2	0.220	0.170
1593	CCD-037	294	296	2	0.240	0.190
1594	CCD-037	296	298	2	0.300	0.190
1595	CCD-037	298	300	2	0.320	0.220
1596	CCD-037	300	302	2	0.170	0.130
1597	CCD-037	302	304	2	0.290	0.170
1598	CCD-037	304	306	2	0.290	0.190
1599	CCD-037	306	308	2	0.200	0.160
1600	CCD-037	308	310	2	0.300	0.210
1601	CCD-037	310	312	2	0.460	0.290
1602	CCD-037	312	314	2	0.520	0.340
1603	CCD-037	314	316	2	0.340	0.250
1604	CCD-037	316	318	2	0.640	0.390
1605	CCD-037	318	320	2	0.540	0.330
1606	CCD-037	320	322	2	0.470	0.210
1607	CCD-037	322	324	2	0.710	0.370
1608	CCD-037	324	326	2	0.430	0.220
1609	CCD-037	326	328	2	0.720	0.310
1610	CCD-037	328	330	2	0.600	0.320
1611	CCD-037	330	332	2	0.580	0.160
1612	CCD-037	332	334	2	0.950	0.230
919	CCD-060	0	2	2	1.090	0.053
920	CCD-060	2	4	2	1.270	0.052
921	CCD-060	4	6	2	0.640	0.043
922	CCD-060	6	8	2	0.510	0.056
923	CCD-060	8	10	2	1.550	0.039
924	CCD-060	10	12	2	1.280	0.051
925	CCD-060	12	14	2	0.700	0.057
926	CCD-060	14	16	2	0.610	0.061
927	CCD-060	16	18	2	0.460	0.092
928	CCD-060	18	20	2	0.510	0.072
929	CCD-060	20	22	2	1.240	0.076
930	CCD-060	22	24	2	1.090	0.069
931	CCD-060	24	26	2	1.080	0.059
932	CCD-060	26	28	2	0.710	0.069
933	CCD-060	28	30	2	0.680	0.049
934	CCD-060	30	32	2	0.670	0.074
935	CCD-060	32	34	2	1.560	0.054
936	CCD-060	34	36	2	1.340	0.049
694	CCD-060	36	38	2	1.190	0.520
695	CCD-060	38	40	2	1.240	0.780
696	CCD-060	40	42	2	1.280	0.500
697	CCD-060	42	44	2	0.840	0.580
698	CCD-060	44	46	2	1.090	0.340
699	CCD-060	46	48	2	0.740	0.230
700	CCD-060	48	50	2	1.850	0.640

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
937	CCD-060	50	52	2	1.640	0.480
938	CCD-060	52	54	2	2.250	0.620
939	CCD-060	54	56	2	1.860	0.530
941	CCD-060	56	58	2	1.780	0.510
942	CCD-060	58	60	2	1.800	0.570
943	CCD-060	60	62	2	1.310	0.390
944	CCD-060	62	64	2	0.880	0.260
945	CCD-060	64	66	2	2.260	0.610
946	CCD-060	66	68	2	2.330	0.610
947	CCD-060	68	70	2	1.850	0.470
948	CCD-060	70	72	2	1.670	0.460
949	CCD-060	72	74	2	2.170	0.620
950	CCD-060	74	76	2	1.440	0.390
951	CCD-060	76	78	2	1.700	0.440
952	CCD-060	78	80	2	1.120	0.310
953	CCD-060	80	82	2	1.230	0.380
954	CCD-060	82	84	2	2.380	0.610
955	CCD-060	84	86	2	2.240	0.590
956	CCD-060	86	88	2	2.090	0.460
957	CCD-060	88	90	2	2.250	0.570
958	CCD-060	90	92	2	2.070	0.580
959	CCD-060	92	94	2	1.020	0.270
960	CCD-060	94	96	2	1.120	0.320
961	CCD-060	96	98	2	1.540	0.390
963	CCD-060	98	100	2	2.170	0.530
964	CCD-060	100	102	2	2.510	0.570
965	CCD-060	102	104	2	1.920	0.480
966	CCD-060	104	106	2	2.100	0.800
967	CCD-060	106	108	2	1.780	0.440
968	CCD-060	108	110	2	0.820	0.540
969	CCD-060	110	112	2	0.370	0.150
970	CCD-060	112	114	2	0.270	0.016
971	CCD-060	114	116	2	1.000	0.410
972	CCD-060	116	118	2	2.430	0.510
973	CCD-060	118	120	2	1.710	0.430
974	CCD-060	120	122	2	0.910	0.400
975	CCD-060	122	124	2	0.650	0.320
976	CCD-060	124	126	2	2.460	0.550
977	CCD-060	126	128	2	1.780	0.390
978	CCD-060	128	130	2	1.580	0.390
979	CCD-060	130	132	2	1.080	0.250
980	CCD-060	132	134	2	0.890	0.250
981	CCD-060	134	136	2	0.870	0.260
982	CCD-060	136	138	2	0.580	0.180
983	CCD-060	138	140	2	0.800	0.270
985	CCD-060	140	142	2	0.330	0.150
986	CCD-060	142	144	2	0.220	0.085
987	CCD-060	144	146	2	0.250	0.130
988	CCD-060	146	148	2	0.340	0.130
989	CCD-060	148	150	2	0.290	0.170
990	CCD-060	150	152	2	0.330	0.170
991	CCD-060	152	154	2	0.180	0.120
992	CCD-060	154	156	2	0.340	0.210
993	CCD-060	156	158	2	0.500	0.220
994	CCD-060	158	160	2	0.490	0.220

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
995	CCD-060	160	162	2	0.500	0.190
996	CCD-060	162	164	2	0.700	0.280
997	CCD-060	164	166	2	1.210	0.430
998	CCD-060	166	168	2	0.500	0.230
999	CCD-060	168	170	2	0.700	0.460
1000	CCD-060	170	172	2	0.620	0.240
1651	CCD-060	172	174	2	0.630	0.230
1652	CCD-060	174	176	2	0.660	0.150
1653	CCD-060	176	178	2	0.420	0.280
1654	CCD-060	178	180	2	0.520	0.330
1655	CCD-060	180	182	2	0.760	0.250
1657	CCD-060	182	184	2	0.820	0.240
1658	CCD-060	184	186	2	0.330	0.150
1659	CCD-060	186	188	2	0.440	0.280
1660	CCD-060	188	190	2	0.760	0.350
1661	CCD-060	190	192	2	0.840	0.320
1662	CCD-060	192	194	2	0.740	0.280
1663	CCD-060	194	196	2	0.900	0.340
1664	CCD-060	196	198	2	1.180	0.390
1665	CCD-060	198	200	2	0.660	0.260
1666	CCD-060	200	202	2	0.760	0.300
1667	CCD-060	202	204	2	0.770	0.320
1668	CCD-060	204	206	2	1.060	0.400
1669	CCD-060	206	208	2	0.730	0.300
1670	CCD-060	208	210	2	0.610	0.280
1671	CCD-060	210	212	2	0.880	0.300
1672	CCD-060	212	214	2	0.770	0.340
1673	CCD-060	214	216	2	0.590	0.280
1674	CCD-060	216	218	2	0.610	0.290
1675	CCD-060	218	220	2	0.460	0.220
1676	CCD-060	220	222	2	0.520	0.280
1677	CCD-060	222	224	2	0.840	0.410
1679	CCD-060	224	226	2	0.800	0.390
1680	CCD-060	226	228	2	0.630	0.380
1681	CCD-060	228	230	2	0.370	0.220
1682	CCD-060	230	232	2	0.370	0.160
1683	CCD-060	232	234	2	0.290	0.120
1684	CCD-060	234	236	2	0.600	0.280
1685	CCD-060	236	238	2	0.640	0.340
1686	CCD-060	238	240	2	0.390	0.240
1687	CCD-060	240	242	2	0.420	0.210
1688	CCD-060	242	244	2	0.400	0.180
1689	CCD-060	244	246	2	0.500	0.210
1690	CCD-060	246	248	2	0.470	0.230
1691	CCD-060	248	250	2	0.360	0.230
1692	CCD-060	250	252	2	0.550	0.270
1693	CCD-060	252	254	2	0.200	0.083
1694	CCD-060	254	256	2	0.060	0.053
1695	CCD-060	256	258	2	0.120	0.061
1696	CCD-060	258	260	2	0.250	0.140
1697	CCD-060	260	262	2	0.320	0.150
1698	CCD-060	262	264	2	0.210	0.130
1699	CCD-060	264	266	2	0.170	0.150
1701	CCD-060	266	268	2	0.230	0.180
1702	CCD-060	268	270	2	0.310	0.260

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1703	CCD-060	270	272	2	0.160	0.099
1704	CCD-060	272	274	2	0.240	0.170
1705	CCD-060	274	276	2	0.210	0.150
1706	CCD-060	276	278	2	0.240	0.230
1707	CCD-060	278	280	2	0.170	0.110
1708	CCD-060	280	282	2	0.330	0.240
1709	CCD-060	282	284	2	0.290	0.200
1710	CCD-060	284	286	2	0.270	0.140
1711	CCD-060	286	288	2	0.300	0.180
1712	CCD-060	288	290	2	0.200	0.150
1713	CCD-060	290	292	2	0.220	0.130
1714	CCD-060	292	294	2	0.170	0.150
1715	CCD-060	294	296	2	0.200	0.130
1716	CCD-060	296	298	2	0.240	0.130
1717	CCD-060	298	300	2	0.310	0.210
1718	CCD-060	300	302	2	0.460	0.250
1719	CCD-060	302	304	2	0.370	0.210
1720	CCD-060	304	306	2	0.440	0.290
1721	CCD-060	306	308	2	0.230	0.150
1723	CCD-060	308	310	2	0.250	0.130
1724	CCD-060	310	312	2	0.380	0.190
1725	CCD-060	312	314	2	0.480	0.250
1726	CCD-060	314	316	2	0.560	0.230
1727	CCD-060	316	318	2	0.240	0.130
1728	CCD-060	318	320	2	0.280	0.130
1729	CCD-060	320	322	2	0.230	0.160
1730	CCD-060	322	324	2	0.540	0.260
1731	CCD-060	324	326	2	0.670	0.390
1732	CCD-060	326	328	2	0.450	0.270
1733	CCD-060	328	330	2	0.500	0.200
1734	CCD-060	330	332	2	0.480	0.200
1735	CCD-060	332	334	2	0.690	0.370
1736	CCD-060	334	336	2	0.540	0.240
1737	CCD-060	336	338	2	1.150	0.480
1738	CCD-060	338	340	2	0.800	0.270
1739	CCD-060	340	342	2	0.490	0.180
1740	CCD-060	342	344	2	0.480	0.250
1741	CCD-060	344	346	2	0.550	0.240
1742	CCD-060	346	348	2	0.690	0.280
1743	CCD-060	348	350	2	0.790	0.230
1745	CCD-060	350	352	2	0.580	0.330
1746	CCD-060	352	354	2	0.890	0.450
1747	CCD-060	354	356	2	0.500	0.240
1748	CCD-060	356	358	2	0.370	0.180
1749	CCD-060	358	360	2	0.510	0.260
1750	CCD-060	360	362	2	0.810	0.370
1751	CCD-060	362	364	2	0.550	0.330
1752	CCD-060	364	366	2	0.560	0.310
1753	CCD-060	366	368	2	0.650	0.330
1754	CCD-060	368	370	2	0.560	0.320
1755	CCD-060	370	372	2	0.620	0.270
1756	CCD-060	372	374	2	0.650	0.330
1757	CCD-060	374	376	2	0.430	0.230
1758	CCD-060	376	378	2	0.350	0.210
1759	CCD-060	378	380	2	0.550	0.340

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1760	CCD-060	380	382	2	0.510	0.410
1761	CCD-060	382	384	2	0.460	0.290
1762	CCD-060	384	386	2	0.440	0.240
1763	CCD-060	386	388	2	0.290	0.190
1764	CCD-060	388	390	2	0.420	0.240
1765	CCD-060	390	392	2	0.250	0.190
1767	CCD-060	392	394	2	-1.000	-1.000
1801	CCD-061	37.5	40	2.5	2.200	0.940
1802	CCD-061	40	42	2	1.860	1.000
1803	CCD-061	42	44	2	2.400	0.980
1804	CCD-061	44	46	2	2.540	0.950
1805	CCD-061	46	48	2	2.040	0.760
1806	CCD-061	48	50	2	1.940	1.230
1807	CCD-061	50	52	2	0.610	0.540
1808	CCD-061	52	54	2	0.890	0.530
1809	CCD-061	54	56	2	0.960	0.550
1810	CCD-061	56	58	2	0.660	0.340
1811	CCD-061	58	60	2	0.610	0.320
1812	CCD-061	60	62	2	0.910	0.350
1813	CCD-061	62	64	2	0.590	0.410
1814	CCD-061	64	66	2	0.970	0.560
1815	CCD-061	66	68	2	0.680	0.370
1816	CCD-061	68	70	2	0.770	0.410
1817	CCD-061	70	72	2	0.890	0.710
1818	CCD-061	72	74	2	0.620	0.540
1819	CCD-061	74	76	2	0.850	0.470
1820	CCD-061	76	78	2	0.760	0.460
1821	CCD-061	78	80	2	0.550	0.450
1822	CCD-061	80	82	2	0.840	0.460
1824	CCD-061	82	84	2	1.080	0.590
1825	CCD-061	84	86	2	0.850	0.550
1826	CCD-061	86	88	2	1.300	0.810
1827	CCD-061	88	90	2	0.970	0.570
1828	CCD-061	90	92	2	1.100	0.590
1829	CCD-061	92	94	2	0.900	0.550
1830	CCD-061	94	96	2	0.820	0.530
1831	CCD-061	96	98	2	0.860	0.640
1832	CCD-061	98	100	2	0.940	0.670
1833	CCD-061	100	102	2	1.210	0.550
1834	CCD-061	102	104	2	0.970	0.630
1835	CCD-061	104	106	2	0.880	0.650
1836	CCD-061	106	108	2	0.820	0.600
1837	CCD-061	108	110	2	0.660	0.520
1838	CCD-061	110	112	2	0.760	0.630
1839	CCD-061	112	114	2	0.910	0.560
1840	CCD-061	114	116	2	0.730	0.610
1841	CCD-061	116	118	2	0.580	0.490
1842	CCD-061	118	120	2	0.740	0.660
1843	CCD-061	120	122	2	0.860	0.540
1844	CCD-061	122	124	2	0.850	0.600
1846	CCD-061	124	126	2	0.740	0.560
1847	CCD-061	126	128	2	0.700	0.420
1848	CCD-061	128	130	2	0.880	0.650
1849	CCD-061	130	132	2	1.290	0.850
1850	CCD-061	132	134	2	0.870	0.520

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1851	CCD-061	134	136	2	0.740	0.530
1852	CCD-061	136	138	2	0.700	0.440
1853	CCD-061	138	140	2	0.690	0.500
1854	CCD-061	140	142	2	0.790	0.510
1855	CCD-061	142	144	2	0.700	0.490
1856	CCD-061	144	146	2	1.110	0.780
1857	CCD-061	146	148	2	1.380	1.160
1858	CCD-061	148	150	2	1.210	1.050
1859	CCD-061	150	152	2	0.850	0.590
1860	CCD-061	152	154	2	0.900	0.570
1861	CCD-061	154	156	2	1.220	0.990
1862	CCD-061	156	158	2	1.350	0.920
1863	CCD-061	158	160	2	0.910	0.500
1864	CCD-061	160	162	2	0.540	0.390
1865	CCD-061	162	164	2	0.890	0.550
1866	CCD-061	164	166	2	0.610	0.460
1868	CCD-061	166	168	2	0.890	0.550
1869	CCD-061	168	170	2	0.640	0.530
1870	CCD-061	170	172	2	0.630	0.490
1871	CCD-061	172	174	2	0.530	0.400
1872	CCD-061	174	176	2	0.720	0.430
1873	CCD-061	176	178	2	0.750	0.490
1874	CCD-061	178	180	2	0.540	0.420
1875	CCD-061	180	182	2	0.470	0.370
1876	CCD-061	182	184	2	0.460	0.340
1877	CCD-061	184	186	2	0.430	0.360
1878	CCD-061	186	188	2	0.300	0.270
1879	CCD-061	188	190	2	0.980	0.950
1880	CCD-061	190	192	2	0.520	0.520
1881	CCD-061	192	194	2	0.640	0.580
1882	CCD-061	194	196	2	0.630	0.480
1883	CCD-061	196	198	2	0.870	0.620
1884	CCD-061	198	200	2	0.830	0.660
1885	CCD-061	200	202	2	0.630	0.470
1886	CCD-061	202	204	2	0.930	0.680
1887	CCD-061	204	206	2	1.000	0.590
1888	CCD-061	206	208	2	0.660	0.450
1890	CCD-061	208	210	2	0.440	0.540
1891	CCD-061	210	212	2	0.560	0.630
1892	CCD-061	212	214	2	1.070	0.530
1893	CCD-061	214	216	2	0.490	0.720
1894	CCD-061	216	218	2	1.010	0.680
1895	CCD-061	218	220	2	0.540	0.520
1896	CCD-061	220	222	2	0.650	0.390
1897	CCD-061	222	224	2	0.390	0.230
1898	CCD-061	224	226	2	0.600	0.390
1899	CCD-061	226	228	2	1.060	0.620
1900	CCD-061	228	230	2	0.770	0.400
1901	CCD-061	230	232	2	0.650	0.350
1902	CCD-061	232	234	2	0.380	0.260
1903	CCD-061	234	236	2	0.350	0.240
1904	CCD-061	236	238	2	0.600	0.410
1905	CCD-061	238	240	2	0.620	0.460
1906	CCD-061	240	242	2	0.500	0.410
1907	CCD-061	242	244	2	0.390	0.340

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1908	CCD-061	244	246	2	0.410	0.360
1909	CCD-061	246	248	2	0.430	0.340
1910	CCD-061	248	250	2	0.360	0.270
1912	CCD-061	250	252	2	0.490	0.390
1913	CCD-061	252	254	2	0.770	0.540
1914	CCD-061	254	256	2	0.780	0.690
1915	CCD-061	256	258	2	0.430	0.370
1916	CCD-061	258	260	2	0.580	0.360
1917	CCD-061	260	262	2	0.480	0.350
1918	CCD-061	262	264	2	0.520	0.520
1919	CCD-061	264	266	2	0.500	0.470
1920	CCD-061	266	268	2	0.580	0.540
1921	CCD-061	268	270	2	0.560	0.610
1922	CCD-061	270	272	2	0.670	0.470
1923	CCD-061	272	274	2	0.580	0.460
1924	CCD-061	274	276	2	0.460	0.620
1925	CCD-061	276	278	2	0.710	0.620
1926	CCD-061	278	280	2	0.730	0.720
1927	CCD-061	280	282	2	0.740	0.650
1928	CCD-061	282	284	2	0.590	0.710
1929	CCD-061	284	286	2	0.640	0.740
1930	CCD-061	286	288	2	0.650	0.770
1931	CCD-061	288	290	2	0.470	0.590
1932	CCD-061	290	292	2	0.640	0.730
1934	CCD-061	292	294	2	0.310	0.200
1935	CCD-061	294	296	2	0.270	0.210
1936	CCD-061	296	298	2	0.320	0.220
1937	CCD-061	298	300	2	0.190	0.140
1938	CCD-061	300	302	2	0.260	0.210
1939	CCD-061	302	304	2	0.180	0.180
1940	CCD-061	304	306	2	0.170	0.150
1941	CCD-061	306	308	2	0.100	0.095
1942	CCD-061	308	310	2	0.240	0.240
1943	CCD-061	310	312	2	0.240	0.210
1944	CCD-061	312	314	2	0.160	0.150
1945	CCD-061	314	316	2	0.290	0.300
1946	CCD-061	316	318	2	0.240	0.310
1947	CCD-061	318	320	2	0.260	0.300
1948	CCD-061	320	322	2	0.400	0.380
1949	CCD-061	322	324	2	0.330	0.330
1950	CCD-061	324	326	2	0.270	0.250
1951	CCD-061	326	328	2	0.180	0.140
1952	CCD-061	328	330	2	0.140	0.170
1953	CCD-061	330	332	2	0.190	0.240
1954	CCD-061	332	334	2	0.240	0.230
1956	CCD-061	334	336	2	0.290	0.270
1957	CCD-061	336	338	2	0.150	0.110
1958	CCD-061	338	340	2	0.160	0.082
1959	CCD-061	340	342	2	0.210	0.160
1960	CCD-061	342	344	2	0.200	0.160
1961	CCD-061	344	346	2	0.230	0.160
1962	CCD-061	346	348	2	0.200	0.130
1963	CCD-061	348	350	2	0.100	0.077
1964	CCD-061	350	352	2	0.160	0.096
1965	CCD-061	352	354	2	0.100	0.071

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
1966	CCD-061	354	356	2	0.130	0.130
1967	CCD-061	356	358	2	0.180	0.160
1968	CCD-061	358	360	2	0.500	0.490
1969	CCD-061	360	362	2	0.300	0.250
1970	CCD-061	362	364	2	0.180	0.160
1971	CCD-061	364	366	2	0.210	0.160
1972	CCD-061	366	368	2	0.120	0.120
1973	CCD-061	368	370	2	0.120	0.120
1974	CCD-061	370	372	2	0.180	0.110
1975	CCD-061	372	374	2	0.470	0.350
1976	CCD-061	374	376	2	0.620	0.560
1978	CCD-061	376	378	2	0.540	0.480
1979	CCD-061	378	380	2	0.340	0.290
1980	CCD-061	380	382	2	0.540	0.430
1981	CCD-061	382	384	2	0.330	0.240
1982	CCD-061	384	386	2	0.320	0.240
1983	CCD-061	386	388	2	0.250	0.160
1984	CCD-061	388	390	2	0.160	0.120
1985	CCD-061	390	392	2	0.240	0.180
1986	CCD-061	392	394	2	0.280	0.190
2101	CCD-062	42	44	2	0.070	0.085
2102	CCD-062	44	46	2	0.130	0.130
2103	CCD-062	46	48	2	0.200	0.190
2104	CCD-062	48	50	2	0.170	0.210
2105	CCD-062	50	52	2	0.150	0.073
2106	CCD-062	52	54	2	0.110	0.085
2107	CCD-062	54	56	2	0.130	0.110
2108	CCD-062	56	58	2	0.100	0.077
2109	CCD-062	58	60	2	0.150	0.130
2110	CCD-062	60	62	2	0.100	0.068
2111	CCD-062	62	64	2	0.270	0.240
2112	CCD-062	64	66	2	0.300	0.190
2113	CCD-062	66	68	2	1.820	0.078
2114	CCD-062	68	70	2	0.590	0.580
2115	CCD-062	70	72	2	0.980	0.770
2116	CCD-062	72	74	2	0.630	0.610
2117	CCD-062	74	76	2	0.310	0.250
2118	CCD-062	76	78	2	0.430	0.330
2119	CCD-062	78	80	2	0.160	0.150
2120	CCD-062	80	82	2	0.190	0.150
2121	CCD-062	82	84	2	0.110	0.110
2123	CCD-062	84	86	2	0.330	0.330
2124	CCD-062	86	88	2	0.310	0.230
2125	CCD-062	88	90	2	0.380	0.190
2126	CCD-062	90	92	2	0.290	0.220
2127	CCD-062	92	94	2	0.500	0.340
2128	CCD-062	94	96	2	0.720	0.300
2129	CCD-062	96	98	2	0.210	0.230
2130	CCD-062	98	100	2	0.200	0.160
2131	CCD-062	100	102	2	0.460	0.230
2132	CCD-062	102	104	2	0.290	0.220
2133	CCD-062	104	106	2	0.170	0.240
2134	CCD-062	106	108	2	0.180	0.170
2135	CCD-062	108	110	2	0.200	0.120
2136	CCD-062	110	112	2	0.110	0.096

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2137	CCD-062	112	114	2	0.230	0.095
2138	CCD-062	114	116	2	0.270	0.250
2139	CCD-062	116	118	2	0.220	0.280
2140	CCD-062	118	120	2	0.710	0.570
2141	CCD-062	120	122	2	0.950	0.920
2142	CCD-062	122	124	2	1.110	0.980
2143	CCD-062	124	126	2	0.830	0.730
2145	CCD-062	126	128	2	0.800	0.970
2146	CCD-062	128	130	2	0.560	0.460
2147	CCD-062	130	132	2	0.390	0.340
2148	CCD-062	132	134	2	0.720	0.730
2149	CCD-062	134	136	2	0.200	0.170
2150	CCD-062	136	138	2	0.320	0.260
2151	CCD-062	138	140	2	0.950	0.760
2152	CCD-062	140	142	2	0.460	0.350
2153	CCD-062	142	144	2	0.510	0.490
2154	CCD-062	144	146	2	0.170	0.170
2155	CCD-062	146	148	2	0.230	0.140
2156	CCD-062	148	150	2	0.160	0.160
2157	CCD-062	150	152	2	0.160	0.140
2158	CCD-062	152	154	2	0.110	0.088
2159	CCD-062	154	156	2	0.150	0.180
2160	CCD-062	156	158	2	0.100	0.079
2161	CCD-062	158	160	2	0.100	0.080
2162	CCD-062	160	162	2	0.190	0.150
2163	CCD-062	162	164	2	0.110	0.096
2164	CCD-062	164	166	2	0.150	0.093
2165	CCD-062	166	168	2	0.060	0.045
2167	CCD-062	168	170	2	0.200	0.130
2168	CCD-062	170	172	2	0.120	0.110
2169	CCD-062	172	174	2	0.090	0.120
2170	CCD-062	174	176	2	0.140	0.150
2171	CCD-062	176	178	2	0.170	0.066
2172	CCD-062	178	180	2	0.130	0.130
2173	CCD-062	180	182	2	0.150	0.160
2174	CCD-062	182	184	2	0.210	0.170
2175	CCD-062	184	186	2	0.240	0.250
2176	CCD-062	186	188	2	0.230	0.210
2177	CCD-062	188	190	2	0.100	0.058
2178	CCD-062	190	192	2	0.080	0.068
2179	CCD-062	192	194	2	0.140	0.130
2180	CCD-062	194	196	2	0.300	0.310
2181	CCD-062	196	198	2	0.010	0.100
2182	CCD-062	198	200	2	0.010	0.069
2183	CCD-062	200	202	2	0.070	0.059
2184	CCD-062	202	204	2	0.220	0.140
2185	CCD-062	204	206	2	0.120	0.091
2186	CCD-062	206	208	2	0.050	0.052
2187	CCD-062	208	210	2	0.070	0.064
2189	CCD-062	210	212	2	0.160	0.170
2190	CCD-062	212	214	2	0.110	0.250
2191	CCD-062	214	216	2	0.090	0.120
2192	CCD-062	216	218	2	0.100	0.120
2193	CCD-062	218	220	2	0.100	0.130
2194	CCD-062	220	222	2	0.110	0.520

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2195	CCD-062	222	224	2	0.210	0.510
2196	CCD-062	224	226	2	0.230	0.240
2197	CCD-062	226	228	2	0.530	0.280
2198	CCD-062	228	230	2	0.190	0.170
2199	CCD-062	230	232	2	0.130	0.110
2200	CCD-062	232	234	2	0.400	0.360
2201	CCD-062	234	236	2	1.190	0.490
2202	CCD-062	236	238	2	0.160	0.120
2203	CCD-062	238	240	2	0.260	0.130
2204	CCD-062	240	242	2	0.100	0.072
2205	CCD-062	242	244	2	0.080	0.055
2206	CCD-062	244	246	2	0.170	0.240
2207	CCD-062	246	248	2	0.260	0.310
2208	CCD-062	248	250	2	0.200	0.190
2209	CCD-062	250	252	2	0.210	0.180
2211	CCD-062	252	254	2	0.090	0.037
2212	CCD-062	254	256	2	0.090	0.046
2213	CCD-062	256	258	2	0.290	0.280
2214	CCD-062	258	260	2	0.510	0.270
2215	CCD-062	260	262	2	0.040	0.031
2216	CCD-062	262	264	2	0.110	0.160
2217	CCD-062	264	266	2	0.110	0.170
2218	CCD-062	266	268	2	0.100	0.096
2219	CCD-062	268	270	2	0.140	0.049
2220	CCD-062	270	272	2	0.140	0.240
2221	CCD-062	272	274	2	0.650	0.150
2222	CCD-062	274	276	2	0.180	0.051
2223	CCD-062	276	278	2	0.310	0.160
2224	CCD-062	278	280	2	0.020	0.130
2225	CCD-062	280	282	2	0.010	0.210
2226	CCD-062	282	284	2	0.070	0.057
2227	CCD-062	284	286	2	0.190	0.110
2228	CCD-062	286	288	2	0.060	0.057
2229	CCD-062	288	290	2	0.090	0.059
2230	CCD-062	290	292	2	0.050	0.080
2231	CCD-062	292	294	2	0.100	0.081
2233	CCD-062	294	296	2	0.070	0.060
2234	CCD-062	296	298	2	0.150	0.140
2235	CCD-062	298	300	2	0.130	0.120
2236	CCD-062	300	302	2	0.130	0.140
2237	CCD-062	302	304	2	0.140	0.099
2238	CCD-062	304	306	2	0.100	0.084
2239	CCD-062	306	308	2	0.100	0.120
2240	CCD-062	308	310	2	0.400	0.330
2241	CCD-062	310	312	2	0.190	0.150
2242	CCD-062	312	314	2	0.240	0.110
2243	CCD-062	314	316	2	0.110	0.088
2244	CCD-062	316	318	2	0.150	0.130
2245	CCD-062	318	320	2	0.090	0.110
2246	CCD-062	320	322	2	0.170	0.170
2247	CCD-062	322	324	2	0.170	0.150
2248	CCD-062	324	326	2	0.130	0.170
2249	CCD-062	326	328	2	0.510	0.450
2250	CCD-062	328	330	2	0.130	0.460
2251	CCD-062	330	332	2	0.150	0.300

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2301	CCD-063	0	2	2	0.330	0.055
2302	CCD-063	2	4	2	0.140	0.021
2303	CCD-063	4	6	2	0.220	0.020
2304	CCD-063	6	8	2	0.160	0.024
2305	CCD-063	8	10	2	0.260	0.031
2306	CCD-063	10	12	2	0.170	0.031
2307	CCD-063	12	14	2	0.240	0.047
2308	CCD-063	14	16	2	0.160	0.067
2309	CCD-063	16	18	2	0.230	0.037
2310	CCD-063	18	20	2	0.160	0.021
2311	CCD-063	20	22	2	0.170	0.027
2312	CCD-063	22	24	2	0.130	0.028
2313	CCD-063	24	26	2	0.340	1.120
2314	CCD-063	26	28	2	0.430	1.700
2315	CCD-063	28	30	2	0.420	0.510
2316	CCD-063	30	32	2	0.430	0.510
2317	CCD-063	32	34	2	0.480	0.690
2318	CCD-063	34	36	2	0.350	0.430
2319	CCD-063	36	38	2	0.600	0.730
2320	CCD-063	38	40	2	0.620	0.260
2321	CCD-063	40	42	2	0.430	0.380
2322	CCD-063	42	44	2	0.280	0.750
2324	CCD-063	44	46	2	0.480	0.620
2325	CCD-063	46	48	2	0.860	0.650
2326	CCD-063	48	50	2	0.340	0.230
2327	CCD-063	50	52	2	0.460	0.230
2328	CCD-063	52	54	2	0.190	0.290
2329	CCD-063	54	56	2	0.510	0.300
2330	CCD-063	56	58	2	0.560	0.450
2331	CCD-063	58	60	2	0.470	0.200
2332	CCD-063	60	62	2	0.510	0.260
2333	CCD-063	62	64	2	0.460	0.280
2334	CCD-063	64	66	2	0.660	0.420
2335	CCD-063	66	68	2	0.470	0.250
2336	CCD-063	68	70	2	0.650	0.290
2337	CCD-063	70	72	2	0.620	0.300
2338	CCD-063	72	74	2	0.490	0.310
2339	CCD-063	74	76	2	0.450	0.570
2340	CCD-063	76	78	2	0.410	0.320
2341	CCD-063	78	80	2	0.600	0.570
2342	CCD-063	80	82	2	0.650	0.480
2343	CCD-063	82	84	2	0.290	0.380
2344	CCD-063	84	86	2	0.350	0.330
2346	CCD-063	86	88	2	0.300	0.230
2347	CCD-063	88	90	2	0.340	0.220
2348	CCD-063	90	92	2	0.570	0.360
2349	CCD-063	92	94	2	0.770	0.320
2350	CCD-063	94	96	2	0.620	0.410
2351	CCD-063	96	98	2	0.630	0.520
2352	CCD-063	98	100	2	0.460	0.690
2353	CCD-063	100	102	2	0.400	0.400
2354	CCD-063	102	104	2	0.590	0.450
2355	CCD-063	104	106	2	0.580	0.380
2356	CCD-063	106	108	2	1.060	0.430
2357	CCD-063	108	110	2	0.860	0.480

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2358	CCD-063	110	112	2	0.280	0.140
2359	CCD-063	112	114	2	0.260	0.190
2360	CCD-063	114	116	2	0.250	0.150
2361	CCD-063	116	118	2	0.190	0.210
2362	CCD-063	118	120	2	0.350	0.240
2363	CCD-063	120	122	2	0.580	0.160
2364	CCD-063	122	124	2	0.360	0.190
2365	CCD-063	124	126	2	0.320	0.260
2366	CCD-063	126	128	2	0.270	0.150
2368	CCD-063	128	130	2	0.210	0.110
2369	CCD-063	130	132	2	0.190	0.210
2370	CCD-063	132	134	2	0.280	0.180
2371	CCD-063	134	136	2	0.270	0.180
2372	CCD-063	136	138	2	0.580	0.230
2373	CCD-063	138	140	2	0.290	0.300
2374	CCD-063	140	142	2	0.400	0.570
2375	CCD-063	142	144	2	0.270	0.230
2376	CCD-063	144	146	2	0.450	0.270
2377	CCD-063	146	148	2	0.540	0.310
2378	CCD-063	148	150	2	0.370	0.390
2379	CCD-063	150	152	2	0.240	0.570
2380	CCD-063	152	154	2	0.240	0.510
2381	CCD-063	154	156	2	0.280	0.580
2382	CCD-063	156	158	2	0.690	0.510
2383	CCD-063	158	160	2	0.670	0.520
2384	CCD-063	160	162	2	0.450	0.400
2385	CCD-063	162	164	2	0.620	0.650
2386	CCD-063	164	166	2	0.620	0.600
2387	CCD-063	166	168	2	0.690	0.730
2388	CCD-063	168	170	2	0.300	0.660
2390	CCD-063	170	172	2	0.360	0.820
2391	CCD-063	172	174	2	0.250	0.860
2392	CCD-063	174	176	2	0.740	0.650
2393	CCD-063	176	178	2	0.560	0.450
2394	CCD-063	178	180	2	0.600	0.590
2395	CCD-063	180	182	2	0.760	0.740
2396	CCD-063	182	184	2	0.480	0.730
2397	CCD-063	184	186	2	0.560	0.550
2398	CCD-063	186	188	2	0.410	0.430
2399	CCD-063	188	190	2	0.210	0.580
2400	CCD-063	190	192	2	0.280	0.460
2401	CCD-063	192	194	2	0.220	0.270
2402	CCD-063	194	196	2	0.670	0.360
2403	CCD-063	196	198	2	0.660	0.400
2404	CCD-063	198	200	2	0.640	0.390
2405	CCD-063	200	202	2	0.440	0.200
2406	CCD-063	202	204	2	0.420	0.180
2407	CCD-063	204	206	2	0.750	0.320
2408	CCD-063	206	208	2	1.230	0.490
2410	CCD-063	210	212	2	0.270	0.206
2412	CCD-063	212	214	2	0.330	0.194
2413	CCD-063	214	216	2	0.360	0.205
2414	CCD-063	216	218	2	0.680	0.255
2415	CCD-063	218	220	2	0.590	0.290
2416	CCD-063	220	222	2	0.440	0.326

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2417	CCD-063	222	224	2	0.530	0.386
2418	CCD-063	224	226	2	0.770	0.332
2419	CCD-063	226	228	2	0.600	0.278
2420	CCD-063	228	230	2	0.530	0.276
2421	CCD-063	230	232	2	0.750	0.338
2422	CCD-063	232	234	2	0.610	0.216
2423	CCD-063	234	236	2	0.240	0.108
2424	CCD-063	236	238	2	0.260	0.134
2425	CCD-063	238	240	2	0.310	0.152
2426	CCD-063	240	242	2	0.290	0.186
2427	CCD-063	242	244	2	0.190	0.149
2428	CCD-063	244	246	2	0.390	0.227
2429	CCD-063	246	248	2	0.250	0.276
2430	CCD-063	248	250	2	0.450	0.297
2431	CCD-063	250	252	2	0.410	0.326
2432	CCD-063	252	254	2	0.290	0.142
2434	CCD-063	254	256	2	0.220	0.117
2435	CCD-063	256	258	2	0.200	0.182
2436	CCD-063	258	260	2	0.350	0.268
2437	CCD-063	260	262	2	0.310	0.376
2438	CCD-063	262	264	2	0.390	0.330
2439	CCD-063	264	266	2	0.290	0.286
2440	CCD-063	266	268	2	0.260	0.252
2441	CCD-063	268	270	2	0.310	0.256
2442	CCD-063	270	272	2	0.520	0.300
2443	CCD-063	272	274	2	0.460	0.272
3201	CCD-064	0	2	2	0.130	0.075
3202	CCD-064	2	4	2	0.220	0.180
3203	CCD-064	4	6	2	0.110	0.170
3204	CCD-064	6	8	2	0.550	0.610
3205	CCD-064	8	10	2	0.280	0.420
3206	CCD-064	10	12	2	0.200	0.091
3207	CCD-064	12	14	2	0.260	0.200
3208	CCD-064	14	16	2	0.340	0.310
3209	CCD-064	16	18	2	0.280	0.270
3210	CCD-064	18	20	2	0.240	0.180
3211	CCD-064	20	22	2	0.100	0.089
3212	CCD-064	22	24	2	0.100	0.083
3213	CCD-064	24	26	2	0.150	0.120
3214	CCD-064	26	28	2	0.100	0.074
3215	CCD-064	28	30	2	0.100	0.074
3216	CCD-064	30	32	2	0.100	0.062
3217	CCD-064	32	34	2	0.080	0.053
3218	CCD-064	34	36	2	0.150	0.068
3219	CCD-064	36	38	2	0.090	0.110
3220	CCD-064	38	40	2	0.100	0.130
3221	CCD-064	40	42	2	0.140	0.170
3222	CCD-064	42	44	2	0.130	0.130
3224	CCD-064	44	46	2	0.130	0.099
3225	CCD-064	46	48	2	0.120	0.061
3226	CCD-064	48	50	2	0.130	0.100
3227	CCD-064	50	52	2	0.350	0.170
3228	CCD-064	52	54	2	0.190	0.100
3229	CCD-064	54	56	2	0.240	0.210
3230	CCD-064	56	58	2	0.240	0.300

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3231	CCD-064	58	60	2	0.460	0.520
3232	CCD-064	60	62	2	0.220	0.210
3233	CCD-064	62	64	2	0.180	0.090
3234	CCD-064	64	66	2	0.140	0.081
3235	CCD-064	66	68	2	0.080	0.190
3236	CCD-064	68	70	2	0.090	0.160
3237	CCD-064	70	72	2	0.120	0.210
3238	CCD-064	72	74	2	0.220	0.180
3239	CCD-064	74	76	2	0.250	0.190
3240	CCD-064	76	78	2	0.170	0.160
3241	CCD-064	78	80	2	0.190	0.170
3242	CCD-064	80	82	2	0.120	0.170
3243	CCD-064	82	84	2	0.170	0.180
3244	CCD-064	84	86	2	0.300	0.100
3246	CCD-064	86	88	2	0.230	0.210
3247	CCD-064	88	90	2	0.250	0.150
3248	CCD-064	90	92	2	0.280	0.200
3249	CCD-064	92	94	2	0.580	0.430
3250	CCD-064	94	96	2	0.300	0.360
3251	CCD-064	96	98	2	0.200	0.300
3252	CCD-064	98	100	2	0.180	0.260
3253	CCD-064	100	102	2	0.300	0.190
3254	CCD-064	102	104	2	0.180	0.110
3255	CCD-064	104	106	2	0.300	0.160
3256	CCD-064	106	108	2	0.330	0.180
3257	CCD-064	108	110	2	0.230	0.320
3258	CCD-064	110	112	2	0.230	0.110
3259	CCD-064	112	114	2	0.220	0.098
3260	CCD-064	114	116	2	0.240	0.160
3261	CCD-064	116	118	2	0.480	0.210
3262	CCD-064	118	120	2	0.110	0.210
3263	CCD-064	120	122	2	0.160	0.170
3264	CCD-064	122	124	2	0.440	0.230
3265	CCD-064	124	126	2	0.130	0.210
3266	CCD-064	126	128	2	0.160	0.160
3268	CCD-064	128	130	2	0.450	0.150
3269	CCD-064	130	132	2	0.130	0.046
3270	CCD-064	132	134	2	0.170	0.082
3271	CCD-064	134	136	2	0.100	0.049
3272	CCD-064	136	138	2	0.120	0.042
3273	CCD-064	138	140	2	0.070	0.034
3274	CCD-064	140	142	2	0.270	0.150
3275	CCD-064	142	144	2	0.160	0.110
3276	CCD-064	144	146	2	0.240	0.150
3277	CCD-064	146	148	2	0.110	0.050
3278	CCD-064	148	150	2	0.130	0.081
3279	CCD-064	150	152	2	0.340	0.200
3280	CCD-064	152	154	2	0.290	0.170
3281	CCD-064	154	156	2	0.330	0.190
3282	CCD-064	156	158	2	0.260	0.170
3283	CCD-064	158	160	2	0.240	0.180
3284	CCD-064	160	162	2	0.270	0.150
3285	CCD-064	162	164	2	0.210	0.100
3286	CCD-064	164	166	2	0.160	0.110
3287	CCD-064	166	168	2	0.170	0.085

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3288	CCD-064	168	170	2	0.150	0.097
3290	CCD-064	170	172	2	0.390	0.210
3291	CCD-064	172	174	2	0.150	0.140
3292	CCD-064	174	176	2	0.210	0.210
3293	CCD-064	176	178	2	0.150	0.089
3294	CCD-064	178	180	2	0.070	0.076
3295	CCD-064	180	182	2	0.090	0.078
3296	CCD-064	182	184	2	0.150	0.066
3297	CCD-064	184	186	2	0.170	0.140
3298	CCD-064	186	188	2	0.290	0.230
3299	CCD-064	188	190	2	0.280	0.210
3300	CCD-064	190	192	2	0.200	0.320
3301	CCD-064	192	194	2	0.240	0.320
3302	CCD-064	194	196	2	0.330	0.570
3303	CCD-064	196	198	2	0.150	0.091
3304	CCD-064	198	200	2	0.150	0.081
3305	CCD-064	200	202	2	0.160	0.097
3306	CCD-064	202	204	2	0.170	0.096
3307	CCD-064	204	206	2	0.140	0.060
3308	CCD-064	206	208	2	0.130	0.057
3309	CCD-064	208	210	2	0.110	0.095
3310	CCD-064	210	212	2	0.180	0.160
3312	CCD-064	212	214	2	0.180	0.082
3313	CCD-064	214	216	2	0.140	0.078
3314	CCD-064	216	218	2	0.070	0.040
3315	CCD-064	218	220	2	0.090	0.059
3316	CCD-064	220	222	2	0.110	0.051
3317	CCD-064	222	224	2	0.190	0.110
3318	CCD-064	224	226	2	0.210	0.150
3319	CCD-064	226	228	2	0.340	0.240
3320	CCD-064	228	230	2	0.120	0.091
3321	CCD-064	230	232	2	0.440	0.150
3322	CCD-064	232	234	2	0.080	0.060
3323	CCD-064	234	236	2	0.090	0.051
3324	CCD-064	236	238	2	0.150	0.071
3325	CCD-064	238	240	2	0.160	0.065
3326	CCD-064	240	242	2	0.070	0.034
3327	CCD-064	242	244	2	0.070	0.040
3328	CCD-064	244	246	2	0.390	0.099
3329	CCD-064	246	248	2	0.170	0.029
3330	CCD-064	248	250	2	0.070	0.100
3331	CCD-064	250	252	2	0.170	0.089
3332	CCD-064	252	254	2	0.270	0.140
3334	CCD-064	254	256	2	0.080	0.039
3335	CCD-064	256	258	2	0.110	0.059
3336	CCD-064	258	260	2	0.080	0.043
3337	CCD-064	260	262	2	0.070	0.043
3338	CCD-064	262	264	2	0.470	0.360
3339	CCD-064	264	266	2	0.200	0.140
3340	CCD-064	266	268	2	0.040	0.017
3341	CCD-064	268	270	2	0.060	0.033
3342	CCD-064	270	272	2	0.120	0.072
3343	CCD-064	272	274	2	0.130	0.098
3344	CCD-064	274	276	2	0.190	0.140
3345	CCD-064	276	278	2	0.220	0.190

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3346	CCD-064	278	280	2	0.210	0.085
3347	CCD-064	280	282	2	0.200	0.090
3348	CCD-064	282	284	2	0.220	0.120
3349	CCD-064	284	286	2	0.250	0.150
3350	CCD-064	286	288	2	0.270	0.180
3351	CCD-064	288	290	2	0.160	0.097
3352	CCD-064	290	292	2	0.040	0.026
3353	CCD-064	292	294	2	0.120	0.056
3354	CCD-064	294	296	2	0.210	0.140
3356	CCD-064	296	298	2	0.160	0.067
3357	CCD-064	298	300	2	0.210	0.110
3358	CCD-064	300	302	2	0.290	0.120
3359	CCD-064	302	304	2	0.310	0.150
3360	CCD-064	304	306	2	0.270	0.110
3361	CCD-064	306	308	2	0.100	0.042
3362	CCD-064	308	310	2	0.230	0.130
3363	CCD-064	310	312	2	0.180	0.075
3364	CCD-064	312	314	2	0.090	0.038
3365	CCD-064	314	316	2	0.180	0.062
3366	CCD-064	316	318	2	0.330	0.130
3367	CCD-064	318	320	2	0.180	0.089
3368	CCD-064	320	322	2	0.360	0.140
3369	CCD-064	322	324	2	0.180	0.080
3370	CCD-064	324	326	2	0.190	0.068
3371	CCD-064	326	328	2	0.300	0.110
3372	CCD-064	328	330	2	0.380	0.100
3373	CCD-064	330	332	2	0.430	0.140
3374	CCD-064	332	334	2	0.530	0.190
3375	CCD-064	334	336	2	0.610	0.230
3376	CCD-064	336	338	2	0.880	0.370
3378	CCD-064	338	340	2	0.540	0.220
3379	CCD-064	340	342	2	0.420	0.130
3380	CCD-064	342	344	2	0.340	0.170
4101	CCD-100	0	2	2	0.050	0.025
4102	CCD-100	2	4	2	0.070	0.053
4103	CCD-100	4	6	2	0.080	0.081
4104	CCD-100	6	8	2	0.080	0.210
4105	CCD-100	8	10	2	0.050	0.210
4106	CCD-100	10	12	2	0.090	0.130
4107	CCD-100	12	14	2	0.080	0.220
4108	CCD-100	14	16	2	0.040	0.180
4109	CCD-100	16	18	2	0.060	0.210
4110	CCD-100	18	20	2	0.030	0.160
4111	CCD-100	20	22	2	0.090	0.086
4112	CCD-100	22	24	2	0.050	0.120
4113	CCD-100	24	26	2	0.050	0.078
4114	CCD-100	26	28	2	0.090	0.028
4115	CCD-100	28	30	2	0.130	0.022
4116	CCD-100	30	32	2	0.090	0.180
4117	CCD-100	32	34	2	0.090	0.097
4118	CCD-100	34	36	2	0.110	0.130
4119	CCD-100	36	38	2	0.070	0.045
4120	CCD-100	38	40	2	0.080	0.081
4121	CCD-100	40	42	2	0.080	0.052
4122	CCD-100	42	44	2	0.060	0.026

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4124	CCD-100	44	46	2	0.070	0.047
4125	CCD-100	46	48	2	0.100	0.130
4126	CCD-100	48	50	2	0.070	0.067
4127	CCD-100	50	52	2	0.030	0.028
4128	CCD-100	52	54	2	0.020	0.037
4129	CCD-100	54	56	2	0.030	0.036
4130	CCD-100	56	58	2	0.090	0.180
4131	CCD-100	58	60	2	0.080	0.080
4132	CCD-100	60	62	2	0.030	0.023
4133	CCD-100	62	64	2	0.010	0.026
4134	CCD-100	64	66	2	0.030	0.014
4135	CCD-100	66	68	2	0.030	0.059
4136	CCD-100	68	70	2	0.040	0.023
4137	CCD-100	70	72	2	0.080	0.083
4138	CCD-100	72	74	2	0.060	0.050
4139	CCD-100	74	76	2	0.040	0.040
4140	CCD-100	76	78	2	0.040	0.026
4141	CCD-100	78	80	2	0.060	0.038
4142	CCD-100	80	82	2	0.180	0.100
4143	CCD-100	82	84	2	0.070	0.066
4144	CCD-100	84	86	2	0.120	0.038
4146	CCD-100	86	88	2	0.880	0.110
4147	CCD-100	88	90	2	0.330	0.057
4148	CCD-100	90	92	2	0.230	0.038
4149	CCD-100	92	94	2	0.120	0.120
4150	CCD-100	94	96	2	0.200	0.075
4151	CCD-100	96	98	2	0.050	0.088
4152	CCD-100	98	100	2	0.060	0.110
4153	CCD-100	100	102	2	0.050	0.030
4154	CCD-100	102	104	2	0.040	0.051
4155	CCD-100	104	106	2	0.030	0.033
4156	CCD-100	106	108	2	0.040	0.038
4157	CCD-100	108	110	2	0.060	0.043
4158	CCD-100	110	112	2	0.050	0.043
4159	CCD-100	112	114	2	0.090	0.053
4160	CCD-100	114	116	2	0.100	0.150
4161	CCD-100	116	118	2	0.080	0.063
4162	CCD-100	118	120	2	0.060	0.051
4163	CCD-100	120	122	2	0.080	0.051
4164	CCD-100	122	124	2	0.070	0.060
4165	CCD-100	124	126	2	0.090	0.093
4166	CCD-100	126	128	2	0.030	0.031
4168	CCD-100	128	130	2	0.050	0.075
4169	CCD-100	130	132	2	0.030	0.030
4170	CCD-100	132	134	2	0.160	0.200
4171	CCD-100	134	136	2	0.050	0.037
4172	CCD-100	136	138	2	0.030	0.015
4173	CCD-100	138	140	2	0.030	0.026
4174	CCD-100	140	142	2	0.110	0.049
4175	CCD-100	142	144	2	0.030	0.006
4176	CCD-100	144	146	2	0.100	0.190
4177	CCD-100	146	148	2	0.190	0.230
4178	CCD-100	148	150	2	0.170	0.120
4179	CCD-100	150	152	2	0.050	0.027
4180	CCD-100	152	154	2	0.020	0.043

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4181	CCD-100	154	156	2	0.030	0.020
4182	CCD-100	156	158	2	0.030	0.029
4183	CCD-100	158	160	2	0.210	0.430
4184	CCD-100	160	162	2	0.070	0.056
4185	CCD-100	162	164	2	0.040	0.024
4186	CCD-100	164	166	2	0.110	0.079
4187	CCD-100	166	168	2	0.120	0.060
4188	CCD-100	168	170	2	0.090	0.048
4190	CCD-100	170	172	2	0.020	0.014
4191	CCD-100	172	174	2	0.040	0.012
4192	CCD-100	174	176	2	0.050	0.050
4193	CCD-100	176	178	2	0.040	0.035
4194	CCD-100	178	180	2	0.270	0.170
4195	CCD-100	180	182	2	0.080	0.087
4196	CCD-100	182	184	2	0.050	0.051
4197	CCD-100	184	186	2	0.050	0.038
4198	CCD-100	186	188	2	0.050	0.046
4199	CCD-100	188	190	2	0.080	0.066
4200	CCD-100	190	192	2	0.070	0.055
4201	CCD-100	192	194	2	0.080	0.074
4202	CCD-100	194	196	2	0.050	0.057
4203	CCD-100	196	198	2	0.080	0.100
4204	CCD-100	198	200	2	0.080	0.097
4205	CCD-100	200	202	2	0.050	0.080
4206	CCD-100	202	204	2	0.050	0.130
4207	CCD-100	204	206	2	0.090	0.086
4208	CCD-100	206	208	2	0.120	0.120
4209	CCD-100	208	210	2	0.070	0.210
4210	CCD-100	210	212	2	0.090	0.110
4212	CCD-100	212	214	2	0.090	0.093
4213	CCD-100	214	216	2	0.100	0.110
4214	CCD-100	216	218	2	0.080	0.086
4215	CCD-100	218	220	2	0.060	0.044
4216	CCD-100	220	222	2	0.060	0.067
4217	CCD-100	222	224	2	0.080	0.077
4218	CCD-100	224	226	2	0.070	0.075
4219	CCD-100	226	228	2	0.110	0.160
4220	CCD-100	228	230	2	0.100	0.120
4221	CCD-100	230	232	2	0.120	0.160
4222	CCD-100	232	234	2	0.130	0.170
4223	CCD-100	234	236	2	0.110	0.080
4224	CCD-100	236	238	2	0.060	0.130
4225	CCD-100	238	240	2	0.090	0.081
4226	CCD-100	240	242	2	0.100	0.074
4227	CCD-100	242	244	2	0.130	0.180
4228	CCD-100	244	246	2	0.140	0.100
4229	CCD-100	246	248	2	0.090	0.130
4230	CCD-100	248	250	2	0.140	0.170
2501	CCD-101	72	74	2	0.110	0.034
2502	CCD-101	74	76	2	0.070	0.032
2503	CCD-101	76	78	2	0.070	0.029
2504	CCD-101	78	80	2	0.030	0.010
2505	CCD-101	80	82	2	0.030	0.007
2506	CCD-101	82	84	2	0.020	0.009
2507	CCD-101	84	86	2	0.040	0.013

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2509	CCD-101	86	88	2	0.030	0.007
2510	CCD-101	88	90	2	0.030	0.008
2511	CCD-101	90	92	2	0.030	0.008
2512	CCD-101	92	94	2	0.010	0.005
2513	CCD-101	94	96	2	0.010	0.003
2514	CCD-101	96	98	2	0.020	0.005
2515	CCD-101	98	100	2	0.050	0.007
2516	CCD-101	100	102	2	0.050	0.021
2517	CCD-101	102	104	2	0.080	0.014
2518	CCD-101	104	106	2	0.060	0.025
2519	CCD-101	106	108	2	0.080	0.046
2520	CCD-101	108	110	2	0.090	0.050
2521	CCD-101	110	112	2	0.030	0.013
2522	CCD-101	112	114	2	0.040	0.018
2523	CCD-101	114	116	2	0.050	0.027
2524	CCD-101	116	118	2	0.050	0.015
2525	CCD-101	118	120	2	0.040	0.013
2526	CCD-101	120	122	2	0.080	0.028
2527	CCD-101	122	124	2	0.040	0.016
2528	CCD-101	124	126	2	0.070	0.032
2529	CCD-101	126	128	2	0.080	0.034
2531	CCD-101	128	130	2	0.030	0.015
2532	CCD-101	130	132	2	0.030	0.010
2533	CCD-101	132	134	2	0.020	0.009
2534	CCD-101	134	136	2	0.020	0.008
2535	CCD-101	136	138	2	0.050	0.013
2536	CCD-101	138	140	2	0.060	0.033
2537	CCD-101	140	142	2	0.180	0.084
2538	CCD-101	142	144	2	0.060	0.043
2539	CCD-101	144	146	2	0.010	0.003
2540	CCD-101	146	148	2	0.050	0.011
2541	CCD-101	148	150	2	0.040	0.013
2542	CCD-101	150	152	2	0.040	0.012
2543	CCD-101	152	154	2	0.040	0.012
2544	CCD-101	154	156	2	0.040	0.014
2545	CCD-101	156	158	2	0.040	0.014
2546	CCD-101	158	160	2	0.050	0.017
2547	CCD-101	160	162	2	0.070	0.021
2548	CCD-101	162	164	2	0.200	0.096
2549	CCD-101	164	166	2	0.090	0.040
2550	CCD-101	166	168	2	0.180	0.057
2551	CCD-101	168	170	2	0.180	0.059
2553	CCD-101	170	172	2	0.150	0.055
2554	CCD-101	172	174	2	0.050	0.025
2555	CCD-101	174	176	2	0.040	0.013
2556	CCD-101	176	178	2	0.040	0.016
2557	CCD-101	178	180	2	0.060	0.022
2558	CCD-101	180	182	2	0.050	0.018
2559	CCD-101	182	184	2	0.060	0.021
2560	CCD-101	184	186	2	0.060	0.021
2561	CCD-101	186	188	2	0.110	0.017
2562	CCD-101	188	190	2	0.130	0.037
2563	CCD-101	190	192	2	0.110	0.052
2564	CCD-101	192	194	2	0.200	0.071
2565	CCD-101	194	196	2	0.130	0.050

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2566	CCD-101	196	198	2	0.270	0.055
2567	CCD-101	198	200	2	0.260	0.088
2568	CCD-101	200	202	2	0.120	0.049
2569	CCD-101	202	204	2	0.090	0.051
2570	CCD-101	204	206	2	0.090	0.055
2571	CCD-101	206	208	2	0.390	0.150
2572	CCD-101	208	210	2	0.120	0.052
2573	CCD-101	210	212	2	0.260	0.100
2575	CCD-101	212	214	2	0.220	0.090
2576	CCD-101	214	216	2	0.230	0.081
2577	CCD-101	216	218	2	2.580	1.180
2578	CCD-101	218	220	2	5.230	5.670
2579	CCD-101	220	222	2	2.430	2.570
2580	CCD-101	222	224	2	4.840	7.100
2581	CCD-101	224	226	2	1.510	3.670
2582	CCD-101	226	228	2	3.420	1.470
2583	CCD-101	228	230	2	2.000	1.360
2584	CCD-101	230	232	2	0.740	0.570
2585	CCD-101	232	234	2	0.610	0.340
2586	CCD-101	234	236	2	0.380	0.130
2587	CCD-101	236	238	2	0.370	0.110
2588	CCD-101	238	240	2	0.330	0.140
2589	CCD-101	240	242	2	0.290	0.140
2590	CCD-101	242	244	2	0.090	0.049
2591	CCD-101	244	246	2	0.490	0.039
2592	CCD-101	246	248	2	0.120	0.060
2593	CCD-101	248	250	2	0.220	0.045
2594	CCD-101	250	252	2	0.050	0.042
2595	CCD-101	252	254	2	0.050	0.048
2597	CCD-101	254	256	2	0.070	0.038
2598	CCD-101	256	258	2	0.090	0.048
2599	CCD-101	258	260	2	0.070	0.044
2600	CCD-101	260	262	2	0.070	0.031
2601	CCD-101	262	264	2	0.060	0.040
2602	CCD-101	264	266	2	0.050	0.019
2603	CCD-101	266	268	2	0.140	0.049
2604	CCD-101	268	270	2	0.110	0.056
2605	CCD-101	270	272	2	0.100	0.084
2606	CCD-101	272	274	2	0.100	0.082
2607	CCD-101	274	276	2	0.090	0.037
2608	CCD-101	276	278	2	0.160	0.050
2609	CCD-101	278	280	2	0.050	0.019
2610	CCD-101	280	282	2	0.110	0.038
2611	CCD-101	282	284	2	0.130	0.057
2612	CCD-101	284	286	2	0.060	0.038
2613	CCD-101	286	288	2	0.050	0.028
2614	CCD-101	288	290	2	0.050	0.030
2615	CCD-101	290	292	2	0.040	0.023
2616	CCD-101	292	294	2	0.070	0.053
2617	CCD-101	294	296	2	0.100	0.060
2619	CCD-101	296	298	2	0.100	0.049
2620	CCD-101	298	300	2	0.060	0.043
2621	CCD-101	300	302	2	0.160	0.074
2622	CCD-101	302	304	2	0.080	0.048
2623	CCD-101	304	306	2	0.080	0.007

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
2624	CCD-101	306	308	2	0.060	0.027
2625	CCD-101	308	310	2	0.070	0.058
2626	CCD-101	310	312	2	0.060	0.043
2627	CCD-101	312	314	2	0.100	0.057
2628	CCD-101	314	316	2	0.060	0.057
2629	CCD-101	316	318	2	0.040	0.041
2630	CCD-101	318	320	2	0.080	0.049
2631	CCD-101	320	322	2	0.100	0.055
2632	CCD-101	322	324	2	0.040	0.032
2633	CCD-101	324	326	2	0.120	0.097
2634	CCD-101	326	328	2	0.130	0.098
2635	CCD-101	328	330	2	0.090	0.059
2636	CCD-101	330	332	2	0.060	0.056
2637	CCD-101	332	334	2	0.250	0.160
2638	CCD-101	334	336	2	0.110	0.077
2639	CCD-101	336	338	2	0.140	0.054
2641	CCD-101	338	340	2	0.070	0.036
2642	CCD-101	340	342	2	0.150	0.070
2643	CCD-101	342	344	2	0.080	0.067
2644	CCD-101	344	346	2	0.060	0.044
2645	CCD-101	346	348	2	0.340	0.280
2646	CCD-101	348	350	2	0.270	0.260
2647	CCD-101	350	352	2	0.210	0.180
2648	CCD-101	352	354	2	0.080	0.044
2649	CCD-101	354	356	2	0.100	0.060
2650	CCD-101	356	358	2	0.170	0.097
4301	CCD-102	0	2	2	1.050	0.058
4302	CCD-102	2	4	2	1.380	0.056
4303	CCD-102	4	6	2	0.760	0.048
4304	CCD-102	6	8	2	0.660	0.233
4305	CCD-102	8	10	2	1.820	0.124
4306	CCD-102	10	12	2	2.390	0.494
4307	CCD-102	12	14	2	1.830	0.807
4308	CCD-102	14	16	2	1.550	0.673
4309	CCD-102	16	18	2	1.270	0.089
4310	CCD-102	18	20	2	2.050	0.044
4311	CCD-102	20	22	2	1.310	0.301
4312	CCD-102	22	24	2	1.450	1.089
4313	CCD-102	24	26	2	1.480	1.616
4314	CCD-102	26	28	2	1.800	2.764
4315	CCD-102	28	30	2	1.760	4.341
4316	CCD-102	30	32	2	1.430	2.928
4317	CCD-102	32	34	2	1.610	1.696
4318	CCD-102	34	36	2	1.090	2.472
4319	CCD-102	36	38	2	0.970	2.300
4320	CCD-102	38	40	2	1.500	1.760
4321	CCD-102	40	42	2	1.070	1.101
4322	CCD-102	42	44	2	1.150	0.932
4324	CCD-102	44	46	2	0.930	1.081
4325	CCD-102	46	48	2	0.840	0.741
4326	CCD-102	48	50	2	1.230	0.722
4327	CCD-102	50	52	2	1.340	0.614
4328	CCD-102	52	54	2	1.170	0.609
4329	CCD-102	54	56	2	1.400	0.542
4330	CCD-102	56	58	2	1.730	0.708

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4331	CCD-102	58	60	2	1.050	0.887
4332	CCD-102	60	62	2	0.870	0.167
4333	CCD-102	62	64	2	0.530	0.123
4334	CCD-102	64	66	2	0.700	0.669
4335	CCD-102	66	68	2	0.510	0.492
4336	CCD-102	68	70	2	0.860	0.522
4337	CCD-102	70	72	2	0.760	0.515
4338	CCD-102	72	74	2	0.390	0.537
4339	CCD-102	74	76	2	0.670	0.556
4340	CCD-102	76	78	2	1.070	0.494
4341	CCD-102	78	80	2	0.800	0.447
4342	CCD-102	80	82	2	0.660	0.324
4343	CCD-102	82	84	2	0.740	0.357
4344	CCD-102	84	86	2	0.500	0.323
4346	CCD-102	86	88	2	0.620	0.414
4347	CCD-102	88	90	2	1.070	0.402
4348	CCD-102	90	92	2	0.800	0.414
4349	CCD-102	92	94	2	0.720	0.606
4350	CCD-102	94	96	2	0.620	0.298
4351	CCD-102	96	98	2	0.650	0.354
4352	CCD-102	98	100	2	0.930	0.572
4353	CCD-102	100	102	2	1.070	0.682
4354	CCD-102	102	104	2	0.990	0.471
4355	CCD-102	104	106	2	1.090	0.480
4356	CCD-102	106	108	2	0.690	0.182
4357	CCD-102	108	110	2	0.420	0.164
4358	CCD-102	110	112	2	0.760	0.192
4359	CCD-102	112	114	2	0.480	0.206
4360	CCD-102	114	116	2	0.470	0.190
4361	CCD-102	116	118	2	0.790	0.290
4362	CCD-102	118	120	2	0.200	0.085
4363	CCD-102	120	122	2	0.110	0.071
4364	CCD-102	122	124	2	0.100	0.069
4365	CCD-102	124	126	2	0.130	0.077
4366	CCD-102	126	128	2	0.160	0.073
4368	CCD-102	128	130	2	0.330	0.165
4369	CCD-102	130	132	2	0.410	0.243
4370	CCD-102	132	134	2	0.200	0.155
4371	CCD-102	134	136	2	0.250	0.152
4372	CCD-102	136	138	2	0.090	0.034
4373	CCD-102	138	140	2	0.100	0.059
4374	CCD-102	140	142	2	0.110	0.061
4375	CCD-102	142	144	2	0.090	0.072
4376	CCD-102	144	146	2	0.140	0.066
4377	CCD-102	146	148	2	0.150	0.046
4378	CCD-102	148	150	2	0.080	0.024
4379	CCD-102	150	152	2	0.040	0.025
4380	CCD-102	152	154	2	0.030	0.021
4381	CCD-102	154	156	2	0.030	0.031
4382	CCD-102	156	158	2	0.060	0.032
4383	CCD-102	158	160	2	0.040	0.052
4384	CCD-102	160	162	2	0.080	0.047
4385	CCD-102	162	164	2	0.080	0.179
4386	CCD-102	164	166	2	0.310	0.061
4387	CCD-102	166	168	2	0.070	0.083

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4388	CCD-102	168	170	2	0.080	1.606
4390	CCD-102	170	172	2	0.090	0.073
4391	CCD-102	172	174	2	0.100	0.043
4392	CCD-102	174	176	2	0.060	0.031
4393	CCD-102	176	178	2	0.200	0.085
4394	CCD-102	178	180	2	0.160	0.069
4395	CCD-102	180	182	2	0.480	0.382
4396	CCD-102	182	184	2	0.450	0.400
4397	CCD-102	184	186	2	0.250	0.410
4398	CCD-102	186	188	2	0.450	0.400
4399	CCD-102	188	190	2	1.210	0.263
4400	CCD-102	190	192	2	0.520	0.620
4401	CCD-102	192	194	2	0.390	0.560
4402	CCD-102	194	196	2	0.410	0.590
4403	CCD-102	196	198	2	0.630	0.430
4404	CCD-102	198	200	2	0.600	0.630
4405	CCD-102	200	202	2	0.500	0.530
4406	CCD-102	202	204	2	0.640	0.560
4407	CCD-102	204	206	2	0.720	0.560
4408	CCD-102	206	208	2	0.970	0.580
4409	CCD-102	208	210	2	0.820	0.680
4410	CCD-102	210	212	2	0.650	0.410
4412	CCD-102	212	214	2	0.630	0.450
4413	CCD-102	214	216	2	0.610	0.410
4414	CCD-102	216	218	2	0.690	0.460
4415	CCD-102	218	220	2	0.800	0.580
4416	CCD-102	220	222	2	0.470	0.340
4417	CCD-102	222	224	2	0.460	0.490
4418	CCD-102	224	226	2	0.330	0.250
4419	CCD-102	226	228	2	0.300	0.570
4420	CCD-102	228	230	2	0.360	0.405
4421	CCD-102	230	232	2	0.420	0.410
4422	CCD-102	232	234	2	0.300	0.280
4423	CCD-102	234	236	2	0.510	0.300
4424	CCD-102	236	238	2	1.380	0.710
4425	CCD-102	238	240	2	0.490	0.203
4426	CCD-102	240	242	2	0.300	0.177
4427	CCD-102	242	244	2	0.370	0.239
4428	CCD-102	244	246	2	0.700	0.480
4429	CCD-102	246	248	2	0.310	0.156
4430	CCD-102	248	250	2	0.380	0.470
4431	CCD-102	250	252	2	0.310	0.250
4432	CCD-102	252	254	2	0.300	0.174
4434	CCD-102	254	256	2	0.440	0.320
4435	CCD-102	256	258	2	0.410	0.290
4436	CCD-102	258	260	2	0.210	0.163
4437	CCD-102	260	262	2	0.250	0.280
4438	CCD-102	262	264	2	0.130	0.103
4439	CCD-102	264	266	2	0.100	0.100
4440	CCD-102	266	268	2	0.110	0.070
4441	CCD-102	268	270	2	0.170	0.122
4442	CCD-102	270	272	2	0.180	0.202
4443	CCD-102	272	274	2	0.140	0.147
4444	CCD-102	274	276	2	0.110	0.121
4445	CCD-102	276	278	2	0.180	0.125

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4446	CCD-102	278	280	2	0.150	0.120
4447	CCD-102	280	282	2	0.130	0.087
4448	CCD-102	282	284	2	0.130	0.106
4449	CCD-102	284	286	2	0.150	0.104
4450	CCD-102	286	288	2	0.470	0.310
4451	CCD-102	288	290	2	0.100	0.082
4452	CCD-102	290	292	2	0.190	0.169
4453	CCD-102	292	294	2	0.080	0.085
4454	CCD-102	294	296	2	0.120	0.113
4456	CCD-102	296	298	2	0.100	0.083
4457	CCD-102	298	300	2	0.220	0.224
4458	CCD-102	300	302	2	0.200	0.143
4459	CCD-102	302	304	2	0.100	0.083
4460	CCD-102	304	306	2	0.110	0.086
4461	CCD-102	306	308	2	0.090	0.126
4462	CCD-102	308	310	2	0.070	0.094
4463	CCD-102	310	312	2	0.060	0.096
4464	CCD-102	312	314	2	0.110	0.102
4465	CCD-102	314	316	2	0.140	0.107
4466	CCD-102	316	318	2	0.130	0.151
4467	CCD-102	318	320	2	0.170	0.149
4468	CCD-102	320	322	2	0.250	0.171
4469	CCD-102	322	324	2	0.310	0.258
3501	CCD-103	0	2	2	0.120	0.110
3502	CCD-103	2	4	2	0.150	0.220
3503	CCD-103	4	6	2	0.160	0.160
3504	CCD-103	6	8	2	0.120	0.130
3505	CCD-103	8	10	2	0.070	0.290
3506	CCD-103	10	12	2	0.180	0.270
3507	CCD-103	12	14	2	0.130	0.160
3508	CCD-103	14	16	2	0.080	0.034
3509	CCD-103	16	18	2	0.130	0.076
3510	CCD-103	18	20	2	0.070	0.051
3511	CCD-103	20	22	2	0.040	0.029
3512	CCD-103	22	24	2	0.040	0.032
3513	CCD-103	24	26	2	0.060	0.019
3514	CCD-103	26	28	2	0.090	0.014
3515	CCD-103	28	30	2	0.050	0.031
3516	CCD-103	30	32	2	0.050	0.058
3517	CCD-103	32	34	2	0.030	0.006
3518	CCD-103	34	36	2	0.030	0.021
3519	CCD-103	36	38	2	0.040	0.015
3520	CCD-103	38	40	2	0.020	0.011
3521	CCD-103	40	42	2	0.070	0.016
3522	CCD-103	42	44	2	0.090	0.065
3524	CCD-103	44	46	2	0.140	0.150
3525	CCD-103	46	48	2	0.060	0.058
3526	CCD-103	48	50	2	0.070	0.050
3527	CCD-103	50	52	2	0.080	0.054
3528	CCD-103	52	54	2	0.150	0.095
3529	CCD-103	54	56	2	0.120	0.120
3530	CCD-103	56	58	2	0.100	0.140
3531	CCD-103	58	60	2	0.070	0.072
3532	CCD-103	60	62	2	0.230	0.190
3533	CCD-103	62	64	2	0.130	0.016

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3534	CCD-103	64	66	2	0.160	0.150
3535	CCD-103	66	68	2	0.140	0.160
3536	CCD-103	68	70	2	0.180	0.220
3537	CCD-103	70	72	2	0.160	0.160
3538	CCD-103	72	74	2	0.180	0.140
3539	CCD-103	74	76	2	0.200	0.069
3540	CCD-103	76	78	2	0.140	0.130
3541	CCD-103	78	80	2	0.130	0.160
3542	CCD-103	80	82	2	0.070	0.069
3543	CCD-103	82	84	2	0.130	0.099
3544	CCD-103	84	86	2	0.090	0.043
3546	CCD-103	86	88	2	0.040	0.044
3547	CCD-103	88	90	2	0.060	0.052
3548	CCD-103	90	92	2	0.050	0.034
3549	CCD-103	92	94	2	0.030	0.019
3550	CCD-103	94	96	2	0.060	0.029
3551	CCD-103	96	98	2	0.090	0.124
3552	CCD-103	98	100	2	0.500	0.281
3553	CCD-103	100	102	2	0.200	0.099
3554	CCD-103	102	104	2	0.220	0.119
3555	CCD-103	104	106	2	0.180	0.053
3556	CCD-103	106	108	2	0.220	0.065
3557	CCD-103	108	110	2	0.180	0.055
3558	CCD-103	110	112	2	0.290	0.089
3559	CCD-103	112	114	2	0.450	0.114
3560	CCD-103	114	116	2	0.140	0.065
3561	CCD-103	116	118	2	0.150	0.096
3562	CCD-103	118	120	2	0.140	0.169
3563	CCD-103	120	122	2	0.140	0.129
3564	CCD-103	122	124	2	0.210	0.072
3565	CCD-103	124	126	2	0.140	0.076
3566	CCD-103	126	128	2	0.180	0.194
3568	CCD-103	128	130	2	0.190	0.163
3569	CCD-103	130	132	2	0.210	0.166
3570	CCD-103	132	134	2	0.180	0.220
3571	CCD-103	134	136	2	0.090	0.064
3572	CCD-103	136	138	2	0.100	0.054
3573	CCD-103	138	140	2	0.100	0.052
3574	CCD-103	140	142	2	0.200	0.129
3575	CCD-103	142	144	2	0.100	0.035
3576	CCD-103	144	146	2	0.120	0.068
3577	CCD-103	146	148	2	0.090	0.054
3578	CCD-103	148	150	2	0.060	0.038
3579	CCD-103	150	152	2	0.100	0.032
3580	CCD-103	152	154	2	0.050	0.029
3581	CCD-103	154	156	2	0.110	0.043
3582	CCD-103	156	158	2	0.170	0.054
3583	CCD-103	158	160	2	0.160	0.074
3584	CCD-103	160	162	2	0.090	0.034
3585	CCD-103	162	164	2	0.110	0.065
3586	CCD-103	164	166	2	0.150	0.161
3587	CCD-103	166	168	2	0.080	0.080
3588	CCD-103	168	170	2	0.130	0.074
3590	CCD-103	170	172	2	0.140	0.070
3591	CCD-103	172	174	2	0.100	0.049

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3592	CCD-103	174	176	2	0.130	0.062
3593	CCD-103	176	178	2	0.080	0.122
3594	CCD-103	178	180	2	0.040	0.036
3595	CCD-103	180	182	2	0.050	0.030
3596	CCD-103	182	184	2	0.100	0.069
3597	CCD-103	184	186	2	0.070	0.034
3598	CCD-103	186	188	2	0.200	0.037
3599	CCD-103	188	190	2	0.230	0.057
3600	CCD-103	190	192	2	0.170	0.105
3601	CCD-103	192	194	2	0.170	0.088
3602	CCD-103	194	196	2	0.050	0.018
3603	CCD-103	196	198	2	0.130	0.018
3604	CCD-103	198	200	2	0.490	0.419
3701	CCD-104	0	2	2	1.380	0.034
3702	CCD-104	2	4	2	2.800	0.093
3703	CCD-104	4	6	2	3.660	0.095
3704	CCD-104	6	8	2	1.290	0.057
3705	CCD-104	8	10	2	0.740	0.084
3706	CCD-104	10	12	2	0.680	0.710
3707	CCD-104	12	14	2	1.320	0.575
3708	CCD-104	14	16	2	1.700	-1.000
3709	CCD-104	16	18	2	-1.000	-1.000
3710	CCD-104	18	20	2	1.230	-1.000
3711	CCD-104	20	22	2	0.760	0.888
3712	CCD-104	22	24	2	0.810	0.810
3713	CCD-104	24	26	2	0.960	1.490
3714	CCD-104	26	28	2	2.460	6.520
3715	CCD-104	28	30	2	2.550	3.020
3716	CCD-104	30	32	2	1.360	1.310
3717	CCD-104	32	34	2	0.840	0.915
3718	CCD-104	34	36	2	1.230	1.870
3719	CCD-104	36	38	2	0.740	0.958
3720	CCD-104	38	40	2	1.030	0.857
3721	CCD-104	40	42	2	1.450	1.090
3722	CCD-104	42	44	2	1.460	0.815
3724	CCD-104	44	46	2	0.820	0.517
3725	CCD-104	46	48	2	1.340	0.541
3726	CCD-104	48	50	2	1.730	0.919
3727	CCD-104	50	52	2	0.870	0.614
3728	CCD-104	52	54	2	1.080	0.641
3729	CCD-104	54	56	2	1.180	0.512
3730	CCD-104	56	58	2	0.420	0.172
3731	CCD-104	58	60	2	0.540	0.258
3732	CCD-104	60	62	2	0.890	0.356
3733	CCD-104	62	64	2	0.720	0.177
3734	CCD-104	64	66	2	0.830	0.279
3735	CCD-104	66	68	2	1.670	0.302
3736	CCD-104	68	70	2	0.240	0.071
3737	CCD-104	70	72	2	0.250	0.071
3738	CCD-104	72	74	2	0.830	0.639
3739	CCD-104	74	76	2	0.590	0.279
3740	CCD-104	76	78	2	0.380	0.219
3741	CCD-104	78	80	2	0.470	0.155
3742	CCD-104	80	82	2	0.760	0.193
3743	CCD-104	82	84	2	0.550	0.280

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3744	CCD-104	84	86	2	0.740	0.506
3746	CCD-104	86	88	2	0.740	0.334
3747	CCD-104	88	90	2	0.460	0.210
3748	CCD-104	90	92	2	0.650	0.239
3749	CCD-104	92	94	2	0.710	0.306
3750	CCD-104	94	96	2	0.260	0.165
3751	CCD-104	96	98	2	0.300	0.162
3752	CCD-104	98	100	2	0.580	0.267
3753	CCD-104	100	102	2	0.620	0.875
3754	CCD-104	102	104	2	0.470	0.321
3755	CCD-104	104	106	2	0.750	0.417
3756	CCD-104	106	108	2	0.300	0.290
3757	CCD-104	108	110	2	0.770	0.449
3758	CCD-104	110	112	2	0.990	0.457
3759	CCD-104	112	114	2	1.000	0.378
3760	CCD-104	114	116	2	0.370	0.494
3761	CCD-104	116	118	2	0.430	0.259
3762	CCD-104	118	120	2	0.510	0.338
3763	CCD-104	120	122	2	0.590	0.270
3764	CCD-104	122	124	2	0.570	0.256
3765	CCD-104	124	126	2	0.340	0.263
3766	CCD-104	126	128	2	0.130	0.097
3768	CCD-104	128	130	2	0.240	0.140
3769	CCD-104	130	132	2	0.090	0.057
3770	CCD-104	132	134	2	0.540	0.638
3771	CCD-104	134	136	2	0.200	0.147
3772	CCD-104	136	138	2	0.200	0.144
3773	CCD-104	138	140	2	0.100	0.090
3774	CCD-104	140	142	2	0.170	0.099
3775	CCD-104	142	144	2	0.430	0.206
3776	CCD-104	144	146	2	0.570	0.236
3777	CCD-104	146	148	2	0.450	0.248
3778	CCD-104	148	150	2	0.400	0.198
3779	CCD-104	150	152	2	0.210	0.104
3780	CCD-104	152	154	2	1.030	0.471
3781	CCD-104	154	156	2	0.270	0.170
3782	CCD-104	156	158	2	0.110	0.086
3783	CCD-104	158	160	2	0.310	0.118
3784	CCD-104	160	162	2	0.380	0.185
3785	CCD-104	162	164	2	0.430	0.210
3786	CCD-104	164	166	2	0.290	0.178
3787	CCD-104	166	168	2	0.310	0.194
3788	CCD-104	168	170	2	0.640	0.238
3790	CCD-104	170	172	2	0.200	0.130
3791	CCD-104	172	174	2	0.440	0.194
3792	CCD-104	174	176	2	0.360	0.180
3793	CCD-104	176	178	2	0.280	0.210
3794	CCD-104	178	180	2	0.390	0.266
3795	CCD-104	180	182	2	0.630	0.400
3796	CCD-104	182	184	2	0.520	0.310
3797	CCD-104	184	186	2	0.240	0.256
3798	CCD-104	186	188	2	1.220	0.580
3799	CCD-104	188	190	2	1.280	0.370
3800	CCD-104	190	192	2	1.040	0.460
3801	CCD-104	192	194	2	0.280	0.197

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3802	CCD-104	194	196	2	0.310	0.139
3803	CCD-104	196	198	2	0.700	0.420
3804	CCD-104	198	200	2	0.530	0.340
3805	CCD-104	200	202	2	0.480	0.204
3806	CCD-104	202	204	2	0.250	0.138
3807	CCD-104	204	206	2	0.370	0.225
3808	CCD-104	206	208	2	0.440	0.242
3809	CCD-104	208	210	2	0.630	0.400
3810	CCD-104	210	212	2	0.460	0.370
3812	CCD-104	212	214	2	0.290	0.238
3813	CCD-104	214	216	2	0.710	0.350
3814	CCD-104	216	218	2	0.520	0.340
3815	CCD-104	218	220	2	0.350	0.182
3816	CCD-104	220	222	2	1.010	0.380
3817	CCD-104	222	224	2	0.790	0.330
3818	CCD-104	224	226	2	2.290	0.695
3819	CCD-104	226	228	2	0.470	0.330
3820	CCD-104	228	230	2	0.840	0.350
3821	CCD-104	230	232	2	0.470	0.231
3822	CCD-104	232	234	2	0.490	0.209
3823	CCD-104	234	236	2	0.240	0.174
3824	CCD-104	236	238	2	1.030	0.610
3825	CCD-104	238	240	2	0.570	0.230
3826	CCD-104	240	242	2	0.590	0.330
3827	CCD-104	242	244	2	0.260	0.203
3828	CCD-104	244	246	2	0.950	0.435
3829	CCD-104	246	248	2	0.400	0.260
3830	CCD-104	248	250	2	0.740	0.320
3831	CCD-104	250	252	2	0.410	0.207
3832	CCD-104	252	254	2	0.440	0.225
3834	CCD-104	254	256	2	0.500	0.221
3835	CCD-104	256	258	2	0.490	0.236
3836	CCD-104	258	260	2	0.630	0.248
3837	CCD-104	260	262	2	0.650	0.510
3838	CCD-104	262	264	2	0.450	0.290
3839	CCD-104	264	266	2	0.290	0.180
3840	CCD-104	266	268	2	0.610	0.420
3841	CCD-104	268	270	2	0.230	0.159
3842	CCD-104	270	272	2	0.300	0.175
3843	CCD-104	272	274	2	0.560	0.320
3844	CCD-104	274	276	2	0.650	0.690
3845	CCD-104	276	278	2	0.480	0.420
3846	CCD-104	278	280	2	0.510	0.500
3847	CCD-104	280	282	2	0.620	0.520
3848	CCD-104	282	284	2	1.600	0.380
3849	CCD-104	284	286	2	0.770	0.460
3850	CCD-104	286	288	2	0.630	0.310
3851	CCD-104	288	290	2	0.090	0.275
3852	CCD-104	290	292	2	0.130	0.152
3853	CCD-104	292	294	2	0.150	0.113
3854	CCD-104	294	296	2	0.250	0.209
3856	CCD-104	296	298	2	0.220	0.120
3857	CCD-104	298	300	2	0.200	0.148
3858	CCD-104	300	302	2	0.190	0.154
3859	CCD-104	302	304	2	0.230	0.164

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3860	CCD-104	304	306	2	0.310	0.185
3861	CCD-104	306	308	2	0.300	0.199
3862	CCD-104	308	310	2	0.270	0.165
3863	CCD-104	310	312	2	0.370	0.187
3864	CCD-104	312	314	2	0.520	0.360
3865	CCD-104	314	316	2	0.400	0.300
3866	CCD-104	316	318	2	0.370	0.210
3867	CCD-104	318	320	2	0.130	0.222
3868	CCD-104	320	322	2	0.150	0.151
3869	CCD-104	322	324	2	0.110	0.373
3870	CCD-104	324	326	2	0.230	0.226
3871	CCD-104	326	328	2	0.210	0.170
3872	CCD-104	328	330	2	0.220	0.231
3873	CCD-104	330	332	2	0.510	0.267
3874	CCD-104	332	334	2	0.610	0.417
3875	CCD-104	334	336	2	0.070	0.271
3876	CCD-104	336	338	2	0.070	0.234
3878	CCD-104	338	340	2	0.040	0.141
3879	CCD-104	340	342	2	0.140	0.088
3880	CCD-104	342	344	2	0.160	0.109
3881	CCD-104	344	346	2	0.180	0.130
3882	CCD-104	346	348	2	0.200	0.144
3883	CCD-104	348	350	2	0.310	0.206
3884	CCD-104	350	352	2	0.180	0.108
3885	CCD-104	352	354	2	0.070	0.092
3886	CCD-104	354	356	2	0.100	0.240
3887	CCD-104	356	358	2	0.060	0.318
3888	CCD-104	358	360	2	0.160	0.231
3889	CCD-104	360	362	2	0.230	0.136
3890	CCD-104	362	364	2	0.360	0.261
3891	CCD-104	364	366	2	0.240	0.128
3892	CCD-104	366	368	2	0.110	0.090
3893	CCD-104	368	370	2	0.100	0.094
3894	CCD-104	370	372	2	0.180	0.185
3895	CCD-104	372	374	2	0.580	0.454
3896	CCD-104	374	376	2	0.170	0.148
3897	CCD-104	376	378	2	0.120	0.120
3898	CCD-104	378	380	2	0.140	0.141
3900	CCD-104	380	382	2	0.140	0.186
7185	CCD-104	382	384	2	0.110	0.129
7186	CCD-104	384	386	2	0.220	0.188
7187	CCD-104	386	388	2	0.170	0.158
7188	CCD-104	388	390	2	0.360	0.204
7189	CCD-104	390	392	2	0.280	0.451
7190	CCD-104	392	394	2	0.190	0.152
7191	CCD-104	394	396	2	0.100	0.168
7192	CCD-104	396	398	2	0.060	0.135
7193	CCD-104	398	400	2	0.110	0.189
7194	CCD-104	400	402	2	0.060	0.077
7195	CCD-104	402	404	2	0.140	0.161
7196	CCD-104	404	406	2	0.230	0.161
7197	CCD-104	406	408	2	0.210	0.117
7198	CCD-104	408	410	2	0.440	0.184
7199	CCD-104	410	412	2	0.350	0.168
7200	CCD-104	412	414	2	0.210	0.208

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8051	CCD-104	414	416	2	0.140	0.164
8052	CCD-104	416	418	2	0.250	0.171
8053	CCD-104	418	420	2	0.070	0.082
8054	CCD-104	420	422	2	0.080	0.108
8056	CCD-104	422	424	2	0.070	0.159
8057	CCD-104	424	426	2	0.020	0.093
8058	CCD-104	426	428	2	0.100	0.148
8059	CCD-104	428	430	2	0.120	0.175
8060	CCD-104	430	432	2	0.160	0.171
8061	CCD-104	432	434	2	0.190	0.156
8063	CCD-104	434	436	2	0.110	0.097
8064	CCD-104	436	438	2	0.050	0.201
8065	CCD-104	438	440	2	0.190	0.200
8066	CCD-104	440	442	2	0.170	0.120
8067	CCD-104	442	444	2	0.070	0.103
8068	CCD-104	444	446	2	0.030	0.122
8069	CCD-104	446	448	2	0.010	0.065
8070	CCD-104	448	450	2	0.010	0.045
8071	CCD-104	450	452	2	0.010	0.141
8072	CCD-104	452	454	2	0.040	0.143
3001	CCD-105	0	2	2	0.150	0.020
3002	CCD-105	2	4	2	0.250	0.027
3003	CCD-105	4	6	2	0.280	0.041
3004	CCD-105	6	8	2	0.240	0.031
3005	CCD-105	8	10	2	0.290	0.017
3006	CCD-105	10	12	2	0.550	0.029
3007	CCD-105	12	14	2	0.200	0.045
3008	CCD-105	14	16	2	0.260	0.170
3009	CCD-105	16	18	2	0.260	0.150
3011	CCD-105	18	20	2	0.180	0.044
3012	CCD-105	20	22	2	0.120	0.043
3013	CCD-105	22	24	2	0.160	0.077
3014	CCD-105	24	26	2	0.280	0.120
3015	CCD-105	26	28	2	0.040	0.016
3016	CCD-105	28	30	2	0.070	0.042
3017	CCD-105	30	32	2	0.110	0.067
3018	CCD-105	32	34	2	0.170	0.085
3019	CCD-105	34	36	2	0.290	0.200
3020	CCD-105	36	38	2	0.600	0.460
3021	CCD-105	38	40	2	0.130	0.064
3022	CCD-105	40	42	2	0.120	0.055
3023	CCD-105	42	44	2	0.330	0.150
3024	CCD-105	44	46	2	0.120	0.061
3025	CCD-105	46	48	2	0.350	0.210
3026	CCD-105	48	50	2	0.340	0.190
3027	CCD-105	50	52	2	0.100	0.052
3028	CCD-105	52	54	2	0.210	0.085
3029	CCD-105	54	56	2	0.110	0.091
3030	CCD-105	56	58	2	0.150	0.091
3031	CCD-105	58	60	2	0.260	0.170
3033	CCD-105	60	62	2	0.140	0.062
3034	CCD-105	62	64	2	0.170	0.073
3035	CCD-105	64	66	2	0.120	0.055
3036	CCD-105	66	68	2	0.080	0.039
3037	CCD-105	68	70	2	0.090	0.032

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3038	CCD-105	70	72	2	0.160	0.076
3039	CCD-105	72	74	2	0.090	0.044
3040	CCD-105	74	76	2	0.080	0.032
3041	CCD-105	76	78	2	0.030	0.018
3042	CCD-105	78	80	2	0.040	0.200
3043	CCD-105	80	82	2	0.110	0.071
3044	CCD-105	82	84	2	0.220	0.110
3045	CCD-105	84	86	2	0.310	0.140
3046	CCD-105	86	88	2	0.120	0.055
3047	CCD-105	88	90	2	0.100	0.042
3048	CCD-105	90	92	2	0.200	0.085
3049	CCD-105	92	94	2	0.120	0.068
3050	CCD-105	94	96	2	0.090	0.047
3051	CCD-105	96	98	2	0.240	0.098
3052	CCD-105	98	100	2	0.250	0.140
3053	CCD-105	100	102	2	0.270	0.110
3055	CCD-105	102	104	2	0.180	0.074
3056	CCD-105	104	106	2	0.130	0.061
3057	CCD-105	106	108	2	0.220	0.110
3058	CCD-105	108	110	2	0.270	0.150
3059	CCD-105	110	112	2	0.400	0.210
3060	CCD-105	112	114	2	0.400	0.220
3061	CCD-105	114	116	2	0.370	0.160
3062	CCD-105	116	118	2	0.300	0.140
3063	CCD-105	118	120	2	0.170	0.085
3064	CCD-105	120	122	2	0.220	0.087
3065	CCD-105	122	124	2	0.250	0.110
3066	CCD-105	124	126	2	0.380	0.150
3067	CCD-105	126	128	2	0.280	0.100
3068	CCD-105	128	130	2	0.980	0.470
3069	CCD-105	130	132	2	0.270	0.130
3070	CCD-105	132	134	2	0.550	0.210
3071	CCD-105	134	136	2	0.180	0.084
3072	CCD-105	136	138	2	0.090	0.053
3073	CCD-105	138	140	2	0.160	0.085
3074	CCD-105	140	142	2	0.160	0.076
3075	CCD-105	142	144	2	0.240	0.110
3077	CCD-105	144	146	2	0.150	0.070
3078	CCD-105	146	148	2	0.220	0.120
3079	CCD-105	148	150	2	0.270	0.140
3080	CCD-105	150	152	2	0.190	0.120
3081	CCD-105	152	154	2	0.180	0.098
3082	CCD-105	154	156	2	0.390	0.220
3083	CCD-105	156	158	2	0.580	0.280
3084	CCD-105	158	160	2	0.050	0.041
4501	CCD-106	0	2	2	0.360	0.027
4502	CCD-106	2	4	2	0.210	0.029
4503	CCD-106	4	6	2	0.350	0.031
4504	CCD-106	6	8	2	0.330	0.023
4505	CCD-106	8	10	2	0.280	0.029
4506	CCD-106	10	12	2	0.360	0.025
4507	CCD-106	12	14	2	0.270	0.120
4508	CCD-106	14	16	2	0.290	0.530
4509	CCD-106	16	18	2	0.230	0.420
4510	CCD-106	18	20	2	1.700	1.260

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4511	CCD-106	20	22	2	0.660	1.120
4512	CCD-106	22	24	2	0.210	0.230
4513	CCD-106	24	26	2	0.120	0.170
4514	CCD-106	26	28	2	0.130	0.140
4515	CCD-106	28	30	2	0.470	0.540
4516	CCD-106	30	32	2	0.350	0.530
4517	CCD-106	32	34	2	0.160	0.250
4518	CCD-106	34	36	2	0.210	0.440
4519	CCD-106	36	38	2	0.280	0.240
4520	CCD-106	38	40	2	0.170	0.220
4521	CCD-106	40	42	2	0.160	0.190
4522	CCD-106	42	44	2	0.280	0.380
4524	CCD-106	44	46	2	0.350	0.460
4525	CCD-106	46	48	2	0.250	0.500
4526	CCD-106	48	50	2	0.080	0.800
4527	CCD-106	50	52	2	0.220	0.310
4528	CCD-106	52	54	2	0.420	0.310
4529	CCD-106	54	56	2	0.570	0.350
4530	CCD-106	56	58	2	0.360	0.400
4531	CCD-106	58	60	2	0.480	0.430
4532	CCD-106	60	62	2	0.170	0.440
4533	CCD-106	62	64	2	0.160	0.485
4534	CCD-106	64	66	2	0.260	0.530
4535	CCD-106	66	68	2	0.200	0.400
4536	CCD-106	68	70	2	0.380	0.173
4537	CCD-106	70	72	2	0.370	0.212
4538	CCD-106	72	74	2	0.200	0.290
4539	CCD-106	74	76	2	0.240	0.280
4540	CCD-106	76	78	2	0.890	0.205
4541	CCD-106	78	80	2	0.690	0.250
4542	CCD-106	80	82	2	0.430	0.199
4543	CCD-106	82	84	2	0.960	0.530
4544	CCD-106	84	86	2	1.570	0.950
4546	CCD-106	86	88	2	0.480	0.280
4547	CCD-106	88	90	2	0.530	0.228
4548	CCD-106	90	92	2	0.520	0.223
4549	CCD-106	92	94	2	0.360	0.151
4550	CCD-106	94	96	2	0.730	0.320
4551	CCD-106	96	98	2	1.400	0.550
4552	CCD-106	98	100	2	0.900	0.880
4553	CCD-106	100	102	2	1.810	1.260
4554	CCD-106	102	104	2	1.090	0.570
4555	CCD-106	104	106	2	1.010	0.440
4556	CCD-106	106	108	2	0.670	0.330
4557	CCD-106	108	110	2	0.680	0.300
4558	CCD-106	110	112	2	0.880	0.380
4559	CCD-106	112	114	2	0.890	0.430
4560	CCD-106	114	116	2	0.500	0.250
4561	CCD-106	116	118	2	0.580	0.270
4562	CCD-106	118	120	2	0.940	0.310
4563	CCD-106	120	122	2	1.220	0.625
4564	CCD-106	122	124	2	1.140	0.570
4565	CCD-106	124	126	2	0.750	0.260
4566	CCD-106	126	128	2	1.240	0.390
4568	CCD-106	128	130	2	1.020	0.400

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4569	CCD-106	130	132	2	1.280	0.430
4570	CCD-106	132	134	2	2.300	1.110
4571	CCD-106	134	136	2	1.000	0.430
4572	CCD-106	136	138	2	2.320	1.480
4573	CCD-106	138	140	2	1.580	0.720
4574	CCD-106	140	142	2	0.770	0.400
4575	CCD-106	142	144	2	0.600	0.290
4576	CCD-106	144	146	2	0.740	0.490
4577	CCD-106	146	148	2	1.320	0.900
4578	CCD-106	148	150	2	1.240	1.180
4579	CCD-106	150	152	2	1.700	0.380
4580	CCD-106	152	154	2	1.070	0.380
4581	CCD-106	154	156	2	1.630	0.410
4582	CCD-106	156	158	2	1.840	0.550
4583	CCD-106	158	160	2	2.190	0.845
4584	CCD-106	160	162	2	1.020	0.400
4585	CCD-106	162	164	2	1.000	0.350
4586	CCD-106	164	166	2	0.700	0.230
4587	CCD-106	166	168	2	0.850	0.290
4588	CCD-106	168	170	2	0.650	0.300
4590	CCD-106	170	172	2	0.930	0.370
4591	CCD-106	172	174	2	1.420	0.540
4592	CCD-106	174	176	2	1.400	0.500
4593	CCD-106	176	178	2	0.860	0.570
4594	CCD-106	178	180	2	1.090	0.340
4595	CCD-106	180	182	2	0.720	0.320
4596	CCD-106	182	184	2	0.630	0.280
4597	CCD-106	184	186	2	0.860	0.340
4598	CCD-106	186	188	2	0.600	0.260
4599	CCD-106	188	190	2	0.340	0.146
4600	CCD-106	190	192	2	0.360	0.157
4601	CCD-106	192	194	2	0.590	0.280
4602	CCD-106	194	196	2	0.670	0.400
4603	CCD-106	196	198	2	0.560	0.248
4604	CCD-106	198	200	2	1.500	0.460
4605	CCD-106	200	202	2	1.250	0.540
4606	CCD-106	202	204	2	1.170	0.530
4607	CCD-106	204	206	2	1.210	0.520
4608	CCD-106	206	208	2	2.070	0.820
4609	CCD-106	208	210	2	1.610	0.560
4610	CCD-106	210	212	2	0.470	0.230
4612	CCD-106	212	214	2	0.440	0.196
4613	CCD-106	214	216	2	0.790	0.425
4614	CCD-106	216	218	2	0.550	0.990
4615	CCD-106	218	220	2	0.410	0.300
4616	CCD-106	220	222	2	2.050	1.170
4617	CCD-106	222	224	2	1.080	0.480
4618	CCD-106	224	226	2	0.430	0.219
4619	CCD-106	226	228	2	0.260	0.125
4620	CCD-106	228	230	2	0.360	0.229
4621	CCD-106	230	232	2	0.320	0.200
4622	CCD-106	232	234	2	0.350	0.199
4623	CCD-106	234	236	2	0.850	0.455
4624	CCD-106	236	238	2	0.380	0.206
4625	CCD-106	238	240	2	0.270	0.190

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4626	CCD-106	240	242	2	0.400	0.298
4627	CCD-106	242	244	2	0.390	0.315
4628	CCD-106	244	246	2	0.730	0.367
4629	CCD-106	246	248	2	0.450	0.239
4630	CCD-106	248	250	2	0.220	0.267
4631	CCD-106	250	252	2	1.070	0.641
4632	CCD-106	252	254	2	0.870	0.547
4634	CCD-106	254	256	2	1.730	0.818
4635	CCD-106	256	258	2	0.520	0.284
4636	CCD-106	258	260	2	0.650	0.362
4637	CCD-106	260	262	2	0.650	0.363
4638	CCD-106	262	264	2	0.660	0.316
4639	CCD-106	264	266	2	1.580	0.895
4640	CCD-106	266	268	2	1.260	0.859
4641	CCD-106	268	270	2	0.310	0.444
4642	CCD-106	270	272	2	0.930	0.776
4643	CCD-106	272	274	2	0.720	0.440
4644	CCD-106	274	276	2	0.700	0.412
4645	CCD-106	276	278	2	0.270	0.187
4646	CCD-106	278	280	2	0.360	0.232
4647	CCD-106	280	282	2	0.420	0.203
4648	CCD-106	282	284	2	0.360	0.247
4649	CCD-106	284	286	2	0.310	0.217
4650	CCD-106	286	288	2	0.010	0.231
4651	CCD-106	288	290	2	0.200	0.131
4652	CCD-106	290	292	2	0.220	0.153
4653	CCD-106	292	294	2	0.410	0.296
4654	CCD-106	294	296	2	0.250	0.189
4656	CCD-106	296	298	2	0.210	0.228
4657	CCD-106	298	300	2	0.120	0.106
4658	CCD-106	300	302	2	0.110	0.100
4659	CCD-106	302	304	2	0.270	0.188
4660	CCD-106	304	306	2	0.090	0.073
4661	CCD-106	306	308	2	0.190	0.189
4662	CCD-106	308	310	2	0.110	0.096
4663	CCD-106	310	312	2	0.170	0.166
4664	CCD-106	312	314	2	0.100	0.076
4665	CCD-106	314	316	2	0.150	0.127
4666	CCD-106	316	318	2	0.140	0.114
4667	CCD-106	318	320	2	0.160	0.134
4668	CCD-106	320	322	2	0.230	0.218
4669	CCD-106	322	324	2	0.370	0.310
4670	CCD-106	324	326	2	0.300	0.284
4671	CCD-106	326	328	2	0.230	0.243
4672	CCD-106	328	330	2	0.130	0.128
4673	CCD-106	330	332	2	0.190	0.188
4674	CCD-106	332	334	2	0.160	0.242
4675	CCD-106	334	336	2	0.190	0.237
4676	CCD-106	336	338	2	0.190	0.167
4678	CCD-106	338	340	2	0.070	0.089
4679	CCD-106	340	342	2	0.190	0.205
4680	CCD-106	342	344	2	0.130	0.109
4681	CCD-106	344	346	2	0.140	0.136
4682	CCD-106	346	348	2	0.210	0.210
4683	CCD-106	348	350	2	0.350	0.317

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4684	CCD-106	350	352	2	0.290	0.231
4685	CCD-106	352	354	2	0.070	0.055
4686	CCD-106	354	356	2	0.130	0.134
4687	CCD-106	356	358	2	0.080	0.080
4688	CCD-106	358	360	2	0.100	0.081
4689	CCD-106	360	362	2	0.140	0.108
4690	CCD-106	362	364	2	0.090	0.095
4691	CCD-106	364	366	2	0.100	0.087
4692	CCD-106	366	368	2	0.190	0.161
4693	CCD-106	368	370	2	0.380	0.362
4694	CCD-106	370	372	2	0.080	0.097
4695	CCD-106	372	374	2	0.120	0.125
4696	CCD-106	374	376	2	0.090	0.107
4697	CCD-106	376	378	2	0.130	0.111
4698	CCD-106	378	380	2	0.190	0.194
4700	CCD-106	380	382	2	0.110	0.137
8001	CCD-106	382	384	2	0.340	0.249
8002	CCD-106	384	386	2	0.440	0.306
8003	CCD-106	386	388	2	0.400	0.347
8004	CCD-106	388	390	2	0.290	0.192
8005	CCD-106	390	392	2	0.250	0.189
8006	CCD-106	392	394	2	0.420	0.286
8007	CCD-106	394	396	2	0.140	0.132
8008	CCD-106	396	398	2	0.230	0.195
8009	CCD-106	398	400	2	0.140	0.140
8010	CCD-106	400	402	2	0.600	0.391
8011	CCD-106	402	404	2	0.210	0.241
8012	CCD-106	404	406	2	0.240	0.227
8013	CCD-106	406	408	2	0.130	0.146
8014	CCD-106	408	410	2	0.190	0.215
8015	CCD-106	410	412	2	0.120	0.142
8016	CCD-106	412	414	2	0.200	0.234
8017	CCD-106	414	416	2	0.480	0.400
8018	CCD-106	416	418	2	0.220	0.210
8019	CCD-106	418	420	2	0.670	0.528
8020	CCD-106	420	422	2	0.250	0.226
8022	CCD-106	422	424	2	0.210	0.216
8023	CCD-106	424	426	2	0.150	0.152
8024	CCD-106	426	428	2	0.260	0.193
8025	CCD-106	428	430	2	0.860	0.652
8026	CCD-106	430	432	2	0.470	0.334
8027	CCD-106	432	434	2	0.390	0.271
8028	CCD-106	434	436	2	0.400	0.302
8029	CCD-106	436	438	2	0.230	0.188
8030	CCD-106	438	440	2	0.620	0.430
8031	CCD-106	440	442	2	0.430	0.330
8032	CCD-106	442	444	2	0.310	0.290
8033	CCD-106	444	446	2	0.660	0.420
8034	CCD-106	446	448	2	0.310	0.240
8035	CCD-106	448	450	2	0.460	0.250
8036	CCD-106	450	452	2	0.290	0.240
8037	CCD-106	452	454	2	0.560	0.420
8038	CCD-106	454	456	2	0.410	0.280
8039	CCD-106	456	458	2	0.160	0.190
8040	CCD-106	458	460	2	0.230	0.280

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8041	CCD-106	460	462	2	0.290	0.210
8042	CCD-106	462	464	2	0.570	0.400
8044	CCD-106	464	466	2	0.440	0.300
8045	CCD-106	466	468	2	0.380	0.360
8046	CCD-106	468	470	2	0.200	0.190
8047	CCD-106	470	472	2	0.300	0.237
8048	CCD-106	472	474	2	0.180	0.132
8049	CCD-106	474	476	2	0.310	0.226
8050	CCD-106	476	478	2	0.170	0.148
6432	CCD-106	478	480	2	0.200	0.132
6433	CCD-106	480	482	2	0.390	0.263
6434	CCD-106	482	484	2	0.190	0.169
6435	CCD-106	484	486	2	0.310	0.226
6436	CCD-106	486	488	2	0.240	0.253
6437	CCD-106	488	490	2	0.220	0.240
6438	CCD-106	490	492	2	0.230	0.223
6439	CCD-106	492	494	2	0.250	0.190
6440	CCD-106	494	496	2	0.270	0.297
6441	CCD-106	496	498	2	0.100	0.114
6442	CCD-106	498	500	2	0.130	0.108
4701	CCD-107	0	2	2	0.080	0.160
4702	CCD-107	2	4	2	0.080	0.100
4703	CCD-107	4	6	2	0.100	0.043
4704	CCD-107	6	8	2	0.190	0.200
4705	CCD-107	8	10	2	0.350	0.220
4707	CCD-107	10	12	2	0.270	0.200
4708	CCD-107	12	14	2	0.120	0.160
4709	CCD-107	14	16	2	0.080	0.110
4710	CCD-107	16	18	2	0.130	0.077
4711	CCD-107	18	20	2	0.060	0.045
4712	CCD-107	20	22	2	0.030	0.068
4713	CCD-107	22	24	2	0.100	0.140
4714	CCD-107	24	26	2	0.120	0.160
4715	CCD-107	26	28	2	0.180	0.200
4716	CCD-107	28	30	2	0.170	0.250
4717	CCD-107	30	32	2	0.190	0.200
4718	CCD-107	32	34	2	0.200	0.160
4719	CCD-107	34	36	2	0.190	0.270
4720	CCD-107	36	38	2	0.080	0.330
4721	CCD-107	38	40	2	0.280	0.088
4722	CCD-107	40	42	2	0.240	0.210
4723	CCD-107	42	44	2	0.120	0.120
4724	CCD-107	44	46	2	0.100	0.089
4725	CCD-107	46	48	2	0.130	0.120
4726	CCD-107	48	50	2	0.190	0.200
4727	CCD-107	50	52	2	0.160	0.230
4729	CCD-107	52	54	2	0.130	0.240
4730	CCD-107	54	56	2	0.120	0.110
4731	CCD-107	56	58	2	0.060	0.099
4732	CCD-107	58	60	2	0.060	0.110
4733	CCD-107	60	62	2	0.130	0.230
4734	CCD-107	62	64	2	0.100	0.170
4735	CCD-107	64	66	2	0.090	0.079
4736	CCD-107	66	68	2	0.180	0.250
4737	CCD-107	68	70	2	0.120	0.180

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4738	CCD-107	70	72	2	0.130	0.160
4739	CCD-107	72	74	2	0.080	0.110
4740	CCD-107	74	76	2	0.100	0.088
4741	CCD-107	76	78	2	0.120	0.100
4742	CCD-107	78	80	2	0.110	0.130
4743	CCD-107	80	82	2	0.120	0.140
4744	CCD-107	82	84	2	0.080	0.120
4745	CCD-107	84	86	2	0.090	0.099
4746	CCD-107	86	88	2	0.130	0.170
4747	CCD-107	88	90	2	0.040	0.078
4748	CCD-107	90	92	2	0.030	0.074
4749	CCD-107	92	94	2	0.060	0.150
4751	CCD-107	94	96	2	0.130	0.220
4752	CCD-107	96	98	2	0.100	0.160
4753	CCD-107	98	100	2	0.100	0.140
4754	CCD-107	100	102	2	0.100	0.130
4755	CCD-107	102	104	2	0.140	0.300
4756	CCD-107	104	106	2	0.060	0.120
4757	CCD-107	106	108	2	0.070	0.110
4758	CCD-107	108	110	2	0.060	0.074
4759	CCD-107	110	112	2	0.080	0.120
4760	CCD-107	112	114	2	0.070	0.064
4761	CCD-107	114	116	2	0.100	0.087
4762	CCD-107	116	118	2	0.090	0.099
4763	CCD-107	118	120	2	0.150	0.170
4764	CCD-107	120	122	2	0.150	0.160
4765	CCD-107	122	124	2	0.180	0.230
4766	CCD-107	124	126	2	0.120	0.180
4767	CCD-107	126	128	2	0.090	0.120
4768	CCD-107	128	130	2	0.080	0.120
4769	CCD-107	130	132	2	0.060	0.071
4770	CCD-107	132	134	2	0.090	0.180
4771	CCD-107	134	136	2	0.100	0.220
4773	CCD-107	136	138	2	0.070	0.076
4774	CCD-107	138	140	2	0.030	0.053
4775	CCD-107	140	142	2	0.050	0.110
4776	CCD-107	142	144	2	0.040	0.058
4777	CCD-107	144	146	2	0.030	0.022
4778	CCD-107	146	148	2	0.050	0.110
4779	CCD-107	148	150	2	0.110	0.140
4780	CCD-107	150	152	2	0.080	0.150
4781	CCD-107	152	154	2	0.070	0.140
4782	CCD-107	154	156	2	0.070	0.089
4783	CCD-107	156	158	2	0.190	0.100
4784	CCD-107	158	160	2	0.050	0.032
4785	CCD-107	160	162	2	0.040	0.066
4786	CCD-107	162	164	2	0.070	0.069
4787	CCD-107	164	166	2	0.060	0.076
4788	CCD-107	166	168	2	0.050	0.083
4789	CCD-107	168	170	2	0.080	0.130
4790	CCD-107	170	172	2	0.100	0.098
4791	CCD-107	172	174	2	0.080	0.094
4792	CCD-107	174	176	2	0.060	0.130
4793	CCD-107	176	178	2	0.080	0.120
4795	CCD-107	178	180	2	0.050	0.100

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4796	CCD-107	180	182	2	0.050	0.120
4797	CCD-107	182	184	2	0.650	0.361
4798	CCD-107	184	186	2	0.030	0.050
4799	CCD-107	186	188	2	0.070	0.040
4800	CCD-107	188	190	2	0.060	0.038
4801	CCD-107	190	192	2	0.180	0.205
4802	CCD-107	192	194	2	0.260	0.518
4803	CCD-107	194	196	2	0.010	0.039
4804	CCD-107	196	198	2	0.110	0.168
4805	CCD-107	198	200	2	0.350	0.487
4806	CCD-107	200	202	2	0.100	0.174
4807	CCD-107	202	204	2	0.110	0.146
4808	CCD-107	204	206	2	0.090	0.156
4809	CCD-107	206	208	2	0.010	0.011
4810	CCD-107	208	210	2	0.050	0.016
4811	CCD-107	210	212	2	0.120	0.067
4812	CCD-107	212	214	2	0.040	0.024
4813	CCD-107	214	216	2	0.030	0.025
4814	CCD-107	216	218	2	0.020	0.016
4815	CCD-107	218	220	2	0.060	0.051
4817	CCD-107	220	222	2	0.180	0.063
4818	CCD-107	222	224	2	0.130	0.083
4819	CCD-107	224	226	2	0.060	0.078
4820	CCD-107	226	228	2	0.060	0.068
4821	CCD-107	228	230	2	0.050	0.100
4822	CCD-107	230	232	2	0.050	0.056
4823	CCD-107	232	234	2	0.030	0.043
4824	CCD-107	234	236	2	0.050	0.115
4825	CCD-107	236	238	2	0.030	0.068
4826	CCD-107	238	240	2	0.050	0.160
4827	CCD-107	240	242	2	0.060	0.098
4828	CCD-107	242	244	2	0.050	0.070
4829	CCD-107	244	246	2	0.040	0.040
4830	CCD-107	246	248	2	0.060	0.039
4831	CCD-107	248	250	2	0.070	0.087
4832	CCD-107	250	252	2	0.080	0.090
4833	CCD-107	252	254	2	0.060	0.075
4834	CCD-107	254	256	2	0.050	0.080
4835	CCD-107	256	258	2	0.080	0.079
4836	CCD-107	258	260	2	0.070	0.080
4837	CCD-107	260	262	2	0.050	0.064
4839	CCD-107	262	264	2	0.070	0.094
4840	CCD-107	264	266	2	0.100	0.175
4841	CCD-107	266	268	2	0.040	0.065
4842	CCD-107	268	270	2	0.050	0.063
4843	CCD-107	270	272	2	0.060	0.108
4844	CCD-107	272	274	2	0.080	0.110
4845	CCD-107	274	276	2	0.090	0.107
4846	CCD-107	276	278	2	0.050	0.061
4847	CCD-107	278	280	2	0.040	0.075
4848	CCD-107	280	282	2	0.060	0.072
4849	CCD-107	282	284	2	0.040	0.053
4850	CCD-107	284	286	2	0.030	0.065
4851	CCD-107	286	288	2	0.040	0.049
4852	CCD-107	288	290	2	0.050	0.082

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4853	CCD-107	290	292	2	0.060	0.103
4854	CCD-107	292	294	2	0.050	0.120
4855	CCD-107	294	296	2	0.080	0.094
4856	CCD-107	296	298	2	0.050	0.133
4857	CCD-107	298	300	2	0.090	0.110
4858	CCD-107	300	302	2	0.050	0.087
4859	CCD-107	302	304	2	0.070	0.102
4861	CCD-107	304	306	2	0.120	0.068
4862	CCD-107	306	308	2	0.060	0.082
4863	CCD-107	308	310	2	0.190	0.310
4864	CCD-107	310	312	2	0.090	0.074
4865	CCD-107	312	314	2	0.080	0.090
4866	CCD-107	314	316	2	0.090	0.125
4867	CCD-107	316	318	2	0.070	0.107
4868	CCD-107	318	320	2	0.100	0.106
4869	CCD-107	320	322	2	0.080	0.111
4870	CCD-107	322	324	2	0.110	0.112
4871	CCD-107	324	326	2	0.060	0.067
4872	CCD-107	326	328	2	0.060	0.066
4873	CCD-107	328	330	2	0.070	0.073
4874	CCD-107	330	332	2	0.060	0.068
4875	CCD-107	332	334	2	0.060	0.050
4876	CCD-107	334	336	2	0.050	0.040
4877	CCD-107	336	338	2	0.040	0.044
4878	CCD-107	338	340	2	0.050	0.062
4879	CCD-107	340	342	2	0.060	0.077
4880	CCD-107	342	344	2	0.080	0.104
4881	CCD-107	344	346	2	0.030	0.047
4883	CCD-107	346	348	2	0.040	0.047
4884	CCD-107	348	350	2	0.140	0.146
4885	CCD-107	350	352	2	0.050	0.046
4886	CCD-107	352	354	2	0.060	0.070
4887	CCD-107	354	356	2	0.060	0.072
4888	CCD-107	356	358	2	0.050	0.066
4889	CCD-107	358	360	2	0.050	0.075
4890	CCD-107	360	362	2	0.120	0.081
4891	CCD-107	362	364	2	0.240	0.094
4892	CCD-107	364	366	2	0.090	0.080
4893	CCD-107	366	368	2	0.080	0.098
4894	CCD-107	368	370	2	0.100	0.073
4895	CCD-107	370	372	2	0.090	0.128
4896	CCD-107	372	374	2	0.100	0.095
4897	CCD-107	374	376	2	0.080	0.103
4898	CCD-107	376	378	2	0.060	0.077
4899	CCD-107	378	380	2	0.060	0.070
4900	CCD-107	380	382	2	0.140	0.118
5935	CCD-107	382	384	2	0.130	0.093
5936	CCD-107	384	386	2	0.090	0.084
5937	CCD-107	386	388	2	0.100	0.072
5938	CCD-107	388	390	2	0.100	0.084
5939	CCD-107	390	392	2	0.100	0.142
5940	CCD-107	392	394	2	0.070	0.101
5941	CCD-107	394	396	2	0.040	0.101
5942	CCD-107	396	398	2	0.030	0.077
5943	CCD-107	398	400	2	0.080	0.137

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5501	CCD-108	70	72	2	0.080	0.010
5502	CCD-108	72	74	2	0.090	0.007
5503	CCD-108	74	76	2	0.060	0.010
5504	CCD-108	76	78	2	0.070	0.038
5505	CCD-108	78	80	2	0.090	0.015
5506	CCD-108	80	82	2	0.070	0.013
5507	CCD-108	82	84	2	0.020	0.012
5508	CCD-108	84	86	2	0.080	0.053
5509	CCD-108	86	88	2	0.100	0.010
5510	CCD-108	88	90	2	0.070	0.037
5511	CCD-108	90	92	2	0.150	0.016
5512	CCD-108	92	94	2	0.060	0.014
5513	CCD-108	94	96	2	0.060	0.012
5514	CCD-108	96	98	2	0.170	0.038
5515	CCD-108	98	100	2	0.590	0.025
5516	CCD-108	100	102	2	0.330	0.018
5517	CCD-108	102	104	2	0.090	0.051
5518	CCD-108	104	106	2	0.050	0.047
5519	CCD-108	106	108	2	0.020	0.023
5520	CCD-108	108	110	2	0.020	0.013
5521	CCD-108	110	112	2	0.030	0.011
5523	CCD-108	112	114	2	0.020	0.012
5524	CCD-108	114	116	2	0.070	0.026
5525	CCD-108	116	118	2	0.030	0.021
5526	CCD-108	118	120	2	0.080	0.039
5527	CCD-108	120	122	2	0.100	0.030
5528	CCD-108	122	124	2	0.090	0.027
5529	CCD-108	124	126	2	0.070	0.002
5530	CCD-108	126	128	2	0.090	0.037
5531	CCD-108	128	130	2	0.110	0.061
5532	CCD-108	130	132	2	0.130	0.049
5533	CCD-108	132	134	2	0.090	0.033
5534	CCD-108	134	136	2	0.040	0.082
5535	CCD-108	136	138	2	0.060	0.054
5536	CCD-108	138	140	2	0.010	0.001
5537	CCD-108	140	142	2	0.020	0.011
5538	CCD-108	142	144	2	0.030	0.045
5539	CCD-108	144	146	2	0.030	0.064
5540	CCD-108	146	148	2	0.050	0.076
5541	CCD-108	148	150	2	0.080	0.100
5542	CCD-108	150	152	2	0.050	0.032
5543	CCD-108	152	154	2	0.050	0.023
5545	CCD-108	154	156	2	0.020	0.005
5546	CCD-108	156	158	2	0.030	0.035
5547	CCD-108	158	160	2	0.040	0.056
5548	CCD-108	160	162	2	0.020	0.016
5549	CCD-108	162	164	2	0.020	0.037
5550	CCD-108	164	166	2	0.100	0.083
5551	CCD-108	166	168	2	0.030	0.008
5552	CCD-108	168	170	2	0.040	0.028
5553	CCD-108	170	172	2	0.040	0.034
5554	CCD-108	172	174	2	0.050	0.012
5555	CCD-108	174	176	2	0.020	0.010
5556	CCD-108	176	178	2	0.020	0.012
5557	CCD-108	178	180	2	0.030	0.011

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5558	CCD-108	180	182	2	0.030	0.025
5559	CCD-108	182	184	2	0.030	0.041
5560	CCD-108	184	186	2	0.050	0.028
5561	CCD-108	186	188	2	0.060	0.051
5562	CCD-108	188	190	2	0.030	0.107
5563	CCD-108	190	192	2	0.010	0.041
5564	CCD-108	192	194	2	0.010	0.050
5565	CCD-108	194	196	2	0.010	0.075
5567	CCD-108	196	198	2	0.010	0.035
5568	CCD-108	198	200	2	0.010	0.028
5569	CCD-108	200	202	2	0.010	0.036
5570	CCD-108	202	204	2	0.010	0.006
5571	CCD-108	204	206	2	0.030	0.068
5572	CCD-108	206	208	2	0.010	0.026
5573	CCD-108	208	210	2	0.010	0.022
5574	CCD-108	210	212	2	0.010	0.024
5575	CCD-108	212	214	2	0.010	0.020
5576	CCD-108	214	216	2	0.010	0.038
5577	CCD-108	216	218	2	0.030	0.078
5578	CCD-108	218	220	2	0.010	0.025
5579	CCD-108	220	222	2	0.010	0.022
5580	CCD-108	222	224	2	0.040	0.073
5581	CCD-108	224	226	2	0.010	0.015
5582	CCD-108	226	228	2	0.010	0.020
5583	CCD-108	228	230	2	0.010	0.022
5584	CCD-108	230	232	2	0.030	0.029
5585	CCD-108	232	234	2	0.010	0.004
5586	CCD-108	234	236	2	0.010	0.016
5587	CCD-108	236	238	2	0.010	0.013
5589	CCD-108	238	240	2	0.010	0.021
5590	CCD-108	240	242	2	0.040	0.051
5591	CCD-108	242	244	2	0.010	0.027
5592	CCD-108	244	246	2	0.060	0.062
5593	CCD-108	246	248	2	0.010	0.019
5594	CCD-108	248	250	2	0.050	0.036
5595	CCD-108	250	252	2	0.010	0.002
5596	CCD-108	252	254	2	0.010	0.004
5597	CCD-108	254	256	2	0.010	0.022
5598	CCD-108	256	258	2	0.080	0.019
5599	CCD-108	258	260	2	0.010	0.010
5600	CCD-108	260	262	2	0.010	0.010
5601	CCD-108	262	264	2	0.010	0.009
5602	CCD-108	264	266	2	0.010	0.008
5603	CCD-108	266	268	2	0.010	0.007
5604	CCD-108	268	270	2	0.010	0.008
5605	CCD-108	270	272	2	0.010	0.007
5606	CCD-108	272	274	2	0.010	0.010
5607	CCD-108	274	276	2	0.010	0.010
5608	CCD-108	276	278	2	0.010	0.021
5609	CCD-108	278	280	2	0.010	0.014
5611	CCD-108	280	282	2	0.010	0.006
5612	CCD-108	282	284	2	0.020	0.014
5613	CCD-108	284	286	2	0.010	0.015
5614	CCD-108	286	288	2	0.010	0.017
5615	CCD-108	288	290	2	0.010	0.006

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5616	CCD-108	290	292	2	0.010	0.006
5617	CCD-108	292	294	2	0.010	0.003
5618	CCD-108	294	296	2	0.020	0.008
5619	CCD-108	296	298	2	0.010	0.002
5620	CCD-108	298	300	2	0.070	0.025
5621	CCD-108	300	302	2	0.030	0.043
5622	CCD-108	302	304	2	0.060	0.067
5623	CCD-108	304	306	2	0.030	0.035
5624	CCD-108	306	308	2	0.010	0.080
5625	CCD-108	308	310	2	0.010	0.011
5626	CCD-108	310	312	2	0.070	0.036
5627	CCD-108	312	314	2	0.240	0.620
5628	CCD-108	314	316	2	0.080	0.053
5629	CCD-108	316	318	2	0.170	0.156
5630	CCD-108	318	320	2	0.080	0.049
5631	CCD-108	320	322	2	0.010	0.010
5633	CCD-108	322	324	2	0.040	0.018
5634	CCD-108	324	326	2	0.090	0.005
5635	CCD-108	326	328	2	0.080	0.010
5636	CCD-108	328	330	2	0.070	0.011
5637	CCD-108	330	332	2	0.130	0.046
5638	CCD-108	332	334	2	0.150	0.076
5701	CCD-109	0	2	2	0.020	0.004
5702	CCD-109	2	4	2	0.010	0.005
5703	CCD-109	4	6	2	0.010	0.003
5704	CCD-109	6	8	2	0.010	0.004
5705	CCD-109	8	10	2	0.010	0.016
5706	CCD-109	10	12	2	0.030	0.034
5707	CCD-109	12	14	2	0.010	0.015
5708	CCD-109	14	16	2	0.010	0.019
5709	CCD-109	16	18	2	0.010	0.005
5710	CCD-109	18	20	2	0.010	0.005
5711	CCD-109	20	22	2	0.010	0.005
5712	CCD-109	22	24	2	0.030	0.010
5713	CCD-109	24	26	2	0.030	0.008
5714	CCD-109	26	28	2	0.050	0.011
5715	CCD-109	28	30	2	0.050	0.021
5716	CCD-109	30	32	2	0.070	0.020
5717	CCD-109	32	34	2	0.040	0.013
5718	CCD-109	34	36	2	0.050	0.017
5719	CCD-109	36	38	2	0.060	0.026
5720	CCD-109	38	40	2	0.060	0.013
5721	CCD-109	40	42	2	0.050	0.028
5723	CCD-109	42	44	2	0.040	0.029
5724	CCD-109	44	46	2	0.040	0.002
5725	CCD-109	46	48	2	0.030	0.003
5726	CCD-109	48	50	2	0.040	0.027
5727	CCD-109	50	52	2	0.040	0.018
5728	CCD-109	52	54	2	0.520	0.034
5729	CCD-109	54	56	2	0.040	0.020
5730	CCD-109	56	58	2	0.040	0.036
5731	CCD-109	58	60	2	0.050	0.021
5732	CCD-109	60	62	2	0.030	0.021
5733	CCD-109	62	64	2	0.070	0.008
5734	CCD-109	64	66	2	0.020	0.025

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5735	CCD-109	66	68	2	0.020	0.037
5736	CCD-109	68	70	2	0.020	0.013
5737	CCD-109	70	72	2	0.010	0.011
5738	CCD-109	72	74	2	0.030	0.010
5739	CCD-109	74	76	2	0.030	0.033
5740	CCD-109	76	78	2	0.020	0.020
5741	CCD-109	78	80	2	0.020	0.011
5742	CCD-109	80	82	2	0.030	0.047
5743	CCD-109	82	84	2	0.020	0.014
5745	CCD-109	84	86	2	0.040	0.030
5746	CCD-109	86	88	2	0.050	0.028
5747	CCD-109	88	90	2	0.040	0.040
5748	CCD-109	90	92	2	0.020	0.024
5749	CCD-109	92	94	2	0.010	0.022
5750	CCD-109	94	96	2	0.010	0.010
5751	CCD-109	96	98	2	0.050	0.028
5752	CCD-109	98	100	2	0.020	0.018
5753	CCD-109	100	102	2	0.030	0.023
5754	CCD-109	102	104	2	0.010	0.015
5755	CCD-109	104	106	2	0.010	0.006
5756	CCD-109	106	108	2	0.020	0.028
5757	CCD-109	108	110	2	0.040	0.039
5758	CCD-109	110	112	2	0.030	0.033
5759	CCD-109	112	114	2	0.040	0.042
5760	CCD-109	114	116	2	0.030	0.037
5761	CCD-109	116	118	2	0.010	0.015
5762	CCD-109	118	120	2	0.030	0.024
5763	CCD-109	120	122	2	0.010	0.022
5764	CCD-109	122	124	2	0.030	0.018
5765	CCD-109	124	126	2	0.020	0.030
5767	CCD-109	126	128	2	0.060	0.080
5768	CCD-109	128	130	2	0.040	0.017
5769	CCD-109	130	132	2	0.060	0.060
5770	CCD-109	132	134	2	0.050	0.054
5771	CCD-109	134	136	2	0.270	0.077
5772	CCD-109	136	138	2	0.010	0.033
5773	CCD-109	138	140	2	0.010	0.037
5774	CCD-109	140	142	2	0.150	0.113
5775	CCD-109	142	144	2	0.090	0.038
5776	CCD-109	144	146	2	0.110	0.165
5777	CCD-109	146	148	2	0.060	0.098
5778	CCD-109	148	150	2	0.080	0.074
5779	CCD-109	150	152	2	0.120	0.152
5780	CCD-109	152	154	2	0.090	0.023
5781	CCD-109	154	156	2	0.030	0.068
5782	CCD-109	156	158	2	0.060	0.078
5783	CCD-109	158	160	2	0.040	0.041
5784	CCD-109	160	162	2	0.070	0.022
5785	CCD-109	162	164	2	0.080	0.060
5786	CCD-109	164	166	2	0.070	0.070
5787	CCD-109	166	168	2	0.070	0.065
5789	CCD-109	168	170	2	0.100	0.058
5790	CCD-109	170	172	2	0.090	0.072
5791	CCD-109	172	174	2	0.110	0.103
5792	CCD-109	174	176	2	0.070	0.059

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5793	CCD-109	176	178	2	0.040	0.090
5794	CCD-109	178	180	2	0.100	0.069
5795	CCD-109	180	182	2	0.130	0.105
5796	CCD-109	182	184	2	0.140	0.078
5797	CCD-109	184	186	2	0.210	0.073
5798	CCD-109	186	188	2	0.080	0.041
5799	CCD-109	188	190	2	0.040	0.027
5800	CCD-109	190	192	2	0.060	0.034
5801	CCD-109	192	194	2	0.040	0.043
5802	CCD-109	194	196	2	0.030	0.043
5803	CCD-109	196	198	2	0.400	0.350
5804	CCD-109	198	200	2	0.250	0.212
5805	CCD-109	200	202	2	0.540	0.380
5806	CCD-109	202	204	2	0.670	0.310
5807	CCD-109	204	206	2	0.440	0.670
5808	CCD-109	206	208	2	0.420	0.410
5809	CCD-109	208	210	2	0.100	0.068
5811	CCD-109	210	212	2	0.160	0.030
5812	CCD-109	212	214	2	0.100	0.035
5813	CCD-109	214	216	2	0.060	0.039
5814	CCD-109	216	218	2	0.040	0.043
5815	CCD-109	218	220	2	0.030	0.037
5816	CCD-109	220	222	2	0.040	0.033
5817	CCD-109	222	224	2	0.290	0.200
5818	CCD-109	224	226	2	0.340	0.260
5819	CCD-109	226	228	2	0.010	0.025
5820	CCD-109	228	230	2	0.040	0.017
5821	CCD-109	230	232	2	0.430	0.156
5822	CCD-109	232	234	2	0.250	0.088
5823	CCD-109	234	236	2	0.380	0.310
5824	CCD-109	236	238	2	0.420	0.208
5825	CCD-109	238	240	2	0.110	0.013
5826	CCD-109	240	242	2	0.010	0.011
5827	CCD-109	242	244	2	0.010	0.013
5828	CCD-109	244	246	2	0.160	0.107
5829	CCD-109	246	248	2	0.430	0.177
5830	CCD-109	248	250	2	0.100	0.146
5831	CCD-109	250	252	2	0.090	0.124
5833	CCD-109	252	254	2	0.060	0.102
5834	CCD-109	254	256	2	0.210	0.260
5835	CCD-109	256	258	2	0.290	0.460
5836	CCD-109	258	260	2	0.200	0.189
5837	CCD-109	260	262	2	0.020	0.034
5838	CCD-109	262	264	2	0.040	0.092
5839	CCD-109	264	266	2	0.140	0.027
5840	CCD-109	266	268	2	0.030	0.023
5841	CCD-109	268	270	2	0.090	0.042
5842	CCD-109	270	272	2	0.060	0.012
5843	CCD-109	272	274	2	0.080	0.013
5844	CCD-109	274	276	2	0.110	0.066
5845	CCD-109	276	278	2	0.020	0.027
5846	CCD-109	278	280	2	0.030	0.012
5847	CCD-109	280	282	2	0.020	0.005
5848	CCD-109	282	284	2	0.010	0.005
5849	CCD-109	284	286	2	0.040	0.036

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5850	CCD-109	286	288	2	0.040	0.076
5851	CCD-109	288	290	2	0.040	0.084
5852	CCD-109	290	292	2	0.050	0.095
5853	CCD-109	292	294	2	0.070	0.115
5855	CCD-109	294	296	2	0.060	0.126
5856	CCD-109	296	298	2	0.040	0.044
5857	CCD-109	298	300	2	0.040	0.055
5858	CCD-109	300	302	2	0.030	0.037
5859	CCD-109	302	304	2	0.010	0.040
5860	CCD-109	304	306	2	0.010	0.053
5861	CCD-109	306	308	2	0.030	0.042
5862	CCD-109	308	310	2	0.060	0.133
5863	CCD-109	310	312	2	0.010	0.031
5864	CCD-109	312	314	2	0.170	0.093
5865	CCD-109	314	316	2	0.400	0.222
5866	CCD-109	316	318	2	0.010	0.030
5867	CCD-109	318	320	2	0.010	0.025
5868	CCD-109	320	322	2	0.110	0.073
5869	CCD-109	322	324	2	0.270	0.340
5870	CCD-109	324	326	2	0.150	0.133
5871	CCD-109	326	328	2	0.050	0.042
5872	CCD-109	328	330	2	0.040	0.071
5873	CCD-109	330	332	2	0.060	0.080
5874	CCD-109	332	334	2	0.100	0.096
5875	CCD-109	334	336	2	0.070	0.076
5877	CCD-109	336	338	2	0.150	0.155
5101	CCD-140	0	2	2	0.350	0.064
5102	CCD-140	2	4	2	0.210	0.030
5103	CCD-140	4	6	2	0.190	0.050
5104	CCD-140	6	8	2	0.250	0.036
5105	CCD-140	8	10	2	0.250	0.055
5106	CCD-140	10	12	2	0.450	0.048
5107	CCD-140	12	14	2	0.820	0.045
5108	CCD-140	14	16	2	0.890	0.047
5109	CCD-140	16	18	2	0.620	0.045
5111	CCD-140	18	20	2	0.850	0.044
5112	CCD-140	20	22	2	0.700	0.047
5113	CCD-140	22	24	2	0.620	0.046
5114	CCD-140	24	26	2	0.400	0.042
5115	CCD-140	26	28	2	0.960	0.047
5116	CCD-140	28	30	2	0.210	0.030
5117	CCD-140	30	32	2	0.330	0.047
5118	CCD-140	32	34	2	0.320	0.044
5119	CCD-140	34	36	2	0.280	0.032
5120	CCD-140	36	38	2	0.550	0.085
5121	CCD-140	38	40	2	0.350	0.267
5122	CCD-140	40	42	2	0.670	0.522
5123	CCD-140	42	44	2	0.330	0.325
5124	CCD-140	44	46	2	0.480	0.642
5125	CCD-140	46	48	2	0.360	0.657
5126	CCD-140	48	50	2	0.290	0.305
5127	CCD-140	50	52	2	0.220	0.183
5128	CCD-140	52	54	2	0.350	0.217
5129	CCD-140	54	56	2	0.460	0.348
5130	CCD-140	56	58	2	0.240	0.175

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5131	CCD-140	58	60	2	0.750	0.650
5133	CCD-140	60	62	2	0.770	0.620
5134	CCD-140	62	64	2	1.200	0.940
5135	CCD-140	64	66	2	0.650	0.720
5136	CCD-140	66	68	2	0.420	0.355
5137	CCD-140	68	70	2	0.260	0.197
5138	CCD-140	70	72	2	0.290	0.190
5139	CCD-140	72	74	2	0.240	0.157
5140	CCD-140	74	76	2	0.370	0.291
5141	CCD-140	76	78	2	0.230	0.198
5142	CCD-140	78	80	2	0.220	0.211
5143	CCD-140	80	82	2	0.740	0.690
5144	CCD-140	82	84	2	0.170	0.179
5145	CCD-140	84	86	2	0.230	0.235
5146	CCD-140	86	88	2	0.590	0.580
5147	CCD-140	88	90	2	0.250	0.292
5148	CCD-140	90	92	2	0.370	0.331
5149	CCD-140	92	94	2	0.400	0.410
5150	CCD-140	94	96	2	0.490	0.460
5151	CCD-140	96	98	2	0.650	0.640
5152	CCD-140	98	100	2	0.920	0.920
5153	CCD-140	100	102	2	0.320	0.410
5155	CCD-140	102	104	2	0.350	0.590
5156	CCD-140	104	106	2	0.480	0.920
5157	CCD-140	106	108	2	0.380	0.630
5158	CCD-140	108	110	2	0.270	0.380
5159	CCD-140	110	112	2	0.340	0.620
5160	CCD-140	112	114	2	0.480	0.570
5161	CCD-140	114	116	2	0.380	0.400
5162	CCD-140	116	118	2	0.490	0.520
5163	CCD-140	118	120	2	0.800	0.600
5164	CCD-140	120	122	2	0.340	0.315
5165	CCD-140	122	124	2	0.550	0.533
5166	CCD-140	124	126	2	0.310	0.289
5167	CCD-140	126	128	2	0.290	0.258
5168	CCD-140	128	130	2	0.300	0.297
5169	CCD-140	130	132	2	0.220	0.171
5170	CCD-140	132	134	2	0.390	0.330
5171	CCD-140	134	136	2	0.200	0.270
5172	CCD-140	136	138	2	0.600	0.820
5173	CCD-140	138	140	2	0.710	0.590
5174	CCD-140	140	142	2	0.340	0.470
5175	CCD-140	142	144	2	0.130	0.155
5177	CCD-140	144	146	2	0.140	0.155
5178	CCD-140	146	148	2	0.270	0.260
5179	CCD-140	148	150	2	0.450	0.480
5180	CCD-140	150	152	2	0.130	0.139
5181	CCD-140	152	154	2	0.210	0.300
5182	CCD-140	154	156	2	0.470	0.520
5183	CCD-140	156	158	2	0.380	0.410
5184	CCD-140	158	160	2	0.750	0.620
5185	CCD-140	160	162	2	0.410	0.440
5186	CCD-140	162	164	2	0.700	0.730
5187	CCD-140	164	166	2	0.310	0.295
5188	CCD-140	166	168	2	0.080	0.122

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5189	CCD-140	168	170	2	0.120	0.185
5190	CCD-140	170	172	2	0.100	0.133
5191	CCD-140	172	174	2	0.160	0.166
5192	CCD-140	174	176	2	0.130	0.145
5193	CCD-140	176	178	2	0.420	0.320
5194	CCD-140	178	180	2	0.600	0.600
5195	CCD-140	180	182	2	0.430	0.370
5196	CCD-140	182	184	2	1.160	0.990
5197	CCD-140	184	186	2	0.450	0.460
5199	CCD-140	186	188	2	0.320	0.280
5200	CCD-140	188	190	2	0.300	0.233
5201	CCD-140	190	192	2	0.290	0.280
5202	CCD-140	192	194	2	0.260	0.260
5203	CCD-140	194	196	2	0.230	0.250
5204	CCD-140	196	198	2	0.200	0.185
5205	CCD-140	198	200	2	0.200	0.176
5206	CCD-140	200	202	2	0.250	0.228
5207	CCD-140	202	204	2	0.230	0.237
5208	CCD-140	204	206	2	0.220	0.170
5209	CCD-140	206	208	2	0.130	0.129
5210	CCD-140	208	210	2	0.240	0.238
5211	CCD-140	210	212	2	0.410	0.450
5212	CCD-140	212	214	2	0.370	0.270
5213	CCD-140	214	216	2	0.150	0.148
5214	CCD-140	216	218	2	0.300	0.280
5215	CCD-140	218	220	2	0.230	0.242
5216	CCD-140	220	222	2	0.190	0.175
5217	CCD-140	222	224	2	0.290	0.192
5218	CCD-140	224	226	2	0.220	0.235
5219	CCD-140	226	228	2	0.490	0.530
5221	CCD-140	228	230	2	0.570	0.440
5222	CCD-140	230	232	2	0.230	0.205
5223	CCD-140	232	234	2	0.250	0.223
5224	CCD-140	234	236	2	0.120	0.165
5225	CCD-140	236	238	2	0.150	0.151
5226	CCD-140	238	240	2	0.160	0.186
5227	CCD-140	240	242	2	0.270	0.213
5228	CCD-140	242	244	2	0.250	0.230
5229	CCD-140	244	246	2	0.350	0.330
5230	CCD-140	246	248	2	0.290	0.320
5231	CCD-140	248	250	2	0.430	0.430
5232	CCD-140	250	252	2	0.190	0.167
5233	CCD-140	252	254	2	0.120	0.115
5234	CCD-140	254	256	2	0.230	0.168
5235	CCD-140	256	258	2	0.110	0.117
5236	CCD-140	258	260	2	0.150	0.168
5237	CCD-140	260	262	2	0.190	0.132
5238	CCD-140	262	264	2	0.300	0.220
5239	CCD-140	264	266	2	0.250	0.490
5240	CCD-140	266	268	2	0.220	0.280
5241	CCD-140	268	270	2	0.180	0.225
5243	CCD-140	270	272	2	0.270	0.330
5244	CCD-140	272	274	2	0.110	0.178
5245	CCD-140	274	276	2	0.270	0.080
5246	CCD-140	276	278	2	0.120	0.115

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5247	CCD-140	278	280	2	0.150	0.129
5248	CCD-140	280	282	2	0.120	0.090
5249	CCD-140	282	284	2	0.100	0.109
5250	CCD-140	284	286	2	0.130	0.152
5251	CCD-140	286	288	2	0.160	0.228
5252	CCD-140	288	290	2	0.140	0.201
5253	CCD-140	290	292	2	0.160	0.242
5254	CCD-140	292	294	2	0.070	0.112
5255	CCD-140	294	296	2	0.090	0.117
5256	CCD-140	296	298	2	0.100	0.164
5257	CCD-140	298	300	2	0.210	0.264
5258	CCD-140	300	302	2	0.130	0.125
5259	CCD-140	302	304	2	0.160	0.163
5260	CCD-140	304	306	2	0.090	0.078
5261	CCD-140	306	308	2	0.340	0.146
5262	CCD-140	308	310	2	0.150	0.188
5263	CCD-140	310	312	2	0.160	0.182
5265	CCD-140	312	314	2	0.130	0.146
5266	CCD-140	314	316	2	0.140	0.150
5267	CCD-140	316	318	2	0.110	0.109
5268	CCD-140	318	320	2	0.130	0.131
5269	CCD-140	320	322	2	0.130	0.125
5270	CCD-140	322	324	2	0.130	0.160
5271	CCD-140	324	326	2	0.160	0.172
5272	CCD-140	326	328	2	0.220	0.237
5273	CCD-140	328	330	2	0.210	0.208
5274	CCD-140	330	332	2	0.150	0.148
5275	CCD-140	332	334	2	0.340	0.393
5276	CCD-140	334	336	2	0.320	0.336
5277	CCD-140	336	338	2	5.730	0.432
5278	CCD-140	338	340	2	0.220	0.218
5279	CCD-140	340	342	2	0.160	0.171
5280	CCD-140	342	344	2	0.190	0.223
5281	CCD-140	344	346	2	0.220	0.246
5282	CCD-140	346	348	2	0.230	0.203
5283	CCD-140	348	350	2	0.240	0.234
5284	CCD-140	350	352	2	0.140	0.168
5285	CCD-140	352	354	2	0.280	0.281
5287	CCD-140	354	356	2	0.230	0.260
3901	CCD-141	0	2	2	0.070	0.032
3902	CCD-141	2	4	2	0.140	0.080
3903	CCD-141	4	6	2	0.480	0.775
3904	CCD-141	6	8	2	0.420	0.900
3905	CCD-141	8	10	2	0.230	0.522
3906	CCD-141	10	12	2	0.120	0.231
3907	CCD-141	12	14	2	0.220	0.219
3908	CCD-141	14	16	2	0.280	0.355
3909	CCD-141	16	18	2	0.090	0.087
3911	CCD-141	18	20	2	0.150	0.114
3912	CCD-141	20	22	2	0.160	0.181
3913	CCD-141	22	24	2	0.100	0.120
3914	CCD-141	24	26	2	0.250	0.176
3915	CCD-141	26	28	2	0.140	0.050
3916	CCD-141	28	30	2	0.110	0.093
3917	CCD-141	30	32	2	0.150	0.183

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3918	CCD-141	32	34	2	0.160	0.169
3919	CCD-141	34	36	2	0.070	0.022
3920	CCD-141	36	38	2	0.280	0.239
3921	CCD-141	38	40	2	0.190	0.085
3922	CCD-141	40	42	2	0.160	0.184
3923	CCD-141	42	44	2	0.070	0.063
3924	CCD-141	44	46	2	0.100	0.071
3925	CCD-141	46	48	2	0.090	0.074
3926	CCD-141	48	50	2	0.100	0.306
3927	CCD-141	50	52	2	0.200	0.636
3928	CCD-141	52	54	2	0.530	0.471
3929	CCD-141	54	56	2	0.150	0.077
3930	CCD-141	56	58	2	0.560	0.239
3931	CCD-141	58	60	2	0.240	0.178
3933	CCD-141	60	62	2	0.320	0.246
3934	CCD-141	62	64	2	0.140	0.081
3935	CCD-141	64	66	2	0.200	0.116
3936	CCD-141	66	68	2	0.350	0.322
3937	CCD-141	68	70	2	0.160	0.225
3938	CCD-141	70	72	2	0.190	0.105
3939	CCD-141	72	74	2	0.090	0.095
3940	CCD-141	74	76	2	0.120	0.110
3941	CCD-141	76	78	2	0.140	0.077
3942	CCD-141	78	80	2	0.200	0.110
3943	CCD-141	80	82	2	0.070	0.046
3944	CCD-141	82	84	2	0.060	0.027
3945	CCD-141	84	86	2	0.120	0.068
3946	CCD-141	86	88	2	0.120	0.090
3947	CCD-141	88	90	2	0.110	0.085
3948	CCD-141	90	92	2	0.130	0.118
3949	CCD-141	92	94	2	0.180	0.120
3950	CCD-141	94	96	2	0.140	0.104
3951	CCD-141	96	98	2	0.180	0.125
3952	CCD-141	98	100	2	0.140	0.191
3953	CCD-141	100	102	2	0.150	0.166
3955	CCD-141	102	104	2	0.010	0.322
3956	CCD-141	104	106	2	0.010	0.219
3957	CCD-141	106	108	2	0.010	0.113
3958	CCD-141	108	110	2	0.020	0.202
3959	CCD-141	110	112	2	0.030	0.111
3960	CCD-141	112	114	2	0.010	0.110
3961	CCD-141	114	116	2	0.090	0.262
3962	CCD-141	116	118	2	0.010	0.274
3963	CCD-141	118	120	2	0.010	0.087
3964	CCD-141	120	122	2	0.010	0.059
3965	CCD-141	122	124	2	0.020	0.017
3966	CCD-141	124	126	2	0.010	0.029
3967	CCD-141	126	128	2	0.020	0.018
3968	CCD-141	128	130	2	0.010	0.032
3969	CCD-141	130	132	2	0.040	0.017
3970	CCD-141	132	134	2	0.070	0.032
3971	CCD-141	134	136	2	0.310	0.041
3972	CCD-141	136	138	2	0.160	0.023
3973	CCD-141	138	140	2	0.030	0.088
3974	CCD-141	140	142	2	0.120	0.073

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3975	CCD-141	142	144	2	0.010	0.074
3977	CCD-141	144	146	2	0.010	0.047
3978	CCD-141	146	148	2	0.030	0.040
3979	CCD-141	148	150	2	0.040	0.032
3980	CCD-141	150	152	2	0.020	0.015
3981	CCD-141	152	154	2	0.020	0.028
3982	CCD-141	154	156	2	0.020	0.033
3983	CCD-141	156	158	2	0.010	0.032
3984	CCD-141	158	160	2	0.010	0.014
3985	CCD-141	160	162	2	0.010	0.029
3986	CCD-141	162	164	2	0.010	0.043
3987	CCD-141	164	166	2	0.060	0.059
3988	CCD-141	166	168	2	0.050	0.053
3989	CCD-141	168	170	2	0.050	0.064
3990	CCD-141	170	172	2	0.020	0.045
3991	CCD-141	172	174	2	0.170	0.086
3992	CCD-141	174	176	2	0.060	0.055
3993	CCD-141	176	178	2	0.100	0.065
3994	CCD-141	178	180	2	0.010	0.036
3995	CCD-141	180	182	2	0.010	0.027
3996	CCD-141	182	184	2	0.010	0.061
3997	CCD-141	184	186	2	0.030	0.055
3999	CCD-141	186	188	2	0.040	0.046
4000	CCD-141	188	190	2	0.050	0.052
4001	CCD-141	190	192	2	0.050	0.073
4002	CCD-141	192	194	2	0.080	0.107
4003	CCD-141	194	196	2	0.050	0.076
4004	CCD-141	196	198	2	0.070	0.120
4005	CCD-141	198	200	2	0.110	0.177
4006	CCD-141	200	202	2	0.030	0.096
4007	CCD-141	202	204	2	0.010	0.088
4008	CCD-141	204	206	2	0.040	0.096
4009	CCD-141	206	208	2	0.040	0.094
4010	CCD-141	208	210	2	0.040	0.074
4011	CCD-141	210	212	2	0.050	0.093
4012	CCD-141	212	214	2	0.020	0.063
4013	CCD-141	214	216	2	0.040	0.072
4014	CCD-141	216	218	2	0.030	0.058
4015	CCD-141	218	220	2	0.030	0.032
4016	CCD-141	220	222	2	0.030	0.082
4017	CCD-141	222	224	2	0.040	0.064
4018	CCD-141	224	226	2	0.080	0.078
4019	CCD-141	226	228	2	0.110	0.082
4021	CCD-141	228	230	2	0.170	0.134
4022	CCD-141	230	232	2	0.070	0.088
4023	CCD-141	232	234	2	0.070	0.092
4024	CCD-141	234	236	2	0.110	0.072
4025	CCD-141	236	238	2	0.040	0.036
4026	CCD-141	238	240	2	0.060	0.026
4027	CCD-141	240	242	2	0.090	0.100
4028	CCD-141	242	244	2	0.050	0.044
4029	CCD-141	244	246	2	0.130	0.089
4030	CCD-141	246	248	2	0.090	0.088
4031	CCD-141	248	250	2	0.070	0.123
4032	CCD-141	250	252	2	0.140	0.091

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4033	CCD-141	252	254	2	0.040	0.190
4034	CCD-141	254	256	2	0.030	0.127
4035	CCD-141	256	258	2	0.020	0.118
4036	CCD-141	258	260	2	0.050	0.071
4037	CCD-141	260	262	2	0.070	0.098
4038	CCD-141	262	264	2	0.090	0.098
4039	CCD-141	264	266	2	0.060	0.084
4040	CCD-141	266	268	2	0.040	0.057
4041	CCD-141	268	270	2	0.060	0.080
4043	CCD-141	270	272	2	0.110	0.093
4044	CCD-141	272	274	2	0.110	0.106
4045	CCD-141	274	276	2	0.230	0.173
4046	CCD-141	276	278	2	0.080	0.117
4047	CCD-141	278	280	2	0.100	0.115
4048	CCD-141	280	282	2	0.010	0.148
4049	CCD-141	282	284	2	0.050	0.158
4050	CCD-141	284	286	2	0.060	0.166
4051	CCD-141	286	288	2	0.110	0.123
4052	CCD-141	288	290	2	0.110	0.161
4053	CCD-141	290	292	2	0.150	0.140
4054	CCD-141	292	294	2	0.160	0.165
4055	CCD-141	294	296	2	0.110	0.130
4056	CCD-141	296	298	2	0.080	0.124
4057	CCD-141	298	300	2	0.140	0.166
4058	CCD-141	300	302	2	0.140	0.185
4059	CCD-141	302	304	2	0.180	0.162
4060	CCD-141	304	306	2	0.140	0.161
4061	CCD-141	306	308	2	0.210	0.272
4062	CCD-141	308	310	2	0.150	0.228
4063	CCD-141	310	312	2	0.230	0.303
4065	CCD-141	312	314	2	0.210	0.336
4066	CCD-141	314	316	2	0.170	0.250
4067	CCD-141	316	318	2	0.110	0.203
4068	CCD-141	318	320	2	0.100	0.166
4069	CCD-141	320	322	2	0.080	0.113
4070	CCD-141	322	324	2	0.080	0.118
4071	CCD-141	324	326	2	0.070	0.201
4072	CCD-141	326	328	2	0.030	0.072
4073	CCD-141	328	330	2	0.080	0.190
4074	CCD-141	330	332	2	0.010	0.087
4075	CCD-141	332	334	2	0.230	0.202
4076	CCD-141	334	336	2	0.070	0.130
4077	CCD-141	336	338	2	0.110	0.126
4078	CCD-141	338	340	2	0.090	0.112
4079	CCD-141	340	342	2	0.040	0.074
4080	CCD-141	342	344	2	0.070	0.115
4081	CCD-141	344	346	2	0.040	0.096
4082	CCD-141	346	348	2	0.060	0.095
4083	CCD-141	348	350	2	0.050	0.086
4084	CCD-141	350	352	2	0.040	0.100
4085	CCD-141	352	354	2	0.010	0.121
4087	CCD-141	354	356	2	0.060	0.109
4088	CCD-141	356	358	2	0.030	0.076
4089	CCD-141	358	360	2	0.010	0.364
4090	CCD-141	360	362	2	0.020	0.082

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4091	CCD-141	362	364	2	0.030	0.070
4901	CCD-142	0	2	2	1.300	0.047
4902	CCD-142	2	4	2	0.840	0.040
4903	CCD-142	4	6	2	1.340	0.033
4904	CCD-142	6	8	2	1.430	0.036
4905	CCD-142	8	10	2	1.970	0.022
4907	CCD-142	10	12	2	2.060	0.052
4908	CCD-142	12	14	2	1.840	0.062
4909	CCD-142	14	16	2	1.870	0.068
4910	CCD-142	16	18	2	0.980	0.440
4911	CCD-142	18	20	2	0.520	0.651
4912	CCD-142	20	22	2	0.220	0.449
4913	CCD-142	22	24	2	0.150	2.870
4914	CCD-142	24	26	2	0.080	2.150
4915	CCD-142	26	28	2	0.090	2.140
4916	CCD-142	28	30	2	0.320	1.800
4917	CCD-142	30	32	2	0.330	1.350
4918	CCD-142	32	34	2	0.360	1.090
4919	CCD-142	34	36	2	0.710	1.080
4920	CCD-142	36	38	2	0.670	1.080
4921	CCD-142	38	40	2	0.830	0.768
4922	CCD-142	40	42	2	1.120	0.639
4923	CCD-142	42	44	2	0.960	0.650
4924	CCD-142	44	46	2	0.700	0.478
4925	CCD-142	46	48	2	0.840	0.598
4926	CCD-142	48	50	2	1.030	0.805
4927	CCD-142	50	52	2	0.730	0.528
4929	CCD-142	52	54	2	0.670	0.662
4930	CCD-142	54	56	2	0.510	0.500
4931	CCD-142	56	58	2	0.660	0.608
4932	CCD-142	58	60	2	0.620	0.362
4933	CCD-142	60	62	2	0.440	0.284
4934	CCD-142	62	64	2	0.500	0.385
4935	CCD-142	64	66	2	0.270	0.422
4936	CCD-142	66	68	2	0.560	0.497
4937	CCD-142	68	70	2	0.450	0.327
4938	CCD-142	70	72	2	0.570	0.440
4939	CCD-142	72	74	2	0.780	0.510
4940	CCD-142	74	76	2	0.490	0.382
4941	CCD-142	76	78	2	0.690	0.737
4942	CCD-142	78	80	2	0.510	0.290
4943	CCD-142	80	82	2	0.540	0.409
4944	CCD-142	82	84	2	0.530	0.460
4945	CCD-142	84	86	2	0.530	0.398
4946	CCD-142	86	88	2	0.760	0.530
4947	CCD-142	88	90	2	0.340	0.320
4948	CCD-142	90	92	2	0.220	0.243
4949	CCD-142	92	94	2	0.620	0.530
4951	CCD-142	94	96	2	0.500	0.460
4952	CCD-142	96	98	2	0.790	0.300
4953	CCD-142	98	100	2	0.430	0.300
4954	CCD-142	100	102	2	0.600	0.490
4955	CCD-142	102	104	2	0.500	0.350
4956	CCD-142	104	106	2	0.630	0.400
4957	CCD-142	106	108	2	0.160	0.330

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
4958	CCD-142	108	110	2	0.680	0.580
4959	CCD-142	110	112	2	0.610	0.510
4960	CCD-142	112	114	2	0.640	0.550
4961	CCD-142	114	116	2	0.470	0.290
4962	CCD-142	116	118	2	0.300	0.237
4963	CCD-142	118	120	2	0.470	0.360
4964	CCD-142	120	122	2	0.630	0.390
4965	CCD-142	122	124	2	0.600	0.410
4966	CCD-142	124	126	2	0.500	0.290
4967	CCD-142	126	128	2	1.250	0.720
4968	CCD-142	128	130	2	1.220	0.870
4969	CCD-142	130	132	2	0.480	0.470
4970	CCD-142	132	134	2	0.610	0.560
4971	CCD-142	134	136	2	0.500	0.530
4973	CCD-142	136	138	2	0.510	0.360
4974	CCD-142	138	140	2	0.540	0.430
4975	CCD-142	140	142	2	0.720	0.670
4976	CCD-142	142	144	2	0.900	0.900
4977	CCD-142	144	146	2	0.560	0.600
4978	CCD-142	146	148	2	0.460	0.460
4979	CCD-142	148	150	2	0.520	0.490
4980	CCD-142	150	152	2	0.340	0.355
4981	CCD-142	152	154	2	0.320	0.310
4982	CCD-142	154	156	2	0.140	0.233
4983	CCD-142	156	158	2	0.230	0.330
4984	CCD-142	158	160	2	0.350	0.300
4985	CCD-142	160	162	2	0.330	0.270
4986	CCD-142	162	164	2	0.340	0.280
4987	CCD-142	164	166	2	0.360	0.440
4988	CCD-142	166	168	2	0.390	0.260
4989	CCD-142	168	170	2	0.320	0.270
4990	CCD-142	170	172	2	0.410	0.340
4991	CCD-142	172	174	2	0.350	0.310
4992	CCD-142	174	176	2	0.360	0.290
4993	CCD-142	176	178	2	0.490	0.380
4995	CCD-142	178	180	2	0.490	0.430
4996	CCD-142	180	182	2	0.100	0.460
4997	CCD-142	182	184	2	0.300	0.320
4998	CCD-142	184	186	2	0.510	0.360
4999	CCD-142	186	188	2	0.400	0.360
5000	CCD-142	188	190	2	0.410	0.375
5001	CCD-142	190	192	2	0.480	0.490
5002	CCD-142	192	194	2	0.380	0.440
5003	CCD-142	194	196	2	0.320	0.380
5004	CCD-142	196	198	2	0.330	0.360
5005	CCD-142	198	200	2	0.410	0.320
5006	CCD-142	200	202	2	0.460	0.340
5007	CCD-142	202	204	2	0.490	0.360
5008	CCD-142	204	206	2	0.480	0.480
5009	CCD-142	206	208	2	0.590	0.390
5010	CCD-142	208	210	2	0.670	0.550
5011	CCD-142	210	212	2	0.500	0.380
5012	CCD-142	212	214	2	0.610	0.560
5013	CCD-142	214	216	2	0.900	0.600
5014	CCD-142	216	218	2	0.560	0.500

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5015	CCD-142	218	220	2	0.660	0.560
5017	CCD-142	220	222	2	0.260	0.660
5018	CCD-142	222	224	2	0.450	0.290
5019	CCD-142	224	226	2	0.680	0.350
5020	CCD-142	226	228	2	0.160	0.810
5021	CCD-142	228	230	2	0.450	0.680
5022	CCD-142	230	232	2	0.640	0.690
5023	CCD-142	232	234	2	0.620	0.830
5024	CCD-142	234	236	2	0.400	0.870
5025	CCD-142	236	238	2	0.540	0.371
5026	CCD-142	238	240	2	0.620	0.340
5027	CCD-142	240	242	2	0.530	0.390
5028	CCD-142	242	244	2	0.490	0.380
5029	CCD-142	244	246	2	0.600	0.340
5030	CCD-142	246	248	2	0.470	0.295
5031	CCD-142	248	250	2	0.620	0.470
5032	CCD-142	250	252	2	1.030	0.500
5033	CCD-142	252	254	2	0.800	0.450
5034	CCD-142	254	256	2	0.670	0.300
5035	CCD-142	256	258	2	1.210	0.570
5036	CCD-142	258	260	2	0.580	0.560
5037	CCD-142	260	262	2	0.530	0.600
5039	CCD-142	262	264	2	0.230	0.167
5040	CCD-142	264	266	2	0.860	0.440
5041	CCD-142	266	268	2	0.440	0.290
5042	CCD-142	268	270	2	0.530	0.478
5043	CCD-142	270	272	2	0.650	0.546
5044	CCD-142	272	274	2	1.290	0.953
5045	CCD-142	274	276	2	0.660	0.492
5046	CCD-142	276	278	2	0.580	0.467
5047	CCD-142	278	280	2	0.940	0.849
5048	CCD-142	280	282	2	0.690	0.375
5049	CCD-142	282	284	2	0.550	0.366
5050	CCD-142	284	286	2	0.270	0.184
5051	CCD-142	286	288	2	0.300	0.247
5052	CCD-142	288	290	2	0.490	0.386
5053	CCD-142	290	292	2	0.420	0.338
5054	CCD-142	292	294	2	0.800	0.699
5055	CCD-142	294	296	2	0.590	0.384
5056	CCD-142	296	298	2	0.470	0.330
5057	CCD-142	298	300	2	0.420	0.531
5058	CCD-142	300	302	2	0.620	0.652
5059	CCD-142	302	304	2	0.660	0.541
5061	CCD-142	304	306	2	0.660	0.552
5062	CCD-142	306	308	2	0.380	0.319
5063	CCD-142	308	310	2	0.350	0.270
5064	CCD-142	310	312	2	0.630	0.638
5065	CCD-142	312	314	2	0.570	0.417
5066	CCD-142	314	316	2	0.850	0.606
5067	CCD-142	316	318	2	0.730	0.635
5068	CCD-142	318	320	2	0.390	0.222
5069	CCD-142	320	322	2	0.730	0.544
5070	CCD-142	322	324	2	0.780	1.050
5071	CCD-142	324	326	2	0.300	0.434
5072	CCD-142	326	328	2	0.360	0.391

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5073	CCD-142	328	330	2	0.210	0.568
5074	CCD-142	330	332	2	0.260	0.304
5075	CCD-142	332	334	2	0.500	0.393
5076	CCD-142	334	336	2	0.440	0.496
5077	CCD-142	336	338	2	0.550	0.390
5078	CCD-142	338	340	2	0.450	0.523
5079	CCD-142	340	342	2	0.730	0.482
5080	CCD-142	342	344	2	0.330	0.515
5081	CCD-142	344	346	2	0.180	0.204
5083	CCD-142	346	348	2	0.380	0.263
5084	CCD-142	348	350	2	0.760	0.703
5085	CCD-142	350	352	2	0.570	0.444
5086	CCD-142	352	354	2	0.460	0.547
5087	CCD-142	354	356	2	0.260	0.393
5088	CCD-142	356	358	2	0.300	0.506
5089	CCD-142	358	360	2	0.350	0.264
5090	CCD-142	360	362	2	2.320	0.261
5091	CCD-142	362	364	2	0.300	0.120
5092	CCD-142	364	366	2	0.370	0.298
5093	CCD-142	366	368	2	0.430	0.408
5094	CCD-142	368	370	2	0.460	0.237
5095	CCD-142	370	372	2	0.240	0.212
5096	CCD-142	372	374	2	0.420	0.340
5097	CCD-142	374	376	2	0.830	0.748
5098	CCD-142	376	378	2	0.340	0.267
5099	CCD-142	378	380	2	0.930	0.881
5100	CCD-142	380	382	2	0.620	0.558
5101.1	CCD-142	382	384	2	-1.000	-1.000
5301	CCD-143	0	2	2	0.350	0.102
5302	CCD-143	2	4	2	0.220	0.109
5303	CCD-143	4	6	2	0.150	0.068
5304	CCD-143	6	8	2	0.120	0.039
5305	CCD-143	8	10	2	0.160	0.092
5306	CCD-143	10	12	2	0.180	0.085
5307	CCD-143	12	14	2	0.150	0.107
5308	CCD-143	14	16	2	0.150	0.233
5309	CCD-143	16	18	2	0.150	0.065
5310	CCD-143	18	20	2	0.150	0.095
5311	CCD-143	20	22	2	0.100	0.042
5312	CCD-143	22	24	2	0.120	0.083
5313	CCD-143	24	26	2	0.140	0.113
5314	CCD-143	26	28	2	0.150	0.061
5315	CCD-143	28	30	2	0.180	0.112
5316	CCD-143	30	32	2	0.270	0.282
5317	CCD-143	32	34	2	0.140	0.075
5318	CCD-143	34	36	2	0.180	0.112
5319	CCD-143	36	38	2	0.190	0.122
5320	CCD-143	38	40	2	0.090	0.095
5321	CCD-143	40	42	2	0.150	0.154
5322	CCD-143	42	44	2	0.200	0.120
5323	CCD-143	44	46	2	0.140	0.114
5324	CCD-143	46	48	2	0.090	0.062
5325	CCD-143	48	50	2	0.070	0.038
5326	CCD-143	50	52	2	0.080	0.056
5327	CCD-143	52	54	2	0.120	0.074

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5328	CCD-143	54	56	2	0.050	0.035
5330	CCD-143	56	58	2	0.050	0.032
5331	CCD-143	58	60	2	0.100	0.070
5332	CCD-143	60	62	2	0.100	0.057
5333	CCD-143	62	64	2	0.150	0.108
5334	CCD-143	64	66	2	0.090	0.060
5335	CCD-143	66	68	2	0.080	0.045
5336	CCD-143	68	70	2	0.070	0.049
5337	CCD-143	70	72	2	0.040	0.030
5338	CCD-143	72	74	2	0.120	0.054
5339	CCD-143	74	76	2	0.040	0.042
5340	CCD-143	76	78	2	0.140	0.256
5341	CCD-143	78	80	2	0.200	0.149
5342	CCD-143	80	82	2	0.330	0.215
5343	CCD-143	82	84	2	0.050	0.105
5344	CCD-143	84	86	2	0.020	0.033
5345	CCD-143	86	88	2	0.020	0.023
5346	CCD-143	88	90	2	0.020	0.026
5347	CCD-143	90	92	2	0.010	0.020
5348	CCD-143	92	94	2	0.020	0.015
5349	CCD-143	94	96	2	0.020	0.021
5350	CCD-143	96	98	2	0.020	0.034
5352	CCD-143	98	100	2	0.010	0.016
5353	CCD-143	100	102	2	0.010	0.005
5354	CCD-143	102	104	2	0.010	0.038
5355	CCD-143	104	106	2	0.010	0.017
5356	CCD-143	106	108	2	0.010	0.007
5357	CCD-143	108	110	2	0.010	0.016
5358	CCD-143	110	112	2	0.020	0.046
5359	CCD-143	112	114	2	0.030	0.025
5360	CCD-143	114	116	2	0.010	0.014
5361	CCD-143	116	118	2	0.090	0.071
5362	CCD-143	118	120	2	0.010	0.046
5363	CCD-143	120	122	2	0.010	0.012
5364	CCD-143	122	124	2	0.010	0.014
5365	CCD-143	124	126	2	0.010	0.016
5366	CCD-143	126	128	2	0.010	0.023
5367	CCD-143	128	130	2	0.040	0.056
5368	CCD-143	130	132	2	0.030	0.052
5369	CCD-143	132	134	2	0.030	0.040
5370	CCD-143	134	136	2	0.010	0.033
5371	CCD-143	136	138	2	0.030	0.051
5372	CCD-143	138	140	2	0.060	0.116
5374	CCD-143	140	142	2	0.010	1.656
5375	CCD-143	142	144	2	0.050	0.041
5376	CCD-143	144	146	2	0.080	0.066
5377	CCD-143	146	148	2	0.050	0.041
5378	CCD-143	148	150	2	0.030	0.069
5379	CCD-143	150	152	2	0.010	0.031
5380	CCD-143	152	154	2	0.040	0.042
5381	CCD-143	154	156	2	0.030	0.018
5382	CCD-143	156	158	2	0.030	0.025
5383	CCD-143	158	160	2	0.010	0.046
5384	CCD-143	160	162	2	0.010	0.041
5385	CCD-143	162	164	2	0.010	0.040

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5386	CCD-143	164	166	2	0.010	0.032
5387	CCD-143	166	168	2	0.010	0.019
5388	CCD-143	168	170	2	0.020	0.032
5389	CCD-143	170	172	2	0.010	0.019
5390	CCD-143	172	174	2	0.010	0.030
5391	CCD-143	174	176	2	0.030	0.043
5392	CCD-143	176	178	2	0.040	0.078
5393	CCD-143	178	180	2	0.060	0.026
5394	CCD-143	180	182	2	0.040	0.022
5396	CCD-143	182	184	2	0.010	0.019
5397	CCD-143	184	186	2	0.080	0.100
5398	CCD-143	186	188	2	0.020	0.020
5399	CCD-143	188	190	2	0.030	0.023
5400	CCD-143	190	192	2	0.010	0.048
5401	CCD-143	192	194	2	0.010	0.028
5402	CCD-143	194	196	2	0.010	0.049
5403	CCD-143	196	198	2	0.050	0.170
5404	CCD-143	198	200	2	0.060	0.126
5405	CCD-143	200	202	2	0.010	0.034
5406	CCD-143	202	204	2	0.020	0.035
5407	CCD-143	204	206	2	0.010	0.027
5408	CCD-143	206	208	2	0.050	0.053
5409	CCD-143	208	210	2	0.010	0.027
5410	CCD-143	210	212	2	0.010	0.016
5411	CCD-143	212	214	2	0.010	0.042
5412	CCD-143	214	216	2	0.010	0.033
5413	CCD-143	216	218	2	0.020	0.072
5414	CCD-143	218	220	2	0.010	0.045
5415	CCD-143	220	222	2	0.010	0.041
5416	CCD-143	222	224	2	0.010	0.032
5418	CCD-143	224	226	2	0.030	0.113
5419	CCD-143	226	228	2	0.050	0.040
5420	CCD-143	228	230	2	0.040	0.069
5421	CCD-143	230	232	2	0.020	0.015
5422	CCD-143	232	234	2	0.010	0.009
5423	CCD-143	234	236	2	0.030	0.035
5424	CCD-143	236	238	2	0.020	0.016
5425	CCD-143	238	240	2	0.010	0.013
5426	CCD-143	240	242	2	0.040	0.040
5427	CCD-143	242	244	2	0.050	0.033
5428	CCD-143	244	246	2	0.050	0.029
5429	CCD-143	246	248	2	0.040	0.031
5430	CCD-143	248	250	2	0.130	0.084
5431	CCD-143	250	252	2	0.040	0.017
5432	CCD-143	252	254	2	0.020	0.016
5433	CCD-143	254	256	2	0.010	0.021
5434	CCD-143	256	258	2	0.010	0.015
5435	CCD-143	258	260	2	0.030	0.014
5436	CCD-143	260	262	2	0.010	0.023
5437	CCD-143	262	264	2	0.010	0.009
5438	CCD-143	264	266	2	0.030	0.027
5440	CCD-143	266	268	2	0.030	0.036
5441	CCD-143	268	270	2	0.010	0.020
5442	CCD-143	270	272	2	0.030	0.068
5443	CCD-143	272	274	2	0.040	0.065

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5444	CCD-143	274	276	2	0.010	0.015
5445	CCD-143	276	278	2	0.010	0.038
5446	CCD-143	278	280	2	0.010	0.018
5447	CCD-143	280	282	2	0.030	0.070
5448	CCD-143	282	284	2	0.040	0.056
5449	CCD-143	284	286	2	0.010	0.018
5450	CCD-143	286	288	2	0.020	0.019
5451	CCD-143	288	290	2	0.430	0.098
5452	CCD-143	290	292	2	0.010	0.049
5453	CCD-143	292	294	2	0.010	0.034
5454	CCD-143	294	296	2	0.180	0.084
5455	CCD-143	296	298	2	0.015	0.066
5456	CCD-143	298	300	2	0.010	0.003
5457	CCD-143	300	302	2	0.040	0.046
5458	CCD-143	302	304	2	0.020	0.050
5459	CCD-143	304	304	0	0.020	0.064
5460	CCD-143	306	308	2	0.030	0.085
5462	CCD-143	308	310	2	0.030	0.054
5463	CCD-143	310	312	2	0.010	0.051
5464	CCD-143	312	314	2	0.040	0.095
5465	CCD-143	314	316	2	0.040	0.045
5466	CCD-143	316	318	2	0.010	0.011
5467	CCD-143	318	320	2	0.010	0.019
5468	CCD-143	320	322	2	0.010	0.017
5469	CCD-143	322	324	2	0.010	0.014
5470	CCD-143	324	326	2	0.010	0.034
5471	CCD-143	326	328	2	0.080	0.090
5472	CCD-143	328	330	2	0.070	0.080
5473	CCD-143	330	332	2	0.080	0.131
5474	CCD-143	332	334	2	0.080	0.134
5475	CCD-143	334	336	2	0.030	0.046
5476	CCD-143	336	338	2	0.090	0.149
5477	CCD-143	338	340	2	0.080	0.114
5478	CCD-143	340	342	2	0.090	0.120
5479	CCD-143	342	344	2	0.080	0.135
5480	CCD-143	344	346	2	0.060	0.095
5481	CCD-143	346	348	2	0.060	0.069
5482	CCD-143	348	350	2	0.010	0.006
5484	CCD-143	350	352	2	0.010	0.013
5485	CCD-143	352	354	2	0.060	0.048
5486	CCD-143	354	356	2	0.010	0.027
5487	CCD-143	356	358	2	0.020	0.015
5488	CCD-143	358	360	2	0.020	0.020
5489	CCD-143	360	362	2	0.010	0.016
5490	CCD-143	362	364	2	0.060	0.041
5491	CCD-143	364	366	2	0.740	0.250
6751	CCD-144	70	72	2	0.220	0.126
6752	CCD-144	72	74	2	0.230	0.170
6753	CCD-144	74	76	2	0.240	0.217
6754	CCD-144	76	78	2	0.270	0.410
6755	CCD-144	78	80	2	0.130	0.169
6756	CCD-144	80	82	2	0.510	0.540
6757	CCD-144	82	84	2	0.320	0.325
6758	CCD-144	84	86	2	0.290	0.430
6759	CCD-144	86	88	2	0.340	0.300

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6760	CCD-144	88	90	2	0.210	0.232
6761	CCD-144	90	92	2	0.290	0.340
6762	CCD-144	92	94	2	0.110	0.186
6763	CCD-144	94	96	2	0.280	0.400
6764	CCD-144	96	98	2	0.380	0.510
6765	CCD-144	98	100	2	0.290	0.350
6766	CCD-144	100	102	2	0.310	0.300
6767	CCD-144	102	104	2	0.310	0.285
6768	CCD-144	104	106	2	0.670	0.600
6769	CCD-144	106	108	2	0.810	0.810
6770	CCD-144	108	110	2	0.340	0.300
6771	CCD-144	110	112	2	0.260	0.245
6773	CCD-144	112	114	2	0.080	0.500
6774	CCD-144	114	116	2	0.190	0.320
6775	CCD-144	116	118	2	0.290	0.590
6776	CCD-144	118	120	2	0.360	0.400
6777	CCD-144	120	122	2	0.200	0.280
6778	CCD-144	122	124	2	0.200	0.230
6779	CCD-144	124	126	2	0.340	0.410
6780	CCD-144	126	128	2	0.370	0.390
6781	CCD-144	128	130	2	0.190	0.234
6782	CCD-144	130	132	2	0.100	0.152
6783	CCD-144	132	134	2	0.120	0.141
6784	CCD-144	134	136	2	0.140	0.098
6785	CCD-144	136	138	2	0.140	0.137
6786	CCD-144	138	140	2	0.120	0.100
6787	CCD-144	140	142	2	0.080	0.221
6788	CCD-144	142	144	2	0.090	0.108
6789	CCD-144	144	146	2	0.120	0.119
6790	CCD-144	146	148	2	0.140	0.111
6791	CCD-144	148	150	2	0.270	0.232
6792	CCD-144	150	152	2	0.220	0.198
6793	CCD-144	152	154	2	0.130	0.137
6795	CCD-144	154	156	2	0.190	0.187
6796	CCD-144	156	158	2	0.410	0.350
6797	CCD-144	158	160	2	0.180	0.157
6798	CCD-144	160	162	2	0.230	0.192
6799	CCD-144	162	164	2	0.150	0.116
6800	CCD-144	164	166	2	0.080	0.092
6801	CCD-144	166	168	2	0.190	0.188
6802	CCD-144	168	170	2	0.130	0.124
6803	CCD-144	170	172	2	0.150	0.191
6804	CCD-144	172	174	2	0.170	0.165
6805	CCD-144	174	176	2	0.210	0.410
6806	CCD-144	176	178	2	0.210	0.250
6807	CCD-144	178	180	2	0.090	0.079
6808	CCD-144	180	182	2	0.120	0.132
6809	CCD-144	182	184	2	0.150	0.165
6810	CCD-144	184	186	2	0.170	0.390
6811	CCD-144	186	188	2	0.230	0.194
6812	CCD-144	188	190	2	0.070	0.280
6813	CCD-144	190	192	2	0.220	0.450
6814	CCD-144	192	194	2	0.130	0.290
6815	CCD-144	194	196	2	0.150	0.340
6817	CCD-144	196	198	2	0.220	0.340

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6818	CCD-144	198	200	2	0.170	0.197
6819	CCD-144	200	202	2	0.260	0.280
6820	CCD-144	202	204	2	1.430	0.500
6821	CCD-144	204	206	2	0.120	0.370
6822	CCD-144	206	208	2	0.080	0.340
6823	CCD-144	208	210	2	0.130	0.410
6824	CCD-144	210	212	2	0.190	0.240
6825	CCD-144	212	214	2	0.160	0.163
6826	CCD-144	214	216	2	0.290	0.250
6827	CCD-144	216	218	2	0.180	0.222
6828	CCD-144	218	220	2	0.170	0.204
6829	CCD-144	220	222	2	0.180	0.177
6830	CCD-144	222	224	2	0.130	0.154
6831	CCD-144	224	226	2	0.230	0.172
6832	CCD-144	226	228	2	0.140	0.134
6833	CCD-144	228	230	2	0.090	0.278
6834	CCD-144	230	232	2	0.080	0.235
6835	CCD-144	232	234	2	0.200	0.309
6836	CCD-144	234	236	2	0.210	0.144
6837	CCD-144	236	238	2	0.160	0.230
6839	CCD-144	238	240	2	0.220	0.294
6840	CCD-144	240	242	2	0.140	0.184
6841	CCD-144	242	244	2	0.120	0.125
6842	CCD-144	244	246	2	0.240	0.242
6843	CCD-144	246	248	2	0.210	0.162
6844	CCD-144	248	250	2	0.290	0.201
6845	CCD-144	250	252	2	0.280	0.275
6846	CCD-144	252	254	2	0.420	0.362
6847	CCD-144	254	256	2	0.260	0.191
6848	CCD-144	256	258	2	0.150	0.280
6849	CCD-144	258	260	2	0.370	0.274
6850	CCD-144	260	262	2	0.290	0.299
6851	CCD-144	262	264	2	0.240	0.188
6852	CCD-144	264	266	2	0.110	0.074
6853	CCD-144	266	268	2	0.220	0.156
6854	CCD-144	268	270	2	0.150	0.152
6855	CCD-144	270	272	2	0.100	0.105
6856	CCD-144	272	274	2	0.190	0.224
6857	CCD-144	274	276	2	0.090	0.087
6858	CCD-144	276	278	2	0.330	0.075
6859	CCD-144	278	280	2	0.040	0.048
6860	CCD-144	280	282	2	0.080	0.049
6862	CCD-144	282	284	2	0.150	0.230
6863	CCD-144	284	286	2	0.040	0.112
6864	CCD-144	286	288	2	0.040	0.289
6865	CCD-144	288	290	2	0.070	0.119
6866	CCD-144	290	292	2	0.050	0.078
6867	CCD-144	292	294	2	0.080	0.093
6868	CCD-144	294	296	2	0.080	0.096
6869	CCD-144	296	298	2	0.040	0.068
6870	CCD-144	298	300	2	0.110	0.289
6871	CCD-144	300	302	2	0.150	0.106
6872	CCD-144	302	304	2	0.220	0.096
6873	CCD-144	304	306	2	0.100	0.079
6874	CCD-144	306	308	2	0.040	0.119

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6875	CCD-144	308	310	2	0.070	0.102
6876	CCD-144	310	312	2	0.080	0.109
6877	CCD-144	312	314	2	0.060	0.059
6878	CCD-144	314	316	2	0.050	0.061
6879	CCD-144	316	318	2	0.090	0.091
6880	CCD-144	318	320	2	0.020	0.068
6881	CCD-144	320	322	2	0.040	0.046
6883	CCD-144	322	324	2	0.040	0.046
6884	CCD-144	324	326	2	0.150	0.150
6885	CCD-144	326	328	2	0.210	0.148
6886	CCD-144	328	330	2	0.080	0.039
6887	CCD-144	330	332	2	0.050	0.125
6888	CCD-144	332	334	2	0.120	0.134
6889	CCD-144	334	336	2	0.050	0.072
6890	CCD-144	336	338	2	0.070	0.078
6891	CCD-144	338	340	2	0.010	0.024
6892	CCD-144	340	342	2	0.040	0.054
6893	CCD-144	342	344	2	0.010	0.044
6894	CCD-144	344	346	2	0.020	0.015
6895	CCD-144	346	348	2	0.020	0.009
6896	CCD-144	348	350	2	0.040	0.062
6897	CCD-144	350	352	2	0.080	0.067
6898	CCD-144	352	354	2	0.100	0.058
6899	CCD-144	354	356	2	0.020	0.012
6900	CCD-144	356	358	2	0.030	0.013
6901	CCD-144	358	360	2	0.050	0.052
6902	CCD-144	360	362	2	0.180	0.088
6903	CCD-144	362	364	2	0.020	0.098
6551	CCD-145	0	2	2	1.420	0.038
6552	CCD-145	2	4	2	1.130	0.026
6553	CCD-145	4	6	2	1.280	0.014
6554	CCD-145	6	8	2	1.090	0.026
6555	CCD-145	8	10	2	1.260	0.017
6556	CCD-145	10	12	2	0.400	0.033
6557	CCD-145	12	14	2	0.450	0.018
6558	CCD-145	14	16	2	1.080	0.015
6559	CCD-145	16	18	2	0.830	0.019
6560	CCD-145	18	20	2	0.490	0.003
6561	CCD-145	20	22	2	0.870	0.005
6562	CCD-145	22	24	2	0.430	0.003
6563	CCD-145	24	26	2	0.520	0.003
6564	CCD-145	26	28	2	0.370	0.003
6565	CCD-145	28	30	2	0.320	0.034
6566	CCD-145	30	32	2	0.410	0.022
6567	CCD-145	32	34	2	0.600	0.036
6568	CCD-145	34	36	2	0.840	0.045
6569	CCD-145	36	38	2	0.530	0.012
6570	CCD-145	38	40	2	0.380	0.027
6571	CCD-145	40	42	2	0.350	0.024
6573	CCD-145	42	44	2	0.570	0.025
6574	CCD-145	44	46	2	0.600	0.025
6575	CCD-145	46	48	2	0.460	0.009
6576	CCD-145	48	50	2	0.530	0.011
6577	CCD-145	50	52	2	0.340	0.019
6578	CCD-145	52	54	2	0.220	0.022

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6579	CCD-145	54	56	2	0.240	0.008
6580	CCD-145	56	58	2	0.190	0.018
6581	CCD-145	58	60	2	0.310	0.021
6582	CCD-145	60	62	2	0.250	0.125
6583	CCD-145	62	64	2	0.230	0.159
6584	CCD-145	64	66	2	0.220	0.138
6585	CCD-145	66	68	2	0.210	0.300
6586	CCD-145	68	70	2	0.220	0.077
6587	CCD-145	70	72	2	0.260	0.066
6588	CCD-145	72	74	2	0.250	0.063
6589	CCD-145	74	76	2	0.350	0.071
6590	CCD-145	76	78	2	0.340	0.084
6591	CCD-145	78	80	2	0.390	0.099
6592	CCD-145	80	82	2	0.380	0.080
6593	CCD-145	82	84	2	0.430	0.069
6595	CCD-145	84	86	2	0.480	0.044
6596	CCD-145	86	88	2	0.200	0.035
6597	CCD-145	88	90	2	0.130	0.035
6598	CCD-145	90	92	2	0.150	0.034
6599	CCD-145	92	94	2	0.190	0.048
6600	CCD-145	94	96	2	0.090	0.026
6601	CCD-145	96	98	2	0.180	0.050
6602	CCD-145	98	100	2	0.100	0.022
6603	CCD-145	100	102	2	0.270	0.020
6604	CCD-145	102	104	2	0.060	0.018
6605	CCD-145	104	106	2	0.250	0.074
6606	CCD-145	106	108	2	0.010	0.010
6607	CCD-145	108	110	2	0.030	0.013
6608	CCD-145	110	112	2	0.020	0.009
6609	CCD-145	112	114	2	0.020	0.014
6610	CCD-145	114	116	2	0.040	0.013
6611	CCD-145	116	118	2	0.010	0.007
6612	CCD-145	118	120	2	0.060	0.014
6613	CCD-145	120	122	2	0.020	0.008
6614	CCD-145	122	124	2	0.010	0.006
6615	CCD-145	124	126	2	0.020	0.008
6617	CCD-145	126	128	2	0.040	0.014
6618	CCD-145	128	130	2	0.020	0.010
6619	CCD-145	130	132	2	0.040	0.012
6620	CCD-145	132	134	2	0.020	0.008
6621	CCD-145	134	136	2	0.050	0.021
6622	CCD-145	136	138	2	0.040	0.016
6623	CCD-145	138	140	2	0.070	0.029
6624	CCD-145	140	142	2	0.060	0.017
6625	CCD-145	142	144	2	0.170	0.066
6626	CCD-145	144	146	2	0.140	0.056
6627	CCD-145	146	148	2	0.070	0.026
6628	CCD-145	148	150	2	0.050	0.029
6629	CCD-145	150	152	2	0.040	0.016
6630	CCD-145	152	154	2	0.030	0.014
6631	CCD-145	154	156	2	0.050	0.013
6632	CCD-145	156	158	2	0.060	0.018
6633	CCD-145	158	160	2	0.050	0.015
6634	CCD-145	160	162	2	0.040	0.018
6635	CCD-145	162	164	2	0.050	0.013

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6636	CCD-145	164	166	2	0.030	0.011
6637	CCD-145	166	168	2	0.030	0.010
6639	CCD-145	168	170	2	0.030	0.013
6640	CCD-145	170	172	2	0.060	0.013
6641	CCD-145	172	174	2	0.250	0.017
6642	CCD-145	174	176	2	0.150	0.014
6643	CCD-145	176	178	2	0.230	0.052
6644	CCD-145	178	180	2	0.280	0.039
6645	CCD-145	180	182	2	0.150	0.023
6646	CCD-145	182	184	2	0.190	0.024
6647	CCD-145	184	186	2	0.290	0.016
6648	CCD-145	186	188	2	0.130	0.026
6649	CCD-145	188	190	2	0.050	0.022
6650	CCD-145	190	192	2	0.070	0.024
6651	CCD-145	192	194	2	0.080	0.034
6652	CCD-145	194	196	2	0.060	0.020
6653	CCD-145	196	198	2	0.110	0.041
6654	CCD-145	198	200	2	0.090	0.018
6655	CCD-145	200	202	2	0.160	0.030
6656	CCD-145	202	204	2	0.170	0.067
6657	CCD-145	204	206	2	0.130	0.046
6658	CCD-145	206	208	2	0.080	0.033
6659	CCD-145	208	210	2	0.120	0.054
6661	CCD-145	210	212	2	0.100	0.031
6662	CCD-145	212	214	2	0.200	0.056
6663	CCD-145	214	216	2	0.160	0.054
6664	CCD-145	216	218	2	0.230	0.064
6665	CCD-145	218	220	2	0.300	0.094
6666	CCD-145	220	222	2	0.240	0.098
6667	CCD-145	222	224	2	1.240	0.748
6668	CCD-145	224	226	2	0.380	0.312
6669	CCD-145	226	228	2	1.600	1.000
6670	CCD-145	228	230	2	2.130	0.861
6671	CCD-145	230	232	2	1.560	0.894
6672	CCD-145	232	234	2	1.600	1.120
6673	CCD-145	234	236	2	1.310	0.799
6674	CCD-145	236	238	2	1.460	0.675
6675	CCD-145	238	240	2	1.710	0.988
6676	CCD-145	240	242	2	1.640	0.492
6677	CCD-145	242	244	2	2.060	1.160
6678	CCD-145	244	246	2	3.290	0.828
6679	CCD-145	246	248	2	1.590	0.402
6680	CCD-145	248	250	2	0.280	0.131
6681	CCD-145	250	252	2	0.610	0.147
6683	CCD-145	252	254	2	1.360	0.330
6684	CCD-145	254	256	2	0.460	0.071
6685	CCD-145	256	258	2	0.830	0.090
6686	CCD-145	258	260	2	0.920	0.080
6687	CCD-145	260	262	2	0.150	0.066
6688	CCD-145	262	264	2	0.140	0.045
6689	CCD-145	264	266	2	0.200	0.067
6690	CCD-145	266	268	2	0.170	0.106
6691	CCD-145	268	270	2	0.150	0.102
6692	CCD-145	270	272	2	0.070	0.044
6693	CCD-145	272	274	2	0.190	0.095

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6694	CCD-145	274	276	2	0.090	0.066
6695	CCD-145	276	278	2	0.070	0.049
6696	CCD-145	278	280	2	0.150	0.079
6697	CCD-145	280	282	2	0.070	0.041
6698	CCD-145	282	284	2	0.900	0.046
6699	CCD-145	284	286	2	0.040	0.023
6700	CCD-145	286	288	2	0.040	0.043
6701	CCD-145	288	290	2	0.060	0.039
6702	CCD-145	290	292	2	0.070	0.034
6703	CCD-145	292	294	2	0.040	0.031
6705	CCD-145	294	296	2	0.080	0.041
6706	CCD-145	296	298	2	0.040	0.024
6707	CCD-145	298	300	2	0.090	0.038
6951	CCD-146	0	2	2	0.580	0.021
6952	CCD-146	2	4	2	0.410	0.016
6953	CCD-146	4	6	2	0.380	0.028
6954	CCD-146	6	8	2	0.520	0.019
6955	CCD-146	8	10	2	0.580	0.031
6956	CCD-146	10	12	2	0.670	0.031
6957	CCD-146	12	14	2	0.880	0.039
6958	CCD-146	14	16	2	0.530	0.041
6959	CCD-146	16	18	2	0.330	0.007
6960	CCD-146	18	20	2	0.490	0.004
6961	CCD-146	20	22	2	0.430	0.007
6962	CCD-146	22	24	2	0.300	0.003
6963	CCD-146	24	26	2	0.330	0.004
6964	CCD-146	26	28	2	0.380	0.004
6965	CCD-146	28	30	2	0.420	0.003
6966	CCD-146	30	32	2	0.290	0.008
6967	CCD-146	32	34	2	0.300	0.008
6968	CCD-146	34	36	2	0.210	0.014
6969	CCD-146	36	38	2	0.340	0.037
6970	CCD-146	38	40	2	0.430	1.060
6971	CCD-146	40	42	2	0.320	0.380
6973	CCD-146	42	44	2	0.310	0.329
6974	CCD-146	44	46	2	0.340	0.174
6975	CCD-146	46	48	2	0.270	0.200
6976	CCD-146	48	50	2	0.280	0.147
6977	CCD-146	50	52	2	0.250	0.127
6978	CCD-146	52	54	2	0.250	0.019
6979	CCD-146	54	56	2	0.410	0.036
6980	CCD-146	56	58	2	0.240	0.023
6981	CCD-146	58	60	2	0.170	0.022
6982	CCD-146	60	62	2	0.300	0.039
6983	CCD-146	62	64	2	0.170	0.019
6984	CCD-146	64	66	2	0.300	0.106
6985	CCD-146	66	68	2	0.320	0.114
6986	CCD-146	68	70	2	0.190	0.126
6987	CCD-146	70	72	2	0.160	0.101
6988	CCD-146	72	74	2	0.130	0.123
6989	CCD-146	74	76	2	0.160	0.114
6990	CCD-146	76	78	2	0.260	0.323
6991	CCD-146	78	80	2	0.160	0.102
6992	CCD-146	80	82	2	0.170	0.128
6993	CCD-146	82	84	2	0.110	0.094

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
6995	CCD-146	84	86	2	0.110	0.216
6996	CCD-146	86	88	2	0.100	0.326
6997	CCD-146	88	90	2	0.120	0.172
6998	CCD-146	90	92	2	0.170	0.097
6999	CCD-146	92	94	2	0.150	0.430
7000	CCD-146	94	96	2	0.110	0.323
7001	CCD-146	96	98	2	0.110	0.078
7002	CCD-146	98	100	2	0.230	0.195
7003	CCD-146	100	102	2	0.220	0.428
7004	CCD-146	102	104	2	0.250	0.353
7005	CCD-146	104	106	2	0.330	0.230
7006	CCD-146	106	108	2	0.140	0.042
7007	CCD-146	108	110	2	0.160	0.225
7008	CCD-146	110	112	2	0.170	0.194
7009	CCD-146	112	114	2	0.190	0.107
7010	CCD-146	114	116	2	0.240	0.140
7011	CCD-146	116	118	2	0.290	0.100
7012	CCD-146	118	120	2	0.230	0.080
7013	CCD-146	120	122	2	0.220	0.100
7014	CCD-146	122	124	2	0.260	0.060
7015	CCD-146	124	126	2	0.400	0.096
7017	CCD-146	126	128	2	0.190	0.056
7018	CCD-146	128	130	2	0.190	0.048
7019	CCD-146	130	132	2	0.210	0.047
7020	CCD-146	132	134	2	0.150	0.045
7021	CCD-146	134	136	2	0.120	0.024
7022	CCD-146	136	138	2	0.200	0.058
7023	CCD-146	138	140	2	0.190	0.059
7024	CCD-146	140	142	2	0.150	0.039
7025	CCD-146	142	144	2	0.180	0.044
7026	CCD-146	144	146	2	0.150	0.043
7027	CCD-146	146	148	2	0.160	0.047
7028	CCD-146	148	150	2	0.190	0.057
7029	CCD-146	150	152	2	0.160	0.073
7030	CCD-146	152	154	2	0.100	0.041
7031	CCD-146	154	156	2	0.230	0.076
7032	CCD-146	156	158	2	0.140	0.036
7033	CCD-146	158	160	2	0.190	0.054
7034	CCD-146	160	162	2	0.180	0.046
7035	CCD-146	162	164	2	0.120	0.022
7036	CCD-146	164	166	2	0.240	0.061
7037	CCD-146	166	168	2	0.120	0.036
7039	CCD-146	168	170	2	0.100	0.074
7040	CCD-146	170	172	2	0.240	0.034
7041	CCD-146	172	174	2	0.070	0.022
7042	CCD-146	174	176	2	0.130	0.032
7043	CCD-146	176	178	2	0.090	0.032
7044	CCD-146	178	180	2	0.160	0.046
7045	CCD-146	180	182	2	0.150	0.046
7046	CCD-146	182	184	2	0.120	0.034
7047	CCD-146	184	186	2	0.070	0.012
7048	CCD-146	186	188	2	0.100	0.021
7049	CCD-146	188	190	2	0.110	0.019
7050	CCD-146	190	192	2	0.240	0.055
7051	CCD-146	192	194	2	0.160	0.034

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7052	CCD-146	194	196	2	0.090	0.020
7053	CCD-146	196	198	2	0.090	0.023
7054	CCD-146	198	200	2	0.080	0.027
7055	CCD-146	200	202	2	0.040	0.025
7056	CCD-146	202	204	2	0.120	0.034
7057	CCD-146	204	206	2	0.100	0.039
7058	CCD-146	206	208	2	0.110	0.051
7059	CCD-146	208	210	2	0.210	0.064
7061	CCD-146	210	212	2	0.140	0.070
7062	CCD-146	212	214	2	0.160	0.048
7063	CCD-146	214	216	2	0.120	0.050
7064	CCD-146	216	218	2	0.070	0.038
7065	CCD-146	218	220	2	0.110	0.049
7066	CCD-146	220	222	2	0.100	0.059
7067	CCD-146	222	224	2	0.130	0.056
7068	CCD-146	224	226	2	0.140	0.022
7069	CCD-146	226	228	2	0.210	0.064
7070	CCD-146	228	230	2	0.220	0.068
7071	CCD-146	230	232	2	0.120	0.053
7072	CCD-146	232	234	2	0.070	0.045
7073	CCD-146	234	236	2	0.150	0.073
7074	CCD-146	236	238	2	0.110	0.036
7075	CCD-146	238	240	2	0.090	0.042
7076	CCD-146	240	242	2	0.140	0.061
7077	CCD-146	242	244	2	0.220	0.057
7078	CCD-146	244	246	2	0.150	0.059
7079	CCD-146	246	248	2	0.050	0.023
7080	CCD-146	248	250	2	0.090	0.047
7081	CCD-146	250	252	2	0.200	0.073
7083	CCD-146	252	254	2	0.140	0.041
7084	CCD-146	254	256	2	0.090	0.045
7085	CCD-146	256	258	2	0.150	0.029
7086	CCD-146	258	260	2	0.140	0.040
7087	CCD-146	260	262	2	0.100	0.030
7088	CCD-146	262	264	2	0.100	0.028
7089	CCD-146	264	266	2	0.080	0.025
7090	CCD-146	266	268	2	0.110	0.035
7091	CCD-146	268	270	2	0.060	0.011
7092	CCD-146	270	272	2	0.100	0.016
7093	CCD-146	272	274	2	0.100	0.028
7094	CCD-146	274	276	2	0.100	0.029
7095	CCD-146	276	278	2	0.040	0.019
7096	CCD-146	278	280	2	0.040	0.026
7097	CCD-146	280	282	2	0.110	0.029
7098	CCD-146	282	284	2	0.070	0.016
7099	CCD-146	284	286	2	0.040	0.023
7100	CCD-146	286	288	2	0.050	0.018
7101	CCD-146	288	290	2	0.070	0.021
7102	CCD-146	290	292	2	0.040	0.017
7103	CCD-146	292	294	2	0.030	0.015
7105	CCD-146	294	296	2	0.060	0.025
7106	CCD-146	296	298	2	0.070	0.028
7107	CCD-146	298	300	2	0.050	0.033
7108	CCD-146	300	302	2	0.070	0.032
7109	CCD-146	302	304	2	0.060	0.037

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7110	CCD-146	304	306	2	0.010	0.015
7111	CCD-146	306	308	2	0.010	0.025
7112	CCD-146	308	310	2	0.010	0.035
7113	CCD-146	310	312	2	0.110	0.049
7114	CCD-146	312	314	2	0.140	0.048
7115	CCD-146	314	316	2	0.050	0.045
7116	CCD-146	316	318	2	0.090	0.037
7117	CCD-146	318	320	2	0.120	0.104
7118	CCD-146	320	322	2	0.070	0.013
7119	CCD-146	322	324	2	0.130	0.013
7120	CCD-146	324	326	2	0.010	0.012
7121	CCD-146	326	328	2	0.010	0.021
7122	CCD-146	328	330	2	0.040	0.023
7123	CCD-146	330	332	2	0.080	0.042
7124	CCD-146	332	334	2	0.050	0.016
7125	CCD-146	334	336	2	0.040	0.020
7127	CCD-146	336	338	2	0.060	0.081
7128	CCD-146	338	340	2	0.040	0.028
7129	CCD-146	340	342	2	0.130	0.021
7130	CCD-146	342	344	2	0.030	0.029
7131	CCD-146	344	346	2	0.080	0.025
7132	CCD-146	346	348	2	0.070	0.031
7133	CCD-146	348	350	2	0.050	0.026
7134	CCD-146	350	352	2	0.050	0.026
7135	CCD-146	352	354	2	0.050	0.030
7136	CCD-146	354	356	2	0.080	0.045
7137	CCD-146	356	358	2	0.100	0.046
7138	CCD-146	358	360	2	0.100	0.057
7139	CCD-146	360	362	2	0.060	0.069
7140	CCD-146	362	364	2	0.080	0.071
7141	CCD-146	364	366	2	0.040	0.082
7142	CCD-146	366	368	2	0.050	0.078
7201	CCD-147	0	2	2	1.600	0.051
7202	CCD-147	2	4	2	0.970	0.046
7203	CCD-147	4	6	2	0.720	0.163
7204	CCD-147	6	8	2	0.070	0.254
7205	CCD-147	8	10	2	0.040	0.222
7206	CCD-147	10	12	2	0.170	0.122
7207	CCD-147	12	14	2	0.340	0.304
7208	CCD-147	14	16	2	0.650	0.499
7209	CCD-147	16	18	2	0.110	0.089
7210	CCD-147	18	20	2	0.110	0.090
7211	CCD-147	20	22	2	0.150	0.100
7212	CCD-147	22	24	2	0.230	0.162
7213	CCD-147	24	26	2	0.290	0.194
7214	CCD-147	26	28	2	0.190	0.218
7215	CCD-147	28	30	2	0.130	0.109
7216	CCD-147	30	32	2	0.240	0.187
7217	CCD-147	32	34	2	0.200	0.150
7218	CCD-147	34	36	2	0.330	0.264
7219	CCD-147	36	38	2	0.110	0.112
7220	CCD-147	38	40	2	0.080	0.063
7221	CCD-147	40	42	2	0.350	0.199
7223	CCD-147	42	44	2	0.090	0.175
7224	CCD-147	44	46	2	0.220	0.177

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7225	CCD-147	46	48	2	0.380	0.250
7226	CCD-147	48	50	2	0.390	0.270
7227	CCD-147	50	52	2	0.490	0.298
7228	CCD-147	52	54	2	0.380	0.340
7229	CCD-147	54	56	2	0.340	0.290
7230	CCD-147	56	58	2	0.520	0.300
7231	CCD-147	58	60	2	0.350	0.244
7232	CCD-147	60	62	2	0.160	0.125
7233	CCD-147	62	64	2	0.150	0.112
7234	CCD-147	64	66	2	0.170	0.127
7235	CCD-147	66	68	2	0.270	0.182
7236	CCD-147	68	70	2	0.360	0.263
7237	CCD-147	70	72	2	0.260	0.183
7238	CCD-147	72	74	2	0.270	0.223
7239	CCD-147	74	76	2	0.930	0.689
7240	CCD-147	76	78	2	0.440	0.350
7241	CCD-147	78	80	2	0.310	0.288
7242	CCD-147	80	82	2	0.280	0.158
7243	CCD-147	82	84	2	0.450	0.308
7245	CCD-147	84	86	2	0.270	0.188
7246	CCD-147	86	88	2	0.470	0.263
7247	CCD-147	88	90	2	0.650	0.345
7248	CCD-147	90	92	2	0.870	0.647
7249	CCD-147	92	94	2	0.480	0.294
7250	CCD-147	94	96	2	0.480	0.327
7251	CCD-147	96	98	2	0.500	0.335
7252	CCD-147	98	100	2	0.350	0.233
7253	CCD-147	100	102	2	0.240	0.218
7254	CCD-147	102	104	2	0.380	0.501
7255	CCD-147	104	106	2	0.480	0.441
7256	CCD-147	106	108	2	0.360	0.297
7257	CCD-147	108	110	2	0.280	0.264
7258	CCD-147	110	112	2	0.300	0.240
7259	CCD-147	112	114	2	0.200	0.173
7260	CCD-147	114	116	2	0.200	0.168
7261	CCD-147	116	118	2	0.270	0.204
7262	CCD-147	118	120	2	0.190	0.119
7263	CCD-147	120	122	2	1.320	0.901
7264	CCD-147	122	124	2	0.750	0.602
7265	CCD-147	124	126	2	0.520	0.443
7267	CCD-147	126	128	2	0.450	0.368
7268	CCD-147	128	130	2	0.470	0.339
7269	CCD-147	130	132	2	0.690	0.420
7270	CCD-147	132	134	2	0.200	0.193
7271	CCD-147	134	136	2	0.320	0.279
7272	CCD-147	136	138	2	0.190	0.166
7273	CCD-147	138	140	2	0.320	0.228
7274	CCD-147	140	142	2	0.450	0.255
7275	CCD-147	142	144	2	0.790	0.470
7276	CCD-147	144	146	2	0.250	0.159
7277	CCD-147	146	148	2	0.290	0.185
7278	CCD-147	148	150	2	0.310	0.196
7279	CCD-147	150	152	2	0.330	0.236
7280	CCD-147	152	154	2	0.590	0.420
7281	CCD-147	154	156	2	0.270	0.572

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7282	CCD-147	156	158	2	0.330	0.265
7283	CCD-147	158	160	2	0.480	0.376
7284	CCD-147	160	162	2	0.230	0.138
7285	CCD-147	162	164	2	0.400	0.260
7286	CCD-147	164	166	2	0.660	0.486
7287	CCD-147	166	168	2	0.250	0.194
7289	CCD-147	168	170	2	0.100	0.153
7290	CCD-147	170	172	2	0.300	0.195
7291	CCD-147	172	174	2	0.350	0.238
7292	CCD-147	174	176	2	0.460	0.203
7293	CCD-147	176	178	2	0.590	0.228
7294	CCD-147	178	180	2	0.550	0.238
7295	CCD-147	180	182	2	0.380	0.119
7296	CCD-147	182	184	2	0.720	0.456
7297	CCD-147	184	186	2	0.480	0.328
7298	CCD-147	186	188	2	0.320	0.222
7299	CCD-147	188	190	2	0.220	0.213
7300	CCD-147	190	192	2	0.330	0.289
7301	CCD-147	192	194	2	0.290	0.240
7302	CCD-147	194	196	2	0.300	0.254
7303	CCD-147	196	198	2	0.320	0.311
7304	CCD-147	198	200	2	0.290	0.218
7305	CCD-147	200	202	2	0.420	0.418
7306	CCD-147	202	204	2	0.320	0.294
7307	CCD-147	204	206	2	0.330	0.280
7308	CCD-147	206	208	2	0.510	0.422
7309	CCD-147	208	210	2	1.190	0.913
7311	CCD-147	210	212	2	0.800	0.489
7312	CCD-147	212	214	2	0.560	0.358
7313	CCD-147	214	216	2	2.200	2.520
7314	CCD-147	216	218	2	1.140	1.026
7315	CCD-147	218	220	2	0.340	0.288
7316	CCD-147	220	222	2	0.520	0.449
7317	CCD-147	222	224	2	0.440	0.490
7318	CCD-147	224	226	2	0.120	0.093
7319	CCD-147	226	228	2	0.220	0.213
7320	CCD-147	228	230	2	0.430	0.370
7321	CCD-147	230	232	2	0.330	0.302
7322	CCD-147	232	234	2	0.270	0.162
7323	CCD-147	234	236	2	0.370	0.323
7324	CCD-147	236	238	2	0.220	0.187
7325	CCD-147	238	240	2	0.580	0.380
7326	CCD-147	240	242	2	0.360	0.340
7327	CCD-147	242	244	2	0.560	0.422
7328	CCD-147	244	246	2	0.400	0.285
7329	CCD-147	246	248	2	0.370	0.376
7330	CCD-147	248	250	2	0.310	0.264
7331	CCD-147	250	252	2	0.270	0.240
7333	CCD-147	252	254	2	0.210	0.195
7334	CCD-147	254	256	2	0.270	0.001
7335	CCD-147	256	258	2	0.380	0.235
7336	CCD-147	258	260	2	0.770	0.471
7337	CCD-147	260	262	2	0.680	0.553
7338	CCD-147	262	264	2	0.280	0.262
7339	CCD-147	264	266	2	0.190	0.165

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7340	CCD-147	266	268	2	0.280	0.264
7341	CCD-147	268	270	2	0.510	0.377
7342	CCD-147	270	272	2	0.450	0.303
7343	CCD-147	272	274	2	0.430	0.240
7344	CCD-147	274	276	2	0.580	0.360
7345	CCD-147	276	278	2	0.920	0.626
7346	CCD-147	278	280	2	0.910	0.765
7347	CCD-147	280	282	2	0.400	0.368
7348	CCD-147	282	284	2	0.310	0.210
7349	CCD-147	284	286	2	0.480	0.320
7350	CCD-147	286	288	2	0.480	0.350
7351	CCD-147	288	290	2	0.270	0.290
7352	CCD-147	290	292	2	0.170	0.200
7353	CCD-147	292	294	2	0.210	0.154
7355	CCD-147	294	296	2	0.430	0.285
7356	CCD-147	296	298	2	0.440	0.336
7357	CCD-147	298	300	2	0.400	0.342
7358	CCD-147	300	302	2	0.310	0.258
7359	CCD-147	302	304	2	0.670	0.541
7360	CCD-147	304	306	2	0.430	0.348
7361	CCD-147	306	308	2	0.800	0.706
7362	CCD-147	308	310	2	0.540	0.418
7363	CCD-147	310	312	2	1.030	0.824
7364	CCD-147	312	314	2	0.810	0.671
7365	CCD-147	314	316	2	0.680	0.584
7366	CCD-147	316	318	2	0.370	0.308
7367	CCD-147	318	320	2	0.290	0.215
7368	CCD-147	320	322	2	0.220	0.194
7369	CCD-147	322	324	2	0.450	0.381
7370	CCD-147	324	326	2	0.290	0.290
7371	CCD-147	326	328	2	0.500	0.370
7372	CCD-147	328	330	2	0.420	0.302
7373	CCD-147	330	332	2	0.590	0.406
7374	CCD-147	332	334	2	0.350	0.401
7375	CCD-147	334	336	2	0.400	0.268
7377	CCD-147	336	338	2	0.240	0.215
7378	CCD-147	338	340	2	0.190	0.152
7379	CCD-147	340	342	2	0.220	0.217
7380	CCD-147	342	344	2	0.590	0.457
7381	CCD-147	344	346	2	0.290	0.272
7382	CCD-147	346	348	2	0.350	0.280
7383	CCD-147	348	350	2	0.170	0.141
7384	CCD-147	350	352	2	0.170	0.135
7385	CCD-147	352	354	2	0.260	0.208
7386	CCD-147	354	356	2	0.490	0.417
7387	CCD-147	356	358	2	0.710	0.631
7388	CCD-147	358	360	2	0.530	0.446
7389	CCD-147	360	362	2	0.470	0.391
7390	CCD-147	362	364	2	0.210	0.251
7391	CCD-147	364	366	2	1.050	0.361
7392	CCD-147	366	368	2	0.320	0.318
7393	CCD-147	368	370	2	0.550	0.524
7394	CCD-147	370	372	2	0.350	0.324
7395	CCD-147	372	374	2	0.130	0.188
7396	CCD-147	374	376	2	0.130	0.152

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7397	CCD-147	376	378	2	0.160	0.236
7399	CCD-147	378	380	2	0.180	0.216
7400	CCD-147	380	382	2	0.540	0.505
8451	CCD-147	382	384	2	0.200	0.219
8452	CCD-147	384	386	2	0.200	0.251
8453	CCD-147	386	388	2	0.400	0.441
8454	CCD-147	388	390	2	0.220	0.258
8455	CCD-147	390	392	2	0.310	0.304
8456	CCD-147	392	394	2	0.280	0.199
8457	CCD-147	394	396	2	0.380	0.290
8458	CCD-147	396	398	2	0.410	0.321
8459	CCD-147	398	400	2	0.290	0.259
8460	CCD-147	400	402	2	0.220	0.176
8461	CCD-147	402	404	2	0.320	0.270
8462	CCD-147	404	406	2	0.600	0.465
8463	CCD-147	406	408	2	0.500	0.382
8464	CCD-147	408	410	2	0.840	0.746
7401	CCD-148	0	2	2	0.930	0.067
7402	CCD-148	2	4	2	1.520	0.077
7403	CCD-148	4	6	2	2.010	0.070
7404	CCD-148	6	8	2	1.960	0.088
7405	CCD-148	8	10	2	2.540	0.171
7406	CCD-148	10	12	2	1.630	0.061
7407	CCD-148	12	14	2	1.880	0.071
7408	CCD-148	14	16	2	1.930	0.044
7409	CCD-148	16	18	2	1.610	0.063
7410	CCD-148	18	20	2	1.300	0.177
7411	CCD-148	20	22	2	2.390	0.045
7412	CCD-148	22	24	2	2.170	0.060
7413	CCD-148	24	26	2	2.150	0.062
7414	CCD-148	26	28	2	1.500	0.054
7415	CCD-148	28	30	2	1.200	0.066
7416	CCD-148	30	32	2	1.330	0.071
7417	CCD-148	32	34	2	0.770	0.560
7418	CCD-148	34	36	2	1.680	0.598
7419	CCD-148	36	38	2	0.710	0.358
7420	CCD-148	38	40	2	0.910	0.565
7421	CCD-148	40	42	2	0.770	1.120
7423	CCD-148	42	44	2	0.490	0.424
7424	CCD-148	44	46	2	0.630	0.449
7425	CCD-148	46	48	2	0.530	0.277
7426	CCD-148	48	50	2	0.540	0.278
7427	CCD-148	50	52	2	0.480	0.304
7428	CCD-148	52	54	2	0.530	0.385
7429	CCD-148	54	56	2	0.320	0.229
7430	CCD-148	56	58	2	0.340	0.219
7431	CCD-148	58	60	2	0.540	0.285
7432	CCD-148	60	62	2	0.380	0.243
7433	CCD-148	62	64	2	0.450	0.255
7434	CCD-148	64	66	2	0.390	0.270
7435	CCD-148	66	68	2	0.510	0.362
7436	CCD-148	68	70	2	0.410	0.283
7437	CCD-148	70	72	2	0.610	0.421
7438	CCD-148	72	74	2	0.620	0.255
7439	CCD-148	74	76	2	0.440	0.190

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7440	CCD-148	76	78	2	0.330	0.268
7441	CCD-148	78	80	2	0.410	0.294
7442	CCD-148	80	82	2	0.380	0.292
7443	CCD-148	82	84	2	0.380	0.273
7445	CCD-148	84	86	2	0.200	0.163
7446	CCD-148	86	88	2	0.230	0.182
7447	CCD-148	88	90	2	0.370	0.326
7448	CCD-148	90	92	2	0.420	0.246
7449	CCD-148	92	94	2	0.370	0.275
7450	CCD-148	94	96	2	1.110	0.725
7451	CCD-148	96	98	2	0.560	0.376
7452	CCD-148	98	100	2	0.400	0.223
7453	CCD-148	100	102	2	0.620	0.216
7454	CCD-148	102	104	2	0.820	0.236
7455	CCD-148	104	106	2	0.230	0.168
7456	CCD-148	106	108	2	0.370	0.284
7457	CCD-148	108	110	2	0.450	0.329
7458	CCD-148	110	112	2	0.770	0.323
7459	CCD-148	112	114	2	0.900	0.239
7460	CCD-148	114	116	2	0.450	0.371
7461	CCD-148	116	118	2	0.530	0.177
7462	CCD-148	118	120	2	0.240	0.444
7463	CCD-148	120	122	2	0.280	0.409
7464	CCD-148	122	124	2	0.270	0.201
7465	CCD-148	124	126	2	1.090	1.340
7467	CCD-148	126	128	2	0.670	0.490
7468	CCD-148	128	130	2	0.510	0.455
7469	CCD-148	130	132	2	0.440	0.318
7470	CCD-148	132	134	2	0.480	0.404
7471	CCD-148	134	136	2	0.040	0.054
7472	CCD-148	136	138	2	1.030	0.776
7473	CCD-148	138	140	2	0.950	0.482
7474	CCD-148	140	142	2	0.520	0.260
7475	CCD-148	142	144	2	0.630	0.278
7476	CCD-148	144	146	2	0.290	0.282
7477	CCD-148	146	148	2	0.430	0.389
7478	CCD-148	148	150	2	0.440	0.457
7479	CCD-148	150	152	2	0.930	2.816
7480	CCD-148	152	154	2	0.540	2.320
7481	CCD-148	154	156	2	0.620	0.470
7482	CCD-148	156	158	2	0.370	0.226
7483	CCD-148	158	160	2	0.400	0.266
7484	CCD-148	160	162	2	0.410	0.283
7485	CCD-148	162	164	2	0.290	0.248
7486	CCD-148	164	166	2	0.510	0.363
7487	CCD-148	166	168	2	0.450	0.323
7489	CCD-148	168	170	2	0.500	0.355
7490	CCD-148	170	172	2	0.700	0.425
7491	CCD-148	172	174	2	0.670	0.450
7492	CCD-148	174	176	2	0.650	0.423
7493	CCD-148	176	178	2	0.550	0.293
7494	CCD-148	178	180	2	0.500	0.264
7495	CCD-148	180	182	2	0.480	0.268
7496	CCD-148	182	184	2	0.250	0.160
7497	CCD-148	184	186	2	0.490	0.349

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7498	CCD-148	186	188	2	0.540	0.412
7499	CCD-148	188	190	2	0.450	0.377
7500	CCD-148	190	192	2	0.420	0.303
7501	CCD-148	192	194	2	0.410	0.260
7502	CCD-148	194	196	2	0.150	0.067
7503	CCD-148	196	198	2	0.120	0.074
7504	CCD-148	198	200	2	0.200	0.183
7505	CCD-148	200	202	2	0.800	0.640
7506	CCD-148	202	204	2	0.550	0.405
7507	CCD-148	204	206	2	0.650	0.366
7508	CCD-148	206	208	2	0.990	0.458
7509	CCD-148	208	210	2	0.400	0.240
7511	CCD-148	210	212	2	0.410	0.326
7512	CCD-148	212	214	2	0.690	0.569
7513	CCD-148	214	216	2	0.520	0.410
7514	CCD-148	216	218	2	0.410	0.345
7515	CCD-148	218	220	2	0.370	0.330
7516	CCD-148	220	222	2	0.530	0.399
7517	CCD-148	222	224	2	0.800	0.476
7518	CCD-148	224	226	2	0.500	0.390
7519	CCD-148	226	228	2	0.510	0.355
7520	CCD-148	228	230	2	0.620	0.477
7521	CCD-148	230	232	2	0.510	0.364
7522	CCD-148	232	234	2	0.480	0.335
7523	CCD-148	234	236	2	0.310	0.250
7524	CCD-148	236	238	2	0.440	0.588
7525	CCD-148	238	240	2	0.810	0.633
7526	CCD-148	240	242	2	1.010	0.612
7527	CCD-148	242	244	2	0.400	0.274
7528	CCD-148	244	246	2	0.370	0.300
7529	CCD-148	246	248	2	0.440	0.258
7530	CCD-148	248	250	2	0.500	0.318
7531	CCD-148	250	252	2	0.330	0.331
7533	CCD-148	252	254	2	0.190	0.232
7534	CCD-148	254	256	2	0.390	0.368
7535	CCD-148	256	258	2	0.480	0.342
7536	CCD-148	258	260	2	0.710	0.715
7537	CCD-148	260	262	2	0.580	0.478
7538	CCD-148	262	264	2	0.390	0.276
7539	CCD-148	264	266	2	0.980	0.720
7540	CCD-148	266	268	2	0.550	0.310
7541	CCD-148	268	270	2	0.280	0.186
7542	CCD-148	270	272	2	0.520	0.274
7543	CCD-148	272	274	2	0.420	0.256
7544	CCD-148	274	276	2	0.560	0.314
7545	CCD-148	276	278	2	0.940	0.332
7546	CCD-148	278	280	2	0.410	0.250
7547	CCD-148	280	282	2	0.510	0.264
7548	CCD-148	282	284	2	0.650	0.391
7549	CCD-148	284	286	2	0.410	0.296
7550	CCD-148	286	288	2	0.380	0.268
7551	CCD-148	288	290	2	0.240	0.162
7552	CCD-148	290	292	2	0.120	0.252
7553	CCD-148	292	294	2	0.420	0.373
7555	CCD-148	294	296	2	0.490	0.385

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7556	CCD-148	296	298	2	0.580	0.410
7557	CCD-148	298	300	2	0.560	0.379
7558	CCD-148	300	302	2	0.510	0.296
7559	CCD-148	302	304	2	0.390	0.257
7560	CCD-148	304	306	2	0.010	0.357
7561	CCD-148	306	308	2	0.610	0.246
7562	CCD-148	308	310	2	1.110	0.318
7563	CCD-148	310	312	2	0.520	0.272
7564	CCD-148	312	314	2	0.550	0.385
7565	CCD-148	314	316	2	0.370	0.210
7566	CCD-148	316	318	2	0.330	0.242
7567	CCD-148	318	320	2	0.350	0.322
7568	CCD-148	320	322	2	0.220	0.369
7569	CCD-148	322	324	2	0.360	0.276
7570	CCD-148	324	326	2	0.210	0.236
7571	CCD-148	326	328	2	0.150	0.154
7572	CCD-148	328	330	2	0.280	0.256
7573	CCD-148	330	332	2	0.340	0.254
7574	CCD-148	332	334	2	0.310	0.263
7575	CCD-148	334	336	2	0.230	0.089
7577	CCD-148	336	338	2	0.270	0.258
7578	CCD-148	338	340	2	0.430	0.288
7579	CCD-148	340	342	2	0.260	0.352
7580	CCD-148	342	344	2	0.420	0.378
7581	CCD-148	344	346	2	0.360	0.785
7582	CCD-148	346	348	2	0.580	0.392
7583	CCD-148	348	350	2	0.260	0.212
7584	CCD-148	350	352	2	0.390	0.258
7585	CCD-148	352	354	2	0.490	0.345
7586	CCD-148	354	356	2	0.330	0.334
7587	CCD-148	356	358	2	0.140	0.134
7588	CCD-148	358	360	2	0.170	0.150
7589	CCD-148	360	362	2	0.280	0.249
7590	CCD-148	362	364	2	0.200	0.154
7591	CCD-148	364	366	2	0.110	0.115
7592	CCD-148	366	368	2	0.260	0.227
7593	CCD-148	368	370	2	0.250	0.214
7594	CCD-148	370	372	2	0.200	0.176
7595	CCD-148	372	374	2	0.280	0.177
7596	CCD-148	374	376	2	0.350	0.194
7597	CCD-148	376	378	2	0.380	0.355
7599	CCD-148	378	380	2	0.270	0.334
7600	CCD-148	380	382	2	0.360	0.477
8101	CCD-148	382	384	2	0.270	0.250
8102	CCD-148	384	386	2	0.270	0.188
8103	CCD-148	386	388	2	0.250	0.257
8104	CCD-148	388	390	2	2.560	0.233
8105	CCD-148	390	392	2	0.360	0.274
8106	CCD-148	392	394	2	0.210	0.178
8107	CCD-148	394	396	2	0.460	0.324
8108	CCD-148	396	398	2	0.440	0.345
8109	CCD-148	398	400	2	0.880	0.553
8110	CCD-148	400	402	2	0.790	0.578
8111	CCD-148	402	404	2	0.740	0.581
8112	CCD-148	404	406	2	0.920	0.790

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8113	CCD-148	406	408	2	0.530	0.348
8114	CCD-148	408	410	2	0.730	0.472
8115	CCD-148	410	412	2	0.480	0.328
8116	CCD-148	412	414	2	0.270	-1.000
8117	CCD-148	414	416	2	0.230	0.118
7601	CCD-149	0	2	2	0.210	0.034
7602	CCD-149	2	4	2	1.390	0.037
7603	CCD-149	4	6	2	1.520	0.132
7604	CCD-149	6	8	2	2.190	0.054
7605	CCD-149	8	10	2	2.250	0.410
7606	CCD-149	10	12	2	2.710	0.406
7607	CCD-149	12	14	2	4.780	0.671
7608	CCD-149	14	16	2	3.730	0.819
7609	CCD-149	16	18	2	2.520	0.859
7610	CCD-149	18	20	2	2.260	0.993
7611	CCD-149	20	22	2	2.150	0.892
7612	CCD-149	22	24	2	2.260	0.868
7613	CCD-149	24	26	2	2.300	0.940
7614	CCD-149	26	28	2	2.120	0.812
7615	CCD-149	28	30	2	2.220	0.736
7616	CCD-149	30	32	2	2.600	0.835
7617	CCD-149	32	34	2	2.880	0.887
7618	CCD-149	34	36	2	2.540	0.744
7619	CCD-149	36	38	2	2.840	0.819
7620	CCD-149	38	40	2	2.400	0.673
7621	CCD-149	40	42	2	2.590	0.769
7623	CCD-149	42	44	2	1.710	0.562
7624	CCD-149	44	46	2	1.600	0.478
7625	CCD-149	46	48	2	1.410	0.400
7626	CCD-149	48	50	2	1.140	0.334
7627	CCD-149	50	52	2	2.090	0.619
7628	CCD-149	52	54	2	2.060	0.578
7629	CCD-149	54	56	2	2.730	0.715
7630	CCD-149	56	58	2	2.390	0.326
7631	CCD-149	58	60	2	1.190	0.365
7632	CCD-149	60	62	2	1.670	0.612
7633	CCD-149	62	64	2	1.170	0.405
7634	CCD-149	64	66	2	1.330	0.435
7635	CCD-149	66	68	2	1.700	0.487
7636	CCD-149	68	70	2	1.850	0.628
7637	CCD-149	70	72	2	1.800	0.638
7638	CCD-149	72	74	2	1.860	0.598
7639	CCD-149	74	76	2	4.400	0.264
7640	CCD-149	76	78	2	3.700	1.290
7641	CCD-149	78	80	2	1.930	1.031
7642	CCD-149	80	82	2	1.780	0.640
7643	CCD-149	82	84	2	1.550	0.671
7645	CCD-149	84	86	2	1.130	0.765
7646	CCD-149	86	88	2	1.410	0.472
7647	CCD-149	88	90	2	1.440	0.915
7648	CCD-149	90	92	2	0.870	0.283
7649	CCD-149	92	94	2	0.850	0.291
7650	CCD-149	94	96	2	0.340	0.106
7651	CCD-149	96	98	2	1.030	0.287
7652	CCD-149	98	100	2	1.170	0.415

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7653	CCD-149	100	102	2	1.640	0.500
7654	CCD-149	102	104	2	1.100	0.473
7655	CCD-149	104	106	2	1.140	0.382
7656	CCD-149	106	108	2	1.180	0.280
7657	CCD-149	108	110	2	1.280	0.406
7658	CCD-149	110	112	2	1.130	0.432
7659	CCD-149	112	114	2	1.180	0.470
7660	CCD-149	114	116	2	1.140	0.649
7661	CCD-149	116	118	2	1.070	0.630
7662	CCD-149	118	120	2	1.550	0.406
7663	CCD-149	120	122	2	1.470	0.347
7664	CCD-149	122	124	2	1.400	0.428
7665	CCD-149	124	126	2	1.430	0.453
7667	CCD-149	126	128	2	1.470	0.420
7668	CCD-149	128	130	2	1.470	0.374
7669	CCD-149	130	132	2	1.420	0.460
7670	CCD-149	132	134	2	2.090	0.619
7671	CCD-149	134	136	2	1.570	0.450
7672	CCD-149	136	138	2	1.900	0.455
7673	CCD-149	138	140	2	2.310	0.532
7674	CCD-149	140	142	2	1.400	0.490
7675	CCD-149	142	144	2	1.540	0.379
7676	CCD-149	144	146	2	1.620	0.440
7677	CCD-149	146	148	2	1.520	0.479
7678	CCD-149	148	150	2	1.470	0.370
7679	CCD-149	150	152	2	1.130	0.288
7680	CCD-149	152	154	2	1.270	0.316
7681	CCD-149	154	156	2	1.510	0.374
7682	CCD-149	156	158	2	1.470	0.360
7683	CCD-149	158	160	2	1.210	0.260
7684	CCD-149	160	162	2	1.220	0.332
7685	CCD-149	162	164	2	1.120	0.280
7686	CCD-149	164	166	2	0.990	0.215
7687	CCD-149	166	168	2	1.050	0.560
7689	CCD-149	168	170	2	0.840	0.186
7690	CCD-149	170	172	2	0.720	0.170
7691	CCD-149	172	174	2	0.680	0.148
7692	CCD-149	174	176	2	0.710	0.155
7693	CCD-149	176	178	2	0.430	0.100
7694	CCD-149	178	180	2	0.520	0.126
7695	CCD-149	180	182	2	0.430	0.094
7696	CCD-149	182	184	2	0.220	0.071
7697	CCD-149	184	186	2	0.260	0.084
7698	CCD-149	186	188	2	0.610	0.091
7699	CCD-149	188	190	2	0.390	0.079
7700	CCD-149	190	192	2	0.160	0.049
7701	CCD-149	192	194	2	0.270	0.076
7702	CCD-149	194	196	2	0.420	0.169
7703	CCD-149	196	198	2	0.580	0.165
7704	CCD-149	198	200	2	0.280	0.099
7705	CCD-149	200	202	2	0.460	0.127
7706	CCD-149	202	204	2	0.330	0.094
7707	CCD-149	204	206	2	0.560	0.096
7708	CCD-149	206	208	2	0.720	0.087
7709	CCD-149	208	210	2	0.270	0.113

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7711	CCD-149	210	212	2	0.200	0.094
7712	CCD-149	212	214	2	0.260	0.124
7713	CCD-149	214	216	2	0.340	0.137
7714	CCD-149	216	218	2	0.230	0.076
7715	CCD-149	218	220	2	0.280	0.109
7716	CCD-149	220	222	2	0.160	0.092
7717	CCD-149	222	224	2	0.270	0.110
7718	CCD-149	224	226	2	0.220	0.081
7719	CCD-149	226	228	2	0.220	0.082
7720	CCD-149	228	230	2	0.150	0.069
7721	CCD-149	230	232	2	0.140	0.059
7722	CCD-149	232	234	2	0.220	0.064
7723	CCD-149	234	236	2	0.240	0.082
7724	CCD-149	236	238	2	0.420	0.111
7725	CCD-149	238	240	2	0.600	0.135
7726	CCD-149	240	242	2	0.150	0.108
7727	CCD-149	242	244	2	0.140	0.051
7728	CCD-149	244	246	2	0.130	0.055
7729	CCD-149	246	248	2	0.120	0.095
7730	CCD-149	248	250	2	0.440	0.125
7731	CCD-149	250	252	2	0.180	0.090
7733	CCD-149	252	254	2	0.200	0.079
7734	CCD-149	254	256	2	0.170	0.111
7735	CCD-149	256	258	2	0.180	0.121
7736	CCD-149	258	260	2	0.160	0.070
7737	CCD-149	260	262	2	0.120	0.064
7738	CCD-149	262	264	2	0.120	0.139
7739	CCD-149	264	266	2	0.250	0.145
7740	CCD-149	266	268	2	0.220	0.103
7741	CCD-149	268	270	2	0.140	0.098
7742	CCD-149	270	272	2	0.120	0.128
7743	CCD-149	272	274	2	0.100	0.106
7744	CCD-149	274	276	2	0.200	0.126
7745	CCD-149	276	278	2	0.120	0.070
7746	CCD-149	278	280	2	0.130	0.084
7747	CCD-149	280	282	2	0.280	0.129
7748	CCD-149	282	284	2	0.130	0.109
7749	CCD-149	284	286	2	0.170	0.108
7750	CCD-149	286	288	2	0.260	0.144
7751	CCD-149	288	290	2	0.310	0.234
7752	CCD-149	290	292	2	0.140	0.096
7753	CCD-149	292	294	2	0.110	0.083
7755	CCD-149	294	296	2	0.100	0.079
7756	CCD-149	296	298	2	0.200	0.089
7757	CCD-149	298	300	2	0.150	0.071
7758	CCD-149	300	302	2	0.170	0.093
7759	CCD-149	302	304	2	0.170	0.116
7760	CCD-149	304	306	2	0.130	0.100
7761	CCD-149	306	308	2	0.120	0.075
7762	CCD-149	308	310	2	0.180	0.093
7763	CCD-149	310	312	2	0.290	0.149
7764	CCD-149	312	314	2	0.190	0.112
7765	CCD-149	314	316	2	0.150	0.066
7766	CCD-149	316	318	2	0.180	0.094
7767	CCD-149	318	320	2	0.170	0.074

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7768	CCD-149	320	322	2	0.120	0.063
7769	CCD-149	322	324	2	0.120	0.091
7770	CCD-149	324	326	2	0.130	0.091
7771	CCD-149	326	328	2	0.090	0.068
7772	CCD-149	328	330	2	0.110	0.057
7773	CCD-149	330	332	2	0.220	0.083
7774	CCD-149	332	334	2	0.200	0.159
7775	CCD-149	334	336	2	0.220	0.156
7777	CCD-149	336	338	2	0.130	0.097
7778	CCD-149	338	340	2	0.160	0.074
7779	CCD-149	340	342	2	0.090	0.065
7780	CCD-149	342	344	2	0.080	0.051
7781	CCD-149	344	346	2	0.120	0.058
7782	CCD-149	346	348	2	0.090	0.053
7783	CCD-149	348	350	2	0.060	0.068
7784	CCD-149	350	352	2	0.050	0.048
7785	CCD-149	352	354	2	0.040	0.053
7786	CCD-149	354	356	2	0.040	0.066
7787	CCD-149	356	358	2	0.030	0.032
7788	CCD-149	358	360	2	0.070	0.084
7789	CCD-149	360	362	2	0.080	0.078
7790	CCD-149	362	364	2	0.070	0.059
7791	CCD-149	364	366	2	0.110	0.089
7792	CCD-149	366	368	2	0.090	0.044
7793	CCD-149	368	370	2	0.070	0.037
7794	CCD-149	370	372	2	0.040	0.025
7795	CCD-149	372	374	2	0.080	0.048
7796	CCD-149	374	376	2	0.050	0.023
7797	CCD-149	376	378	2	0.150	0.074
7799	CCD-149	378	380	2	0.110	0.061
7800	CCD-149	380	382	2	0.090	0.086
8151	CCD-149	382	384	2	0.040	0.027
8152	CCD-149	384	386	2	0.010	0.015
8153	CCD-149	386	388	2	0.080	0.053
8154	CCD-149	388	390	2	0.150	0.146
8155	CCD-149	390	392	2	0.160	0.097
8156	CCD-149	392	394	2	0.680	0.460
8157	CCD-149	394	396	2	0.090	0.060
8158	CCD-149	396	398	2	0.050	0.039
8159	CCD-149	398	400	2	0.020	0.022
8160	CCD-149	400	402	2	0.070	0.049
8161	CCD-149	402	404	2	0.130	0.111
8162	CCD-149	404	406	2	0.110	0.078
8163	CCD-149	406	408	2	0.060	0.046
8164	CCD-149	408	410	2	0.100	0.094
8165	CCD-149	410	412	2	0.760	0.769
8166	CCD-149	412	414	2	0.120	0.094
8167	CCD-149	414	416	2	0.220	0.168
8168	CCD-149	416	418	2	0.030	0.027
8169	CCD-149	418	420	2	0.110	0.087
8171	CCD-149	420	422	2	0.120	0.090
8172	CCD-149	422	424	2	1.620	0.232
7801	CCD-170	0	2	2	1.420	0.063
7802	CCD-170	2	4	2	1.680	0.064
7803	CCD-170	4	6	2	1.900	0.061

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7804	CCD-170	6	8	2	1.850	0.063
7805	CCD-170	8	10	2	2.370	0.071
7806	CCD-170	10	12	2	1.810	0.046
7807	CCD-170	12	14	2	1.420	0.069
7808	CCD-170	14	16	2	1.680	0.054
7809	CCD-170	16	18	2	1.670	0.068
7810	CCD-170	18	20	2	1.910	0.067
7811	CCD-170	20	22	2	1.900	0.066
7812	CCD-170	22	24	2	2.770	0.094
7813	CCD-170	24	26	2	1.940	0.414
7814	CCD-170	26	28	2	1.200	1.260
7815	CCD-170	28	30	2	1.120	1.290
7816	CCD-170	30	32	2	0.980	1.230
7817	CCD-170	32	34	2	0.910	1.300
7818	CCD-170	34	36	2	0.800	1.190
7819	CCD-170	36	38	2	0.180	0.077
7820	CCD-170	38	40	2	0.800	0.421
7821	CCD-170	40	42	2	0.350	0.479
7823	CCD-170	42	44	2	1.220	0.918
7824	CCD-170	44	46	2	1.530	0.701
7825	CCD-170	46	48	2	1.200	0.722
7826	CCD-170	48	50	2	0.700	0.816
7827	CCD-170	50	52	2	0.590	0.699
7828	CCD-170	52	54	2	0.570	0.598
7829	CCD-170	54	56	2	1.400	0.622
7830	CCD-170	56	58	2	1.290	0.396
7831	CCD-170	58	60	2	2.160	0.579
7832	CCD-170	60	62	2	1.840	0.532
7833	CCD-170	62	64	2	1.570	0.492
7834	CCD-170	64	66	2	1.610	0.626
7835	CCD-170	66	68	2	1.660	0.591
7836	CCD-170	68	70	2	1.770	0.421
7837	CCD-170	70	72	2	1.850	1.050
7838	CCD-170	72	74	2	0.950	0.541
7839	CCD-170	74	76	2	1.570	0.496
7840	CCD-170	76	78	2	1.490	0.529
7841	CCD-170	78	80	2	1.840	0.546
7842	CCD-170	80	82	2	1.670	0.409
7843	CCD-170	82	84	2	1.260	0.414
7845	CCD-170	84	86	2	0.180	0.086
7846	CCD-170	86	88	2	1.650	0.576
7847	CCD-170	88	90	2	1.440	0.404
7848	CCD-170	90	92	2	1.850	0.400
7849	CCD-170	92	94	2	2.200	0.471
7850	CCD-170	94	96	2	1.910	0.525
7851	CCD-170	96	98	2	1.450	0.405
7852	CCD-170	98	100	2	1.950	0.399
7853	CCD-170	100	102	2	1.410	0.328
7854	CCD-170	102	104	2	2.300	0.430
7855	CCD-170	104	106	2	2.170	0.434
7856	CCD-170	106	108	2	0.660	0.381
7857	CCD-170	108	110	2	0.370	0.261
7858	CCD-170	110	112	2	0.820	0.373
7859	CCD-170	112	114	2	1.590	0.358
7860	CCD-170	114	116	2	1.210	0.253

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7861	CCD-170	116	118	2	0.840	0.201
7862	CCD-170	118	120	2	1.240	0.230
7863	CCD-170	120	122	2	1.520	0.278
7864	CCD-170	122	124	2	0.940	0.213
7865	CCD-170	124	126	2	1.140	0.219
7867	CCD-170	126	128	2	1.410	0.310
7868	CCD-170	128	130	2	0.810	0.197
7869	CCD-170	130	132	2	1.070	0.204
7870	CCD-170	132	134	2	0.320	0.174
7871	CCD-170	134	136	2	0.220	0.083
7872	CCD-170	136	138	2	0.460	0.130
7873	CCD-170	138	140	2	0.760	0.193
7874	CCD-170	140	142	2	0.530	0.150
7875	CCD-170	142	144	2	0.490	0.119
7876	CCD-170	144	146	2	0.270	0.079
7877	CCD-170	146	148	2	0.190	0.068
7878	CCD-170	148	150	2	0.290	0.103
7879	CCD-170	150	152	2	0.300	0.058
7880	CCD-170	152	154	2	0.270	0.064
7881	CCD-170	154	156	2	0.250	0.068
7882	CCD-170	156	158	2	0.290	0.069
7883	CCD-170	158	160	2	0.230	0.061
7884	CCD-170	160	162	2	0.290	0.065
7885	CCD-170	162	164	2	0.220	0.325
7886	CCD-170	164	166	2	0.250	0.062
7887	CCD-170	166	168	2	0.210	0.061
7889	CCD-170	168	170	2	0.220	0.060
7890	CCD-170	170	172	2	0.230	0.103
7891	CCD-170	172	174	2	0.150	0.085
7892	CCD-170	174	176	2	0.090	0.197
7893	CCD-170	176	178	2	0.380	0.119
7894	CCD-170	178	180	2	0.220	0.060
7895	CCD-170	180	182	2	0.130	0.043
7896	CCD-170	182	184	2	0.210	0.055
7897	CCD-170	184	186	2	0.200	0.080
7898	CCD-170	186	188	2	0.410	0.140
7899	CCD-170	188	190	2	0.370	0.155
7900	CCD-170	190	192	2	0.100	0.090
7901	CCD-170	192	194	2	0.220	0.108
7902	CCD-170	194	196	2	0.110	0.065
7903	CCD-170	196	198	2	0.260	0.101
7904	CCD-170	198	200	2	0.090	0.045
7905	CCD-170	200	202	2	0.170	0.057
7906	CCD-170	202	204	2	0.460	0.199
7907	CCD-170	204	206	2	0.180	0.079
7908	CCD-170	206	208	2	0.200	0.165
7909	CCD-170	208	210	2	0.210	0.084
7911	CCD-170	210	212	2	0.140	0.079
7912	CCD-170	212	214	2	0.140	0.061
7913	CCD-170	214	216	2	0.150	0.138
7914	CCD-170	216	218	2	0.110	0.153
7915	CCD-170	218	220	2	0.210	0.071
7916	CCD-170	220	222	2	0.260	0.083
7917	CCD-170	222	224	2	0.140	0.047
7918	CCD-170	224	226	2	0.090	0.035

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7919	CCD-170	226	228	2	0.100	0.038
7920	CCD-170	228	230	2	0.090	0.038
7921	CCD-170	230	232	2	0.140	0.028
7922	CCD-170	232	234	2	0.140	0.040
7923	CCD-170	234	236	2	0.480	0.114
7924	CCD-170	236	238	2	0.810	0.387
7925	CCD-170	238	240	2	0.090	0.032
7926	CCD-170	240	242	2	0.330	0.053
7927	CCD-170	242	244	2	0.070	0.023
7928	CCD-170	244	246	2	0.180	0.041
7929	CCD-170	246	248	2	0.100	0.030
7930	CCD-170	248	250	2	0.260	0.064
7931	CCD-170	250	252	2	0.280	0.067
7933	CCD-170	252	254	2	0.140	0.048
7934	CCD-170	254	256	2	0.150	0.027
7935	CCD-170	256	258	2	0.090	0.036
7936	CCD-170	258	260	2	0.090	0.030
7937	CCD-170	260	262	2	0.130	0.042
7938	CCD-170	262	264	2	0.180	0.068
7939	CCD-170	264	266	2	0.450	0.099
7940	CCD-170	266	268	2	0.380	0.117
7941	CCD-170	268	270	2	0.230	0.113
7942	CCD-170	270	272	2	0.070	0.028
7943	CCD-170	272	274	2	0.140	0.078
7944	CCD-170	274	276	2	0.090	0.046
7945	CCD-170	276	278	2	0.400	0.278
7946	CCD-170	278	280	2	0.150	0.107
7947	CCD-170	280	282	2	0.100	0.083
7948	CCD-170	282	284	2	0.050	0.023
7949	CCD-170	284	286	2	0.050	0.023
7950	CCD-170	286	288	2	0.110	0.043
7951	CCD-170	288	290	2	0.110	0.050
7952	CCD-170	290	292	2	0.150	0.080
7953	CCD-170	292	294	2	0.050	0.031
7955	CCD-170	294	296	2	0.170	0.056
7956	CCD-170	296	298	2	0.100	0.062
7957	CCD-170	298	300	2	0.080	0.036
7958	CCD-170	300	302	2	0.070	0.025
7959	CCD-170	302	304	2	0.110	0.046
7960	CCD-170	304	306	2	0.110	0.035
7961	CCD-170	306	308	2	0.290	0.061
7962	CCD-170	308	310	2	0.110	0.034
7963	CCD-170	310	312	2	0.260	0.139
7964	CCD-170	312	314	2	0.320	0.180
7965	CCD-170	314	316	2	0.110	0.040
7966	CCD-170	316	318	2	0.160	0.019
7967	CCD-170	318	320	2	0.110	0.038
7968	CCD-170	320	322	2	0.090	0.020
7969	CCD-170	322	324	2	0.110	0.022
7970	CCD-170	324	326	2	0.140	0.031
7971	CCD-170	326	328	2	0.100	0.043
7972	CCD-170	328	330	2	0.090	0.046
7973	CCD-170	330	332	2	0.090	0.039
7974	CCD-170	332	334	2	0.070	0.042
7975	CCD-170	334	336	2	0.060	0.034

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
7977	CCD-170	336	338	2	0.120	0.078
7978	CCD-170	338	340	2	0.070	0.054
7979	CCD-170	340	342	2	0.060	0.032
7980	CCD-170	342	344	2	0.070	0.033
7981	CCD-170	344	346	2	0.090	0.049
7982	CCD-170	346	348	2	0.090	0.040
7983	CCD-170	348	350	2	0.090	0.043
7984	CCD-170	350	352	2	0.090	0.056
7985	CCD-170	352	354	2	0.120	0.050
7986	CCD-170	354	356	2	0.150	0.078
7987	CCD-170	356	358	2	0.150	0.094
7988	CCD-170	358	360	2	0.180	0.093
7989	CCD-170	360	362	2	0.300	0.207
7990	CCD-170	362	364	2	0.130	0.089
7991	CCD-170	364	366	2	0.100	0.066
7992	CCD-170	366	368	2	0.070	0.029
7993	CCD-170	368	370	2	0.140	0.083
7994	CCD-170	370	372	2	0.160	0.098
7995	CCD-170	372	374	2	0.110	0.072
7996	CCD-170	374	376	2	0.150	0.148
7997	CCD-170	376	378	2	0.120	0.108
7999	CCD-170	378	380	2	0.170	0.120
8000	CCD-170	380	382	2	0.340	0.192
9151	CCD-170	382	384	2	0.300	0.186
9152	CCD-170	384	386	2	0.160	0.141
9153	CCD-170	386	388	2	0.150	0.169
9154	CCD-170	388	390	2	0.150	0.143
9155	CCD-170	390	392	2	0.120	0.108
9156	CCD-170	392	394	2	0.080	0.073
9157	CCD-170	394	396	2	0.210	0.175
9158	CCD-170	396	398	2	0.190	0.093
9159	CCD-170	398	400	2	0.090	0.112
9160	CCD-170	400	402	2	0.230	0.163
9161	CCD-170	402	404	2	0.150	0.126
9162	CCD-170	404	406	2	0.140	0.113
9163	CCD-170	406	408	2	0.380	0.143
9164	CCD-170	408	410	2	0.130	0.100
9165	CCD-170	410	412	2	0.140	0.131
9166	CCD-170	412	414	2	0.190	0.185
9167	CCD-170	414	416	2	0.160	0.141
9168	CCD-170	416	418	2	0.150	0.147
9169	CCD-170	418	420	2	0.140	0.138
9171	CCD-170	420	422	2	0.080	0.064
9172	CCD-170	422	424	2	0.160	0.106
9173	CCD-170	424	426	2	0.100	0.112
9174	CCD-170	426	428	2	0.070	0.067
9175	CCD-170	428	430	2	0.060	0.057
9176	CCD-170	430	432	2	0.130	0.132
9177	CCD-170	432	434	2	0.130	0.181
9178	CCD-170	434	436	2	0.200	0.229
9179	CCD-170	436	438	2	0.230	0.169
9180	CCD-170	438	440	2	0.190	0.238
9181	CCD-170	440	442	2	0.120	0.102
9182	CCD-170	442	444	2	0.200	0.206
9183	CCD-170	444	446	2	0.110	0.122

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9184	CCD-170	446	448	2	0.100	0.088
9185	CCD-170	448	450	2	0.080	0.072
9186	CCD-170	450	452	2	0.100	0.134
9187	CCD-170	452	454	2	2.060	0.069
9188	CCD-170	454	456	2	0.050	0.047
9189	CCD-170	456	458	2	0.130	0.093
9190	CCD-170	458	460	2	0.130	0.098
9191	CCD-170	460	462	2	0.110	0.091
9193	CCD-170	462	464	2	0.090	0.073
9194	CCD-170	464	466	2	0.130	0.056
9195	CCD-170	466	468	2	0.080	0.074
9196	CCD-170	468	470	2	0.060	0.048
9197	CCD-170	470	472	2	0.060	0.065
9198	CCD-170	472	474	2	0.050	0.048
9199	CCD-170	474	476	2	0.090	0.080
9200	CCD-170	476	478	2	0.090	0.094
8501	CCD-171	0	2	2	0.240	0.310
8502	CCD-171	2	4	2	0.110	1.288
8503	CCD-171	4	6	2	0.550	1.424
8504	CCD-171	6	8	2	0.460	0.473
8505	CCD-171	8	10	2	1.190	0.030
8506	CCD-171	10	12	2	1.650	0.060
8507	CCD-171	12	14	2	1.570	0.292
8508	CCD-171	14	16	2	0.950	0.871
8509	CCD-171	16	18	2	0.960	1.568
8510	CCD-171	18	20	2	0.650	1.792
8511	CCD-171	20	22	2	0.420	1.800
8512	CCD-171	22	24	2	1.270	2.104
8513	CCD-171	24	26	2	1.500	2.016
8514	CCD-171	26	28	2	2.090	2.208
8515	CCD-171	28	30	2	1.370	3.320
8516	CCD-171	30	32	2	0.730	2.960
8517	CCD-171	32	34	2	1.330	2.232
8518	CCD-171	34	36	2	2.000	2.584
8519	CCD-171	36	38	2	2.570	4.965
8520	CCD-171	38	40	2	2.570	3.032
8521	CCD-171	40	42	2	1.800	3.248
8523	CCD-171	42	44	2	2.180	2.624
8524	CCD-171	44	46	2	1.800	7.120
8525	CCD-171	46	48	2	1.990	1.192
8526	CCD-171	48	50	2	2.470	1.432
8527	CCD-171	50	52	2	0.880	2.120
8528	CCD-171	52	54	2	2.080	1.104
8529	CCD-171	54	56	2	3.270	2.160
8530	CCD-171	56	58	2	3.140	1.176
8531	CCD-171	58	60	2	2.010	2.864
8532	CCD-171	60	62	2	2.000	7.960
8533	CCD-171	62	64	2	2.030	5.506
8534	CCD-171	64	66	2	2.250	2.016
8535	CCD-171	66	68	2	3.230	1.368
8536	CCD-171	68	70	2	2.150	1.140
8537	CCD-171	70	72	2	2.160	2.624
8538	CCD-171	72	74	2	1.880	2.144
8539	CCD-171	74	76	2	2.770	1.088
8540	CCD-171	76	78	2	2.200	0.859

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8541	CCD-171	78	80	2	1.700	0.904
8542	CCD-171	80	82	2	2.930	0.840
8543	CCD-171	82	84	2	3.010	1.472
8545	CCD-171	84	86	2	2.280	1.176
8546	CCD-171	86	88	2	2.610	1.216
8547	CCD-171	88	90	2	2.700	1.056
8548	CCD-171	90	92	2	3.040	0.988
8549	CCD-171	92	94	2	1.960	0.880
8550	CCD-171	94	96	2	2.480	0.936
8551	CCD-171	96	98	2	2.400	1.240
8552	CCD-171	98	100	2	1.550	1.088
8553	CCD-171	100	102	2	2.410	1.048
8554	CCD-171	102	104	2	1.870	1.088
8555	CCD-171	104	106	2	1.900	0.960
8556	CCD-171	106	108	2	2.610	0.800
8557	CCD-171	108	110	2	1.350	0.739
8558	CCD-171	110	112	2	1.770	0.579
8559	CCD-171	112	114	2	1.730	0.593
8560	CCD-171	114	116	2	1.630	0.494
8561	CCD-171	116	118	2	1.360	0.444
8562	CCD-171	118	120	2	1.330	0.363
8563	CCD-171	120	122	2	1.540	0.329
8564	CCD-171	122	124	2	1.530	0.406
8565	CCD-171	124	126	2	0.840	0.430
8567	CCD-171	126	128	2	1.270	0.064
8568	CCD-171	128	130	2	1.570	0.405
8569	CCD-171	130	132	2	0.800	0.332
8570	CCD-171	132	134	2	1.340	0.381
8571	CCD-171	134	136	2	1.280	0.284
8572	CCD-171	136	138	2	0.960	0.240
8573	CCD-171	138	140	2	0.900	0.194
8574	CCD-171	140	142	2	1.080	0.239
8575	CCD-171	142	144	2	0.970	0.325
8576	CCD-171	144	146	2	1.200	0.269
8577	CCD-171	146	148	2	0.770	0.200
8578	CCD-171	148	150	2	0.960	0.227
8579	CCD-171	150	152	2	1.210	0.196
8580	CCD-171	152	154	2	1.220	0.221
8581	CCD-171	154	156	2	0.850	0.247
8582	CCD-171	156	158	2	1.370	0.365
8583	CCD-171	158	160	2	0.870	0.304
8584	CCD-171	160	162	2	1.370	0.292
8585	CCD-171	162	164	2	1.690	0.397
8586	CCD-171	164	166	2	0.730	0.244
8587	CCD-171	166	168	2	0.850	0.270
8589	CCD-171	168	170	2	0.870	0.215
8590	CCD-171	170	172	2	1.180	0.277
8591	CCD-171	172	174	2	0.710	0.285
8592	CCD-171	174	176	2	0.970	0.338
8593	CCD-171	176	178	2	1.260	0.376
8594	CCD-171	178	180	2	0.810	0.208
8595	CCD-171	180	182	2	1.240	0.274
8596	CCD-171	182	184	2	0.430	0.196
8597	CCD-171	184	186	2	0.830	0.317
8598	CCD-171	186	188	2	0.640	0.210

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8599	CCD-171	188	190	2	0.830	0.274
8600	CCD-171	190	192	2	0.780	0.178
8601	CCD-171	192	194	2	0.950	0.259
8602	CCD-171	194	196	2	0.880	0.226
8603	CCD-171	196	198	2	1.180	0.358
8604	CCD-171	198	200	2	1.160	0.367
8605	CCD-171	200	202	2	1.220	0.429
8606	CCD-171	202	204	2	0.120	0.266
8607	CCD-171	204	206	2	1.450	0.284
8608	CCD-171	206	208	2	1.750	0.394
8609	CCD-171	208	210	2	1.270	0.384
8611	CCD-171	210	212	2	1.590	0.373
8612	CCD-171	212	214	2	1.450	0.363
8613	CCD-171	214	216	2	1.080	0.281
8614	CCD-171	216	218	2	0.920	0.298
8615	CCD-171	218	220	2	0.860	0.229
8616	CCD-171	220	222	2	0.430	0.117
8617	CCD-171	222	224	2	0.270	0.119
8618	CCD-171	224	226	2	0.130	0.086
8619	CCD-171	226	228	2	0.490	0.125
8620	CCD-171	228	230	2	0.260	0.138
8621	CCD-171	230	232	2	0.560	0.106
8622	CCD-171	232	234	2	0.810	0.141
8623	CCD-171	234	236	2	0.910	0.114
8624	CCD-171	236	238	2	0.620	0.090
8625	CCD-171	238	240	2	0.630	0.104
8626	CCD-171	240	242	2	0.740	0.105
8627	CCD-171	242	244	2	0.490	0.105
8628	CCD-171	244	246	2	0.680	0.105
8629	CCD-171	246	248	2	0.270	0.143
8630	CCD-171	248	250	2	0.270	0.133
8631	CCD-171	250	252	2	0.400	0.092
8633	CCD-171	252	254	2	0.190	0.089
8634	CCD-171	254	256	2	0.200	0.099
8635	CCD-171	256	258	2	0.250	0.072
8636	CCD-171	258	260	2	0.160	0.063
8637	CCD-171	260	262	2	0.210	0.077
8638	CCD-171	262	264	2	0.130	0.076
8639	CCD-171	264	266	2	0.130	0.098
8640	CCD-171	266	268	2	0.590	0.096
8641	CCD-171	268	270	2	0.410	0.087
8642	CCD-171	270	272	2	0.200	0.078
8643	CCD-171	272	274	2	0.450	0.061
8644	CCD-171	274	276	2	0.240	0.046
8645	CCD-171	276	278	2	0.400	0.092
8646	CCD-171	278	280	2		0.091
8647	CCD-171	280	282	2	0.400	0.102
8648	CCD-171	282	284	2	0.120	0.037
8649	CCD-171	284	286	2	0.320	0.052
8650	CCD-171	286	288	2	0.300	0.058
8651	CCD-171	288	290	2	0.200	0.078
8652	CCD-171	290	292	2	0.200	0.063
8653	CCD-171	292	294	2	0.280	0.099
8655	CCD-171	294	296	2	0.300	0.103
8656	CCD-171	296	298	2	0.230	0.097

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8657	CCD-171	298	300	2	0.360	0.127
8658	CCD-171	300	302	2	0.250	0.087
8659	CCD-171	302	304	2	0.190	0.071
8660	CCD-171	304	306	2	0.210	0.084
8661	CCD-171	306	308	2	0.220	0.062
8662	CCD-171	308	310	2	0.220	0.099
8663	CCD-171	310	312	2	0.400	0.127
8664	CCD-171	312	314	2	0.370	0.102
8665	CCD-171	314	316	2	0.380	0.147
8666	CCD-171	316	318	2	0.260	0.087
8667	CCD-171	318	320	2	0.230	0.106
8668	CCD-171	320	322	2	0.380	0.101
8669	CCD-171	322	324	2	0.590	0.132
8670	CCD-171	324	326	2	0.310	0.135
8671	CCD-171	326	328	2	0.370	0.183
8672	CCD-171	328	330	2	0.240	0.120
8673	CCD-171	330	332	2	0.180	0.127
8674	CCD-171	332	334	2	0.200	0.119
8675	CCD-171	334	336	2	0.140	0.106
8677	CCD-171	336	338	2	0.200	0.095
8678	CCD-171	338	340	2	0.130	0.104
8679	CCD-171	340	342	2	0.220	0.119
8680	CCD-171	342	344	2	0.380	0.133
8681	CCD-171	344	346	2	0.250	0.150
8682	CCD-171	346	348	2	0.260	0.162
8683	CCD-171	348	350	2	2.170	0.170
8684	CCD-171	350	352	2	0.980	0.149
8685	CCD-171	352	354	2	0.580	0.140
8686	CCD-171	354	356	2	1.090	0.206
8687	CCD-171	356	358	2	0.500	0.194
8688	CCD-171	358	360	2	0.860	0.225
8689	CCD-171	360	362	2	0.900	0.285
8690	CCD-171	362	364	2	0.750	0.275
8691	CCD-171	364	366	2	0.510	0.262
8692	CCD-171	366	368	2	0.810	0.337
8693	CCD-171	368	370	2	0.440	0.238
8694	CCD-171	370	372	2	0.310	0.164
8695	CCD-171	372	374	2	0.460	0.240
8696	CCD-171	374	376	2	0.400	0.201
8697	CCD-171	376	378	2	0.490	0.196
8699	CCD-171	378	380	2	0.640	0.195
8700	CCD-171	380	382	2	0.730	0.215
8701	CCD-171	382	384	2	0.700	0.212
8702	CCD-171	384	386	2	0.450	0.180
8703	CCD-171	386	388	2	0.640	0.225
8704	CCD-171	388	390	2	0.440	0.139
8705	CCD-171	390	392	2	0.510	0.201
8706	CCD-171	392	394	2	0.530	0.183
8707	CCD-171	394	396	2	0.360	0.140
8708	CCD-171	396	398	2	0.330	0.114
8709	CCD-171	398	400	2	0.400	0.142
8710	CCD-171	400	402	2	0.500	0.176
8711	CCD-171	402	404	2	0.300	0.136
8712	CCD-171	404	406	2	0.440	0.185
8713	CCD-171	406	408	2	0.410	0.190

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8714	CCD-171	408	410	2	0.250	0.160
8715	CCD-171	410	412	2	0.360	0.174
8716	CCD-171	412	414	2	0.320	0.185
8717	CCD-171	414	416	2	0.440	0.225
8718	CCD-171	416	418	2	0.730	0.312
8719	CCD-171	418	420	2	0.680	0.238
8721	CCD-171	420	422	2	0.490	0.186
8722	CCD-171	422	424	2	0.620	0.274
8201	CCD-172	0	2	2	1.160	0.038
8202	CCD-172	2	4	2	1.570	0.079
8203	CCD-172	4	6	2	0.840	0.022
8204	CCD-172	6	8	2	1.290	0.059
8205	CCD-172	8	10	2	3.320	0.083
8206	CCD-172	10	12	2	1.330	0.055
8207	CCD-172	12	14	2	0.580	0.024
8208	CCD-172	14	16	2	1.170	0.034
8209	CCD-172	16	18	2	1.360	0.027
8210	CCD-172	18	20	2	0.800	0.031
8211	CCD-172	20	22	2	0.410	0.022
8212	CCD-172	22	24	2	0.660	0.042
8213	CCD-172	24	26	2	0.590	0.100
8214	CCD-172	26	28	2	1.130	0.434
8215	CCD-172	28	30	2	0.540	0.513
8216	CCD-172	30	32	2	0.440	0.356
8217	CCD-172	32	34	2	0.350	0.300
8218	CCD-172	34	36	2	0.570	0.453
8219	CCD-172	36	38	2	0.520	0.345
8220	CCD-172	38	40	2	0.380	0.263
8221	CCD-172	40	42	2	0.700	0.788
8223	CCD-172	42	44	2	0.530	0.492
8224	CCD-172	44	46	2	0.340	0.168
8225	CCD-172	46	48	2	0.420	0.199
8226	CCD-172	48	50	2	0.240	0.123
8227	CCD-172	50	52	2	0.420	0.201
8228	CCD-172	52	54	2	0.290	0.166
8229	CCD-172	54	56	2	1.130	0.525
8230	CCD-172	56	58	2	1.340	0.496
8231	CCD-172	58	60	2	0.720	0.361
8232	CCD-172	60	62	2	0.460	0.242
8233	CCD-172	62	64	2	0.320	0.214
8234	CCD-172	64	66	2	0.470	0.251
8235	CCD-172	66	68	2	0.560	0.286
8236	CCD-172	68	70	2	0.480	0.225
8237	CCD-172	70	72	2	0.530	0.264
8238	CCD-172	72	74	2	0.830	0.403
8239	CCD-172	74	76	2	0.770	0.404
8240	CCD-172	76	78	2	0.520	0.293
8241	CCD-172	78	80	2	0.520	0.186
8242	CCD-172	80	82	2	0.460	0.266
8243	CCD-172	82	84	2	0.610	0.220
8245	CCD-172	84	86	2	0.570	0.269
8246	CCD-172	86	88	2	0.560	0.268
8247	CCD-172	88	90	2	0.800	0.360
8248	CCD-172	90	92	2	1.230	0.520
8249	CCD-172	92	94	2	1.390	0.495

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8250	CCD-172	94	96	2	0.800	0.346
8251	CCD-172	96	98	2	1.300	0.579
8252	CCD-172	98	100	2	1.290	0.581
8253	CCD-172	100	102	2	0.660	0.285
8254	CCD-172	102	104	2	1.590	0.442
8255	CCD-172	104	106	2	1.590	0.744
8256	CCD-172	106	108	2	2.110	0.614
8257	CCD-172	108	110	2	1.370	0.499
8258	CCD-172	110	112	2	2.370	0.951
8259	CCD-172	112	114	2	0.920	0.384
8260	CCD-172	114	116	2	1.900	0.600
8261	CCD-172	116	118	2	1.910	0.748
8262	CCD-172	118	120	2	1.190	0.485
8263	CCD-172	120	122	2	1.760	0.765
8264	CCD-172	122	124	2	0.760	0.399
8265	CCD-172	124	126	2	0.890	0.424
8267	CCD-172	126	128	2	0.860	0.354
8268	CCD-172	128	130	2	0.990	0.473
8269	CCD-172	130	132	2	0.590	0.285
8270	CCD-172	132	134	2	1.160	0.370
8271	CCD-172	134	136	2	1.720	0.849
8272	CCD-172	136	138	2	1.270	0.576
8273	CCD-172	138	140	2	0.870	0.395
8274	CCD-172	140	142	2	1.850	0.760
8275	CCD-172	142	144	2	1.290	0.581
8276	CCD-172	144	146	2	1.710	0.702
8277	CCD-172	146	148	2	1.310	0.579
8278	CCD-172	148	150	2	1.270	0.480
8279	CCD-172	150	152	2	0.580	0.261
8280	CCD-172	152	154	2	0.810	0.314
8281	CCD-172	154	156	2	0.380	0.164
8282	CCD-172	156	158	2	0.600	0.278
8283	CCD-172	158	160	2	1.370	0.337
8284	CCD-172	160	162	2	0.370	0.170
8285	CCD-172	162	164	2	0.460	0.220
8286	CCD-172	164	166	2	0.430	0.159
8287	CCD-172	166	168	2	0.490	0.203
8289	CCD-172	168	170	2	0.360	0.191
8290	CCD-172	170	172	2	0.680	0.327
8291	CCD-172	172	174	2	0.820	0.522
8292	CCD-172	174	176	2	1.400	0.842
8293	CCD-172	176	178	2	0.620	0.243
8294	CCD-172	178	180	2	0.400	0.171
8295	CCD-172	180	182	2	0.620	0.302
8296	CCD-172	182	184	2	1.140	0.308
8297	CCD-172	184	186	2	0.540	0.251
8298	CCD-172	186	188	2	0.720	0.396
8299	CCD-172	188	190	2	0.560	0.271
8300	CCD-172	190	192	2	0.490	0.287
8301	CCD-172	192	194	2	0.180	0.094
8302	CCD-172	194	196	2	0.460	0.195
8303	CCD-172	196	198	2	0.350	0.187
8304	CCD-172	198	200	2	3.960	0.168
8305	CCD-172	200	202	2	0.340	0.191
8306	CCD-172	202	204	2	0.280	0.160

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8307	CCD-172	204	206	2	0.240	0.128
8308	CCD-172	206	208	2	0.620	0.237
8309	CCD-172	208	210	2	0.600	0.435
8311	CCD-172	210	212	2	0.170	0.116
8312	CCD-172	212	214	2	0.200	0.138
8313	CCD-172	214	216	2	0.240	0.175
8314	CCD-172	216	218	2	0.200	0.211
8315	CCD-172	218	220	2	0.350	0.144
8316	CCD-172	220	222	2	0.460	0.237
8317	CCD-172	222	224	2	0.110	0.088
8318	CCD-172	224	226	2	0.140	0.314
8319	CCD-172	226	228	2	0.010	0.125
8320	CCD-172	228	230	2	0.440	0.323
8321	CCD-172	230	232	2	0.600	0.451
8322	CCD-172	232	234	2	0.550	0.361
8323	CCD-172	234	236	2	0.240	0.166
8324	CCD-172	236	238	2	0.360	0.221
8325	CCD-172	238	240	2	0.090	0.106
8326	CCD-172	240	242	2	0.370	0.223
8327	CCD-172	242	244	2	0.250	0.195
8328	CCD-172	244	246	2	0.220	0.144
8329	CCD-172	246	248	2	0.200	0.133
8330	CCD-172	248	250	2	0.110	0.095
8331	CCD-172	250	252	2	0.120	0.083
8333	CCD-172	252	254	2	0.180	0.120
8334	CCD-172	254	256	2	0.130	0.075
8335	CCD-172	256	258	2	0.140	0.083
8336	CCD-172	258	260	2	0.080	0.053
8337	CCD-172	260	262	2	0.170	0.114
8338	CCD-172	262	264	2	0.160	0.114
8339	CCD-172	264	266	2	0.220	0.130
8340	CCD-172	266	268	2	0.100	0.059
8341	CCD-172	268	270	2	0.100	0.072
8342	CCD-172	270	272	2	0.180	0.249
8343	CCD-172	272	274	2	0.230	0.230
8344	CCD-172	274	276	2	0.240	0.160
8345	CCD-172	276	278	2	0.220	0.151
8346	CCD-172	278	280	2	0.180	0.121
8347	CCD-172	280	282	2	0.110	0.087
8348	CCD-172	282	284	2	0.130	0.094
8349	CCD-172	284	286	2	0.130	0.098
8350	CCD-172	286	288	2	0.200	0.130
8351	CCD-172	288	290	2	0.250	0.247
8352	CCD-172	290	292	2	0.100	0.110
8353	CCD-172	292	294	2	0.100	0.120
8355	CCD-172	294	296	2	1.210	0.066
8356	CCD-172	296	298	2	0.160	0.173
8357	CCD-172	298	300	2	0.160	0.192
8358	CCD-172	300	302	2	0.520	0.515
8359	CCD-172	302	304	2	0.140	0.113
8360	CCD-172	304	306	2	0.330	0.309
8361	CCD-172	306	308	2	0.100	0.129
8362	CCD-172	308	310	2	0.080	0.105
8363	CCD-172	310	312	2	0.180	0.180
8364	CCD-172	312	314	2	0.100	0.176

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8365	CCD-172	314	316	2	0.090	0.119
8366	CCD-172	316	318	2	0.100	0.112
8367	CCD-172	318	320	2	0.090	0.358
8368	CCD-172	320	322	2	0.110	0.109
8369	CCD-172	322	324	2	0.200	0.307
8370	CCD-172	324	326	2	0.410	0.400
8371	CCD-172	326	328	2	0.300	0.330
8372	CCD-172	328	330	2	0.180	0.220
8373	CCD-172	330	332	2	0.200	0.223
8374	CCD-172	332	334	2	0.270	0.274
8375	CCD-172	334	336	2	0.260	0.270
8377	CCD-172	336	338	2	0.220	0.240
8378	CCD-172	338	340	2	0.180	0.220
8379	CCD-172	340	342	2	0.230	0.259
8380	CCD-172	342	344	2	0.750	0.645
8381	CCD-172	344	346	2	0.530	0.546
8382	CCD-172	346	348	2	0.920	0.819
8383	CCD-172	348	350	2	0.260	0.289
8384	CCD-172	350	352	2	0.500	0.454
8385	CCD-172	352	354	2	0.170	0.222
8386	CCD-172	354	356	2	0.100	0.096
8387	CCD-172	356	358	2	0.140	0.160
8388	CCD-172	358	360	2	0.090	0.099
8389	CCD-172	360	362	2	0.070	0.115
8390	CCD-172	362	364	2	0.150	0.228
8391	CCD-172	364	366	2	0.250	0.248
8392	CCD-172	366	368	2	0.230	0.339
8393	CCD-172	368	370	2	0.220	0.264
8394	CCD-172	370	372	2	0.150	0.168
8395	CCD-172	372	374	2	0.120	0.186
8396	CCD-172	374	376	2	0.100	0.134
8397	CCD-172	376	378	2	0.710	0.310
8399	CCD-172	378	380	2	0.930	0.247
8400	CCD-172	380	382	2	0.200	0.288
8401	CCD-172	382	384	2	0.440	0.337
8402	CCD-172	384	386	2	0.410	0.392
8403	CCD-172	386	388	2	0.130	0.105
8404	CCD-172	388	390	2	0.230	0.180
8405	CCD-172	390	392	2	0.520	0.439
8406	CCD-172	392	394	2	0.270	0.250
8407	CCD-172	394	396	2	0.400	0.319
8408	CCD-172	396	398	2	0.340	0.292
8409	CCD-172	398	400	2	0.250	0.158
9201	CCD-173	0	2	2	1.200	0.054
9202	CCD-173	2	4	2	1.050	0.069
9203	CCD-173	4	6	2	1.230	0.059
9204	CCD-173	6	8	2	1.380	0.068
9205	CCD-173	8	10	2	0.550	0.092
9206	CCD-173	10	12	2	1.450	0.432
9207	CCD-173	12	14	2	0.870	1.360
9208	CCD-173	14	16	2	1.370	1.118
9209	CCD-173	16	18	2	1.120	0.925
9210	CCD-173	18	20	2	0.770	0.649
9211	CCD-173	20	22	2	0.520	1.680
9212	CCD-173	22	24	2	0.640	0.946

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9213	CCD-173	24	26	2	0.620	0.489
9214	CCD-173	26	28	2	0.890	0.620
9215	CCD-173	28	30	2	0.890	1.087
9216	CCD-173	30	32	2	0.660	0.574
9217	CCD-173	32	34	2	0.470	0.082
9218	CCD-173	34	36	2	1.070	0.852
9219	CCD-173	36	38	2	0.780	0.694
9220	CCD-173	38	40	2	0.670	0.536
9221	CCD-173	40	42	2	0.600	0.720
9223	CCD-173	42	44	2	0.410	0.169
9224	CCD-173	44	46	2	0.850	0.287
9225	CCD-173	46	48	2	2.130	1.042
9226	CCD-173	48	50	2	0.460	0.184
9227	CCD-173	50	52	2	0.890	0.206
9228	CCD-173	52	54	2	0.430	0.160
9229	CCD-173	54	56	2	0.410	0.174
9230	CCD-173	56	58	2	0.480	0.189
9231	CCD-173	58	60	2	1.470	0.915
9232	CCD-173	60	62	2	1.100	0.333
9233	CCD-173	62	64	2	0.830	0.234
9234	CCD-173	64	66	2	0.560	0.213
9235	CCD-173	66	68	2	0.610	0.285
9236	CCD-173	68	70	2	0.550	0.175
9237	CCD-173	70	72	2	0.800	0.418
9238	CCD-173	72	74	2	0.890	0.413
9239	CCD-173	74	76	2	0.730	0.438
9240	CCD-173	76	78	2	1.000	0.477
9241	CCD-173	78	80	2	1.310	0.669
9242	CCD-173	80	82	2	1.290	1.005
9243	CCD-173	82	84	2	0.770	0.380
9245	CCD-173	84	86	2	1.650	0.780
9246	CCD-173	86	88	2	0.940	0.580
9247	CCD-173	88	90	2	1.400	0.580
9248	CCD-173	90	92	2	1.690	0.720
9249	CCD-173	92	94	2	0.710	0.450
9250	CCD-173	94	96	2	0.530	0.280
9251	CCD-173	96	98	2	0.780	0.370
9252	CCD-173	98	100	2	0.840	0.560
9253	CCD-173	100	102	2	0.460	0.220
9254	CCD-173	102	104	2	0.820	0.510
9255	CCD-173	104	106	2	0.590	0.360
9256	CCD-173	106	108	2	0.660	0.270
9257	CCD-173	108	110	2	0.720	0.240
9258	CCD-173	110	112	2	0.280	0.140
9259	CCD-173	112	114	2	0.010	0.170
9260	CCD-173	114	116	2	0.300	0.200
9261	CCD-173	116	118	2	0.690	0.295
9262	CCD-173	118	120	2	0.290	0.187
9263	CCD-173	120	122	2	0.170	0.111
9264	CCD-173	122	124	2	0.280	0.136
9265	CCD-173	124	126	2	0.430	0.168
9267	CCD-173	126	128	2	0.670	0.248
9268	CCD-173	128	130	2	0.410	0.136
9269	CCD-173	130	132	2	0.870	0.228
9270	CCD-173	132	134	2	0.600	0.233

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9271	CCD-173	134	136	2	0.500	0.214
9272	CCD-173	136	138	2	1.130	0.360
9273	CCD-173	138	140	2	1.170	0.544
9274	CCD-173	140	142	2	0.850	0.382
9275	CCD-173	142	144	2	0.970	0.405
9276	CCD-173	144	146	2	0.980	0.396
9277	CCD-173	146	148	2	1.900	0.922
9278	CCD-173	148	150	2	1.430	0.680
9279	CCD-173	150	152	2	0.220	0.205
9280	CCD-173	152	154	2	0.700	0.415
9281	CCD-173	154	156	2	0.710	0.336
9282	CCD-173	156	158	2	1.390	0.598
9283	CCD-173	158	160	2	0.990	0.441
9284	CCD-173	160	162	2	1.670	0.720
9285	CCD-173	162	164	2	1.810	0.609
9286	CCD-173	164	166	2	1.140	0.475
9287	CCD-173	166	168	2	1.770	0.838
9289	CCD-173	168	170	2	1.090	0.413
9290	CCD-173	170	172	2	1.100	0.493
9291	CCD-173	172	174	2	1.030	0.498
9292	CCD-173	174	176	2	0.810	0.422
9293	CCD-173	176	178	2	1.090	0.525
9294	CCD-173	178	180	2	1.050	0.371
9295	CCD-173	180	182	2	1.290	0.786
9296	CCD-173	182	184	2	0.690	0.276
9297	CCD-173	184	186	2	0.840	0.366
9298	CCD-173	186	188	2	0.870	0.262
9299	CCD-173	188	190	2	1.990	0.812
9300	CCD-173	190	192	2	1.550	0.668
9301	CCD-173	192	194	2	1.300	0.438
9302	CCD-173	194	196	2	1.590	0.544
9303	CCD-173	196	198	2	0.980	0.824
9304	CCD-173	198	200	2	1.890	0.515
9305	CCD-173	200	202	2	1.290	0.788
9306	CCD-173	202	204	2	1.390	0.652
9307	CCD-173	204	206	2	0.950	0.425
9308	CCD-173	206	208	2	1.730	0.675
9309	CCD-173	208	210	2	2.430	0.776
9311	CCD-173	210	212	2	1.200	0.377
9312	CCD-173	212	214	2	1.460	0.687
9313	CCD-173	214	216	2	1.540	0.340
9314	CCD-173	216	218	2	2.110	0.694
9315	CCD-173	218	220	2	1.240	0.800
9316	CCD-173	220	222	2	1.110	0.424
9317	CCD-173	222	224	2	0.950	0.356
9318	CCD-173	224	226	2	1.030	0.362
9319	CCD-173	226	228	2	2.990	0.555
9320	CCD-173	228	230	2	0.400	0.664
9321	CCD-173	230	232	2	0.720	0.369
9322	CCD-173	232	234	2	1.350	0.489
9323	CCD-173	234	236	2	0.830	0.374
9324	CCD-173	236	238	2	0.870	0.326
9325	CCD-173	238	240	2	1.850	0.440
9326	CCD-173	240	242	2	0.610	0.400
9327	CCD-173	242	244	2	0.480	0.322

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9328	CCD-173	244	246	2	0.590	0.198
9329	CCD-173	246	248	2	0.560	0.266
9330	CCD-173	248	250	2	1.230	0.402
9331	CCD-173	250	252	2	0.620	0.345
9333	CCD-173	252	254	2	0.500	0.263
9334	CCD-173	254	256	2	2.050	1.033
9335	CCD-173	256	258	2	1.230	0.486
9336	CCD-173	258	260	2	1.200	0.393
9337	CCD-173	260	262	2	0.590	0.275
9338	CCD-173	262	264	2	0.790	0.390
9339	CCD-173	264	266	2	1.110	0.497
9340	CCD-173	266	268	2	0.960	0.485
9341	CCD-173	268	270	2	0.880	0.366
9342	CCD-173	270	272	2	0.720	0.255
9343	CCD-173	272	274	2	1.070	0.488
9344	CCD-173	274	276	2	0.220	0.176
9345	CCD-173	276	278	2	1.130	0.645
9346	CCD-173	278	280	2	0.750	0.426
9347	CCD-173	280	282	2	1.420	0.652
9348	CCD-173	282	284	2	0.780	0.609
9349	CCD-173	284	286	2	0.630	0.327
9350	CCD-173	286	288	2	1.540	0.645
9351	CCD-173	288	290	2	1.570	0.807
9352	CCD-173	290	292	2	0.760	0.204
9353	CCD-173	292	294	2	0.740	0.284
9355	CCD-173	294	296	2	1.150	0.340
9356	CCD-173	296	298	2	0.750	0.273
9357	CCD-173	298	300	2	0.900	0.260
9358	CCD-173	300	302	2	0.500	0.196
9359	CCD-173	302	304	2	2.040	0.960
9360	CCD-173	304	306	2	1.070	0.348
9361	CCD-173	306	308	2	0.530	0.238
9362	CCD-173	308	310	2	0.940	0.472
9363	CCD-173	310	312	2	1.590	0.779
9364	CCD-173	312	314	2	0.380	0.160
9365	CCD-173	314	316	2	0.960	0.384
9366	CCD-173	316	318	2	0.590	0.320
9367	CCD-173	318	320	2	0.860	0.350
9368	CCD-173	320	322	2	1.160	0.619
9369	CCD-173	322	324	2	0.660	0.328
9370	CCD-173	324	326	2	0.600	0.305
9371	CCD-173	326	328	2	0.520	0.286
9372	CCD-173	328	330	2	0.850	0.425
9373	CCD-173	330	332	2	0.400	0.230
9374	CCD-173	332	334	2	0.510	0.263
9375	CCD-173	334	336	2	0.430	0.268
9377	CCD-173	336	338	2	0.210	0.155
9378	CCD-173	338	340	2	0.490	0.240
9379	CCD-173	340	342	2	0.160	0.162
9380	CCD-173	342	344	2	0.480	0.223
9381	CCD-173	344	346	2	0.480	0.213
9382	CCD-173	346	348	2	0.640	0.296
9383	CCD-173	348	350	2	0.180	0.134
9384	CCD-173	350	352	2	0.440	0.215
9385	CCD-173	352	354	2	1.090	0.405

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9386	CCD-173	354	356	2	0.570	0.280
9387	CCD-173	356	358	2	0.470	0.179
9388	CCD-173	358	360	2	0.470	0.232
9389	CCD-173	360	362	2	0.440	0.252
9390	CCD-173	362	364	2	0.400	0.339
9391	CCD-173	364	366	2	0.270	0.390
9392	CCD-173	366	368	2	0.840	0.198
9393	CCD-173	368	370	2	0.500	0.186
9394	CCD-173	370	372	2	0.710	0.183
9395	CCD-173	372	374	2	0.500	0.328
9396	CCD-173	374	376	2	0.710	0.369
9397	CCD-173	376	378	2	0.650	0.760
9399	CCD-173	378	380	2	0.430	0.224
9400	CCD-173	380	382	2	0.460	0.135
9401	CCD-173	382	384	2	0.270	0.135
9402	CCD-173	384	386	2	0.280	0.184
9403	CCD-173	386	388	2	0.150	0.086
9404	CCD-173	388	390	2	0.430	0.227
9405	CCD-173	390	392	2	0.820	0.213
9406	CCD-173	392	394	2	0.560	0.494
9407	CCD-173	394	396	2	0.970	0.405
9408	CCD-173	396	398	2	0.620	0.376
9409	CCD-173	398	400	2	0.410	0.264
8751	CCD-174	0	2	2	0.130	0.089
8752	CCD-174	2	4	2	0.100	0.086
8753	CCD-174	4	6	2	0.150	0.065
8754	CCD-174	6	8	2	0.100	0.089
8755	CCD-174	8	10	2	0.090	0.087
8756	CCD-174	10	12	2	0.200	0.165
8757	CCD-174	12	14	2	0.240	0.212
8758	CCD-174	14	16	2	0.310	0.292
8759	CCD-174	16	18	2	0.150	0.095
8760	CCD-174	18	20	2	0.180	0.094
8761	CCD-174	20	22	2	0.070	0.062
8762	CCD-174	22	24	2	0.120	0.079
8763	CCD-174	24	26	2	0.040	0.045
8764	CCD-174	26	28	2	0.070	0.057
8765	CCD-174	28	30	2	0.030	0.041
8766	CCD-174	30	32	2	0.160	0.109
8767	CCD-174	32	34	2	0.080	0.070
8768	CCD-174	34	36	2	0.140	0.111
8769	CCD-174	36	38	2	0.190	0.190
8770	CCD-174	38	40	2	0.140	0.106
8771	CCD-174	40	42	2	0.070	0.088
8773	CCD-174	42	44	2	0.050	0.076
8774	CCD-174	44	46	2	0.080	0.084
8775	CCD-174	46	48	2	0.030	0.049
8776	CCD-174	48	50	2	0.050	0.063
8777	CCD-174	50	52	2	0.070	0.078
8778	CCD-174	52	54	2	0.190	0.165
8779	CCD-174	54	56	2	0.070	0.072
8780	CCD-174	56	58	2	0.170	0.103
8781	CCD-174	58	60	2	0.100	0.069
8782	CCD-174	60	62	2	0.060	0.047
8783	CCD-174	62	64	2	0.150	0.101

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8784	CCD-174	64	66	2	0.090	0.061
8785	CCD-174	66	68	2	0.060	0.044
8786	CCD-174	68	70	2	0.100	0.070
8787	CCD-174	70	72	2	0.090	0.048
8788	CCD-174	72	74	2	0.040	0.025
8789	CCD-174	74	76	2	0.070	0.057
8790	CCD-174	76	78	2	0.050	0.033
8791	CCD-174	78	80	2	0.110	0.081
8792	CCD-174	80	82	2	0.110	0.061
8793	CCD-174	82	84	2	0.110	0.077
8795	CCD-174	84	86	2	0.160	0.112
8796	CCD-174	86	88	2	0.200	0.158
8797	CCD-174	88	90	2	0.730	0.260
8798	CCD-174	90	92	2	0.280	0.109
8799	CCD-174	92	94	2	0.130	0.067
8800	CCD-174	94	96	2	0.080	0.078
8801	CCD-174	96	98	2	0.140	0.318
8802	CCD-174	98	100	2	0.560	0.192
8803	CCD-174	100	102	2	0.460	0.141
8804	CCD-174	102	104	2	0.400	0.124
8805	CCD-174	104	106	2	0.840	0.126
8806	CCD-174	106	108	2	1.140	0.319
8807	CCD-174	108	110	2	0.640	0.188
8808	CCD-174	110	112	2	0.410	0.344
8809	CCD-174	112	114	2	0.100	0.215
8810	CCD-174	114	116	2	0.510	0.214
8811	CCD-174	116	118	2	0.250	0.132
8812	CCD-174	118	120	2	0.390	0.100
8813	CCD-174	120	122	2	0.730	0.162
8814	CCD-174	122	124	2	0.820	0.180
8815	CCD-174	124	126	2	1.270	0.306
8817	CCD-174	126	128	2	1.540	0.569
8818	CCD-174	128	130	2	0.620	0.186
8819	CCD-174	130	132	2	0.610	0.145
8820	CCD-174	132	134	2	0.480	0.117
8821	CCD-174	134	136	2	0.440	0.112
8822	CCD-174	136	138	2	0.440	0.136
8823	CCD-174	138	140	2	0.440	0.128
8824	CCD-174	140	142	2	0.560	0.135
8825	CCD-174	142	144	2	0.660	0.154
8826	CCD-174	144	146	2	0.440	0.099
8827	CCD-174	146	148	2	0.450	0.117
8828	CCD-174	148	150	2	0.560	0.151
8829	CCD-174	150	152	2	0.570	0.133
8830	CCD-174	152	154	2	0.640	0.143
8831	CCD-174	154	156	2	0.940	0.315
8832	CCD-174	156	158	2	1.190	0.349
8833	CCD-174	158	160	2	0.720	0.405
8834	CCD-174	160	162	2	0.280	0.894
8835	CCD-174	162	164	2	0.420	0.892
8836	CCD-174	164	166	2	1.300	0.312
8837	CCD-174	166	168	2	0.800	0.376
8839	CCD-174	168	170	2	0.460	0.254
8840	CCD-174	170	172	2	0.720	0.429
8841	CCD-174	172	174	2	0.570	0.225

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8842	CCD-174	174	176	2	0.530	0.266
8843	CCD-174	176	178	2	0.250	0.612
8844	CCD-174	178	180	2	0.240	0.800
8845	CCD-174	180	182	2	0.520	0.267
8846	CCD-174	182	184	2	0.330	0.203
8847	CCD-174	184	186	2	0.600	0.264
8848	CCD-174	186	188	2	0.380	0.273
8849	CCD-174	188	190	2	0.210	0.216
8850	CCD-174	190	192	2	0.370	0.160
8851	CCD-174	192	194	2	0.300	0.116
8852	CCD-174	194	196	2	0.400	0.188
8853	CCD-174	196	198	2	0.630	0.340
8854	CCD-174	198	200	2	0.420	0.206
8855	CCD-174	200	202	2	0.420	0.389
8856	CCD-174	202	204	2	0.910	0.574
8857	CCD-174	204	206	2	1.110	0.485
8858	CCD-174	206	208	2	0.450	0.179
8859	CCD-174	208	210	2	0.240	0.182
8861	CCD-174	210	212	2	0.360	0.525
8862	CCD-174	212	214	2	0.390	0.500
8863	CCD-174	214	216	2	0.650	0.264
8864	CCD-174	216	218	2	0.370	0.232
8865	CCD-174	218	220	2	0.370	0.186
8866	CCD-174	220	222	2	0.300	0.200
8867	CCD-174	222	224	2	0.480	0.256
8868	CCD-174	224	226	2	0.290	0.272
8869	CCD-174	226	228	2	0.470	0.330
8870	CCD-174	228	230	2	0.440	0.376
8871	CCD-174	230	232	2	0.260	0.170
8872	CCD-174	232	234	2	0.180	0.208
8873	CCD-174	234	236	2	0.360	0.227
8874	CCD-174	236	238	2	0.220	0.223
8875	CCD-174	238	240	2	0.220	0.176
8876	CCD-174	240	242	2	0.820	0.230
8877	CCD-174	242	244	2	0.640	0.819
8878	CCD-174	244	246	2	0.770	0.736
8879	CCD-174	246	248	2	0.820	0.173
8880	CCD-174	248	250	2	1.090	0.304
8881	CCD-174	250	252	2	0.270	0.149
8883	CCD-174	252	254	2	0.330	0.297
8884	CCD-174	254	256	2	0.180	0.222
8885	CCD-174	256	258	2	0.230	0.261
8886	CCD-174	258	260	2	0.170	0.240
8887	CCD-174	260	262	2	0.180	0.149
8888	CCD-174	262	264	2	0.230	0.256
8889	CCD-174	264	266	2	0.130	0.129
8890	CCD-174	266	268	2	0.190	0.088
8891	CCD-174	268	270	2	0.210	0.066
8892	CCD-174	270	272	2	0.600	0.094
8893	CCD-174	272	274	2	0.810	0.895
8894	CCD-174	274	276	2	0.290	0.555
8895	CCD-174	276	278	2	0.400	0.558
8896	CCD-174	278	280	2	0.200	0.315
8897	CCD-174	280	282	2	0.380	0.285
8898	CCD-174	282	284	2	0.260	0.203

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
8899	CCD-174	284	286	2	0.030	0.027
8900	CCD-174	286	288	2	0.030	0.048
8901	CCD-174	288	290	2	0.010	0.034
8902	CCD-174	290	292	2	0.010	0.020
8903	CCD-174	292	294	2	0.020	0.033
8905	CCD-174	294	296	2	0.140	0.094
8906	CCD-174	296	298	2	0.180	0.234
8907	CCD-174	298	300	2	0.310	0.102
8908	CCD-174	300	302	2	0.160	0.126
8909	CCD-174	302	304	2	0.100	0.066
8910	CCD-174	304	306	2	0.080	0.067
8911	CCD-174	306	308	2	0.060	0.050
8912	CCD-174	308	310	2	0.060	0.047
8913	CCD-174	310	312	2	0.080	0.072
8914	CCD-174	312	314	2	0.050	0.036
8915	CCD-174	314	316	2	0.060	0.051
8916	CCD-174	316	318	2	0.170	0.348
8917	CCD-174	318	320	2	0.160	0.221
8918	CCD-174	320	322	2	0.040	0.150
9002	CCD-175	438	440	2	0.560	0.394
9003	CCD-175	440	442	2	0.520	0.352
9004	CCD-175	442	444	2	0.350	0.225
9006	CCD-175	444	446	2	0.400	0.265
9007	CCD-175	446	448	2	0.170	0.162
9008	CCD-175	448	450	2	0.270	0.186
9009	CCD-175	450	452	2	0.300	0.191
9010	CCD-175	452	454	2	0.230	0.167
9011	CCD-175	454	456	2	0.360	0.303
9012	CCD-175	456	458	2	0.170	0.115
9013	CCD-175	458	460	2	0.430	0.329
9014	CCD-175	460	462	2	0.210	0.160
9015	CCD-175	462	464	2	0.520	0.339
9016	CCD-175	464	466	2	0.540	1.968
9017	CCD-175	466	468	2	0.440	0.367
9018	CCD-175	468	470	2	0.350	0.324
9019	CCD-175	470	472	2	0.260	0.208
9020	CCD-175	472	474	2	0.430	0.300
9021	CCD-175	474	476	2	0.260	0.236
9022	CCD-175	476	478	2	0.240	0.256
9023	CCD-175	478	480	2	0.630	1.840
9024	CCD-175	480	482	2	0.770	0.715
9025	CCD-175	482	484	2	0.440	0.368
9026	CCD-175	484	486	2	0.130	0.123
9028	CCD-175	486	488	2	0.230	0.185
9029	CCD-175	488	490	2	0.150	0.111
9030	CCD-175	490	492	2	0.400	0.215
9031	CCD-175	492	494	2	0.140	0.146
9032	CCD-175	494	496	2	0.640	0.558
9033	CCD-175	496	498	2	0.340	0.270
9034	CCD-175	498	500	2	0.250	0.226
9035	CCD-175	500	502	2	0.220	0.247
9036	CCD-175	502	504	2	0.180	0.201
9037	CCD-175	504	506	2	0.290	0.210
9038	CCD-175	506	508	2	0.360	0.302
9039	CCD-175	508	510	2	0.470	0.586

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9040	CCD-175	510	512	2	0.400	0.360
9041	CCD-175	512	514	2	0.380	0.354
9042	CCD-175	514	516	2	0.140	0.170
9043	CCD-175	516	518	2	0.210	0.263
9044	CCD-175	518	520	2	0.110	0.135
9045	CCD-175	520	522	2	0.130	0.126
9046	CCD-175	522	524	2	0.110	0.113
9047	CCD-175	524	526	2	0.090	0.118
9048	CCD-175	526	528	2	0.160	0.155
9050	CCD-175	528	530	2	0.230	0.284
9051	CCD-175	530	532	2	0.070	0.066
9052	CCD-175	532	534	2	0.050	0.079
9053	CCD-175	534	536	2	0.140	0.161
9054	CCD-175	536	538	2	0.120	0.182
9055	CCD-175	538	540	2	0.160	0.268
9056	CCD-175	540	542	2	0.160	0.244
9057	CCD-175	542	544	2	0.230	0.310
9058	CCD-175	544	546	2	0.260	0.294
9059	CCD-175	546	548	2	0.120	0.128
9060	CCD-175	548	550	2	0.110	0.119
9061	CCD-175	550	552	2	0.090	0.152
9062	CCD-175	552	554	2	0.160	0.140
9063	CCD-175	554	556	2	0.270	0.365
9064	CCD-175	556	558	2	0.180	0.214
9065	CCD-175	558	560	2	0.500	0.558
9066	CCD-175	560	562	2	0.430	0.560
9067	CCD-175	562	564	2	0.340	0.412
9068	CCD-175	564	566	2	0.200	0.297
9069	CCD-175	566	568	2	0.230	0.291
9070	CCD-175	568	570	2	0.150	0.180
9072	CCD-175	570	572	2	0.230	0.223
9073	CCD-175	572	574	2	0.170	0.229
9074	CCD-175	574	576	2	0.140	0.193
9075	CCD-175	576	578	2	0.140	0.155
9076	CCD-175	578	580	2	0.120	0.195
9077	CCD-175	580	582	2	0.110	0.141
9078	CCD-175	582	584	2	0.120	0.109
9079	CCD-175	584	586	2	0.190	0.247
9080	CCD-175	586	588	2	0.200	0.187
9081	CCD-175	588	590	2	0.210	0.278
9082	CCD-175	590	592	2	0.230	0.248
9083	CCD-175	592	594	2	0.150	0.145
9084	CCD-175	594	596	2	0.430	0.385
9085	CCD-175	596	598	2	0.200	0.230
9086	CCD-175	598	600	2	0.130	0.171
9087	CCD-175	600	602	2	0.140	0.113
SAMPLE	DHNAME	FROM	TO	#VALUE!	AuFA	CuT
9501	CCD-180	0	2.1	2.1	-1.000	-1.000
9502	CCD-180	2.1	4	1.9	0.010	0.004
9503	CCD-180	4	6	2	0.010	0.008
9504	CCD-180	6	8	2	0.010	0.004
9505	CCD-180	8	10	2	0.010	0.003
9506	CCD-180	10	12	2	0.010	0.002
9507	CCD-180	12	14	2	0.010	0.006
9508	CCD-180	14	16	2	0.010	0.004

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9509	CCD-180	16	18	2	0.010	0.001
9510	CCD-180	18	20	2	0.010	0.019
9511	CCD-180	20	22	2	0.010	0.003
9512	CCD-180	22	24	2	0.010	0.003
9513	CCD-180	24	26	2	0.010	0.007
9514	CCD-180	26	28	2	0.010	0.004
9515	CCD-180	28	30	2	0.010	0.005
9516	CCD-180	30	32	2	0.010	0.009
9517	CCD-180	32	34	2	0.010	0.013
9518	CCD-180	34	36	2	0.010	0.003
9519	CCD-180	36	38	2	0.010	0.021
9520	CCD-180	38	40	2	0.010	0.007
9521	CCD-180	40	42	2	0.010	0.010
9523	CCD-180	42	44	2	0.010	0.017
9524	CCD-180	44	46	2	0.010	0.006
9525	CCD-180	46	48	2	0.010	0.002
9526	CCD-180	48	50	2	0.010	0.001
9527	CCD-180	50	52	2	0.010	0.004
9528	CCD-180	52	54	2	0.010	0.001
9529	CCD-180	54	56	2	0.010	0.014
9530	CCD-180	56	58	2	0.010	0.029
9531	CCD-180	58	60	2	0.010	0.007
9532	CCD-180	60	62	2	0.010	0.015
9533	CCD-180	62	64	2	0.010	0.010
9534	CCD-180	64	66	2	0.010	0.024
9535	CCD-180	66	68	2	0.010	0.003
9536	CCD-180	68	70	2	0.010	0.007
9537	CCD-180	70	72	2	0.010	0.008
9538	CCD-180	72	74	2	0.010	0.016
9539	CCD-180	74	76	2	0.040	0.030
9540	CCD-180	76	78	2	0.010	0.008
9541	CCD-180	78	80	2	0.010	0.004
9542	CCD-180	80	82	2	0.010	0.003
9543	CCD-180	82	84	2	0.010	0.002
9545	CCD-180	84	86	2	0.010	0.005
9546	CCD-180	86	88	2	0.010	0.012
9547	CCD-180	88	90	2	0.010	0.004
9548	CCD-180	90	92	2	0.010	0.011
9549	CCD-180	92	94	2	0.010	0.015
9550	CCD-180	94	96	2	0.010	0.023
9551	CCD-180	96	98	2	0.010	0.007
9552	CCD-180	98	100	2	0.010	0.009
9553	CCD-180	100	102	2	0.010	0.028
9554	CCD-180	102	104	2	0.010	0.031
9555	CCD-180	104	106	2	0.010	0.009
9556	CCD-180	106	108	2	0.020	0.016
9557	CCD-180	108	110	2	0.010	0.009
9558	CCD-180	110	112	2	0.010	0.007
9559	CCD-180	112	114	2	0.010	0.016
9560	CCD-180	114	116	2	0.010	0.012
9561	CCD-180	116	118	2	0.010	0.015
9562	CCD-180	118	120	2	0.010	0.007
9563	CCD-180	120	122	2	0.010	0.008
9564	CCD-180	122	124	2	0.010	0.005
9565	CCD-180	124	126	2	0.010	0.011

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9567	CCD-180	126	128	2	0.010	0.013
9568	CCD-180	128	130	2	0.010	0.011
9569	CCD-180	130	132	2	0.010	0.005
9570	CCD-180	132	134	2	0.010	0.005
9571	CCD-180	134	136	2	0.040	0.033
9572	CCD-180	136	138	2	0.010	0.005
9573	CCD-180	138	140	2	0.010	0.014
9574	CCD-180	140	142	2	0.010	0.005
9575	CCD-180	142	144	2	0.030	0.014
9576	CCD-180	144	146	2	0.010	0.005
9577	CCD-180	146	148	2	0.010	0.005
9578	CCD-180	148	150	2	0.020	0.015
9579	CCD-180	150	152	2	0.010	0.015
9580	CCD-180	152	154	2	0.070	0.013
9581	CCD-180	154	156	2	0.010	0.011
9582	CCD-180	156	158	2	0.030	0.020
9583	CCD-180	158	160	2	0.030	0.016
9584	CCD-180	160	161	1	0.020	0.023
9601	CCD-181	0	2	2	0.010	0.005
9602	CCD-181	2	4	2	0.010	0.005
9603	CCD-181	4	6	2	0.010	0.005
9604	CCD-181	6	8	2	0.010	0.005
9605	CCD-181	8	10	2	0.010	0.005
9606	CCD-181	10	12	2	0.020	0.019
9607	CCD-181	12	14	2	0.010	0.020
9608	CCD-181	14	16	2	0.010	0.005
9609	CCD-181	16	18	2	0.010	0.020
9610	CCD-181	18	20	2	0.010	0.005
9611	CCD-181	20	22	2	0.010	0.005
9612	CCD-181	22	24	2	0.010	0.018
9613	CCD-181	24	26	2	0.010	0.023
9614	CCD-181	26	28	2	0.040	0.045
9615	CCD-181	28	30	2	0.020	0.012
9616	CCD-181	30	32	2	0.010	0.005
9617	CCD-181	32	34	2	0.010	0.005
9618	CCD-181	34	36	2	0.010	0.011
9619	CCD-181	36	38	2	0.010	0.030
9620	CCD-181	38	40	2	0.010	0.020
9621	CCD-181	40	42	2	0.010	0.010
9623	CCD-181	42	44	2	0.010	0.010
9624	CCD-181	44	46	2	0.040	0.040
9625	CCD-181	46	48	2	0.010	0.005
9626	CCD-181	48	50	2	0.010	0.020
9627	CCD-181	50	52	2	0.010	0.010
9628	CCD-181	52	54	2	0.010	0.005
9629	CCD-181	54	56	2	0.010	0.020
9630	CCD-181	56	58	2	0.010	0.005
9631	CCD-181	58	60	2	0.010	0.020
9632	CCD-181	60	62	2	0.010	0.010
9633	CCD-181	62	64	2	0.010	0.020
9634	CCD-181	64	66	2	0.010	0.020
9635	CCD-181	66	68	2	0.010	0.020
9636	CCD-181	68	70	2	0.010	0.030
9637	CCD-181	70	72	2	0.020	0.020
9638	CCD-181	72	74	2	0.020	0.020

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9639	CCD-181	74	76	2	0.030	0.010
9640	CCD-181	76	78	2	0.030	0.020
9641	CCD-181	78	80	2	0.050	0.030
9642	CCD-181	80	82	2	0.040	0.020
9643	CCD-181	82	84	2	0.090	0.030
9645	CCD-181	84	86	2	0.060	0.020
9646	CCD-181	86	88	2	0.200	0.050
9647	CCD-181	88	90	2	0.220	0.030
9648	CCD-181	90	92	2	0.010	0.010
9649	CCD-181	92	94	2	0.080	0.090
9650	CCD-181	94	96	2	0.060	0.070
9651	CCD-181	96	98	2	0.050	0.040
9652	CCD-181	98	100	2	0.130	0.060
9653	CCD-181	100	102	2	0.090	0.115
9654	CCD-181	102	104	2	0.070	0.030
9655	CCD-181	104	106	2	0.040	0.015
9656	CCD-181	106	108	2	0.080	0.055
9657	CCD-181	108	110	2	0.050	0.035
9658	CCD-181	110	112	2	0.290	0.063
9659	CCD-181	112	114	2	0.120	0.087
9660	CCD-181	114	116	2	0.150	0.096
9661	CCD-181	116	118	2	0.220	0.146
9662	CCD-181	118	120	2	0.190	0.122
9663	CCD-181	120	122	2	0.120	0.128
9664	CCD-181	122	124	2	0.120	0.130
9665	CCD-181	124	126	2	0.110	0.049
9667	CCD-181	126	128	2	0.620	0.146
9668	CCD-181	128	130	2	0.140	0.146
9669	CCD-181	130	132	2	0.080	0.136
9670	CCD-181	132	134	2	1.050	0.218
9671	CCD-181	134	136	2	0.270	0.206
9672	CCD-181	136	138	2	0.330	0.170
9673	CCD-181	138	140	2	1.340	0.593
9674	CCD-181	140	142	2	0.670	0.852
9675	CCD-181	142	144	2	0.790	0.901
9676	CCD-181	144	146	2	1.030	0.478
9677	CCD-181	146	148	2	0.760	0.428
9678	CCD-181	148	150	2	0.890	0.621
9679	CCD-181	150	152	2	1.060	0.722
9680	CCD-181	152	154	2	1.230	0.673
9681	CCD-181	154	156	2	1.560	0.791
9682	CCD-181	156	158	2	1.240	0.788
9683	CCD-181	158	160	2	1.490	0.774
9684	CCD-181	160	162	2	1.550	0.866
9685	CCD-181	162	164	2	1.830	0.781
9686	CCD-181	164	166	2	2.310	0.948
9687	CCD-181	166	168	2	1.540	0.692
9689	CCD-181	168	170	2	2.340	1.165
9690	CCD-181	170	172	2	2.090	0.974
9691	CCD-181	172	174	2	1.080	0.584
9692	CCD-181	174	176	2	1.230	0.636
9693	CCD-181	176	178	2	1.510	0.546
9694	CCD-181	178	180	2	1.430	0.718
9695	CCD-181	180	182	2	2.010	0.812
9696	CCD-181	182	184	2	0.270	1.042

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9697	CCD-181	184	186	2	1.810	0.814
9698	CCD-181	186	188	2	1.030	0.720
9699	CCD-181	188	190	2	1.090	0.501
9700	CCD-181	190	192	2	2.320	0.755
9701	CCD-181	192	194	2	1.400	0.471
9702	CCD-181	194	196	2	1.880	0.539
9703	CCD-181	196	198	2	1.740	0.409
9704	CCD-181	198	200	2	1.250	0.414
9705	CCD-181	200	202	2	1.290	0.339
9706	CCD-181	202	204	2	0.930	0.388
9707	CCD-181	204	206	2	1.140	0.280
9708	CCD-181	206	208	2	1.180	0.282
9709	CCD-181	208	210	2	1.070	0.262
9711	CCD-181	210	212	2	0.690	0.160
9712	CCD-181	212	214	2	0.820	0.271
9713	CCD-181	214	216	2	0.770	0.208
9714	CCD-181	216	218	2	0.450	0.132
9715	CCD-181	218	220	2	0.550	0.153
9716	CCD-181	220	222	2	0.410	0.126
9717	CCD-181	222	224	2	0.380	0.140
9718	CCD-181	224	226	2	0.370	0.110
9719	CCD-181	226	228	2	0.530	0.125
9720	CCD-181	228	230	2	0.570	0.150
9721	CCD-181	230	232	2	0.430	0.128
9722	CCD-181	232	234	2	0.370	0.120
9723	CCD-181	234	236	2	0.370	0.140
9724	CCD-181	236	238	2	0.470	0.138
9725	CCD-181	238	240	2	0.340	0.135
9726	CCD-181	240	242	2	0.410	0.162
9727	CCD-181	242	244	2	0.350	0.146
9728	CCD-181	244	246	2	0.190	0.086
9729	CCD-181	246	248	2	0.190	0.080
9730	CCD-181	248	250	2	0.370	0.140
9731	CCD-181	250	252	2	0.260	0.122
9733	CCD-181	252	254	2	0.210	0.090
9734	CCD-181	254	256	2	0.280	0.092
9735	CCD-181	256	258	2	0.150	0.066
9736	CCD-181	258	260	2	0.100	0.102
9737	CCD-181	260	262	2	0.420	0.168
9738	CCD-181	262	264	2	0.260	0.126
9739	CCD-181	264	266	2	0.410	0.127
9740	CCD-181	266	268	2	0.270	0.103
9741	CCD-181	268	270	2	0.160	0.094
9742	CCD-181	270	272	2	0.160	0.104
9743	CCD-181	272	274	2	0.130	0.110
9744	CCD-181	274	276	2	0.180	0.174
9745	CCD-181	276	278	2	0.150	0.156
9746	CCD-181	278	280	2	0.160	0.122
9747	CCD-181	280	282	2	0.150	0.127
9748	CCD-181	282	284	2	0.080	0.055
9749	CCD-181	284	286	2	0.110	0.114
9750	CCD-181	286	288	2	0.600	0.241
9751	CCD-181	288	290	2	0.220	0.160
9752	CCD-181	290	292	2	0.210	0.124
9753	CCD-181	292	294	2	0.200	0.133

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9755	CCD-181	294	296	2	0.140	0.081
9756	CCD-181	296	298	2	0.230	0.162
9757	CCD-181	298	300	2	0.240	0.198
9758	CCD-181	300	302	2	0.080	0.082
9759	CCD-181	302	304	2	0.150	0.106
9760	CCD-181	304	306	2	0.170	0.122
9761	CCD-181	306	308	2	0.130	0.087
9762	CCD-181	308	310	2	0.150	0.090
9763	CCD-181	310	312	2	0.120	0.096
9764	CCD-181	312	314	2	0.060	0.060
9765	CCD-181	314	316	2	0.080	0.050
9766	CCD-181	316	318	2	0.100	0.083
9767	CCD-181	318	320	2	0.050	0.060
9768	CCD-181	320	322	2	0.100	0.131
9769	CCD-181	322	324	2	0.090	0.060
9770	CCD-181	324	326	2	0.050	0.060
9771	CCD-181	326	328	2	0.060	0.050
9772	CCD-181	328	330	2	0.050	0.044
9773	CCD-181	330	332	2	0.080	0.040
9774	CCD-181	332	334	2	0.110	0.060
9775	CCD-181	334	336	2	0.160	0.080
-1	CCD-181	336	336.25	0.25	-1.000	-1.000
-1	CCD-182	0	2	2	-1.000	-1.000
-1	CCD-182	2	4	2	-1.000	-1.000
-1	CCD-182	4	6	2	-1.000	-1.000
9804	CCD-182	6	8	2	0.090	0.048
9805	CCD-182	8	10	2	0.070	0.057
9806	CCD-182	10	12	2	0.100	0.112
9807	CCD-182	12	14	2	0.050	0.029
9808	CCD-182	14	16	2	0.040	0.048
9809	CCD-182	16	18	2	0.040	0.040
9810	CCD-182	18	20	2	0.050	0.092
9811	CCD-182	20	22	2	0.060	0.040
9812	CCD-182	22	24	2	0.060	0.032
9813	CCD-182	24	26	2	0.110	0.082
9814	CCD-182	26	28	2	0.100	0.062
9815	CCD-182	28	29	1	0.080	0.025
-1	CCD-182	29	30	1	-1.000	-1.000
9816	CCD-182	30	32	2	0.040	0.029
9817	CCD-182	32	34	2	0.040	0.020
9818	CCD-182	34	36	2	0.060	0.049
9819	CCD-182	36	38	2	0.060	0.051
9820	CCD-182	38	40	2	0.060	0.057
9821	CCD-182	40	42	2	0.070	0.071
9823	CCD-182	42	44	2	0.070	0.043
9824	CCD-182	44	46	2	0.080	0.061
9825	CCD-182	46	48	2	0.100	0.093
9826	CCD-182	48	50	2	0.080	0.080
9827	CCD-182	50	52	2	0.060	0.070
9828	CCD-182	52	54	2	0.040	0.055
9829	CCD-182	54	56	2	0.040	0.048
9830	CCD-182	56	58	2	0.140	0.061
9831	CCD-182	58	60	2	0.060	0.074
9832	CCD-182	60	62	2	0.050	0.080
9833	CCD-182	62	64	2	0.100	0.105

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9834	CCD-182	64	66	2	0.100	0.042
9835	CCD-182	66	68	2	0.050	0.083
9836	CCD-182	68	70	2	0.060	0.037
9837	CCD-182	70	72	2	0.180	0.023
9838	CCD-182	72	74	2	0.090	0.057
9839	CCD-182	74	76	2	0.070	0.046
9840	CCD-182	76	78	2	0.090	0.093
9841	CCD-182	78	80	2	0.240	0.064
9842	CCD-182	80	82	2	0.580	0.180
9843	CCD-182	82	84	2	0.140	0.030
9845	CCD-182	84	86	2	0.040	0.026
9846	CCD-182	86	88	2	0.110	0.042
9847	CCD-182	88	90	2	0.120	0.042
9848	CCD-182	90	92	2	0.190	0.025
9849	CCD-182	92	94	2	0.140	0.136
9850	CCD-182	94	96	2	0.090	0.168
9851	CCD-182	96	98	2	0.070	0.096
9852	CCD-182	98	100	2	0.120	0.104
9853	CCD-182	100	102	2	0.230	0.065
9854	CCD-182	102	104	2	0.210	0.199
9855	CCD-182	104	106	2	0.100	0.220
9856	CCD-182	106	108	2	0.250	0.372
9857	CCD-182	108	110	2	0.090	0.264
9858	CCD-182	110	112	2	0.180	0.322
9859	CCD-182	112	114	2	0.110	0.365
9860	CCD-182	114	116	2	0.060	0.466
9861	CCD-182	116	118	2	0.090	0.402
9862	CCD-182	118	120	2	0.170	0.363
9863	CCD-182	120	122	2	0.120	0.270
9864	CCD-182	122	124	2	0.190	0.486
9865	CCD-182	124	126	2	0.210	0.405
9867	CCD-182	126	128	2	0.130	0.416
9868	CCD-182	128	130	2	0.050	0.275
9869	CCD-182	130	132	2	0.100	0.338
9870	CCD-182	132	134	2	0.100	0.473
9871	CCD-182	134	136	2	0.120	0.452
9872	CCD-182	136	138	2	0.180	0.374
9873	CCD-182	138	140	2	0.260	0.362
9874	CCD-182	140	142	2	0.430	0.328
9875	CCD-182	142	144	2	0.130	0.333
9876	CCD-182	144	146	2	0.090	0.487
9877	CCD-182	146	148	2	0.120	0.506
9878	CCD-182	148	150	2	0.070	0.386
9879	CCD-182	150	152	2	0.690	0.274
9880	CCD-182	152	154	2	1.090	0.091
9881	CCD-182	154	156	2	0.780	0.098
9882	CCD-182	156	158	2	0.430	0.164
9883	CCD-182	158	160	2	0.180	0.107
9884	CCD-182	160	162	2	0.160	0.121
9885	CCD-182	162	164	2	0.430	0.090
9886	CCD-182	164	166	2	0.370	0.064
9887	CCD-182	166	168	2	0.260	0.155
9889	CCD-182	168	170	2	0.300	0.089
9890	CCD-182	170	172	2	0.200	0.102
9891	CCD-182	172	174	2	0.930	0.272

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
9892	CCD-182	174	176	2	1.000	0.236
9893	CCD-182	176	178	2	0.100	0.090
9894	CCD-182	178	180	2	0.060	0.066
9895	CCD-182	180	181.7	1.7	0.040	0.058
10000	CCD-183	0	2	2	0.240	0.023
10001	CCD-183	2	4	2	0.150	0.020
10002	CCD-183	4	6	2	0.170	0.019
10003	CCD-183	6	8	2	0.150	0.020
10004	CCD-183	8	10	2	0.170	0.018
10005	CCD-183	10	12	2	0.120	0.014
10006	CCD-183	12	14	2	0.190	0.023
10007	CCD-183	14	16	2	0.140	0.020
10008	CCD-183	16	18	2	0.140	0.021
10009	CCD-183	18	20	2	0.110	0.017
10010	CCD-183	20	22	2	0.130	0.022
10011	CCD-183	22	24	2	0.230	0.025
10012	CCD-183	24	26	2	0.200	0.022
10013	CCD-183	26	28	2	0.190	0.037
10014	CCD-183	28	30	2	0.150	0.040
10015	CCD-183	30	32	2	0.200	0.090
10016	CCD-183	32	34	2	0.110	0.034
10017	CCD-183	34	36	2	0.180	0.077
10018	CCD-183	36	38	2	0.150	0.133
10019	CCD-183	38	40	2	0.160	0.146
10020	CCD-183	40	42	2	0.170	0.197
10022	CCD-183	42	44	2	0.210	0.179
10023	CCD-183	44	46	2	0.210	0.294
10024	CCD-183	46	48	2	0.170	0.224
10025	CCD-183	48	50	2	0.240	0.158
10026	CCD-183	50	52	2	0.330	0.169
10027	CCD-183	52	54	2	0.270	0.111
10028	CCD-183	54	56	2	0.260	0.087
10029	CCD-183	56	58	2	0.220	0.075
10030	CCD-183	58	60	2	0.210	0.061
10031	CCD-183	60	62	2	0.170	0.054
10032	CCD-183	62	64	2	0.260	0.071
10033	CCD-183	64	66	2	0.240	0.072
10034	CCD-183	66	68	2	0.370	0.120
10035	CCD-183	68	70	2	0.210	0.072
10036	CCD-183	70	72	2	0.180	0.055
10037	CCD-183	72	74	2	0.270	0.078
10038	CCD-183	74	76	2	0.170	0.038
10039	CCD-183	76	78	2	0.130	0.034
10040	CCD-183	78	80	2	0.200	0.048
10041	CCD-183	80	82	2	0.240	0.058
10042	CCD-183	82	84	2	0.250	0.064
10044	CCD-183	84	86	2	0.230	0.066
10045	CCD-183	86	88	2	0.180	0.050
10046	CCD-183	88	90	2	0.260	0.063
10047	CCD-183	90	92	2	0.250	0.056
10048	CCD-183	92	94	2	0.290	0.072
10049	CCD-183	94	96	2	0.280	0.079
10050	CCD-183	96	98	2	0.220	0.066
10051	CCD-183	98	100	2	0.290	0.075
10052	CCD-183	100	102	2	0.260	0.062

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
10053	CCD-183	102	104	2	0.260	0.059
10054	CCD-183	104	106	2	0.610	0.161
10055	CCD-183	106	108	2	0.540	0.143
10056	CCD-183	108	110	2	0.300	0.076
10057	CCD-183	110	112	2	0.300	0.080
10058	CCD-183	112	114	2	0.390	0.093
10059	CCD-183	114	116	2	0.490	0.122
10060	CCD-183	116	118	2	0.390	0.088
10061	CCD-183	118	120	2	0.290	0.075
10062	CCD-183	120	122	2	0.450	0.107
10063	CCD-183	122	124	2	0.640	0.128
10064	CCD-183	124	126	2	0.320	0.082
10066	CCD-183	126	128	2	0.600	0.101
10067	CCD-183	128	130	2	0.460	0.086
10068	CCD-183	130	132	2	0.470	0.112
10069	CCD-183	132	134	2	0.370	0.091
10070	CCD-183	134	136	2	0.510	0.120
10071	CCD-183	136	138	2	0.380	0.111
10072	CCD-183	138	140	2	0.340	0.085
10073	CCD-183	140	142	2	0.250	0.066
10074	CCD-183	142	144	2	0.290	0.086
10075	CCD-183	144	146	2	0.400	0.106
10076	CCD-183	146	148	2	0.320	0.086
10077	CCD-183	148	150	2	0.360	0.100
10078	CCD-183	150	152	2	0.400	0.106
10079	CCD-183	152	154	2	0.450	0.097
10080	CCD-183	154	156	2	0.250	0.058
10081	CCD-183	156	158	2	0.210	0.054
10082	CCD-183	158	160	2	0.210	0.047
10083	CCD-183	160	162	2	0.180	0.042
10084	CCD-183	162	164	2	0.140	0.058
10085	CCD-183	164	166	2	0.160	0.049
10086	CCD-183	166	168	2	0.150	0.043
10088	CCD-183	168	170	2	0.120	0.053
10089	CCD-183	170	172	2	0.080	0.040
10090	CCD-183	172	174	2	0.110	0.042
10091	CCD-183	174	176	2	0.120	0.038
10092	CCD-183	176	178	2	0.060	0.020
10093	CCD-183	178	180	2	0.090	0.024
10094	CCD-183	180	182	2	0.060	0.021
10095	CCD-183	182	184	2	0.070	0.031
10096	CCD-183	184	186	2	0.080	0.045
10097	CCD-183	186	188	2	0.100	0.041
10098	CCD-183	188	190	2	0.120	0.059
10099	CCD-183	190	192	2	0.110	0.051
10100	CCD-183	192	194	2	0.050	0.028
10101	CCD-183	194	196	2	0.170	0.046
10102	CCD-183	196	198	2	0.140	0.043
10103	CCD-183	198	200	2	0.160	0.077
10104	CCD-183	200	202	2	0.130	0.052
10105	CCD-183	202	204	2	0.190	0.055
10106	CCD-183	204	206	2	0.240	0.103
10107	CCD-183	206	208	2	0.110	0.069
10108	CCD-183	208	210	2	0.190	0.040
10110	CCD-183	210	212	2	0.110	0.037

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
10111	CCD-183	212	214	2	0.100	0.040
10112	CCD-183	214	216	2	0.040	0.011
10113	CCD-183	216	218	2	0.120	0.015
10114	CCD-183	218	220	2	0.070	0.026
10115	CCD-183	220	222	2	0.190	0.014
10116	CCD-183	222	224	2	1.080	0.015
10117	CCD-183	224	226	2	0.100	0.034
10118	CCD-183	226	228	2	0.080	0.027
10119	CCD-183	228	230	2	0.120	0.107
10120	CCD-183	230	232	2	0.440	0.030
10121	CCD-183	232	234	2	0.120	0.042
10122	CCD-183	234	236	2	0.080	0.030
10123	CCD-183	236	238	2	0.100	0.042
10124	CCD-183	238	240	2	0.160	0.054
10125	CCD-183	240	242	2	0.130	0.038
10126	CCD-183	242	244	2	0.080	0.034
10127	CCD-183	244	246	2	0.090	0.030
10128	CCD-183	246	248	2	0.080	0.037
10129	CCD-183	248	250	2	0.100	0.040
10130	CCD-183	250	252	2	0.110	0.020
10132	CCD-183	252	254	2	0.130	0.070
10133	CCD-183	254	256	2	0.150	0.063
10134	CCD-183	256	258	2	0.160	0.051
10135	CCD-183	258	260	2	0.160	0.053
10136	CCD-183	260	262	2	0.170	0.043
10137	CCD-183	262	264	2	0.310	0.038
10138	CCD-183	264	266	2	0.730	0.048
10139	CCD-183	266	268	2	0.370	0.054
10140	CCD-183	268	270	2	0.460	0.145
10141	CCD-183	270	272	2	0.370	0.110
10142	CCD-183	272	274	2	0.270	0.109
10143	CCD-183	274	276	2	0.250	0.094
10144	CCD-183	276	278	2	0.240	0.094
10145	CCD-183	278	280	2	0.420	0.139
10146	CCD-183	280	282	2	0.220	0.091
10147	CCD-183	282	284	2	0.210	0.085
10148	CCD-183	284	286	2	0.170	0.062
10149	CCD-183	286	288	2	0.220	0.092
10150	CCD-183	288	290	2	0.150	0.090
10151	CCD-183	290	292	2	1.150	0.064
10152	CCD-183	292	294	2	0.230	0.110
10154	CCD-183	294	296	2	0.440	0.180
10155	CCD-183	296	298	2	0.500	0.220
10156	CCD-183	298	300	2	0.930	0.150
10157	CCD-183	300	302	2	0.560	0.150
10158	CCD-183	302	304	2	0.530	0.230
10159	CCD-183	304	306	2	0.580	0.250
10160	CCD-183	306	308	2	0.760	0.320
10161	CCD-183	308	310	2	0.720	0.270
10162	CCD-183	310	311.95	1.95	0.930	0.290
10201	CCD-184	0	2	2	0.270	0.036
10202	CCD-184	2	4	2	0.260	0.024
10203	CCD-184	4	6	2	0.260	0.035
10204	CCD-184	6	8	2	0.300	0.037
10205	CCD-184	8	10	2	0.240	0.030

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
10206	CCD-184	10	12	2	0.310	0.030
10207	CCD-184	12	14	2	0.240	0.036
10208	CCD-184	14	16	2	0.180	0.052
10209	CCD-184	16	18	2	0.240	0.076
10210	CCD-184	18	20	2	0.240	0.346
10211	CCD-184	20	22	2	0.150	0.123
10212	CCD-184	22	24	2	0.110	0.119
10213	CCD-184	24	26	2	0.200	0.268
10214	CCD-184	26	28	2	0.150	0.229
10215	CCD-184	28	30	2	0.170	0.333
10216	CCD-184	30	32	2	0.160	0.345
10217	CCD-184	32	34	2	0.190	0.301
10218	CCD-184	34	36	2	0.150	0.249
10219	CCD-184	36	38	2	0.100	0.134
10220	CCD-184	38	40	2	0.080	0.121
10221	CCD-184	40	42	2	0.120	0.101
10223	CCD-184	42	44	2	0.140	0.133
10224	CCD-184	44	46	2	0.150	0.114
10225	CCD-184	46	48	2	0.140	0.124
10226	CCD-184	48	50	2	0.160	0.124
10227	CCD-184	50	52	2	0.160	0.178
10228	CCD-184	52	54	2	0.110	0.128
10229	CCD-184	54	56	2	0.080	0.181
10230	CCD-184	56	58	2	0.160	0.222
10231	CCD-184	58	60	2	0.240	0.213
10232	CCD-184	60	62	2	0.160	0.168
10233	CCD-184	62	64	2	0.100	0.172
10234	CCD-184	64	66	2	0.030	0.148
10235	CCD-184	66	68	2	0.070	0.120
10236	CCD-184	68	70	2	0.070	0.234
10237	CCD-184	70	72	2	0.190	0.176
10238	CCD-184	72	74	2	0.370	0.194
10239	CCD-184	74	76	2	0.800	0.159
10240	CCD-184	76	78	2	0.410	0.398
10241	CCD-184	78	80	2	0.270	0.235
10242	CCD-184	80	82	2	0.170	0.141
10243	CCD-184	82	84	2	0.130	0.122
10245	CCD-184	84	86	2	0.210	0.198
10246	CCD-184	86	88	2	0.210	0.233
10247	CCD-184	88	90	2	0.260	0.210
10248	CCD-184	90	92	2	0.240	0.192
10249	CCD-184	92	94	2	0.170	0.138
10250	CCD-184	94	96	2	0.230	0.206
10251	CCD-184	96	98	2	0.310	0.210
10252	CCD-184	98	100	2	0.470	0.323
10253	CCD-184	100	102	2	0.340	0.390
10254	CCD-184	102	104	2	0.460	0.525
10255	CCD-184	104	106	2	0.960	0.584
10256	CCD-184	106	108	2	0.260	0.282
10257	CCD-184	108	110	2	0.340	0.282
10258	CCD-184	110	112	2	0.310	0.261
10259	CCD-184	112	114	2	0.310	0.219
10260	CCD-184	114	116	2	0.230	0.218
10261	CCD-184	116	118	2	0.360	0.555
10262	CCD-184	118	120	2	0.890	0.394

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
10263	CCD-184	120	122	2	0.980	0.447
10264	CCD-184	122	124	2	0.600	0.431
10265	CCD-184	124	126	2	0.280	0.259
10267	CCD-184	126	128	2	0.770	0.320
10268	CCD-184	128	130	2	0.370	0.257
10269	CCD-184	130	132	2	0.430	0.244
10270	CCD-184	132	134	2	0.250	0.208
10271	CCD-184	134	136	2	0.390	0.214
10272	CCD-184	136	138	2	0.510	0.324
10273	CCD-184	138	140	2	0.580	0.335
10274	CCD-184	140	142	2	0.820	0.452
10275	CCD-184	142	144	2	1.310	0.649
10276	CCD-184	144	146	2	0.910	0.388
10277	CCD-184	146	148	2	0.990	0.680
10278	CCD-184	148	150	2	0.320	0.206
10279	CCD-184	150	152	2	0.640	0.376
10280	CCD-184	152	154	2	1.430	0.866
10281	CCD-184	154	156	2	0.360	0.200
10282	CCD-184	156	158	2	0.610	0.208
10283	CCD-184	158	160	2	0.410	0.278
10284	CCD-184	160	162	2	0.820	0.480
10285	CCD-184	162	164	2	0.570	0.485
10286	CCD-184	164	166	2	0.940	0.318
10287	CCD-184	166	168	2	0.170	0.141
10289	CCD-184	168	170	2	0.100	0.071
10290	CCD-184	170	172	2	0.100	0.072
10291	CCD-184	172	174	2	0.260	0.182
10292	CCD-184	174	176	2	0.080	0.196
10293	CCD-184	176	178	2	0.230	0.191
10294	CCD-184	178	180	2	0.180	0.127
10295	CCD-184	180	182	2	0.300	0.178
10296	CCD-184	182	184	2	0.220	0.133
10297	CCD-184	184	186	2	0.740	0.567
10298	CCD-184	186	188	2	0.290	0.225
10299	CCD-184	188	190	2	0.790	0.461
10300	CCD-184	190	192	2	0.630	0.305
10301	CCD-184	192	194	2	0.950	0.560
10302	CCD-184	194	196	2	0.160	0.086
10303	CCD-184	196	198	2	0.510	0.310
10304	CCD-184	198	200	2	0.420	0.311
10305	CCD-184	200	202	2	0.290	0.201
10306	CCD-184	202	204	2	0.180	0.130
10307	CCD-184	204	206	2	0.280	0.222
10308	CCD-184	206	208	2	0.230	0.178
10309	CCD-184	208	210	2	0.760	0.454
10311	CCD-184	210	212	2	0.300	0.174
10312	CCD-184	212	214	2	0.390	0.184
10313	CCD-184	214	216	2	0.300	0.155
10314	CCD-184	216	218	2	0.370	0.254
10315	CCD-184	218	220	2	0.320	0.222
10316	CCD-184	220	222	2	0.500	0.278
10317	CCD-184	222	224	2	0.740	0.359
10318	CCD-184	224	226	2	1.280	0.474
10319	CCD-184	226	228	2	0.510	0.210
10320	CCD-184	228	230	2	0.470	0.261

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
10321	CCD-184	230	232	2	0.380	0.157
10322	CCD-184	232	234	2	0.470	0.207
10323	CCD-184	234	236	2	0.360	0.207
-1	CCD-184	236	236.2	0.2	-1.000	-1.000
10401	CCD-185	0	2	2	0.490	0.012
10402	CCD-185	2	4	2	0.530	0.016
10403	CCD-185	4	6	2	0.600	0.016
10404	CCD-185	6	8	2	1.650	0.034
10405	CCD-185	8	10	2	0.840	0.041
10406	CCD-185	10	12	2	0.750	0.032
10407	CCD-185	12	14	2	1.120	0.094
10408	CCD-185	14	16	2	0.990	0.026
10409	CCD-185	16	18	2	1.580	0.034
10410	CCD-185	18	20	2	1.890	0.096
10411	CCD-185	20	22	2	0.910	0.086
10412	CCD-185	22	24	2	1.240	0.050
10413	CCD-185	24	26	2	0.890	0.096
10414	CCD-185	26	28	2	0.700	0.034
10415	CCD-185	28	30	2	0.770	0.104
10416	CCD-185	30	32	2	0.860	0.473
10417	CCD-185	32	34	2	1.080	1.928
10418	CCD-185	34	36	2	1.320	1.808
10419	CCD-185	36	38	2	1.100	1.984
10420	CCD-185	38	40	2	1.790	3.000
10421	CCD-185	40	42	2	0.370	1.400
10423	CCD-185	42	44	2	0.770	1.392
10424	CCD-185	44	46	2	0.900	1.078
10425	CCD-185	46	48	2	0.870	0.471
10426	CCD-185	48	50	2	0.460	0.311
10427	CCD-185	50	52	2	0.150	0.635
10428	CCD-185	52	54	2	1.090	0.527
10429	CCD-185	54	56	2	0.720	0.362
10430	CCD-185	56	58	2	0.790	0.546
10431	CCD-185	58	60	2	1.360	0.666
10432	CCD-185	60	62	2	0.590	0.398
10433	CCD-185	62	64	2	0.470	0.363
10434	CCD-185	64	66	2	0.780	0.619
10435	CCD-185	66	68	2	0.570	0.384
10436	CCD-185	68	70	2	0.640	0.464
10437	CCD-185	70	72	2	0.640	0.421
10438	CCD-185	72	74	2	0.830	0.671
10439	CCD-185	74	76	2	0.880	0.706
10440	CCD-185	76	78	2	0.710	0.706
10441	CCD-185	78	80	2	0.730	0.431
10442	CCD-185	80	82	2	0.470	0.272
10443	CCD-185	82	84	2	0.630	0.431
10445	CCD-185	84	86	2	0.790	0.459
10446	CCD-185	86	88	2	0.570	0.338
10447	CCD-185	88	90	2	0.560	0.326
10448	CCD-185	90	92	2	0.680	0.400
10449	CCD-185	92	94	2	1.270	0.720
10450	CCD-185	94	96	2	0.430	0.290
10451	CCD-185	96	98	2	0.490	0.308
10452	CCD-185	98	100	2	0.390	0.276
10453	CCD-185	100	102	2	0.440	0.360

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
10454	CCD-185	102	104	2	0.500	0.291
10455	CCD-185	104	106	2	0.290	0.256
10456	CCD-185	106	108	2	0.710	0.602
10457	CCD-185	108	110	2	0.750	0.635
10458	CCD-185	110	112	2	2.380	1.035
10459	CCD-185	112	114	2	0.930	0.376
10460	CCD-185	114	116	2	0.230	0.212
10461	CCD-185	116	118	2	0.280	0.268
10462	CCD-185	118	120	2	0.350	0.286
10463	CCD-185	120	122	2	0.460	0.300
10464	CCD-185	122	124	2	0.240	0.199
10465	CCD-185	124	126	2	0.390	0.333
10467	CCD-185	126	128	2	-1.000	-1.000
10468	CCD-185	128	130	2	0.520	0.558
10469	CCD-185	130	132	2	0.780	0.560
10470	CCD-185	132	134	2	0.760	0.553
10471	CCD-185	134	136	2	0.900	0.626
10472	CCD-185	136	138	2	0.420	0.283
10473	CCD-185	138	140	2	0.590	0.520
10474	CCD-185	140	142	2	1.050	0.767
10475	CCD-185	142	144	2	0.920	0.455
10476	CCD-185	144	146	2	0.540	0.342
10477	CCD-185	146	148	2	0.680	0.307
10478	CCD-185	148	150	2	0.760	0.350
10479	CCD-185	150	152	2	0.620	0.328
10480	CCD-185	152	154	2	0.580	0.440
10481	CCD-185	154	156	2	0.390	0.312
10482	CCD-185	156	158	2	0.360	0.260
10483	CCD-185	158	160	2	0.450	0.340
10484	CCD-185	160	162	2	1.050	0.890
10485	CCD-185	162	164	2	1.590	1.190
10486	CCD-185	164	166	2	1.090	0.780
10487	CCD-185	166	168	2	0.540	0.340
10489	CCD-185	168	170	2	0.450	0.320
10490	CCD-185	170	172	2	0.380	0.300
10491	CCD-185	172	174	2	0.870	0.680
10492	CCD-185	174	176	2	0.410	0.290
10493	CCD-185	176	178	2	0.370	0.280
10494	CCD-185	178	180	2	0.350	0.280
10495	CCD-185	180	182	2	0.210	0.210
10496	CCD-185	182	184	2	0.620	0.460
10497	CCD-185	184	186	2	0.460	0.370
10498	CCD-185	186	188	2	0.360	0.240
10499	CCD-185	188	190	2	0.600	0.356
10500	CCD-185	190	192	2	0.580	0.555
10501	CCD-185	192	194	2	0.450	0.304
10502	CCD-185	194	196	2	0.390	0.308
10503	CCD-185	196	198	2	0.450	0.376
10504	CCD-185	198	200	2	0.430	0.314
10505	CCD-185	200	202	2	0.460	0.356
10506	CCD-185	202	204	2	0.360	0.254
10507	CCD-185	204	206	2	0.490	0.397
10508	CCD-185	206	208	2	0.350	0.296
10509	CCD-185	208	210	2	0.380	0.294
10511	CCD-185	210	212	2	0.360	0.208

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
10512	CCD-185	212	214	2	0.150	0.140
10513	CCD-185	214	216	2	0.230	0.181
10514	CCD-185	216	218	2	0.380	0.337
10515	CCD-185	218	220	2	0.400	0.285
10516	CCD-185	220	222	2	0.380	0.322
10517	CCD-185	222	224	2	0.340	0.288
10518	CCD-185	224	226	2	0.310	0.228
10601	CCD-186	0	2	2	1.160	0.113
10602	CCD-186	2	4	2	1.060	0.057
10603	CCD-186	4	6	2	1.140	0.090
10604	CCD-186	6	8	2	1.270	0.082
10605	CCD-186	8	10	2	0.390	0.051
10606	CCD-186	10	12	2	0.010	0.026
10607	CCD-186	12	14	2	0.040	0.022
10608	CCD-186	14	16	2	0.030	0.020
10609	CCD-186	16	18	2	0.040	0.028
10610	CCD-186	18	20	2	0.030	0.025
10611	CCD-186	20	22	2	0.030	0.018
10612	CCD-186	22	24	2	0.030	0.033
10613	CCD-186	24	26	2	0.040	0.035
10614	CCD-186	26	28	2	0.060	0.046
10615	CCD-186	28	30	2	0.040	0.054
10616	CCD-186	30	32	2	0.040	0.035
10617	CCD-186	32	34	2	0.050	0.038
10618	CCD-186	34	36	2	0.090	0.029
10619	CCD-186	36	38	2	0.230	0.085
10620	CCD-186	38	40	2	0.220	0.150
10621	CCD-186	40	42	2	0.410	0.128
10623	CCD-186	42	44	2	0.360	0.163
10624	CCD-186	44	46	2	0.380	0.119
10625	CCD-186	46	48	2	0.780	0.062
10626	CCD-186	48	50	2	0.140	0.098
10627	CCD-186	50	52	2	0.360	0.066
10628	CCD-186	52	54	2	0.340	0.181
10629	CCD-186	54	56	2	0.100	0.015
10630	CCD-186	56	58	2	0.060	0.010
10631	CCD-186	58	60	2	0.260	0.022
10632	CCD-186	60	62	2	0.190	0.074
10633	CCD-186	62	64	2	0.040	0.030
10634	CCD-186	64	66	2	0.010	0.011
10635	CCD-186	66	68	2	0.050	0.010
10636	CCD-186	68	70	2	0.030	0.038
10637	CCD-186	70	72	2	0.040	0.048
10638	CCD-186	72	74	2	0.130	0.080
10639	CCD-186	74	76	2	0.120	0.093
10640	CCD-186	76	78	2	0.150	0.142
10641	CCD-186	78	80	2	0.250	0.185
10642	CCD-186	80	82	2	0.380	0.298
10643	CCD-186	82	84	2	0.370	0.220
10644	CCD-186	84	86	2	0.800	1.144
10646	CCD-186	86	88	2	0.550	0.368
10647	CCD-186	88	90	2	0.440	0.762
10648	CCD-186	90	92	2	0.190	1.544
10649	CCD-186	92	94	2	0.110	1.580
10650	CCD-186	94	96	2	0.970	0.791

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
10651	CCD-186	96	98	2	0.170	1.416
10652	CCD-186	98	100	2	0.780	1.488
10653	CCD-186	100	102	2	1.250	1.059
10654	CCD-186	102	104	2	1.590	1.129
10655	CCD-186	104	106	2	1.270	1.089
10656	CCD-186	106	108	2	1.030	0.840
10657	CCD-186	108	110	2	0.440	0.638
10658	CCD-186	110	112	2	0.890	0.572
10659	CCD-186	112	114	2	1.630	1.055
10660	CCD-186	114	116	2	1.170	0.685
10661	CCD-186	116	118	2	1.280	1.078
10662	CCD-186	118	120	2	2.030	1.592
10663	CCD-186	120	122	2	1.390	1.184
10664	CCD-186	122	124	2	1.390	0.776
10665	CCD-186	124	126	2	1.660	0.727
10667	CCD-186	126	128	2	2.010	0.965
10668	CCD-186	128	130	2	2.200	0.842
10669	CCD-186	130	132	2	1.860	0.892
10670	CCD-186	132	134	2	2.500	1.082
10671	CCD-186	134	136	2	1.870	0.835
10672	CCD-186	136	138	2	2.660	1.042
10673	CCD-186	138	140	2	3.280	1.176
10674	CCD-186	140	142	2	2.670	1.033
10675	CCD-186	142	144	2	2.420	1.376
10676	CCD-186	144	146	2	3.150	0.885
10677	CCD-186	146	148	2	2.430	0.871
10678	CCD-186	148	150	2	1.890	0.659
10679	CCD-186	150	152	2	1.710	0.764
10680	CCD-186	152	154	2	1.460	0.588
10681	CCD-186	154	156	2	1.780	0.706
10682	CCD-186	156	158	2	1.210	0.736
10683	CCD-186	158	160	2	1.160	0.800
10684	CCD-186	160	162	2	1.900	0.588
10685	CCD-186	162	164	2	0.940	0.424
10686	CCD-186	164	166	2	1.140	0.412
10687	CCD-186	166	168	2	0.990	0.464
10689	CCD-186	168	170	2	0.760	0.548
10690	CCD-186	170	172	2	0.730	0.428
10691	CCD-186	172	174	2	0.820	0.440
10692	CCD-186	174	176	2	0.490	0.301
10693	CCD-186	176	178	2	0.890	0.376
10694	CCD-186	178	180	2	1.300	0.348
10695	CCD-186	180	182	2	1.130	0.360
10696	CCD-186	182	184	2	0.920	0.318
10697	CCD-186	184	186	2	0.740	0.249
10698	CCD-186	186	188	2	0.590	0.216
10699	CCD-186	188	190	2	0.450	0.163
10700	CCD-186	190	192	2	0.220	0.106
10701	CCD-186	192	194	2	0.450	0.078
10702	CCD-186	194	196	2	0.200	0.050
10703	CCD-186	196	198	2	0.140	0.060
10704	CCD-186	198	200	2	0.120	0.042
10705	CCD-186	200	202	2	0.270	0.078
10706	CCD-186	202	204	2	0.340	0.054
10707	CCD-186	204	206	2	0.100	0.026

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
10708	CCD-186	206	208	2	0.140	0.046
10709	CCD-186	208	210	2	0.990	0.240
10710	CCD-186	210	212	2	0.450	0.852
10712	CCD-186	212	214	2	0.120	0.018
10713	CCD-186	214	216	2	0.140	0.029
10714	CCD-186	216	218	2	0.140	0.032
10715	CCD-186	218	220	2	0.170	0.027
10716	CCD-186	220	222	2	0.100	0.035
10717	CCD-186	222	224	2	0.070	0.027
10718	CCD-186	224	226	2	0.110	0.030
10719	CCD-186	226	228	2	0.070	0.026
10720	CCD-186	228	230	2	0.080	0.032
10721	CCD-186	230	232	2	0.180	0.082
10722	CCD-186	232	234	2	0.060	0.030
10723	CCD-186	234	236	2	0.090	0.040
10724	CCD-186	236	238	2	0.070	0.026
10725	CCD-186	238	240	2	0.050	0.018
10726	CCD-186	240	242	2	0.140	0.040
10727	CCD-186	242	244	2	0.090	0.043
10728	CCD-186	244	246	2	0.130	0.045
10729	CCD-186	246	248	2	0.110	0.045
10730	CCD-186	248	250	2	0.030	0.026
10731	CCD-186	250	252	2	0.070	0.021
10733	CCD-186	252	254	2	0.080	0.033
10734	CCD-186	254	256	2	0.080	0.042
10735	CCD-186	256	258	2	0.050	0.020
10736	CCD-186	258	260	2	0.070	0.033
10737	CCD-186	260	262	2	0.020	0.018
10738	CCD-186	262	264	2	0.080	0.029
10739	CCD-186	264	266	2	0.070	0.027
10740	CCD-186	266	268	2	0.150	0.057
10741	CCD-186	268	270	2	0.160	0.066
10742	CCD-186	270	272	2	0.140	0.062
10743	CCD-186	272	274	2	0.100	0.049
10744	CCD-186	274	276	2	0.080	0.030
10745	CCD-186	276	278	2	0.100	0.030
10746	CCD-186	278	280	2	0.090	0.042
10747	CCD-186	280	282	2	0.170	0.060
10748	CCD-186	282	284	2	0.130	0.039
10749	CCD-186	284	286	2	0.120	0.052
10750	CCD-186	286	288	2	0.180	0.083
10751	CCD-186	288	290	2	0.060	0.036
10752	CCD-186	290	292	2	0.080	0.033
10753	CCD-186	292	294	2	0.060	0.022
10755	CCD-186	294	296	2	0.070	0.034
10756	CCD-186	296	298	2	0.120	0.044
10757	CCD-186	298	300	2	0.070	0.022
10758	CCD-186	300	302	2	0.095	0.024
10759	CCD-186	302	304	2	0.038	0.015
10760	CCD-186	304	306	2	0.080	0.040
10761	CCD-186	306	308	2	0.023	0.012
10762	CCD-186	308	310	2	0.080	0.030
10763	CCD-186	310	312	2	0.050	0.026
10764	CCD-186	312	314	2	0.040	0.014
10765	CCD-186	314	316	2	0.030	0.013

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
10766	CCD-186	316	318	2	0.030	0.018
10767	CCD-186	318	320	2	0.030	0.013
10768	CCD-186	320	320.4	0.4	0.030	0.011
10801	CCD-187	0	2	2	0.390	0.010
10802	CCD-187	2	4	2	0.700	0.010
10803	CCD-187	4	6	2	0.410	0.020
10804	CCD-187	6	8	2	0.780	0.590
10805	CCD-187	8	10	2	0.770	0.410
10806	CCD-187	10	12	2	1.330	0.510
10807	CCD-187	12	14	2	2.230	0.860
10808	CCD-187	14	16	2	0.130	0.090
10809	CCD-187	16	18	2	0.390	0.280
10810	CCD-187	18	20	2	0.530	0.690
10811	CCD-187	20	22	2	0.320	0.210
10812	CCD-187	22	24	2	0.220	0.120
10813	CCD-187	24	26	2	0.460	0.320
10814	CCD-187	26	28	2	0.490	0.310
10815	CCD-187	28	30	2	0.520	0.330
10816	CCD-187	30	32	2	0.190	0.120
10817	CCD-187	32	34	2	0.230	0.130
10818	CCD-187	34	36	2	0.200	0.110
10819	CCD-187	36	38	2	0.150	0.110
10820	CCD-187	38	40	2	0.270	0.130
10821	CCD-187	40	42	2	0.330	0.220
10823	CCD-187	42	44	2	0.220	0.130
10824	CCD-187	44	46	2	0.170	0.080
10825	CCD-187	46	48	2	0.150	0.110
10826	CCD-187	48	50	2	0.150	0.130
10827	CCD-187	50	52	2	0.160	0.100
10828	CCD-187	52	54	2	0.170	0.100
10829	CCD-187	54	56	2	0.260	0.140
10830	CCD-187	56	58	2	0.140	0.080
10831	CCD-187	58	60	2	0.240	0.160
10832	CCD-187	60	62	2	0.740	0.800
10833	CCD-187	62	64	2	1.510	1.220
10834	CCD-187	64	66	2	1.110	0.660
10835	CCD-187	66	68	2	0.690	0.600
10836	CCD-187	68	70	2	0.680	0.600
10837	CCD-187	70	72	2	0.400	0.250
10838	CCD-187	72	74	2	0.420	0.310
10839	CCD-187	74	76	2	0.580	0.460
10840	CCD-187	76	78	2	0.520	0.510
10841	CCD-187	78	80	2	0.380	0.280
10842	CCD-187	80	82	2	0.350	0.280
10843	CCD-187	82	84	2	0.190	0.180
10845	CCD-187	84	86	2	0.200	0.160
10846	CCD-187	86	88	2	0.150	0.150
10847	CCD-187	88	90	2	0.210	0.180
10848	CCD-187	90	92	2	0.150	0.150
10849	CCD-187	92	94	2	0.140	0.130
10850	CCD-187	94	96	2	0.100	0.192
10851	CCD-187	96	98	2	0.120	0.157
10852	CCD-187	98	100	2	0.030	0.040
-1	CCD-187	100	100.5	0.5	-1.000	-1.000
11001	CCD-188	0	2	2	0.070	0.039

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
11002	CCD-188	2	4	2	0.010	0.054
11003	CCD-188	4	6	2	0.050	0.053
11004	CCD-188	6	8	2	0.050	0.050
11005	CCD-188	8	10	2	0.060	0.052
11006	CCD-188	10	12	2	0.050	0.043
11007	CCD-188	12	14	2	0.480	0.020
11008	CCD-188	14	16	2	0.050	0.060
11009	CCD-188	16	18	2	0.110	0.077
11010	CCD-188	18	20	2	0.060	0.040
11011	CCD-188	20	22	2	0.040	0.049
11012	CCD-188	22	24	2	0.060	0.050
11013	CCD-188	24	26	2	0.170	0.139
11014	CCD-188	26	28	2	0.240	0.190
11015	CCD-188	28	30	2	0.070	0.056
11016	CCD-188	30	32	2	0.060	0.038
11017	CCD-188	32	34	2	0.050	0.025
11018	CCD-188	34	36	2	0.030	0.026
11019	CCD-188	36	38	2	0.110	0.080
11020	CCD-188	38	40	2	0.060	0.050
11021	CCD-188	40	42	2	0.100	0.070
11022	CCD-188	42	44	2	0.400	1.432
11024	CCD-188	44	46	2	0.060	0.044
11025	CCD-188	46	48	2	0.180	0.128
11026	CCD-188	48	50	2	0.100	0.062
11027	CCD-188	50	52	2	0.040	0.032
11028	CCD-188	52	54	2	0.060	0.045
11029	CCD-188	54	56	2	0.100	0.060
11030	CCD-188	56	58	2	0.100	0.067
11031	CCD-188	58	60	2	0.090	0.043
11032	CCD-188	60	62	2	0.190	0.056
11033	CCD-188	62	64	2	0.160	0.129
11034	CCD-188	64	66	2	0.130	0.099
11035	CCD-188	66	68	2	0.120	0.083
11036	CCD-188	68	70	2	0.120	0.088
11037	CCD-188	70	72	2	0.050	0.044
11038	CCD-188	72	74	2	0.240	0.150
11039	CCD-188	74	76	2	0.280	0.179
11040	CCD-188	76	78	2	0.130	0.102
11041	CCD-188	78	80	2	0.100	0.087
11042	CCD-188	80	82	2	0.210	0.164
11043	CCD-188	82	84	2	0.370	0.258
11045	CCD-188	84	86	2	0.130	0.108
11046	CCD-188	86	88	2	0.090	0.067
11047	CCD-188	88	90	2	0.190	0.142
11048	CCD-188	90	92	2	0.190	0.140
11049	CCD-188	92	94	2	0.230	0.180
11050	CCD-188	94	96	2	0.340	0.127
11051	CCD-188	96	98	2	0.270	0.194
11052	CCD-188	98	100	2	0.120	0.068
11053	CCD-188	100	102	2	0.140	0.089
11054	CCD-188	102	104	2	0.140	0.158
11055	CCD-188	104	106	2	0.080	0.044
11056	CCD-188	106	108	2	0.150	0.105
11057	CCD-188	108	110	2	0.650	0.560
11058	CCD-188	110	112	2	0.280	0.217

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
11059	CCD-188	112	114	2	0.070	0.072
11060	CCD-188	114	116	2	0.060	0.065
11061	CCD-188	116	118	2	0.160	0.125
11062	CCD-188	118	120	2	0.190	0.167
11063	CCD-188	120	122	2	0.210	0.196
11064	CCD-188	122	124	2	0.140	0.161
11065	CCD-188	124	126	2	0.240	0.182
11067	CCD-188	126	128	2	0.380	0.254
11068	CCD-188	128	130	2	0.120	0.095
11069	CCD-188	130	132	2	0.230	0.143
11070	CCD-188	132	134	2	0.340	0.388
11071	CCD-188	134	135.25	1.25	0.122	0.085
11201	CCD-189	0	2	2	0.150	0.037
11202	CCD-189	2	4	2	0.200	0.034
11203	CCD-189	4	6	2	0.190	0.022
11204	CCD-189	6	8	2	0.080	0.016
11205	CCD-189	8	10	2	0.100	0.022
11206	CCD-189	10	12	2	0.140	0.010
11207	CCD-189	12	14	2	0.110	0.005
11208	CCD-189	14	16	2	0.200	0.030
11209	CCD-189	16	18	2	0.350	0.037
11210	CCD-189	18	20	2	0.160	0.033
11211	CCD-189	20	22	2	0.150	0.042
11212	CCD-189	22	24	2	0.130	0.047
11213	CCD-189	24	26	2	0.190	0.177
11214	CCD-189	26	28	2	0.230	0.214
11215	CCD-189	28	30	2	0.140	0.094
11216	CCD-189	30	32	2	0.190	0.229
11217	CCD-189	32	34	2	0.120	0.138
11218	CCD-189	34	36	2	0.230	0.059
11219	CCD-189	36	38	2	0.190	0.014
11220	CCD-189	38	40	2	0.090	0.026
11221	CCD-189	40	42	2	0.130	0.076
11223	CCD-189	42	44	2	0.250	0.130
11224	CCD-189	44	46	2	0.200	0.068
11225	CCD-189	46	48	2	0.220	0.074
11226	CCD-189	48	50	2	0.140	0.122
11227	CCD-189	50	52	2	0.090	0.046
11228	CCD-189	52	54	2	0.220	0.144
11229	CCD-189	54	56	2	0.280	0.090
11230	CCD-189	56	58	2	0.230	0.094
11231	CCD-189	58	60	2	0.350	0.160
11232	CCD-189	60	62	2	0.290	0.126
11233	CCD-189	62	64	2	0.440	0.162
11234	CCD-189	64	66	2	0.160	0.127
11235	CCD-189	66	68	2	0.170	0.078
11236	CCD-189	68	70	2	0.230	0.056
11237	CCD-189	70	72	2	0.400	0.090
11238	CCD-189	72	74	2	0.350	0.071
11239	CCD-189	74	76	2	0.200	0.041
11240	CCD-189	76	78	2	0.250	0.050
11241	CCD-189	78	80	2	0.590	0.066
11242	CCD-189	80	82	2	0.450	0.138
11243	CCD-189	82	84	2	0.450	0.112
11245	CCD-189	84	86	2	0.720	0.197

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
11246	CCD-189	86	88	2	0.630	0.231
11247	CCD-189	88	90	2	0.460	0.169
11248	CCD-189	90	92	2	0.500	0.185
11249	CCD-189	92	94	2	0.560	0.257
11250	CCD-189	94	96	2	0.840	0.280
11251	CCD-189	96	98	2	0.820	0.194
11252	CCD-189	98	100	2	1.510	0.306
11253	CCD-189	100	102	2	1.260	0.291
11254	CCD-189	102	104	2	1.850	0.456
11255	CCD-189	104	106	2	1.410	0.320
11256	CCD-189	106	108	2	1.430	0.334
11257	CCD-189	108	110	2	1.170	0.302
11258	CCD-189	110	112	2	1.450	0.363
11259	CCD-189	112	114	2	1.430	0.407
11260	CCD-189	114	116	2	1.990	0.492
11261	CCD-189	116	118	2	1.600	0.374
11262	CCD-189	118	120	2	0.970	0.296
11263	CCD-189	120	122	2	0.980	0.328
11264	CCD-189	122	124	2	0.970	0.324
11265	CCD-189	124	126	2	0.820	0.290
11267	CCD-189	126	128	2	0.820	0.253
11268	CCD-189	128	130	2	0.760	0.278
11269	CCD-189	130	132	2	0.740	0.238
11270	CCD-189	132	134	2	0.740	0.284
11271	CCD-189	134	136	2	0.730	0.258
11272	CCD-189	136	138	2	0.800	0.275
11273	CCD-189	138	140	2	0.590	0.303
11274	CCD-189	140	142	2	0.360	0.024
11275	CCD-189	142	144	2	0.420	0.208
11276	CCD-189	144	146	2	0.490	0.704
11277	CCD-189	146	148	2	2.030	0.602
11278	CCD-189	148	150	2	1.330	0.706
11279	CCD-189	150	152	2	0.850	0.240
11280	CCD-189	152	154	2	1.430	0.440
11281	CCD-189	154	156	2	0.980	0.284
11282	CCD-189	156	158	2	1.460	0.358
11283	CCD-189	158	160	2	1.290	0.433
11284	CCD-189	160	162	2	1.200	0.394
11285	CCD-189	162	164	2	1.330	0.476
11286	CCD-189	164	166	2	1.270	0.359
11287	CCD-189	166	168	2	0.840	0.227
11289	CCD-189	168	170	2	1.840	0.496
11290	CCD-189	170	172	2	1.450	0.388
11291	CCD-189	172	174	2	2.060	0.600
11292	CCD-189	174	176	2	1.790	0.612
11293	CCD-189	176	178	2	3.090	0.908
11294	CCD-189	178	180	2	1.910	0.532
11295	CCD-189	180	182	2	1.830	0.553
11296	CCD-189	182	184	2	1.890	0.600
11297	CCD-189	184	186	2	1.660	0.552
11298	CCD-189	186	188	2	3.800	0.821
11299	CCD-189	188	190	2	1.430	0.471
11300	CCD-189	190	192	2	1.150	0.360
11301	CCD-189	192	194	2	1.300	0.471
11302	CCD-189	194	196	2	0.660	0.435

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
11303	CCD-189	196	198	2	0.840	0.236
11304	CCD-189	198	200	2	0.830	0.407
11305	CCD-189	200	202	2	0.790	0.368
11306	CCD-189	202	204	2	1.070	0.330
11307	CCD-189	204	206	2	0.630	0.434
11308	CCD-189	206	208	2	1.000	0.499
11309	CCD-189	208	210	2	1.130	0.551
11311	CCD-189	210	212	2	0.510	0.390
11312	CCD-189	212	214	2	0.810	0.414
11313	CCD-189	214	216	2	0.780	0.435
11314	CCD-189	216	218	2	1.360	0.518
11315	CCD-189	218	220	2	0.960	0.454
11316	CCD-189	220	222	2	0.740	0.348
11317	CCD-189	222	224	2	0.880	0.469
11318	CCD-189	224	226	2	0.850	0.473
11319	CCD-189	226	228	2	0.580	0.294
11320	CCD-189	228	230	2	0.550	0.290
11321	CCD-189	230	232	2	0.440	0.246
11322	CCD-189	232	234	2	0.390	0.160
11323	CCD-189	234	236	2	0.620	0.382
11324	CCD-189	236	238	2	0.290	0.210
11325	CCD-189	238	240	2	0.250	0.154
11326	CCD-189	240	242	2	0.440	0.264
11327	CCD-189	242	244	2	0.590	0.296
11328	CCD-189	244	246	2	1.210	0.859
11329	CCD-189	246	248	2	0.560	0.379
11330	CCD-189	248	250	2	0.480	0.310
11331	CCD-189	250	252	2	1.200	0.798
11333	CCD-189	252	254	2	2.300	1.424
11334	CCD-189	254	256	2	1.480	1.000
11335	CCD-189	256	258	2	0.280	0.194
11336	CCD-189	258	260	2	0.330	0.282
11337	CCD-189	260	262	2	0.200	0.224
11338	CCD-189	262	264	2	0.510	0.454
11339	CCD-189	264	266	2	0.360	0.220
11340	CCD-189	266	268	2	0.400	0.336
11341	CCD-189	268	270	2	0.200	0.234
11342	CCD-189	270	272	2	0.100	0.117
11343	CCD-189	272	274	2	0.130	0.158
11344	CCD-189	274	276	2	0.110	0.158
11345	CCD-189	276	278	2	0.070	0.087
11346	CCD-189	278	280	2	0.070	0.076
11347	CCD-189	280	282	2	0.300	0.173
11348	CCD-189	282	284	2	0.090	0.090
11349	CCD-189	284	286	2	0.150	0.114
11350	CCD-189	286	288	2	0.010	0.158
11351	CCD-189	288	290	2	0.590	0.424
11352	CCD-189	290	292	2	0.420	0.265
11353	CCD-189	292	294	2	0.520	0.387
11355	CCD-189	294	296	2	0.410	0.398
11356	CCD-189	296	298	2	0.130	0.131
11357	CCD-189	298	300	2	0.160	0.154
11358	CCD-189	300	302	2	0.150	0.098
11359	CCD-189	302	304	2	0.180	0.202
11460	CCD-189	304	305	1	0.440	0.306

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
11401	CCD-190	0	2	2	0.580	0.185
11402	CCD-190	2	4	2	0.300	0.191
11403	CCD-190	4	6	2	0.350	0.086
11404	CCD-190	6	8	2	0.190	0.376
11405	CCD-190	8	10	2	0.150	0.956
11406	CCD-190	10	12	2	0.300	0.145
11407	CCD-190	12	14	2	0.250	0.459
11408	CCD-190	14	16	2	0.200	0.508
11409	CCD-190	16	18	2	0.340	0.150
11410	CCD-190	18	20	2	0.490	0.179
11411	CCD-190	20	22	2	1.120	0.270
11412	CCD-190	22	24	2	1.010	0.659
11413	CCD-190	24	26	2	1.150	0.196
11414	CCD-190	26	28	2	0.520	0.222
11415	CCD-190	28	30	2	0.320	0.224
11416	CCD-190	30	32	2	0.390	0.154
11417	CCD-190	32	34	2	0.620	0.174
11418	CCD-190	34	36	2	3.290	0.158
11419	CCD-190	36	38	2	1.010	0.118
11420	CCD-190	38	40	2	0.640	0.174
11421	CCD-190	40	42	2	1.310	0.125
11423	CCD-190	42	44	2	1.220	0.064
11424	CCD-190	44	46	2	1.310	0.070
11425	CCD-190	46	48	2	1.310	0.050
11426	CCD-190	48	50	2	0.630	0.041
11427	CCD-190	50	52	2	1.200	0.153
11428	CCD-190	52	54	2	0.820	0.290
11429	CCD-190	54	56	2	0.540	0.544
11430	CCD-190	56	58	2	0.620	0.708
11431	CCD-190	58	60	2	0.960	0.645
11432	CCD-190	60	62	2	0.720	0.334
11433	CCD-190	62	64	2	0.580	0.106
11434	CCD-190	64	66	2	2.650	0.605
11435	CCD-190	66	68	2	0.560	0.595
11436	CCD-190	68	70	2	0.840	0.781
11437	CCD-190	70	72	2	1.080	1.104
11438	CCD-190	72	74	2	1.090	1.232
11439	CCD-190	74	76	2	0.890	1.104
11440	CCD-190	76	78	2	0.700	0.562
11441	CCD-190	78	80	2	0.690	0.649
11442	CCD-190	80	82	2	0.540	0.442
11443	CCD-190	82	84	2	0.620	0.506
11445	CCD-190	84	86	2	0.800	0.567
11446	CCD-190	86	88	2	0.590	0.635
11447	CCD-190	88	90	2	0.860	0.868
11448	CCD-190	90	92	2	1.240	0.929
11449	CCD-190	92	94	2	0.720	0.612
11450	CCD-190	94	96	2	0.610	0.664
11451	CCD-190	96	98	2	0.540	0.354
11452	CCD-190	98	100	2	0.500	0.362
11453	CCD-190	100	102	2	0.460	0.286
11454	CCD-190	102	104	2	0.420	0.269
11455	CCD-190	104	106	2	0.650	0.373
11456	CCD-190	106	108	2	0.590	0.340
11457	CCD-190	108	110	2	0.560	0.313

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
11458	CCD-190	110	112	2	1.130	0.588
11459	CCD-190	112	114	2	0.590	0.312
11460	CCD-190	114	116	2	0.540	0.385
11461	CCD-190	116	118	2	0.560	0.308
11462	CCD-190	118	120	2	0.520	0.330
11463	CCD-190	120	122	2	0.770	0.494
11464	CCD-190	122	124	2	0.990	0.593
11465	CCD-190	124	126	2	0.510	0.362
11467	CCD-190	126	128	2	0.440	0.239
11468	CCD-190	128	130	2	0.380	0.251
11469	CCD-190	130	132	2	0.440	0.234
11470	CCD-190	132	134	2	0.850	0.328
11471	CCD-190	134	136	2	0.660	0.338
11472	CCD-190	136	138	2	0.400	0.273
11473	CCD-190	138	140	2	0.580	0.381
11474	CCD-190	140	142	2	0.630	0.268
11475	CCD-190	142	144	2	0.370	0.195
11476	CCD-190	144	146	2	0.560	0.275
11477	CCD-190	146	148	2	0.440	0.261
11478	CCD-190	148	150	2	0.500	0.315
11479	CCD-190	150	152	2	0.590	0.318
11480	CCD-190	152	154	2	0.680	0.480
11481	CCD-190	154	156	2	0.700	0.511
11482	CCD-190	156	158	2	0.390	0.256
11483	CCD-190	158	160	2	0.350	0.304
11484	CCD-190	160	162	2	0.480	0.277
11485	CCD-190	162	164	2	0.390	0.246
11486	CCD-190	164	166	2	0.350	0.222
11487	CCD-190	166	168	2	0.260	0.252
11489	CCD-190	168	170	2	0.210	0.216
11490	CCD-190	170	172	2	0.230	0.178
11491	CCD-190	172	174	2	0.220	0.168
11492	CCD-190	174	176	2	0.160	0.133
11493	CCD-190	176	178	2	0.500	0.242
11494	CCD-190	178	180	2	0.720	0.350
11495	CCD-190	180	182	2	0.580	0.355
11496	CCD-190	182	184	2	0.430	0.253
11497	CCD-190	184	186	2	0.330	0.222
11498	CCD-190	186	188	2	0.500	0.262
11499	CCD-190	188	190	2	0.450	0.263
11500	CCD-190	190	192	2	0.480	0.367
11501	CCD-190	192	194	2	0.710	0.171
11502	CCD-190	194	196	2	0.500	0.216
11503	CCD-190	196	198	2	0.740	0.138
11504	CCD-190	198	200	2	0.530	0.212
11505	CCD-190	200	202	2	0.360	0.226
11506	CCD-190	202	204	2	0.660	0.255
11507	CCD-190	204	206	2	0.720	0.326
11508	CCD-190	206	208	2	0.660	0.304
11509	CCD-190	208	210	2	0.670	0.284
11511	CCD-190	210	212	2	0.800	0.467
11512	CCD-190	212	214	2	0.290	0.199
11513	CCD-190	214	216	2	0.540	0.324
11514	CCD-190	216	218	2	0.360	0.256
11515	CCD-190	218	220	2	0.620	0.385

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
11516	CCD-190	220	222	2	0.960	0.553
11517	CCD-190	222	224	2	0.500	0.270
11518	CCD-190	224	225.25	1.25	0.160	0.127
11601	CCD-191	0	2	2	2.970	0.092
11602	CCD-191	2	4	2	4.270	0.065
11603	CCD-191	4	6	2	2.730	0.052
11604	CCD-191	6	8	2	2.920	0.012
11605	CCD-191	8	10	2	2.780	0.018
11606	CCD-191	10	12	2	3.420	0.016
11607	CCD-191	12	14	2	3.910	0.033
11608	CCD-191	14	16	2	2.580	0.034
11609	CCD-191	16	18	2	2.270	0.041
11610	CCD-191	18	20	2	1.720	0.041
11611	CCD-191	20	22	2	2.550	0.026
11612	CCD-191	22	24	2	3.310	0.023
11613	CCD-191	24	26	2	1.280	0.058
11614	CCD-191	26	28	2	1.910	0.034
11615	CCD-191	28	30	2	2.550	0.045
11616	CCD-191	30	32	2	1.860	0.037
11617	CCD-191	32	34	2	1.330	0.052
11618	CCD-191	34	36	2	0.760	0.058
11619	CCD-191	36	38	2	1.000	0.123
11620	CCD-191	38	39	1	0.780	0.095
11621	CCD-191	39	41.9	2.9	1.550	0.042
11623	CCD-191	41.9	44	2.1	1.700	0.050
11624	CCD-191	44	46	2	1.460	0.005
11625	CCD-191	46	48	2	1.470	0.067
11626	CCD-191	48	50	2	1.370	0.018
11627	CCD-191	50	52	2	1.420	0.149
11628	CCD-191	52	54	2	1.950	0.525
11629	CCD-191	54	56	2	1.640	0.749
11630	CCD-191	56	58	2	1.180	0.748
11631	CCD-191	58	60	2	1.440	0.828
11632	CCD-191	60	62	2	2.150	1.005
11633	CCD-191	62	64	2	1.130	0.791
11634	CCD-191	64	66	2	1.060	1.026
11635	CCD-191	66	68	2	0.910	0.828
11636	CCD-191	68	70	2	1.290	0.732
11637	CCD-191	70	72	2	1.740	0.706
11638	CCD-191	72	74	2	1.330	0.400
11639	CCD-191	74	76	2	1.250	0.391
11640	CCD-191	76	78	2	1.810	0.529
11641	CCD-191	78	80	2	3.780	0.452
11642	CCD-191	80	82	2	1.510	0.581
11643	CCD-191	82	84	2	1.790	0.565
11645	CCD-191	84	86	2	2.010	0.602
11646	CCD-191	86	88	2	1.170	0.392
11647	CCD-191	88	90	2	1.230	0.496
11648	CCD-191	90	92	2	0.830	0.367
11649	CCD-191	92	94	2	1.230	0.501
11650	CCD-191	94	96	2	0.960	0.574
11651	CCD-191	96	98	2	0.920	0.405
11652	CCD-191	98	100	2	0.970	0.378
11653	CCD-191	100	102	2	0.540	0.400
11654	CCD-191	102	104	2	1.230	0.400

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
11655	CCD-191	104	106	2	1.200	0.367
11656	CCD-191	106	108	2	1.520	0.478
11657	CCD-191	108	110	2	1.460	0.496
11658	CCD-191	110	112	2	1.290	0.442
11659	CCD-191	112	114	2	1.710	0.522
11660	CCD-191	114	116	2	1.740	0.827
11661	CCD-191	116	118	2	0.890	0.574
11662	CCD-191	118	120	2	0.600	0.407
11663	CCD-191	120	122	2	0.220	0.038
11664	CCD-191	122	124	2	0.010	0.529
11665	CCD-191	124	126	2	0.590	0.374
11667	CCD-191	126	128	2	0.800	0.426
11668	CCD-191	128	130	2	0.830	0.501
11669	CCD-191	130	132	2	0.010	0.292
11670	CCD-191	132	134	2	0.890	0.451
11671	CCD-191	134	136	2	0.750	0.579
11672	CCD-191	136	138	2	0.820	0.588
11673	CCD-191	138	140	2	1.200	0.551
11674	CCD-191	140	142	2	1.140	0.428
11675	CCD-191	142	144	2	0.410	0.602
11676	CCD-191	144	146	2	1.290	0.536
11677	CCD-191	146	148	2	1.220	0.440
11678	CCD-191	148	150	2	1.530	0.518
11679	CCD-191	150	152	2	1.270	0.452
11680	CCD-191	152	154	2	1.140	0.525
11681	CCD-191	154	156	2	1.710	0.509
11682	CCD-191	156	158	2	1.730	0.529
11683	CCD-191	158	160	2	1.520	0.414
11684	CCD-191	160	162	2	1.530	0.365
11685	CCD-191	162	164	2	2.020	0.416
11686	CCD-191	164	166	2	1.370	0.378
11687	CCD-191	166	168	2	1.930	0.447
11689	CCD-191	168	170	2	1.520	0.399
11690	CCD-191	170	172	2	0.960	0.274
11691	CCD-191	172	174	2	1.030	0.395
11692	CCD-191	174	176	2	1.050	0.416
11693	CCD-191	176	178	2	1.440	0.447
11694	CCD-191	178	180	2	1.380	0.461
11695	CCD-191	180	182	2	1.630	0.433
11696	CCD-191	182	184	2	2.030	0.504
11697	CCD-191	184	186	2	1.850	0.374
11698	CCD-191	186	188	2	1.050	0.473
11699	CCD-191	188	190	2	1.130	0.294
11700	CCD-191	190	192	2	0.580	0.186
11701	CCD-191	192	194	2	0.990	0.232
11702	CCD-191	194	196	2	1.280	0.294
11703	CCD-191	196	198	2	0.980	0.286
11704	CCD-191	198	200	2	0.800	0.270
11705	CCD-191	200	202	2	0.750	0.223
11706	CCD-191	202	204	2	0.810	0.186
11707	CCD-191	204	206	2	1.410	0.172
11708	CCD-191	206	208	2	0.890	0.218
11709	CCD-191	208	210	2	0.120	0.035
11711	CCD-191	210	212	2	0.830	0.188
11712	CCD-191	212	214	2	0.920	0.250

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
11713	CCD-191	214	216	2	1.250	0.245
11714	CCD-191	216	218	2	1.400	0.254
11715	CCD-191	218	220	2	0.880	0.246
11716	CCD-191	220	222	2	0.420	0.220
11717	CCD-191	222	224	2	0.760	0.212
11718	CCD-191	224	226	2	0.340	0.136
11719	CCD-191	226	228	2	0.420	0.197
11720	CCD-191	228	230	2	2.420	0.170
11721	CCD-191	230	232	2	0.650	0.158
11722	CCD-191	232	234	2	0.960	0.158
11723	CCD-191	234	236	2	0.330	0.102
11724	CCD-191	236	238	2	0.270	0.105
11725	CCD-191	238	240	2	0.450	0.115
11726	CCD-191	240	242	2	0.470	0.076
11727	CCD-191	242	244	2	0.290	0.073
11728	CCD-191	244	246	2	0.250	0.089
11729	CCD-191	246	248	2	0.180	0.078
11730	CCD-191	248	250	2	0.200	0.066
11731	CCD-191	250	252	2	0.260	0.099
11733	CCD-191	252	254	2	0.200	0.106
11734	CCD-191	254	256	2	0.360	0.098
11735	CCD-191	256	258	2	0.150	0.056
11736	CCD-191	258	260	2	0.130	0.055
11737	CCD-191	260	262	2	0.190	0.086
11738	CCD-191	262	264	2	0.290	0.104
11739	CCD-191	264	266	2	0.790	0.202
11740	CCD-191	266	268	2	0.260	0.065
11741	CCD-191	268	270	2	0.190	0.047
11742	CCD-191	270	272	2	0.190	0.168
11743	CCD-191	272	274	2	0.460	0.173
11744	CCD-191	274	276	2	0.340	0.240
11745	CCD-191	276	278	2	0.260	0.081
11746	CCD-191	278	280	2	0.230	0.058
11747	CCD-191	280	282	2	0.200	0.066
11748	CCD-191	282	284	2	0.450	0.162
11749	CCD-191	284	286	2	0.390	0.144
11750	CCD-191	286	288	2	0.300	0.128
11751	CCD-191	288	290	2	0.160	0.040
11752	CCD-191	290	292	2	0.100	0.030
11753	CCD-191	292	294	2	0.160	0.052
11755	CCD-191	294	296	2	0.200	0.060
11756	CCD-191	296	298	2	0.200	0.090
11757	CCD-191	298	300	2	0.120	0.050
11758	CCD-191	300	302	2	0.120	0.060
11759	CCD-191	302	304	2	0.310	0.052
11760	CCD-191	304	306	2	0.090	0.051
11761	CCD-191	306	308	2	0.150	0.070
11762	CCD-191	308	310	2	0.120	0.069
11801	CCD-192	0	2	2	0.140	0.030
11802	CCD-192	2	4	2	0.150	0.121
11803	CCD-192	4	6	2	0.080	0.153
11804	CCD-192	6	8	2	0.030	0.048
11805	CCD-192	8	10	2	0.060	0.024
11806	CCD-192	10	12	2	0.010	0.030
11807	CCD-192	12	14	2	0.010	0.005

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
11808	CCD-192	14	16	2	0.010	0.005
11809	CCD-192	16	18	2	0.010	0.005
11810	CCD-192	18	20	2	0.010	0.005
11811	CCD-192	20	22	2	0.040	0.011
11812	CCD-192	22	24	2	0.020	0.014
11813	CCD-192	24	26	2	0.030	0.042
11814	CCD-192	26	28	2	0.030	0.021
11815	CCD-192	28	30	2	0.010	0.012
11816	CCD-192	30	32	2	0.020	0.045
11817	CCD-192	32	34	2	0.030	0.005
11818	CCD-192	34	36	2	0.130	0.014
11819	CCD-192	36	38	2	0.030	0.028
11820	CCD-192	38	40	2	0.070	0.054
11821	CCD-192	40	42	2	0.070	0.043
11823	CCD-192	42	44	2	0.070	0.040
11824	CCD-192	44	46	2	0.070	0.064
11825	CCD-192	46	48	2	0.070	0.050
11826	CCD-192	48	50	2	0.070	0.065
11827	CCD-192	50	52	2	0.090	0.037
11828	CCD-192	52	54	2	0.180	0.058
11829	CCD-192	54	56	2	0.160	0.040
11830	CCD-192	56	58	2	0.300	0.094
11831	CCD-192	58	60	2	0.340	0.113
11832	CCD-192	60	62	2	0.280	0.242
11833	CCD-192	62	64	2	0.140	0.297
11834	CCD-192	64	66	2	0.130	0.178
11835	CCD-192	66	68	2	0.160	0.145
11836	CCD-192	68	70	2	0.100	0.085
11837	CCD-192	70	72	2	0.250	0.279
11838	CCD-192	72	74	2	0.230	0.242
11839	CCD-192	74	76	2	0.250	0.158
11840	CCD-192	76	78	2	0.240	0.254
11841	CCD-192	78	80	2	0.370	0.239
11842	CCD-192	80	82	2	0.680	0.781
11843	CCD-192	82	84	2	0.410	0.207
11845	CCD-192	84	86	2	0.360	0.316
11846	CCD-192	86	88	2	0.370	0.366
11847	CCD-192	88	90	2	0.360	0.221
11848	CCD-192	90	92	2	0.330	0.286
11849	CCD-192	92	94	2	0.320	0.274
11850	CCD-192	94	96	2	0.280	0.306
11851	CCD-192	96	98	2	0.320	0.200
11852	CCD-192	98	100	2	0.200	0.178
11853	CCD-192	100	102	2	0.150	0.177
11854	CCD-192	102	104	2	0.130	0.139
11855	CCD-192	104	106	2	0.110	0.120
11856	CCD-192	106	108	2	0.130	0.161
11857	CCD-192	108	110	2	0.160	0.157
11858	CCD-192	110	112	2	0.160	0.125
11859	CCD-192	112	114	2	0.300	0.343
11860	CCD-192	114	116	2	0.340	0.172
11861	CCD-192	116	118	2	0.460	0.901
11862	CCD-192	118	120	2	0.050	0.031
11863	CCD-192	120	122	2	0.050	0.015
11864	CCD-192	122	124	2	0.100	0.084

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
11865	CCD-192	124	125	1	0.060	0.048
12001	CCD-193	0	2	2	0.990	0.096
12002	CCD-193	2	4	2	2.010	0.072
12003	CCD-193	4	6	2	2.340	0.142
12004	CCD-193	6	8	2	2.630	1.179
12005	CCD-193	8	10	2	1.710	0.286
12006	CCD-193	10	12	2	1.450	1.544
12007	CCD-193	12	14	2	1.890	1.624
12008	CCD-193	14	16	2	1.310	0.779
12009	CCD-193	16	18	2	1.970	0.680
12010	CCD-193	18	20	2	0.910	0.816
12011	CCD-193	20	22	2	0.730	0.371
12012	CCD-193	22	24	2	1.350	0.518
12013	CCD-193	24	26	2	1.310	0.741
12014	CCD-193	26	28	2	1.390	1.520
12015	CCD-193	28	30	2	1.490	0.868
12016	CCD-193	30	32	2	1.000	0.579
12017	CCD-193	32	34	2	0.740	0.280
12018	CCD-193	34	36	2	0.880	0.661
12019	CCD-193	36	38	2	0.960	0.814
12020	CCD-193	38	40	2	2.420	0.779
12021	CCD-193	40	42	2	1.430	0.588
12023	CCD-193	42	44	2	1.250	0.753
12024	CCD-193	44	46	2	1.450	0.645
12025	CCD-193	46	48	2	2.120	1.424
12026	CCD-193	48	50	2	0.800	0.826
12027	CCD-193	50	52	2	1.310	0.508
12028	CCD-193	52	54	2	1.230	0.424
12029	CCD-193	54	56	2	0.910	0.332
12030	CCD-193	56	58	2	1.660	0.776
12031	CCD-193	58	60	2	1.210	0.482
12032	CCD-193	60	62	2	1.170	0.532
12033	CCD-193	62	64	2	0.810	0.362
12034	CCD-193	64	66	2	1.050	0.407
12035	CCD-193	66	68	2	0.610	0.475
12036	CCD-193	68	70	2	0.660	0.433
12037	CCD-193	70	72	2	0.520	0.309
12038	CCD-193	72	74	2	0.300	0.464
12039	CCD-193	74	76	2	0.420	0.388
12040	CCD-193	76	78	2	0.930	0.588
12041	CCD-193	78	80	2	1.520	0.518
12042	CCD-193	80	82	2	0.960	0.354
12043	CCD-193	82	84	2	1.060	0.338
12045	CCD-193	84	86	2	0.950	0.407
12046	CCD-193	86	88	2	1.270	0.508
12047	CCD-193	88	90	2	0.600	0.664
12048	CCD-193	90	92	2	1.170	0.652
12049	CCD-193	92	94	2	1.050	0.941
12050	CCD-193	94	96	2	0.920	0.313
12051	CCD-193	96	98	2	0.590	0.242
12052	CCD-193	98	100	2	0.700	0.433
12053	CCD-193	100	102	2	0.820	0.301
12054	CCD-193	102	104	2	0.430	0.210
12055	CCD-193	104	106	2	0.300	0.154
12056	CCD-193	106	108	2	0.390	0.139

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
12057	CCD-193	108	110	2	0.400	0.175
12058	CCD-193	110	112	2	0.120	0.100
12059	CCD-193	112	114	2	0.160	0.063
12060	CCD-193	114	116	2	0.370	0.156
12061	CCD-193	116	118	2	0.300	0.181
12062	CCD-193	118	120	2	0.270	0.233
12063	CCD-193	120	122	2	0.240	0.177
12064	CCD-193	122	124	2	0.280	0.233
12065	CCD-193	124	126	2	0.340	0.330
12067	CCD-193	126	128	2	0.290	0.254
12068	CCD-193	128	130.35	2.35	0.260	0.189
12201	CCD-194	0	2	2	0.260	0.024
12202	CCD-194	2	4	2	0.010	0.023
12203	CCD-194	4	6	2	0.640	0.024
12204	CCD-194	6	8	2	0.420	0.014
12205	CCD-194	8	10	2	0.680	0.034
12206	CCD-194	10	12	2	0.380	0.031
12207	CCD-194	12	14	2	0.290	0.022
12208	CCD-194	14	16	2	0.460	0.022
12209	CCD-194	16	18	2	0.940	0.015
12210	CCD-194	18	20	2	0.520	0.014
12211	CCD-194	20	22	2	0.470	0.016
12212	CCD-194	22	24	2	0.380	0.130
12214	CCD-194	24	25.6	1.6	0.550	0.779
-1	CCD-194	25.6	26	0.4	-1.000	-1.000
12215	CCD-194	26	28	2	-1.000	-1.000
12216	CCD-194	28	30	2	-1.000	-1.000
12217	CCD-194	30	31.7	1.7	-1.000	-1.000
12218	CCD-194	31.7	34	2.3	0.330	0.673
12219	CCD-194	34	36	2	0.410	0.354
12220	CCD-194	36	38	2	0.550	0.317
12221	CCD-194	38	40	2	0.440	0.230
12222	CCD-194	40	42	2	0.390	0.541
12224	CCD-194	42	44	2	0.060	0.260
12225	CCD-194	44	46	2	0.110	0.310
12226	CCD-194	46	48	2	0.130	0.371
12227	CCD-194	48	50	2	0.120	0.390
12228	CCD-194	50	52	2	0.230	0.419
12229	CCD-194	52	54	2	0.220	0.428
12230	CCD-194	54	56	2	0.210	0.418
12231	CCD-194	56	58	2	0.540	0.727
12232	CCD-194	58	60	2	0.640	0.494
12233	CCD-194	60	62	2	0.350	0.454
12234	CCD-194	62	64	2	0.320	0.459
12235	CCD-194	64	66	2	0.480	0.471
12236	CCD-194	66	68	2	0.430	0.459
12237	CCD-194	68	70	2	0.500	0.354
12238	CCD-194	70	72	2	0.400	0.628
12239	CCD-194	72	74	2	2.090	0.298
12240	CCD-194	74	76	2	0.310	0.098
12241	CCD-194	76	78	2	0.390	0.103
12242	CCD-194	78	80	2	1.030	0.228
12243	CCD-194	80	82	2	0.710	0.327
12244	CCD-194	82	84	2	0.310	0.299
12247	CCD-194	84	86	2	0.420	0.485

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
12248	CCD-194	86	88	2	0.480	0.471
12249	CCD-194	88	90	2	0.250	0.680
12250	CCD-194	90	92	2	0.300	0.540
12251	CCD-194	92	94	2	0.290	0.282
12252	CCD-194	94	96	2	0.380	0.326
12253	CCD-194	96	98	2	0.590	0.207
12254	CCD-194	98	100	2	1.000	0.112
12256	CCD-194	100	102	2	0.240	0.409
12257	CCD-194	102	104	2	0.350	0.310
12258	CCD-194	104	106	2	0.330	0.405
12259	CCD-194	106	108	2	0.290	0.402
12260	CCD-194	108	110	2	0.880	0.793
12261	CCD-194	110	112	2	0.540	0.478
12262	CCD-194	112	114	2	0.550	0.246
12263	CCD-194	114	116	2	0.540	0.221
12264	CCD-194	116	118	2	0.320	0.246
12265	CCD-194	118	120	2	0.280	0.191
12266	CCD-194	120	122	2	0.480	0.234
12267	CCD-194	122	124	2	0.180	0.113
12268	CCD-194	124	126	2	0.250	0.190
12270	CCD-194	126	128	2	0.150	0.211
12271	CCD-194	128	130	2	0.200	0.238
12272	CCD-194	130	132	2	0.190	0.130
12273	CCD-194	132	134	2	0.140	0.108
12274	CCD-194	134	136	2	0.120	0.147
12275	CCD-194	136	138	2	0.250	0.199
12276	CCD-194	138	140	2	0.190	0.165
12277	CCD-194	140	142	2	0.120	0.138
12278	CCD-194	142	144	2	0.190	0.118
12279	CCD-194	144	146	2	0.120	0.040
12280	CCD-194	146	148	2	0.430	0.378
12281	CCD-194	148	150	2	0.210	0.218
12283	CCD-194	150	152	2	0.490	0.492
12284	CCD-194	152	154	2	0.540	0.384
12285	CCD-194	154	156	2	0.420	0.315
12286	CCD-194	156	158	2	0.550	0.706
12287	CCD-194	158	160	2	0.250	0.240
12288	CCD-194	160	162	2	0.250	0.275
12289	CCD-194	162	164	2	0.260	0.280
12290	CCD-194	164	166	2	0.420	0.396
12291	CCD-194	166	168	2	0.300	0.331
12293	CCD-194	168	170	2	0.300	0.258
12294	CCD-194	170	172	2	0.420	0.392
12295	CCD-194	172	174	2	0.630	0.635
12296	CCD-194	174	176	2	0.400	0.701
12297	CCD-194	176	178	2	0.480	0.388
12298	CCD-194	178	180	2	0.430	0.454
12299	CCD-194	180	182	2	0.520	0.494
12300	CCD-194	182	184	2	0.780	0.730
12301	CCD-194	184	186	2	0.890	0.946
12302	CCD-194	186	188	2	0.550	0.548
12303	CCD-194	188	190	2	0.660	0.567
12304	CCD-194	190	192	2	0.610	0.762
12305	CCD-194	192	194	2	0.460	0.925
12306	CCD-194	194	196	2	0.430	0.368

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
12307	CCD-194	196	198	2	0.510	0.445
12308	CCD-194	198	200.9	2.9	0.500	0.452
12401	CCD-195	0	2	2	0.020	0.020
12402	CCD-195	2	4	2	0.040	0.030
12403	CCD-195	4	6	2	0.060	0.042
12404	CCD-195	6	8	2	0.030	0.042
12405	CCD-195	8	10	2	0.040	0.030
12406	CCD-195	10	12	2	0.010	0.020
12407	CCD-195	12	14	2	0.010	0.019
12408	CCD-195	14	16	2	0.010	0.010
12409	CCD-195	16	18	2	0.010	0.014
12410	CCD-195	18	20	2	0.190	0.108
12411	CCD-195	20	22	2	0.010	0.014
12413	CCD-195	22	24	2	0.010	0.005
12414	CCD-195	24	26	2	0.010	0.005
12415	CCD-195	26	28	2	0.010	0.005
12416	CCD-195	28	30	2	0.060	0.010
12417	CCD-195	30	32	2	0.220	0.200
12418	CCD-195	32	34	2	0.580	0.394
12419	CCD-195	34	36	2	0.580	0.390
12420	CCD-195	36	38	2	0.350	0.253
12421	CCD-195	38	40	2	0.480	0.346
12422	CCD-195	40	42	2	0.480	0.366
12424	CCD-195	42	44	2	0.440	0.306
12425	CCD-195	44	46	2	0.680	0.527
12426	CCD-195	46	48	2	0.500	0.338
12427	CCD-195	48	50	2	0.470	0.356
12428	CCD-195	50	52	2	0.090	0.350
12429	CCD-195	52	54	2	0.530	0.499
12430	CCD-195	54	56	2	0.460	0.388
12431	CCD-195	56	58	2	0.440	0.289
12432	CCD-195	58	60	2	0.650	0.482
12433	CCD-195	60	62	2	0.430	0.348
12435	CCD-195	62	64	2	0.700	0.576
12436	CCD-195	64	66	2	0.690	0.574
12437	CCD-195	66	68	2	1.130	1.012
12438	CCD-195	68	70	2	1.250	1.042
12439	CCD-195	70	72	2	0.330	0.358
12440	CCD-195	72	74	2	0.630	0.522
12441	CCD-195	74	76	2	0.320	0.377
12442	CCD-195	76	78	2	0.430	0.385
12443	CCD-195	78	80	2	0.510	0.369
12444	CCD-195	80	82	2	0.860	0.689
12445	CCD-195	82	84	2	0.500	0.431
12447	CCD-195	84	86	2	0.040	0.030
12448	CCD-195	86	88	2	0.030	0.028
12449	CCD-195	88	90	2	0.190	0.065
12450	CCD-195	90	92	2	0.020	0.020
12451	CCD-195	92	94	2	0.040	0.030
12452	CCD-195	94	96	2	0.030	0.026
12453	CCD-195	96	98	2	0.010	0.030
12454	CCD-195	98	100	2	0.010	0.016
12455	CCD-195	100	102	2	0.030	0.028
12457	CCD-195	102	104	2	0.110	0.053
12458	CCD-195	104	106	2	0.030	0.026

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
12459	CCD-195	106	108	2	0.010	0.030
12460	CCD-195	108	110	2	0.010	0.022
12461	CCD-195	110	112	2	0.020	0.030
12462	CCD-195	112	114	2	0.040	0.026
12463	CCD-195	114	116	2	0.030	0.030
12464	CCD-195	116	118	2	0.050	0.030
12465	CCD-195	118	120	2	0.030	0.020
12466	CCD-195	120	122	2	0.030	0.020
12467	CCD-195	122	124	2	0.030	0.020
12468	CCD-195	124	126	2	0.010	0.020
12470	CCD-195	126	128	2	0.230	0.208
12471	CCD-195	128	130	2	0.410	0.300
12472	CCD-195	130	132	2	0.690	0.487
12473	CCD-195	132	134	2	1.000	0.532
12474	CCD-195	134	136	2	0.510	0.302
12475	CCD-195	136	138	2	0.440	0.257
12476	CCD-195	138	140	2	0.300	0.344
12477	CCD-195	140	142	2	0.480	0.320
12479	CCD-195	142	144	2	0.620	0.419
12480	CCD-195	144	146	2	0.320	0.231
12481	CCD-195	146	148	2	0.550	0.405
12482	CCD-195	148	150	2	0.480	0.320
12483	CCD-195	150	152	2	0.650	0.338
12484	CCD-195	152	154	2	0.970	0.614
12485	CCD-195	154	156	2	0.580	0.435
12486	CCD-195	156	158	2	0.930	0.659
12487	CCD-195	158	160	2	0.840	0.572
12488	CCD-195	160	162	2	0.770	0.600
12489	CCD-195	162	164	2	0.490	0.501
12490	CCD-195	164	166	2	0.460	0.416
12491	CCD-195	166	168	2	0.660	0.569
12493	CCD-195	168	170	2	1.210	1.054
12494	CCD-195	170	172	2	0.610	0.634
12495	CCD-195	172	174	2	0.690	0.525
12496	CCD-195	174	176	2	0.420	0.396
12497	CCD-195	176	178	2	0.750	0.544
12498	CCD-195	178	180	2	0.520	0.449
12499	CCD-195	180	182	2	0.540	0.529
12501	CCD-195	182	184	2	0.470	0.378
12502	CCD-195	184	186	2	0.750	0.482
12503	CCD-195	186	188	2	0.420	0.306
12504	CCD-195	188	190	2	0.540	0.391
12505	CCD-195	190	192	2	0.500	0.277
12506	CCD-195	192	194	2	0.760	0.482
12507	CCD-195	194	196	2	1.920	1.520
12508	CCD-195	196	198	2	1.200	0.925
12509	CCD-195	198	200	2	1.900	1.068
12510	CCD-195	200	202	2	0.730	0.336
12511	CCD-195	202	204	2	1.200	0.859
12512	CCD-195	204	206	2	1.930	1.033
12513	CCD-195	206	208	2	1.370	0.616
12514	CCD-195	208	210	2	0.970	0.576
12516	CCD-195	210	212	2	1.230	0.668
12517	CCD-195	212	214	2	0.730	0.551
12518	CCD-195	214	216	2	0.870	0.605

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
12519	CCD-195	216	218	2	0.570	0.431
12520	CCD-195	218	220	2	0.530	0.424
12521	CCD-195	220	222	2	0.500	0.398
12523	CCD-195	222	224	2	0.800	0.515
12524	CCD-195	224	226	2	0.500	0.367
12525	CCD-195	226	228	2	0.370	0.275
12526	CCD-195	228	230	2	0.570	0.433
12527	CCD-195	230	232	2	0.330	0.278
12528	CCD-195	232	234	2	0.300	0.300
12529	CCD-195	234	236	2	0.470	0.354
12530	CCD-195	236	238	2	0.200	0.176
12531	CCD-195	238	240	2	0.330	0.313
12532	CCD-195	240	242	2	0.230	0.206
12533	CCD-195	242	244	2	0.430	0.347
12534	CCD-195	244	246	2	0.700	0.609
12535	CCD-195	246	248	2	0.770	0.534
12536	CCD-195	248	250	2	0.500	0.347
12601	CCD-196	0	2	2	0.400	0.028
12602	CCD-196	2	4	2	0.380	0.034
12603	CCD-196	4	6	2	0.270	0.034
12604	CCD-196	6	8	2	0.320	0.041
12605	CCD-196	8	10	2	0.240	0.030
12606	CCD-196	10	12	2	0.350	0.038
12607	CCD-196	12	14	2	0.290	0.030
12608	CCD-196	14	16	2	0.160	0.042
12609	CCD-196	16	18	2	0.330	0.050
12610	CCD-196	18	20	2	0.300	0.038
12611	CCD-196	20	22	2	0.300	0.063
12612	CCD-196	22	24	2	0.570	0.049
12613	CCD-196	24	26	2	0.420	0.050
12614	CCD-196	26	28	2	0.400	0.052
12615	CCD-196	28	30	2	0.340	0.049
12616	CCD-196	30	32	2	0.280	0.040
12617	CCD-196	32	34	2	0.330	0.043
12618	CCD-196	34	36	2	0.360	0.033
12619	CCD-196	36	38	2	0.210	0.040
12620	CCD-196	38	40	2	0.320	0.050
12621	CCD-196	40	42	2	0.460	0.050
12623	CCD-196	42	44	2	0.480	0.062
12625	CCD-196	44	46	2	0.310	0.054
12626	CCD-196	46	48	2	0.280	0.050
12627	CCD-196	48	50	2	0.420	0.074
12628	CCD-196	50	52	2	0.380	0.532
12629	CCD-196	52	54	2	2.280	1.744
12630	CCD-196	54	56	2	0.560	0.964
12631	CCD-196	56	58	2	0.260	0.205
12632	CCD-196	58	60	2	0.840	0.394
12633	CCD-196	60	62	2	0.530	1.352
12634	CCD-196	62	64	2	1.360	1.288
12635	CCD-196	64	66	2	0.770	0.833
12636	CCD-196	66	68	2	0.270	0.668
12637	CCD-196	68	70	2	0.280	0.235
12638	CCD-196	70	72	2	0.820	0.386
12639	CCD-196	72	74	2	0.510	0.382
12640	CCD-196	74	76	2	0.450	0.221

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
12641	CCD-196	76	78	2	0.230	0.036
12642	CCD-196	78	80	2	0.210	0.174
12643	CCD-196	80	82	2	0.350	0.074
12644	CCD-196	82	84	2	0.230	0.060
12647	CCD-196	84	86	2	0.370	0.110
12648	CCD-196	86	88	2	0.400	0.405
12649	CCD-196	88	90	2	0.570	0.567
12650	CCD-196	90	92	2	0.630	1.336
12651	CCD-196	92	94	2	0.870	0.913
12652	CCD-196	94	96	2	0.530	0.574
12653	CCD-196	96	98	2	0.530	0.788
12654	CCD-196	98	100	2	0.430	0.814
12655	CCD-196	100	102	2	0.330	0.539
12656	CCD-196	102	104	2	0.400	0.649
12657	CCD-196	104	106	2	0.530	0.871
12658	CCD-196	106	108	2	0.570	0.513
12659	CCD-196	108	110	2	0.470	0.244
12660	CCD-196	110	112	2	0.370	0.181
12661	CCD-196	112	114	2	0.330	0.158
12662	CCD-196	114	116	2	0.370	0.178
12663	CCD-196	116	118	2	0.300	0.287
12664	CCD-196	118	120	2	0.170	0.298
12665	CCD-196	120	122	2	0.170	0.122
12667	CCD-196	122	124	2	0.400	0.229
12668	CCD-196	124	126	2	0.370	0.385
12670	CCD-196	126	128	2	0.470	0.440
12671	CCD-196	128	130	2	0.700	0.290
12672	CCD-196	130	132	2	1.230	0.130
12673	CCD-196	132	134	2	1.800	0.130
12674	CCD-196	134	136	2	0.460	0.097
12675	CCD-196	136	138	2	0.630	0.250
12676	CCD-196	138	140	2	0.380	0.259
12677	CCD-196	140	142	2	0.640	0.196
12678	CCD-196	142	144	2	0.150	0.344
12679	CCD-196	144	146	2	0.140	0.212
12680	CCD-196	146	148	2	0.210	0.223
12681	CCD-196	148	150	2	0.180	0.258
12682	CCD-196	150	152	2	0.280	0.237
12683	CCD-196	152	154	2	0.080	0.089
12684	CCD-196	154	155	1	0.140	0.109
12951	CCD-197	0	2	2	0.070	0.060
12952	CCD-197	2	4	2	0.430	0.090
12953	CCD-197	4	6	2	0.090	0.051
12954	CCD-197	6	8	2	0.200	0.066
12955	CCD-197	8	10	2	0.320	0.051
12956	CCD-197	10	12	2	0.160	0.043
12957	CCD-197	12	14	2	0.240	0.067
12958	CCD-197	14	16	2	0.130	0.066
12959	CCD-197	16	18	2	0.150	0.205
12961	CCD-197	18	20	2	0.290	0.177
12962	CCD-197	20	22	2	0.080	0.177
12963	CCD-197	22	24	2	0.240	0.179
12964	CCD-197	24	26	2	0.220	0.170
12965	CCD-197	26	28	2	0.110	0.099
12966	CCD-197	28	30	2	0.150	0.140

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
12967	CCD-197	30	32	2	0.070	0.050
12968	CCD-197	32	34	2	0.130	0.102
12969	CCD-197	34	36	2	0.090	0.050
12970	CCD-197	36	38	2	0.150	0.102
12971	CCD-197	38	40	2	0.270	0.163
12972	CCD-197	40	42	2	0.330	0.200
12974	CCD-197	42	44	2	0.180	0.108
12975	CCD-197	44	46	2	0.170	0.104
12976	CCD-197	46	48	2	0.240	0.118
12977	CCD-197	48	50	2	0.180	0.123
12978	CCD-197	50	52	2	0.220	0.150
12979	CCD-197	52	54	2	0.170	0.107
12980	CCD-197	54	56	2	0.220	0.172
12981	CCD-197	56	58	2	0.160	0.050
12983	CCD-197	58	60	2	0.160	0.086
12984	CCD-197	60	62	2	0.190	0.110
12985	CCD-197	62	64	2	0.220	0.150
12986	CCD-197	64	66	2	0.290	0.230
12987	CCD-197	66	68	2	0.360	0.180
12988	CCD-197	68	70	2	0.200	0.147
12989	CCD-197	70	72	2	0.220	0.171
12990	CCD-197	72	74	2	0.150	0.100
12991	CCD-197	74	76	2	0.170	0.120
12992	CCD-197	76	78	2	1.070	0.930
12993	CCD-197	78	80	2	0.700	0.640
12994	CCD-197	80	82	2	0.440	0.330
12995	CCD-197	82	84	2	0.360	0.320
12997	CCD-197	84	86	2	0.540	0.350
12998	CCD-197	86	88	2	0.210	0.220
12999	CCD-197	88	90	2	0.270	0.220
13000	CCD-197	90	92	2	0.370	0.230
13001	CCD-197	92	94	2	0.420	0.310
13002	CCD-197	94	96	2	0.180	0.200
13003	CCD-197	96	98	2	0.080	0.080
13005	CCD-197	98	100	2	0.180	0.180
13006	CCD-197	100	102	2	0.090	0.120
13007	CCD-197	102	104	2	0.100	0.090
13008	CCD-197	104	106	2	0.090	0.070
13009	CCD-197	106	108	2	0.220	0.310
13010	CCD-197	108	110	2	0.160	0.140
13011	CCD-197	110	112	2	0.210	0.180
13012	CCD-197	112	114	2	0.440	0.310
13013	CCD-197	114	116	2	0.440	0.320
13014	CCD-197	116	118	2	0.150	0.180
13015	CCD-197	118	120	2	0.110	0.110
13016	CCD-197	120	122	2	0.240	0.120
13017	CCD-197	122	124	2	0.340	0.170
13018	CCD-197	124	126	2	0.190	0.120
13020	CCD-197	126	128	2	0.130	0.070
13021	CCD-197	128	130	2	0.180	0.120
13022	CCD-197	130	132	2	0.340	0.220
13023	CCD-197	132	134	2	0.270	0.200
13024	CCD-197	134	134.7	0.7	0.400	0.170
13151	CCD-198	0	2	2	0.080	0.066
13152	CCD-198	2	4	2	0.100	0.058

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
13153	CCD-198	4	6	2	0.030	0.031
13154	CCD-198	6	8	2	0.030	0.030
13155	CCD-198	8	10	2	0.010	0.040
13156	CCD-198	10	12	2	0.030	0.050
13157	CCD-198	12	14	2	0.030	0.059
13158	CCD-198	14	16	2	0.070	0.057
13159	CCD-198	16	18	2	0.010	0.030
13160	CCD-198	18	20	2	0.010	0.014
13161	CCD-198	20	22	2	0.010	0.028
13162	CCD-198	22	24	2	0.010	0.011
13163	CCD-198	24	26	2	0.140	0.010
13164	CCD-198	26	28	2	0.050	0.041
13165	CCD-198	28	30	2	0.030	0.034
13166	CCD-198	30	32	2	0.210	0.194
13167	CCD-198	32	34	2	0.150	0.145
13168	CCD-198	34	36	2	0.060	0.050
13169	CCD-198	36	38	2	0.030	0.030
13170	CCD-198	38	40	2	0.080	0.040
13171	CCD-198	40	42	2	0.030	0.040
13172	CCD-198	42	44	2	0.720	1.490
13174	CCD-198	44	46	2	0.050	0.050
13176	CCD-198	46	48	2	0.010	0.040
13177	CCD-198	48	50	2	0.030	0.040
13178	CCD-198	50	52	2	0.050	0.040
13179	CCD-198	52	54	2	0.070	0.050
13180	CCD-198	54	56	2	0.130	0.090
13181	CCD-198	56	58	2	0.050	0.040
13182	CCD-198	58	60	2	0.040	0.030
13183	CCD-198	60	62	2	0.010	0.030
13184	CCD-198	62	64	2	0.100	0.030
13185	CCD-198	64	66	2	0.040	0.020
13186	CCD-198	66	68	2	0.030	0.020
13187	CCD-198	68	70	2	0.050	0.030
13188	CCD-198	70	72	2	0.070	0.030
13189	CCD-198	72	74	2	0.050	0.010
13190	CCD-198	74	76	2	0.010	0.020
13191	CCD-198	76	78	2	0.030	0.020
13192	CCD-198	78	80	2	0.120	0.090
13193	CCD-198	80	82	2	0.220	0.160
13194	CCD-198	82	84	2	0.300	0.180
13197	CCD-198	84	86	2	0.460	0.400
13198	CCD-198	86	88	2	0.930	0.610
13199	CCD-198	88	90	2	0.010	0.010
13200	CCD-198	90	92	2	0.240	0.170
13201	CCD-198	92	94	2	0.470	0.400
13202	CCD-198	94	96	2	0.200	0.310
13203	CCD-198	96	98	2	0.480	0.190
13204	CCD-198	98	100	2	0.140	0.140
13205	CCD-198	100	102	2	0.270	0.090
13206	CCD-198	102	104	2	0.190	0.070
13207	CCD-198	104	106	2	0.740	0.494
13209	CCD-198	106	108	2	0.800	0.565
13210	CCD-198	108	110	2	0.590	0.396
13211	CCD-198	110	112	2	0.860	0.478
13212	CCD-198	112	114	2	0.730	0.499

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
13213	CCD-198	114	116	2	0.820	0.595
13214	CCD-198	116	118	2	2.250	0.328
13215	CCD-198	118	120	2	0.660	0.438
13216	CCD-198	120	122	2	0.460	0.522
13217	CCD-198	122	124	2	0.360	0.581
13218	CCD-198	124	126	2	0.090	0.130
13220	CCD-198	126	128	2	0.120	0.158
13221	CCD-198	128	130	2	0.110	0.348
13222	CCD-198	130	132	2	0.940	0.656
13223	CCD-198	132	134	2	2.430	0.927
13224	CCD-198	134	136	2	1.610	0.701
13225	CCD-198	136	138	2	0.930	0.671
13226	CCD-198	138	140	2	1.530	0.631
13227	CCD-198	140	142	2	1.060	0.400
13228	CCD-198	142	144	2	1.170	0.390
13229	CCD-198	144	146	2	1.280	0.456
13230	CCD-198	146	148	2	1.750	0.539
13231	CCD-198	148	150	2	0.860	0.352
13232	CCD-198	150	152	2	1.040	0.426
13234	CCD-198	152	154	2	1.040	0.447
13235	CCD-198	154	156	2	1.670	0.713
13236	CCD-198	156	158	2	1.190	0.574
13237	CCD-198	158	160	2	1.290	0.607
13238	CCD-198	160	162	2	1.530	0.600
13239	CCD-198	162	164	2	1.490	0.619
13240	CCD-198	164	166	2	2.030	0.732
13241	CCD-198	166	168	2	1.450	0.760
13243	CCD-198	168	170	2	1.470	0.591
13244	CCD-198	170	172	2	1.530	0.499
13245	CCD-198	172	174	2	1.450	0.496
13246	CCD-198	174	176	2	1.290	0.473
13247	CCD-198	176	178	2	1.130	0.407
13248	CCD-198	178	180	2	1.070	0.377
13249	CCD-198	180	182	2	1.670	0.612
13250	CCD-198	182	184	2	1.610	0.513
13251	CCD-198	184	186	2	0.730	0.278
13252	CCD-198	186	188	2	0.930	0.314
13253	CCD-198	188	190	2	1.060	0.340
13254	CCD-198	190	192	2	0.440	0.266
13255	CCD-198	192	194	2	0.490	0.240
13256	CCD-198	194	196	2	0.750	0.378
13257	CCD-198	196	198	2	0.790	0.320
13258	CCD-198	198	200	2	0.690	0.274
13259	CCD-198	200	202	2	0.590	0.287
13261	CCD-198	202	204	2	0.650	0.342
13262	CCD-198	204	206	2	0.360	0.171
13263	CCD-198	206	208	2	0.570	0.260
13264	CCD-198	208	210	2	0.670	0.338
13266	CCD-198	210	212	2	0.500	0.187
13267	CCD-198	212	214	2	0.710	0.234
13268	CCD-198	214	216	2	0.420	0.148
13269	CCD-198	216	218	2	0.250	0.102
13270	CCD-198	218	220	2	0.370	0.109
13271	CCD-198	220	222	2	0.540	0.255
13272	CCD-198	222	224	2	0.520	0.272

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
13273	CCD-198	224	226	2	0.600	0.280
13274	CCD-198	226	228	2	0.430	0.234
13275	CCD-198	228	230	2	0.340	0.190
13276	CCD-198	230	232	2	0.380	0.185
13277	CCD-198	232	234	2	0.370	0.136
13278	CCD-198	234	236	2	0.430	0.238
13279	CCD-198	236	238	2	0.370	0.284
13280	CCD-198	238	240	2	0.460	0.298
13281	CCD-198	240	242	2	0.230	0.161
13282	CCD-198	242	244	2	0.150	0.086
13283	CCD-198	244	246	2	0.550	0.286
13284	CCD-198	246	248	2	0.390	0.199
13285	CCD-198	248	250	2	0.300	0.082
13286	CCD-198	250	252	2	0.140	0.133
13288	CCD-198	252	254	2	0.520	0.211
13290	CCD-198	254	256	2	0.360	0.177
13291	CCD-198	256	258	2	0.500	0.273
13292	CCD-198	258	260	2	0.300	0.190
13293	CCD-198	260	262	2	0.370	0.235
13294	CCD-198	262	264	2	0.540	0.232
13295	CCD-198	264	266	2	0.130	0.080
13296	CCD-198	266	268	2	0.200	0.110
13297	CCD-198	268	270	2	0.170	0.096
13298	CCD-198	270	272	2	0.190	0.120
13299	CCD-198	272	274	2	0.280	0.137
13300	CCD-198	274	276	2	0.170	0.106
13301	CCD-198	276	278	2	0.310	0.206
13302	CCD-198	278	280	2	0.120	0.050
13303	CCD-198	280	282	2	0.100	0.050
13304	CCD-198	282	284	2	0.130	0.070
13305	CCD-198	284	286	2	0.100	0.057
13306	CCD-198	286	288	2	0.140	0.088
13307	CCD-198	288	290	2	0.160	0.102
13308	CCD-198	290	292	2	0.270	0.143
13309	CCD-198	292	294	2	0.180	0.086
13311	CCD-198	294	296	2	0.190	0.074
13313	CCD-198	296	298	2	0.150	0.077
13314	CCD-198	298	300	2	0.100	0.077
13315	CCD-198	300	302	2	0.190	0.073
13316	CCD-198	302	304	2	0.090	0.063
13317	CCD-198	304	306	2	0.100	0.066
13318	CCD-198	306	308	2	0.200	0.118
13319	CCD-198	308	310	2	0.400	0.053
13320	CCD-198	310	312	2	0.580	0.094
13321	CCD-198	312	314	2	0.110	0.069
13322	CCD-198	314	316	2	0.110	0.079
13323	CCD-198	316	318	2	0.180	0.042
13324	CCD-198	318	320	2	0.150	0.081
13325	CCD-198	320	322	2	0.180	0.110
13326	CCD-198	322	324	2	0.130	0.094
13327	CCD-198	324	326	2	0.150	0.094
13328	CCD-198	326	328	2	0.260	0.205
13329	CCD-198	328	330	2	0.320	0.193
13330	CCD-198	330	332	2	0.280	0.158
13331	CCD-198	332	334	2	0.190	0.150

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
13332	CCD-198	334	336	2	0.060	0.050
13334	CCD-198	336	338	2	0.130	0.090
13335	CCD-198	338	340	2	0.150	0.087
13336	CCD-198	340	342	2	0.120	0.073
13337	CCD-198	342	344	2	0.050	0.040
13338	CCD-198	344	346	2	0.180	0.144
13339	CCD-198	346	348	2	0.250	0.153
13340	CCD-198	348	350	2	0.270	0.110
13341	CCD-198	350	352	2	0.180	0.102
13342	CCD-198	352	354	2	0.050	0.046
13343	CCD-198	354	356	2	0.120	0.045
13345	CCD-198	356	358	2	0.120	0.097
13346	CCD-198	358	360	2	0.200	0.047
13347	CCD-198	360	362	2	0.150	0.090
13348	CCD-198	362	364	2	0.460	0.191
13349	CCD-198	364	366	2	0.400	0.173
14351	CCD-198	366	368	2	0.420	0.294
14352	CCD-198	368	370	2	0.600	0.400
14353	CCD-198	370	372	2	0.500	0.370
14354	CCD-198	372	374	2	0.180	0.118
14355	CCD-198	374	376	2	0.220	0.146
14356	CCD-198	376	378	2	0.150	0.108
14358	CCD-198	378	380	2	0.130	0.079
14359	CCD-198	380	382	2	0.240	0.168
14360	CCD-198	382	384	2	0.140	0.098
14361	CCD-198	384	386	2	0.080	0.070
14363	CCD-198	386	388	2	0.100	0.082
14364	CCD-198	388	390	2	0.052	0.064
14365	CCD-198	390	392	2	0.060	0.067
14366	CCD-198	392	394	2	0.072	0.066
14367	CCD-198	394	396	2	0.010	0.048
14368	CCD-198	396	398	2	0.010	0.040
14369	CCD-198	398	400	2	0.042	0.069
13351	CCD-199	0	2	2	0.220	0.140
13352	CCD-199	2	4	2	0.030	0.052
13353	CCD-199	4	6	2	0.110	0.026
13354	CCD-199	6	8	2	0.110	0.031
13355	CCD-199	8	10	2	0.110	0.125
13356	CCD-199	10	12	2	0.150	0.324
13357	CCD-199	12	14	2	0.050	0.303
13359	CCD-199	14	16	2	0.080	0.119
13360	CCD-199	16	18	2	0.150	0.186
13361	CCD-199	18	20	2	0.380	0.340
13362	CCD-199	20	22	2	0.390	0.336
13363	CCD-199	22	24	2	0.140	0.106
13364	CCD-199	24	26	2	0.160	0.167
13365	CCD-199	26	28	2	0.190	0.130
13366	CCD-199	28	30	2	0.200	0.103
13367	CCD-199	30	32	2	0.070	0.075
13368	CCD-199	32	34	2	0.130	0.109
13369	CCD-199	34	36	2	0.260	0.155
13370	CCD-199	36	38	2	0.300	0.241
13371	CCD-199	38	40	2	0.390	0.320
13372	CCD-199	40	42	2	0.270	0.192
13374	CCD-199	42	44	2	0.200	0.167

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
13375	CCD-199	44	46	2	0.310	0.254
13377	CCD-199	46	48	2	0.540	0.576
13378	CCD-199	48	50	2	0.440	0.296
13379	CCD-199	50	52	2	0.430	0.342
13380	CCD-199	52	54	2	0.220	0.211
13381	CCD-199	54	56	2	0.190	0.118
13382	CCD-199	56	58	2	0.160	0.184
13383	CCD-199	58	60	2	0.110	0.163
13384	CCD-199	60	62	2	0.360	0.317
13385	CCD-199	62	64	2	0.170	0.147
13386	CCD-199	64	66	2	0.270	0.171
13387	CCD-199	66	68	2	0.340	0.214
13388	CCD-199	68	70	2	0.460	0.354
13389	CCD-199	70	72	2	0.160	0.162
13390	CCD-199	72	74	2	0.440	0.328
13391	CCD-199	74	76	2	0.150	0.247
13392	CCD-199	76	78	2	0.310	0.268
13393	CCD-199	78	80	2	0.150	0.163
13394	CCD-199	80	82	2	0.180	0.170
13395	CCD-199	82	84	2	0.230	0.202
13397	CCD-199	84	86	2	0.350	0.258
13398	CCD-199	86	88	2	1.090	1.224
13399	CCD-199	88	90	2	1.130	0.828
13400	CCD-199	90	92	2	0.430	0.341
13401	CCD-199	92	94	2	0.210	0.175
13402	CCD-199	94	96	2	0.530	0.333
13403	CCD-199	96	98	2	0.680	0.424
13404	CCD-199	98	100	2	0.790	0.727
13405	CCD-199	100	101.5	1.5	0.880	0.873
13551	CCD-200	0	2	2	0.250	0.040
13552	CCD-200	2	4	2	0.230	0.050
13553	CCD-200	4	6	2	0.400	0.050
13554	CCD-200	6	8	2	0.320	0.036
13555	CCD-200	8	10	2	0.240	0.037
13556	CCD-200	10	12	2	0.270	0.046
13557	CCD-200	12	14	2	0.400	0.069
13558	CCD-200	14	16	2	0.430	0.028
13559	CCD-200	16	18	2	0.370	0.034
13560	CCD-200	18	20	2	0.270	0.039
13561	CCD-200	20	22	2	0.410	0.056
13562	CCD-200	22	24	2	0.470	0.046
13563	CCD-200	24	26	2	0.430	0.050
13565	CCD-200	26	28	2	0.550	0.042
13566	CCD-200	28	30	2	0.470	0.048
13567	CCD-200	30	32	2	0.500	0.037
13568	CCD-200	32	34	2	0.430	0.039
13569	CCD-200	34	36	2	0.360	0.066
13570	CCD-200	36	38	2	0.340	0.070
13571	CCD-200	38	40	2	0.340	0.070
13572	CCD-200	40	42	2	0.460	0.074
13574	CCD-200	42	44	2	0.500	0.054
13575	CCD-200	44	46	2	0.470	0.060
13576	CCD-200	46	48	2	0.400	0.061
13577	CCD-200	48	50	2	0.610	0.058
13578	CCD-200	50	52	2	0.470	0.047

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
13579	CCD-200	52	54	2	0.270	0.058
13580	CCD-200	54	56	2	0.500	0.258
13581	CCD-200	56	58	2	0.220	0.102
13582	CCD-200	58	60	2	0.340	0.255
13583	CCD-200	60	62	2	0.430	0.377
13584	CCD-200	62	64	2	0.390	0.356
13585	CCD-200	64	66	2	0.380	0.441
13586	CCD-200	66	68	2	0.230	0.326
13587	CCD-200	68	70	2	0.180	0.276
13588	CCD-200	70	72	2	0.170	0.246
13590	CCD-200	72	74	2	0.420	0.294
13591	CCD-200	74	76	2	0.600	0.440
13592	CCD-200	76	78	2	0.300	0.360
13593	CCD-200	78	80	2	0.250	0.428
13594	CCD-200	80	82	2	0.270	0.400
13595	CCD-200	82	84	2	0.270	0.478
13597	CCD-200	84	86	2	0.180	0.424
13598	CCD-200	86	88	2	0.130	0.511
13599	CCD-200	88	90	2	0.190	0.499
13600	CCD-200	90	92	2	0.150	0.466
13601	CCD-200	92	94	2	0.100	0.371
13602	CCD-200	94	96	2	0.240	0.708
13603	CCD-200	96	98	2	0.080	0.256
13604	CCD-200	98	100	2	0.100	0.334
13605	CCD-200	100	102	2	0.110	0.107
13606	CCD-200	102	104	2	0.070	0.138
13607	CCD-200	104	106	2	0.080	0.354
13609	CCD-200	106	108	2	0.050	0.400
13610	CCD-200	108	110	2	0.110	0.431
13611	CCD-200	110	112	2	0.150	0.612
13612	CCD-200	112	114	2	0.100	0.264
13613	CCD-200	114	116	2	0.160	0.217
13614	CCD-200	116	118	2	0.200	0.285
13615	CCD-200	118	120	2	0.140	0.166
13616	CCD-200	120	122	2	0.210	0.382
13617	CCD-200	122	124	2	0.140	0.220
13618	CCD-200	124	126	2	0.090	0.153
13620	CCD-200	126	128	2	0.120	0.176
13621	CCD-200	128	130	2	0.120	0.305
13622	CCD-200	130	132	2	0.140	0.197
13623	CCD-200	132	134	2	0.130	0.175
13624	CCD-200	134	136	2	0.160	0.164
13625	CCD-200	136	138	2	0.050	0.071
13626	CCD-200	138	140	2	0.120	0.284
13627	CCD-200	140	142	2	0.160	0.069
13628	CCD-200	142	144	2	0.130	0.096
13629	CCD-200	144	146	2	0.080	0.092
13631	CCD-200	146	148	2	0.110	0.126
13632	CCD-200	148	150	2	0.160	0.142
13633	CCD-200	150	152	2	0.150	0.140
13634	CCD-200	152	154	2	0.140	0.195
13635	CCD-200	154	156	2	0.140	0.106
13636	CCD-200	156	158	2	0.240	0.353
13637	CCD-200	158	160	2	0.120	0.172
13638	CCD-200	160	162	2	0.120	0.111

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
13639	CCD-200	162	164	2	0.090	0.085
13640	CCD-200	164	166	2	0.090	0.188
13641	CCD-200	166	168	2	0.110	0.235
13643	CCD-200	168	170	2	0.090	0.194
13644	CCD-200	170	172	2	0.030	0.142
13645	CCD-200	172	174	2	0.070	0.231
13646	CCD-200	174	176	2	0.070	0.142
13647	CCD-200	176	178	2	0.070	0.096
13648	CCD-200	178	180	2	0.070	0.082
13649	CCD-200	180	182	2	0.080	0.181
13650	CCD-200	182	184	2	0.100	0.182
13651	CCD-200	184	186	2	0.110	0.222
13652	CCD-200	186	188	2	0.130	0.266
13653	CCD-200	188	190	2	0.200	0.257
13654	CCD-200	190	192	2	0.070	0.170
13655	CCD-200	192	194	2	0.060	0.098
13656	CCD-200	194	196	2	0.140	0.168
13657	CCD-200	196	198	2	0.090	0.222
13658	CCD-200	198	200	2	0.070	0.146
13659	CCD-200	200	202	2	0.200	0.334
13661	CCD-200	202	204	2	0.060	0.205
13662	CCD-200	204	206	2	0.040	0.094
13663	CCD-200	206	208	2	0.060	0.062
13664	CCD-200	208	210	2	0.060	0.075
13666	CCD-200	210	212	2	0.080	0.097
13667	CCD-200	212	214	2	0.050	0.164
13668	CCD-200	214	216	2	0.110	0.244
13669	CCD-200	216	218	2	0.080	0.107
13670	CCD-200	218	220	2	0.070	0.077
13902	CCD-201	3.1	4	0.9	1.030	0.094
13903	CCD-201	4	6	2	0.490	0.098
13904	CCD-201	6	8	2	0.060	0.034
13905	CCD-201	8	10	2	0.480	0.031
13906	CCD-201	10	12	2	0.280	0.026
13907	CCD-201	12	14	2	0.130	0.092
13908	CCD-201	14	16	2	0.400	0.173
13909	CCD-201	16	18	2	0.170	0.266
13910	CCD-201	18	20	2	0.100	0.113
13911	CCD-201	20	22	2	0.180	0.166
13912	CCD-201	22	24	2	0.370	0.265
13913	CCD-201	24	26	2	0.130	0.120
13914	CCD-201	26	28	2	0.060	0.036
13915	CCD-201	28	30	2	0.090	0.077
13916	CCD-201	30	32	2	0.030	0.054
13918	CCD-201	32	34	2	0.090	0.065
13919	CCD-201	34	36	2	0.100	0.034
13920	CCD-201	36	38	2	0.060	0.056
13921	CCD-201	38	40	2	0.060	0.058
13922	CCD-201	40	42	2	0.090	0.054
13924	CCD-201	42	44	2	0.050	0.033
13925	CCD-201	44	46	2	0.100	0.064
13926	CCD-201	46	48	2	0.150	0.070
13927	CCD-201	48	50	2	0.230	0.134
13928	CCD-201	50	52	2	0.090	0.096
13929	CCD-201	52	54	2	0.590	0.842

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
13930	CCD-201	54	56	2	1.150	1.296
13931	CCD-201	56	58	2	1.170	1.288
13932	CCD-201	58	60	2	4.560	2.272
13933	CCD-201	60	62	2	0.500	0.352
13934	CCD-201	62	64	2	0.270	0.132
13935	CCD-201	64	66	2	0.250	0.190
13937	CCD-201	66	68	2	0.240	0.177
13938	CCD-201	68	70	2	0.140	0.102
13939	CCD-201	70	72	2	0.280	0.131
13940	CCD-201	72	74	2	0.130	0.110
13941	CCD-201	74	76	2	0.310	0.226
13942	CCD-201	76	78	2	0.190	0.190
13943	CCD-201	78	80	2	0.450	0.264
13944	CCD-201	80	82	2	0.230	0.178
13945	CCD-201	82	84	2	0.150	0.118
13947	CCD-201	84	86	2	0.180	0.142
13948	CCD-201	86	88	2	0.130	0.110
13949	CCD-201	88	90	2	0.170	0.158
13950	CCD-201	90	92	2	0.100	0.098
13951	CCD-201	92	94	2	0.080	0.121
13952	CCD-201	94	96	2	0.060	0.077
13953	CCD-201	96	98	2	0.130	0.129
13954	CCD-201	98	100	2	0.260	0.193
13955	CCD-201	100	102	2	0.170	0.102
13956	CCD-201	102	104	2	0.100	0.106
13957	CCD-201	104	106	2	0.080	0.098
13958	CCD-201	106	108	2	0.130	0.126
13959	CCD-201	108	110	2	0.140	0.131
13961	CCD-201	110	112	2	0.150	0.128
13962	CCD-201	112	114	2	0.200	0.173
13963	CCD-201	114	116	2	0.110	0.099
13964	CCD-201	116	118	2	0.390	0.295
13965	CCD-201	118	120	2	0.270	0.205
13966	CCD-201	120	122	2	0.430	0.197
13967	CCD-201	122	124	2	0.190	0.146
13968	CCD-201	124	126	2	0.500	0.435
13970	CCD-201	126	128	2	0.270	0.208
13971	CCD-201	128	130	2	0.160	0.140
13972	CCD-201	130	132	2	0.200	0.173
13973	CCD-201	132	134	2	0.150	0.115
13974	CCD-201	134	136	2	0.160	0.185
13975	CCD-201	136	138	2	0.170	0.178
13976	CCD-201	138	140	2	0.160	0.162
13977	CCD-201	140	142	2	0.260	0.174
13978	CCD-201	142	144	2	0.170	0.240
13979	CCD-201	144	146	2	0.250	0.243
13980	CCD-201	146	148	2	0.230	0.188
13981	CCD-201	148	150	2	0.300	0.241
13982	CCD-201	150	152	2	0.460	0.347
13983	CCD-201	152	154	2	0.120	0.100
13985	CCD-201	154	156	2	0.250	0.200
13986	CCD-201	156	158	2	1.040	0.980
13987	CCD-201	158	160	2	0.220	0.220
13988	CCD-201	160	162	2	0.210	0.170
13989	CCD-201	162	164	2	0.250	0.180

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
13990	CCD-201	164	166	2	0.340	0.300
13991	CCD-201	166	168	2	0.410	0.340
13993	CCD-201	168	170	2	0.190	0.180
13994	CCD-201	170	172	2	0.250	0.240
13995	CCD-201	172	174	2	0.450	0.420
13996	CCD-201	174	176	2	0.520	0.500
13997	CCD-201	176	178	2	0.200	0.240
13998	CCD-201	178	180	2	0.110	0.130
13999	CCD-201	180	182	2	0.230	0.240
14000	CCD-201	182	184	2	0.350	0.410
14001	CCD-201	184	186	2	0.350	0.340
14002	CCD-201	186	188	2	0.230	0.310
14003	CCD-201	188	190	2	0.420	0.450
14005	CCD-201	190	192	2	0.410	0.540
14006	CCD-201	192	194	2	0.280	0.400
14007	CCD-201	194	196	2	0.560	0.580
14008	CCD-201	196	198	2	0.270	0.310
14009	CCD-201	198	200	2	0.260	0.380
14010	CCD-201	200	202	2	0.180	0.350
14011	CCD-201	202	204	2	0.440	0.420
14012	CCD-201	204	206	2	0.440	0.490
14013	CCD-201	206	208	2	0.360	0.430
14014	CCD-201	208	210	2	0.280	0.380
14016	CCD-201	210	212	2	0.080	0.460
14017	CCD-201	212	214	2	2.200	0.470
14018	CCD-201	214	216	2	0.230	0.300
14019	CCD-201	216	218	2	0.490	0.620
14020	CCD-201	218	220	2	0.170	0.450
14021	CCD-201	220	221.6	1.6	0.680	0.680
14051	CCD-202	0	2	2	1.180	0.021
14052	CCD-202	2	4	2	0.980	0.018
14053	CCD-202	4	6	2	1.190	0.013
14054	CCD-202	6	8	2	1.130	0.018
14055	CCD-202	8	10	2	0.830	0.028
14056	CCD-202	10	12	2	0.930	0.027
14057	CCD-202	12	14	2	1.030	0.032
14058	CCD-202	14	16	2	0.900	0.029
14059	CCD-202	16	18	2	0.550	0.012
14060	CCD-202	18	20	2	0.670	0.011
14061	CCD-202	20	22	2	0.440	0.013
14062	CCD-202	22	24	2	0.730	0.367
14063	CCD-202	24	26	2	0.720	0.272
14064	CCD-202	26	28	2	0.360	0.140
14066	CCD-202	28	30	2	0.330	0.180
14067	CCD-202	30	32	2	0.300	0.221
14068	CCD-202	32	34	2	0.410	0.264
14069	CCD-202	34	36	2	0.410	0.508
14070	CCD-202	36	38	2	0.230	0.288
14071	CCD-202	38	40	2	0.330	0.290
14072	CCD-202	40	42	2	0.640	0.584
14074	CCD-202	42	44	2	0.250	0.202
14075	CCD-202	44	46	2	0.200	0.260
14076	CCD-202	46	48	2	0.130	0.263
14077	CCD-202	48	50	2	0.358	0.288
14078	CCD-202	50	52	2	0.353	0.392

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
14079	CCD-202	52	54	2	0.260	0.240
14080	CCD-202	54	56	2	0.260	0.243
14081	CCD-202	56	58	2	0.270	0.288
14082	CCD-202	58	60	2	0.240	1.448
14083	CCD-202	60	62	2	0.330	0.319
14084	CCD-202	62	64	2	0.420	0.088
14085	CCD-202	64	66	2	0.130	0.068
14086	CCD-202	66	68	2	0.130	0.108
14088	CCD-202	68	70	2	0.190	0.120
14089	CCD-202	70	72	2	0.320	0.137
14090	CCD-202	72	74	2	0.070	0.070
14091	CCD-202	74	76	2	0.140	0.070
14092	CCD-202	76	78	2	0.150	0.080
14093	CCD-202	78	80	2	0.090	0.048
14094	CCD-202	80	82	2	0.050	0.021
14095	CCD-202	82	84	2	0.030	0.011
14097	CCD-202	84	86	2	0.030	0.010
14098	CCD-202	86	88	2	0.030	0.018
14099	CCD-202	88	90	2	0.080	0.027
14100	CCD-202	90	92	2	0.020	0.016
14101	CCD-202	92	94	2	0.020	0.010
14102	CCD-202	94	96	2	0.030	0.015
14103	CCD-202	96	98	2	0.020	0.011
14104	CCD-202	98	100	2	0.005	0.005
14105	CCD-202	100	102	2	0.005	0.005
14106	CCD-202	102	104	2	0.020	0.013
14107	CCD-202	104	106	2	0.050	0.018
14108	CCD-202	106	108	2	0.080	0.019
14110	CCD-202	108	110	2	0.040	0.030
14111	CCD-202	110	112	2	0.030	0.024
14112	CCD-202	112	114	2	0.040	0.019
14113	CCD-202	114	116	2	0.060	0.021
14114	CCD-202	116	118	2	0.150	0.053
14115	CCD-202	118	120	2	0.100	0.040
14116	CCD-202	120	122	2	0.030	0.010
14117	CCD-202	122	124	2	0.040	0.010
14119	CCD-202	124	126	2	0.050	0.020
14120	CCD-202	126	128	2	0.050	0.020
14121	CCD-202	128	130	2	0.030	0.010
14122	CCD-202	130	132	2	0.070	0.020
14123	CCD-202	132	134	2	0.020	0.005
14124	CCD-202	134	136	2	0.090	0.030
14125	CCD-202	136	138	2	0.050	0.020
14126	CCD-202	138	140	2	0.080	0.020
14127	CCD-202	140	142	2	0.160	0.040
14128	CCD-202	142	144	2	0.080	0.030
14129	CCD-202	144	146	2	0.050	0.020
14130	CCD-202	146	148	2	0.120	0.040
14131	CCD-202	148	150	2	0.040	0.020
14133	CCD-202	150	152	2	0.080	0.030
14134	CCD-202	152	154	2	0.030	0.020
14135	CCD-202	154	156	2	0.040	0.020
14136	CCD-202	156	158	2	0.020	0.010
14137	CCD-202	158	160	2	0.030	0.020
14138	CCD-202	160	162	2	0.050	0.030

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
14139	CCD-202	162	164	2	0.050	0.030
14140	CCD-202	164	166	2	0.030	0.010
14141	CCD-202	166	168	2	0.040	0.030
14143	CCD-202	168	170	2	0.040	0.030
14144	CCD-202	170	172	2	0.050	0.030
14145	CCD-202	172	174	2	0.120	0.060
14146	CCD-202	174	176	2	0.050	0.030
14147	CCD-202	176	178	2	0.020	0.010
14148	CCD-202	178	180	2	0.030	0.020
14149	CCD-202	180	182	2	0.030	0.020
14150	CCD-202	182	184	2	0.040	0.030
14151	CCD-202	184	186	2	0.050	0.030
14152	CCD-202	186	188	2	0.070	0.050
14153	CCD-202	188	190	2	0.080	0.050
14154	CCD-202	190	192	2	0.080	0.040
14155	CCD-202	192	194	2	0.080	0.050
14156	CCD-202	194	196	2	0.090	0.050
14157	CCD-202	196	198	2	0.040	0.020
14158	CCD-202	198	200	2	0.060	0.060
14159	CCD-202	200	202	2	0.100	0.060
14161	CCD-202	202	204	2	0.150	0.090
14162	CCD-202	204	206	2	0.200	0.100
14163	CCD-202	206	208	2	0.230	0.090
14164	CCD-202	208	210	2	0.240	0.070
14166	CCD-202	210	212	2	0.140	0.080
14167	CCD-202	212	214	2	0.190	0.130
14168	CCD-202	214	216	2	0.140	0.070
14169	CCD-202	216	218	2	0.140	0.060
14170	CCD-202	218	220	2	0.160	0.070
14171	CCD-202	220	222	2	0.230	0.080
14172	CCD-202	222	224	2	0.210	0.070
14173	CCD-202	224	226	2	0.160	0.050
14174	CCD-202	226	228	2	0.120	0.030
14175	CCD-202	228	230	2	0.120	0.050
14176	CCD-202	230	232	2	0.230	0.080
14177	CCD-202	232	234	2	0.070	0.050
14178	CCD-202	234	236	2	0.210	0.070
14179	CCD-202	236	238	2	0.100	0.030
14180	CCD-202	238	240	2	0.090	0.030
14181	CCD-202	240	242	2	0.110	0.050
14182	CCD-202	242	244	2	0.160	0.070
14184	CCD-202	244	246	2	0.230	0.080
14185	CCD-202	246	248	2	0.190	0.060
14186	CCD-202	248	250	2	0.080	0.020
14187	CCD-202	250	252	2	0.120	0.040
14189	CCD-202	252	254	2	0.340	0.100
14190	CCD-202	254	256	2	0.160	0.050
14191	CCD-202	256	258	2	0.100	0.050
14192	CCD-202	258	260	2	0.100	0.040
14193	CCD-202	260	262	2	0.150	0.050
14194	CCD-202	262	264	2	0.140	0.030
14195	CCD-202	264	266	2	0.120	0.020
14196	CCD-202	266	268	2	0.290	0.010
14197	CCD-202	268	270	2	0.120	0.040
14198	CCD-202	270	272	2	0.120	0.030

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
14199	CCD-202	272	274	2	0.220	0.090
14200	CCD-202	274	276	2	0.090	0.030
15851	CCD-202	276	278	2	0.090	0.030
15853	CCD-202	278	280	2	0.220	0.070
15854	CCD-202	280	282	2	0.030	0.030
15855	CCD-202	282	284	2	0.080	0.040
15856	CCD-202	284	286	2	0.070	0.030
15857	CCD-202	286	288	2	0.110	0.040
15859	CCD-202	288	290	2	0.090	0.040
15860	CCD-202	290	292	2	0.170	0.060
15861	CCD-202	292	294	2	0.070	0.040
15862	CCD-202	294	296	2	0.070	0.030
15863	CCD-202	296	298	2	0.110	0.060
15864	CCD-202	298	300	2	0.170	0.020
15865	CCD-202	300	302	2	0.090	0.040
15866	CCD-202	302	304	2	0.070	0.050
15867	CCD-202	304	306	2	0.090	0.050
15868	CCD-202	306	308	2	0.080	0.060
15869	CCD-202	308	310	2	0.150	0.050
15870	CCD-202	310	312	2	0.090	0.060
15871	CCD-202	312	314	2	0.090	0.060
15872	CCD-202	314	316	2	0.140	0.090
15873	CCD-202	316	318	2	0.370	0.200
15874	CCD-202	318	320	2	0.170	0.120
15875	CCD-202	320	322	2	0.160	0.090
15876	CCD-202	322	324	2	0.080	0.070
15877	CCD-202	324	326	2	0.100	0.050
15878	CCD-202	326	328	2	0.230	0.150
15879	CCD-202	328	330	2	0.140	0.120
15880	CCD-202	330	332	2	0.140	0.090
15882	CCD-202	332	334	2	0.140	0.110
15883	CCD-202	334	336	2	0.190	0.120
15884	CCD-202	336	338	2	0.100	0.060
15885	CCD-202	338	340	2	0.110	0.080
15886	CCD-202	340	342	2	0.080	0.060
15887	CCD-202	342	344	2	0.090	0.060
15888	CCD-202	344	346	2	0.120	0.090
15890	CCD-202	346	348	2	0.170	0.110
15891	CCD-202	348	350	2	0.170	0.130
15892	CCD-202	350	352	2	0.170	0.120
15893	CCD-202	352	354	2	0.110	0.090
15894	CCD-202	354	356	2	0.130	0.080
15895	CCD-202	356	358	2	0.100	0.070
15896	CCD-202	358	360	2	0.260	0.170
-1	CCD-202	360	360.7	0.7	-1.000	-1.000
14201	CCD-203	0	2	2	0.990	0.103
14202	CCD-203	2	4	2	1.420	0.118
14203	CCD-203	4	6	2	0.450	0.078
14204	CCD-203	6	8	2	1.170	0.088
14205	CCD-203	8	10	2	0.380	0.030
14206	CCD-203	10	12	2	0.390	0.085
14207	CCD-203	12	14	2	1.100	0.398
14208	CCD-203	14	16	2	1.450	0.584
14209	CCD-203	16	18	2	0.390	0.307
14210	CCD-203	18	20	2	0.520	0.328

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
14211	CCD-203	20	22	2	0.240	0.144
14212	CCD-203	22	24	2	0.230	0.188
14213	CCD-203	24	26	2	0.670	0.567
14214	CCD-203	26	28	2	0.200	0.334
14215	CCD-203	28	30	2	0.260	0.399
14216	CCD-203	30	32	2	0.420	0.435
14217	CCD-203	32	34	2	0.390	0.240
14218	CCD-203	34	36	2	0.280	0.156
14220	CCD-203	36	38	2	0.290	0.147
14221	CCD-203	38	40	2	0.170	0.162
14222	CCD-203	40	42	2	0.120	0.100
14224	CCD-203	42	44	2	0.170	0.180
14225	CCD-203	44	46	2	0.100	0.113
14226	CCD-203	46	48	2	0.180	0.154
14227	CCD-203	48	50	2	0.260	0.202
14228	CCD-203	50	52	2	0.220	0.179
14229	CCD-203	52	54	2	0.140	0.109
14230	CCD-203	54	56	2	0.200	0.173
14231	CCD-203	56	58	2	0.420	0.262
14232	CCD-203	58	60	2	0.330	0.244
14233	CCD-203	60	62	2	0.340	0.402
14234	CCD-203	62	64	2	0.300	0.218
14235	CCD-203	64	66	2	0.080	0.084
14236	CCD-203	66	68	2	0.090	0.112
14237	CCD-203	68	70	2	0.230	0.134
14239	CCD-203	70	72	2	0.190	0.134
14240	CCD-203	72	74	2	0.150	0.098
14241	CCD-203	74	76	2	0.130	0.082
14242	CCD-203	76	78	2	0.100	0.076
14243	CCD-203	78	80	2	0.160	0.153
14244	CCD-203	80	82	2	0.120	0.095
14245	CCD-203	82	84	2	0.130	0.092
14247	CCD-203	84	86	2	0.210	0.130
14248	CCD-203	86	88	2	0.250	0.159
14249	CCD-203	88	90	2	0.270	0.135
14250	CCD-203	90	92	2	0.240	0.147
14251	CCD-203	92	94	2	0.120	0.116
14252	CCD-203	94	96	2	0.210	0.149
14253	CCD-203	96	98	2	0.410	0.388
14254	CCD-203	98	100	2	0.230	0.184
14255	CCD-203	100	102	2	0.280	0.214
14256	CCD-203	102	104	2	0.350	0.257
14257	CCD-203	104	106	2	0.530	0.440
14258	CCD-203	106	108	2	0.180	0.158
14259	CCD-203	108	110	2	0.250	0.136
14261	CCD-203	110	112	2	0.390	0.294
14262	CCD-203	112	114	2	0.260	0.191
14263	CCD-203	114	116	2	0.110	0.090
14264	CCD-203	116	118	2	0.200	0.145
14265	CCD-203	118	120	2	0.200	0.194
14266	CCD-203	120	122	2	0.340	0.210
14267	CCD-203	122	124	2	0.160	0.110
14268	CCD-203	124	126	2	0.760	0.511
14270	CCD-203	126	128	2	0.370	0.274
14271	CCD-203	128	130	2	0.640	0.440

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
14272	CCD-203	130	132	2	0.150	0.144
14273	CCD-203	132	134	2	0.670	0.371
14274	CCD-203	134	136	2	1.010	0.435
14275	CCD-203	136	138	2	1.580	0.666
14276	CCD-203	138	140	2	5.960	1.456
14277	CCD-203	140	142	2	7.580	2.264
14278	CCD-203	142	144	2	6.040	1.616
14279	CCD-203	144	146	2	8.200	2.200
14280	CCD-203	146	148	2	2.480	0.925
14281	CCD-203	148	150	2	1.910	1.264
14282	CCD-203	150	152	2	0.850	0.494
14283	CCD-203	152	154	2	1.040	0.594
14284	CCD-203	154	156	2	0.910	0.529
14286	CCD-203	156	158	2	1.310	0.889
14287	CCD-203	158	160	2	0.950	0.835
14288	CCD-203	160	162	2	1.510	0.906
14289	CCD-203	162	164	2	1.130	0.654
14290	CCD-203	164	166	2	0.820	0.513
14291	CCD-203	166	168	2	0.720	0.447
14293	CCD-203	168	170	2	0.720	0.409
14294	CCD-203	170	172	2	0.540	0.351
14295	CCD-203	172	174	2	0.630	0.414
14296	CCD-203	174	176	2	1.020	0.711
14297	CCD-203	176	178	2	0.900	0.574
14298	CCD-203	178	180	2	1.030	0.621
14299	CCD-203	180	182	2	0.830	0.541
14300	CCD-203	182	184	2	0.720	0.407
14301	CCD-203	184	186	2	0.690	0.461
14302	CCD-203	186	188	2	0.550	0.454
14303	CCD-203	188	190	2	0.420	0.370
14304	CCD-203	190	192	2	0.820	0.466
14305	CCD-203	192	194	2	0.510	0.416
14306	CCD-203	194	196	2	0.720	0.549
14307	CCD-203	196	198	2	0.700	0.504
14308	CCD-203	198	200	2	0.430	0.395
14309	CCD-203	200	202	2	0.500	0.382
14311	CCD-203	202	204	2	0.290	0.296
14312	CCD-203	204	206	2	0.350	0.336
14313	CCD-203	206	208	2	0.230	0.223
14314	CCD-203	208	210	2	0.200	0.267
14401	CCD-204	0	2	2	1.600	0.032
14402	CCD-204	2	4	2	2.100	0.018
14403	CCD-204	4	6	2	2.680	0.026
14404	CCD-204	6	8	2	1.820	0.028
14405	CCD-204	8	10	2	1.450	0.050
14406	CCD-204	10	12	2	1.030	0.054
14407	CCD-204	12	14	2	0.510	0.056
14408	CCD-204	14	16	2	0.980	0.045
14409	CCD-204	16	18	2	0.770	0.037
14410	CCD-204	18	20	2	1.080	0.036
14411	CCD-204	20	22	2	0.450	0.071
14412	CCD-204	22	24	2	0.920	0.108
14413	CCD-204	24	26	2	0.970	0.130
14414	CCD-204	26	28	2	0.880	0.194
14415	CCD-204	28	30	2	0.540	0.074

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
14416	CCD-204	30	32	2	0.470	0.114
14417	CCD-204	32	34	2	0.590	0.122
14418	CCD-204	34	36	2	0.530	0.146
14419	CCD-204	36	38	2	0.400	0.174
14420	CCD-204	38	40	2	0.630	0.241
14421	CCD-204	40	42	2	0.500	0.214
14423	CCD-204	42	44	2	0.570	0.277
14424	CCD-204	44	46	2	0.630	0.339
14425	CCD-204	46	48	2	0.420	0.288
14426	CCD-204	48	50	2	0.470	0.124
14427	CCD-204	50	52	2	0.410	0.119
14428	CCD-204	52	54	2	0.280	0.106
14429	CCD-204	54	56	2	0.280	0.109
14431	CCD-204	56	58	2	0.230	0.092
14432	CCD-204	58	60	2	0.240	0.109
14433	CCD-204	60	62	2	0.280	0.075
14434	CCD-204	62	64	2	0.280	0.110
14435	CCD-204	64	66	2	0.310	0.124
14436	CCD-204	66	68	2	0.250	0.082
14437	CCD-204	68	70	2	0.860	0.228
14438	CCD-204	70	72	2	0.390	0.133
14440	CCD-204	72	74	2	0.150	0.042
14441	CCD-204	74	76	2	0.170	0.048
14442	CCD-204	76	78	2	0.270	0.106
14443	CCD-204	78	80	2	0.080	0.031
14444	CCD-204	80	82	2	0.030	0.012
14445	CCD-204	82	84	2	0.030	0.017
14447	CCD-204	84	86	2	0.030	0.012
14448	CCD-204	86	88	2	0.200	0.033
14449	CCD-204	88	90	2	0.040	0.012
14450	CCD-204	90	92	2	0.030	0.005
14451	CCD-204	92	94	2	0.010	0.010
14452	CCD-204	94	96	2	0.040	0.011
14453	CCD-204	96	98	2	0.030	0.015
14454	CCD-204	98	100	2	0.010	0.015
14455	CCD-204	100	102	2	0.010	0.016
14456	CCD-204	102	104	2	0.050	0.025
14457	CCD-204	104	106	2	0.010	0.014
14459	CCD-204	106	108	2	0.020	0.011
14460	CCD-204	108	110	2	0.010	0.012
14461	CCD-204	110	112	2	0.080	0.020
14462	CCD-204	112	114	2	0.030	0.005
14463	CCD-204	114	116	2	0.030	0.010
14464	CCD-204	116	118	2	0.050	0.020
14465	CCD-204	118	120	2	0.060	0.030
14466	CCD-204	120	122	2	0.040	0.010
14467	CCD-204	122	124	2	0.080	0.020
14468	CCD-204	124	126	2	0.040	0.010
14470	CCD-204	126	128	2	0.050	0.020
14471	CCD-204	128	130	2	0.040	0.020
14472	CCD-204	130	132	2	0.050	0.020
14473	CCD-204	132	134	2	0.080	0.020
14474	CCD-204	134	136	2	0.080	0.030
14476	CCD-204	136	138	2	0.050	0.020
14477	CCD-204	138	140	2	0.020	0.010

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
14478	CCD-204	140	142	2	0.060	0.020
14479	CCD-204	142	144	2	0.040	0.020
14480	CCD-204	144	146	2	0.230	0.040
14481	CCD-204	146	148	2	0.200	0.050
14482	CCD-204	148	150	2	0.110	0.050
14483	CCD-204	150	152	2	0.080	0.040
14484	CCD-204	152	154	2	0.090	0.040
14485	CCD-204	154	156	2	0.100	0.050
14486	CCD-204	156	158	2	0.120	0.070
14487	CCD-204	158	160	2	0.120	0.060
14488	CCD-204	160	162	2	0.090	0.040
14489	CCD-204	162	164	2	0.100	0.050
14490	CCD-204	164	166	2	0.110	0.050
14491	CCD-204	166	168	2	0.160	0.080
14493	CCD-204	168	170	2	0.200	0.080
14494	CCD-204	170	172	2	0.110	0.050
14495	CCD-204	172	174	2	0.070	0.030
14496	CCD-204	174	176	2	0.100	0.030
14497	CCD-204	176	178	2	0.100	0.040
14498	CCD-204	178	180	2	0.140	0.050
14499	CCD-204	180	182	2	0.110	0.050
14500	CCD-204	182	184	2	0.100	0.040
14501	CCD-204	184	186	2	0.130	0.050
14502	CCD-204	186	188	2	0.070	0.030
14503	CCD-204	188	190	2	0.070	0.030
14504	CCD-204	190	192	2	0.040	0.020
14505	CCD-204	192	194	2	0.140	0.060
14506	CCD-204	194	196	2	0.070	0.030
14507	CCD-204	196	198	2	0.090	0.030
14508	CCD-204	198	200	2	0.050	0.020
14509	CCD-204	200	202	2	0.070	0.030
14510	CCD-204	202	204	2	0.080	0.030
14511	CCD-204	204	206	2	0.130	0.050
14512	CCD-204	206	208	2	0.070	0.030
14513	CCD-204	208	210	2	0.070	0.020
14515	CCD-204	210	212	2	0.080	0.020
14516	CCD-204	212	214	2	0.050	0.020
14517	CCD-204	214	216	2	0.110	0.040
14518	CCD-204	216	218	2	0.140	0.050
14519	CCD-204	218	220	2	0.150	0.050
14520	CCD-204	220	222	2	0.100	0.050
14522	CCD-204	222	224	2	0.280	0.110
14523	CCD-204	224	226	2	0.200	0.060
14524	CCD-204	226	228	2	0.180	0.040
14525	CCD-204	228	230	2	0.310	0.080
14526	CCD-204	230	232	2	0.200	0.070
14527	CCD-204	232	234	2	0.170	0.050
14528	CCD-204	234	236	2	0.110	0.040
14529	CCD-204	236	238	2	0.250	0.070
14530	CCD-204	238	240	2	0.090	0.040
14531	CCD-204	240	242	2	0.220	0.080
14532	CCD-204	242	244	2	0.190	0.080
14533	CCD-204	244	246	2	0.350	0.140
14534	CCD-204	246	248	2	0.150	0.050
14535	CCD-204	248	250	2	0.200	0.070

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
14536	CCD-204	250	252	2	0.160	0.070
14538	CCD-204	252	254	2	0.220	0.100
14539	CCD-204	254	256	2	0.190	0.090
14540	CCD-204	256	258	2	0.220	0.070
14542	CCD-204	258	260	2	0.200	0.060
14543	CCD-204	260	262	2	0.280	0.100
14544	CCD-204	262	264	2	0.130	0.050
14545	CCD-204	264	266	2	0.230	0.060
14546	CCD-204	266	268	2	0.270	0.080
14547	CCD-204	268	270	2	0.190	0.080
14548	CCD-204	270	272	2	0.260	0.100
14549	CCD-204	272	274	2	0.280	0.120
14550	CCD-204	274	276	2	0.170	0.060
15601	CCD-204	276	278	2	0.440	0.070
15603	CCD-204	278	280	2	0.110	0.080
15604	CCD-204	280	282	2	0.180	0.080
15605	CCD-204	282	284	2	0.180	0.090
15607	CCD-204	284	286	2	0.140	0.050
15608	CCD-204	286	288	2	0.120	0.030
15609	CCD-204	288	290	2	0.080	0.080
15610	CCD-204	290	292	2	0.130	0.030
15611	CCD-204	292	294	2	0.100	0.060
15612	CCD-204	294	296	2	0.120	0.070
15613	CCD-204	296	298	2	0.140	0.060
15614	CCD-204	298	300	2	0.150	0.050
15615	CCD-204	300	302	2	0.060	0.030
15616	CCD-204	302	304	2	0.080	0.030
15617	CCD-204	304	306	2	0.100	0.030
15618	CCD-204	306	308	2	0.060	0.030
15619	CCD-204	308	310	2	0.080	0.030
15621	CCD-204	310	312	2	0.010	0.010
15622	CCD-204	312	314	2	0.060	0.030
15623	CCD-204	314	316	2	0.040	0.010
15625	CCD-204	316	318	2	0.070	0.030
15626	CCD-204	318	320	2	0.070	0.040
15627	CCD-204	320	322	2	0.120	0.040
15628	CCD-204	322	324	2	0.530	0.040
15629	CCD-204	324	326	2	0.110	0.050
15630	CCD-204	326	328	2	0.060	0.030
15631	CCD-204	328	330	2	0.080	0.030
15632	CCD-204	330	332	2	0.120	0.030
15633	CCD-204	332	334	2	0.110	0.030
15634	CCD-204	334	336	2	0.070	0.020
15635	CCD-204	336	338	2	0.270	0.030
15636	CCD-204	338	340	2	0.070	0.030
15638	CCD-204	340	342	2	0.030	0.020
15639	CCD-204	342	344	2	0.060	0.040
15640	CCD-204	344	346	2	0.050	0.030
15641	CCD-204	346	348	2	0.050	0.010
15642	CCD-204	348	350	2	0.100	0.040
15643	CCD-204	350	352	2	0.050	0.020
15644	CCD-204	352	354	2	0.060	0.040
15645	CCD-204	354	356	2	0.090	0.060
15646	CCD-204	356	358	2	0.070	0.040
15648	CCD-204	358	360	2	0.090	0.040

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
15649	CCD-204	360	362	2	0.100	0.070
15650	CCD-204	362	364	2	0.080	0.090
15651	CCD-204	364	366	2	0.100	0.080
15652	CCD-204	366	368	2	0.280	0.110
15653	CCD-204	368	370	2	0.270	0.090
15654	CCD-204	370	372	2	0.440	0.200
15656	CCD-204	372	374	2	0.620	0.210
15657	CCD-204	374	376	2	0.520	0.170
15658	CCD-204	376	378	2	0.530	0.190
15659	CCD-204	378	380	2	0.800	0.220
15660	CCD-204	380	382	2	0.570	0.200
15661	CCD-204	382	384	2	0.860	0.230
15662	CCD-204	384	386	2	1.210	0.390
15663	CCD-204	386	388	2	0.440	0.340
15664	CCD-204	388	390	2	1.130	0.310
15666	CCD-204	390	392	2	1.090	0.360
15667	CCD-204	392	394	2	0.950	0.300
15668	CCD-204	394	395	1	1.240	0.378
-1	CCD-205	0	2	2	-1.000	-1.000
-1	CCD-205	2	4	2	-1.000	-1.000
14553	CCD-205	4	6	2	0.650	0.100
14554	CCD-205	6	8	2	0.420	0.080
14555	CCD-205	8	10	2	0.850	0.160
14556	CCD-205	10	12	2	0.660	0.140
14557	CCD-205	12	14	2	0.730	0.070
14558	CCD-205	14	16	2	0.430	0.480
14559	CCD-205	16	18	2	0.200	1.260
14560	CCD-205	18	20	2	0.280	0.390
14561	CCD-205	20	22	2	0.660	0.260
14563	CCD-205	22	24	2	0.400	0.230
14564	CCD-205	24	26	2	0.480	0.220
14565	CCD-205	26	28	2	0.380	0.310
14567	CCD-205	28	30	2	0.520	0.380
14568	CCD-205	30	32	2	0.550	0.320
14569	CCD-205	32	34	2	0.510	0.320
14570	CCD-205	34	36	2	1.030	0.390
14571	CCD-205	36	38	2	0.500	0.360
14572	CCD-205	38	40	2	0.600	0.420
14573	CCD-205	40	42	2	0.580	0.460
14574	CCD-205	42	44	2	0.250	0.260
14575	CCD-205	44	46	2	0.300	0.260
14576	CCD-205	46	48	2	0.590	0.370
14577	CCD-205	48	50	2	0.470	0.360
14578	CCD-205	50	52	2	0.480	0.320
14579	CCD-205	52	54	2	1.470	0.750
14581	CCD-205	54	56	2	1.040	0.420
14582	CCD-205	56	58	2	1.200	0.810
14584	CCD-205	58	60	2	1.000	0.720
14585	CCD-205	60	62	2	0.600	0.430
14586	CCD-205	62	64	2	0.710	0.480
14587	CCD-205	64	66	2	0.670	0.450
14588	CCD-205	66	68	2	1.070	0.580
14589	CCD-205	68	70	2	0.770	0.450
14590	CCD-205	70	72	2	0.650	0.540
14591	CCD-205	72	74	2	0.990	0.580

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
14592	CCD-205	74	76	2	0.630	0.420
14593	CCD-205	76	78	2	0.830	0.470
14594	CCD-205	78	80	2	0.290	0.200
14595	CCD-205	80	82	2	0.500	0.280
14596	CCD-205	82	84	2	1.070	0.600
14597	CCD-205	84	86	2	0.840	0.540
14598	CCD-205	86	88	2	0.830	0.550
14599	CCD-205	88	90	2	0.720	0.450
14600	CCD-205	90	92	2	0.470	0.320
14602	CCD-205	92	94	2	0.650	0.530
14603	CCD-205	94	96	2	0.800	0.530
14604	CCD-205	96	98	2	0.580	0.330
14605	CCD-205	98	100	2	0.580	0.380
14606	CCD-205	100	102	2	0.760	0.520
14607	CCD-205	102	104	2	0.420	0.440
14608	CCD-205	104	106	2	0.570	0.360
14609	CCD-205	106	108	2	0.340	0.240
14610	CCD-205	108	110	2	0.300	0.180
14611	CCD-205	110	112	2	0.300	0.200
14613	CCD-205	112	114	2	0.300	0.220
14614	CCD-205	114	116	2	0.740	0.250
14615	CCD-205	116	118	2	0.400	0.310
14617	CCD-205	118	120	2	0.400	0.350
14618	CCD-205	120	122	2	0.550	0.440
14619	CCD-205	122	124	2	1.700	1.120
14620	CCD-205	124	126	2	2.250	2.180
14621	CCD-205	126	128	2	1.570	1.420
14622	CCD-205	128	130	2	0.390	0.360
14623	CCD-205	130	132	2	0.620	0.440
14624	CCD-205	132	134	2	0.830	0.650
14625	CCD-205	134	136	2	0.700	0.450
14626	CCD-205	136	138	2	0.590	0.390
14627	CCD-205	138	140	2	0.520	0.370
14628	CCD-205	140	142	2	0.200	0.170
14629	CCD-205	142	144	2	0.380	0.280
14630	CCD-205	144	146	2	0.320	0.250
14631	CCD-205	146	148	2	0.230	0.200
14632	CCD-205	148	150	2	0.170	0.150
14633	CCD-205	150	152	2	0.200	0.170
14634	CCD-205	152	154	2	0.290	0.210
14636	CCD-205	154	156	2	0.340	0.250
14637	CCD-205	156	158	2	1.210	0.570
14639	CCD-205	158	160	2	0.730	0.400
14640	CCD-205	160	162	2	0.420	0.320
14641	CCD-205	162	164	2	1.290	0.760
14642	CCD-205	164	166	2	0.580	0.450
14643	CCD-205	166	168	2	0.630	0.450
14644	CCD-205	168	170	2	0.530	0.290
14645	CCD-205	170	172	2	0.420	0.260
14646	CCD-205	172	174	2	0.290	0.220
14647	CCD-205	174	176	2	0.310	0.270
14648	CCD-205	176	178	2	0.370	0.260
14650	CCD-205	178	180	2	0.640	0.350
14651	CCD-205	180	182	2	0.020	0.180
14652	CCD-205	182	184	2	0.570	0.210

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
14653	CCD-205	184	186	2	0.500	0.300
14654	CCD-205	186	188	2	0.350	0.200
14655	CCD-205	188	190	2	0.550	0.300
14656	CCD-205	190	192	2	1.240	0.510
14657	CCD-205	192	194	2	0.610	0.260
14658	CCD-205	194	196	2	0.320	0.180
14659	CCD-205	196	198	2	0.470	0.220
14660	CCD-205	198	200	2	0.440	0.190
14661	CCD-205	200	202	2	0.540	0.210
14662	CCD-205	202	204	2	0.540	0.270
14664	CCD-205	204	206	2	0.400	0.200
14665	CCD-205	206	208	2	0.500	0.200
14666	CCD-205	208	210	2	0.640	0.360
14667	CCD-205	210	212	2	1.000	0.440
14668	CCD-205	212	214	2	0.840	0.840
14669	CCD-205	214	216	2	0.670	0.280
14670	CCD-205	216	218	2	0.940	0.470
14672	CCD-205	218	220	2	0.990	0.550
14673	CCD-205	220	222	2	1.490	0.610
14674	CCD-205	222	224	2	1.040	0.400
14675	CCD-205	224	226	2	1.220	0.430
14676	CCD-205	226	228	2	1.410	0.610
14677	CCD-205	228	230	2	0.750	0.280
14678	CCD-205	230	232	2	1.170	0.570
14679	CCD-205	232	234	2	1.470	0.660
14680	CCD-205	234	236	2	1.030	0.410
14681	CCD-205	236	238	2	1.030	0.340
14682	CCD-205	238	240	2	0.660	0.280
14683	CCD-205	240	242	2	0.720	0.240
14684	CCD-205	242	244	2	0.490	0.210
14685	CCD-205	244	246	2	0.620	0.250
14686	CCD-205	246	248	2	1.130	0.410
14687	CCD-205	248	250	2	3.270	1.100
14688	CCD-205	250	252	2	2.030	0.660
14689	CCD-205	252	254	2	0.720	0.250
14690	CCD-205	254	256	2	0.850	0.360
14692	CCD-205	256	258	2	1.450	0.620
14693	CCD-205	258	260	2	0.950	0.470
14694	CCD-205	260	262	2	0.910	0.440
14695	CCD-205	262	264	2	0.700	0.280
14696	CCD-205	264	266	2	0.920	0.340
14697	CCD-205	266	268	2	0.640	0.250
14698	CCD-205	268	270	2	0.480	0.160
14699	CCD-205	270	272	2	0.590	0.200
14700	CCD-205	272	274	2	0.800	0.420
16101	CCD-205	274	276	2	0.790	0.320
16102	CCD-205	276	278	2	0.570	0.220
16103	CCD-205	278	280	2	0.690	0.250
16104	CCD-205	280	282	2	1.230	0.430
16105	CCD-205	282	284	2	0.520	0.230
16106	CCD-205	284	286	2	0.360	0.200
16108	CCD-205	286	288	2	0.780	0.320
16109	CCD-205	288	290	2	0.570	0.200
16110	CCD-205	290	292	2	0.280	0.120
16111	CCD-205	292	294	2	0.520	0.220

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16112	CCD-205	294	296	2	0.880	0.310
16113	CCD-205	296	298	2	0.320	0.170
16114	CCD-205	298	300.8	2.8	0.420	0.210
15451	CCD-206	0	2	2	0.090	0.040
15452	CCD-206	2	4	2	0.220	0.180
15453	CCD-206	4	6	2	0.280	0.260
15454	CCD-206	6	8	2	0.660	0.590
15455	CCD-206	8	10	2	0.580	0.480
15456	CCD-206	10	12	2	0.770	0.560
15457	CCD-206	12	14	2	1.730	1.470
15458	CCD-206	14	16	2	0.420	0.880
15460	CCD-206	16	18	2	0.350	0.290
15461	CCD-206	18	20	2	0.520	0.290
15462	CCD-206	20	22	2	0.370	0.210
15464	CCD-206	22	24	2	0.350	0.220
15465	CCD-206	24	26	2	0.430	0.280
15466	CCD-206	26	28	2	0.610	0.420
15467	CCD-206	28	30	2	0.450	0.320
15468	CCD-206	30	32	2	0.630	0.440
15469	CCD-206	32	34	2	0.800	0.540
15470	CCD-206	34	36	2	1.060	0.670
15471	CCD-206	36	38	2	0.690	0.490
15472	CCD-206	38	40	2	0.710	0.470
15473	CCD-206	40	42	2	0.840	0.560
15474	CCD-206	42	44	2	0.960	0.620
15475	CCD-206	44	46	2	0.740	0.460
15476	CCD-206	46	48	2	0.680	0.500
15477	CCD-206	48	50	2	0.890	0.480
15478	CCD-206	50	52	2	0.570	0.390
15479	CCD-206	52	54	2	0.760	0.440
15480	CCD-206	54	56	2	0.570	0.450
15481	CCD-206	56	58	2	0.830	0.450
15483	CCD-206	58	60	2	1.010	0.540
15484	CCD-206	60	62	2	1.010	0.580
15485	CCD-206	62	64	2	0.990	0.560
15486	CCD-206	64	66	2	1.180	0.720
15487	CCD-206	66	68	2	0.180	0.110
15488	CCD-206	68	70	2	0.480	0.310
15489	CCD-206	70	72	2	0.900	0.530
15491	CCD-206	72	74	2	0.740	0.450
15492	CCD-206	74	76	2	0.880	0.590
15493	CCD-206	76	78	2	0.880	0.590
15494	CCD-206	78	80	2	0.920	0.560
15495	CCD-206	80	82	2	0.580	0.450
15496	CCD-206	82	84	2	0.640	0.430
15497	CCD-206	84	86	2	0.810	0.560
15498	CCD-206	86	88	2	0.920	0.550
15499	CCD-206	88	90	2	0.600	0.460
15501	CCD-206	90	92	2	0.910	0.690
15502	CCD-206	92	94	2	0.860	0.720
15504	CCD-206	94	96	2	0.610	0.630
15505	CCD-206	96	98	2	1.000	0.750
15506	CCD-206	98	100	2	1.300	0.870
15507	CCD-206	100	102	2	1.390	1.100
15508	CCD-206	102	104	2	0.520	0.360

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
15509	CCD-206	104	106	2	0.520	0.390
15510	CCD-206	106	108	2	0.910	0.560
15511	CCD-206	108	110	2	0.670	0.480
15513	CCD-206	110	112	2	0.680	0.470
15514	CCD-206	112	114	2	0.700	0.520
15515	CCD-206	114	116	2	0.830	0.500
15516	CCD-206	116	118	2	0.570	0.310
15517	CCD-206	118	120	2	0.590	0.310
15518	CCD-206	120	122	2	0.460	0.310
15519	CCD-206	122	124	2	0.670	0.430
15520	CCD-206	124	126	2	0.420	0.400
15521	CCD-206	126	128	2	1.330	0.970
15522	CCD-206	128	130	2	0.330	0.430
15523	CCD-206	130	132	2	0.700	0.690
15525	CCD-206	132	134	2	0.810	0.530
15526	CCD-206	134	136	2	0.820	0.580
15527	CCD-206	136	138	2	0.660	0.440
15528	CCD-206	138	140	2	0.770	0.500
15529	CCD-206	140	142	2	0.730	0.400
15530	CCD-206	142	144	2	0.490	0.430
15531	CCD-206	144	146	2	0.570	0.440
-1	CCD-206	146	148	2	0.960	0.620
-1	CCD-206	148	150	2	0.610	0.430
-1	CCD-206	150	152	2	0.930	0.550
-1	CCD-206	152	154	2	0.840	0.400
-1	CCD-206	154	156	2	0.860	0.460
-1	CCD-206	156	158	2	0.660	0.390
-1	CCD-206	158	160	2	1.450	0.630
-1	CCD-206	160	162	2	1.260	0.560
-1	CCD-206	162	164	2	0.850	0.420
-1	CCD-206	164	166	2	1.530	0.670
-1	CCD-206	166	168	2	1.290	0.630
-1	CCD-206	168	170	2	1.640	0.730
-1	CCD-206	170	172	2	1.550	0.630
-1	CCD-206	172	174	2	1.280	0.570
-1	CCD-206	174	176	2	0.910	0.420
-1	CCD-206	176	178	2	0.970	0.660
-1	CCD-206	178	180	2	1.970	0.740
-1	CCD-206	180	182	2	1.350	0.560
-1	CCD-206	182	184	2	0.810	0.290
-1	CCD-206	184	186	2	1.010	0.380
-1	CCD-206	186	188	2	0.630	0.260
-1	CCD-206	188	190	2	2.550	0.960
15557	CCD-206	190	192	2	1.570	0.610
15558	CCD-206	192	194	2	1.060	0.400
15559	CCD-206	194	196	2	0.850	0.330
15560	CCD-206	196	198	2	1.290	0.520
15561	CCD-206	198	200	2	0.830	0.300
15562	CCD-206	200	202	2	1.150	0.460
15563	CCD-206	202	204	2	1.150	0.430
15564	CCD-206	204	206	2	1.330	0.400
15565	CCD-206	206	208	2	1.520	0.520
15566	CCD-206	208	210	2	2.260	0.600
15567	CCD-206	210	212	2	1.470	0.420
15569	CCD-206	212	214	2	0.980	0.360

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
15570	CCD-206	214	216	2	1.470	0.420
15571	CCD-206	216	218	2	0.880	0.320
15572	CCD-206	218	220	2	1.000	0.340
15574	CCD-206	220	222	2	1.150	0.420
15575	CCD-206	222	224	2	1.950	0.650
15576	CCD-206	224	226	2	1.750	0.530
15577	CCD-206	226	228	2	1.510	0.560
15578	CCD-206	228	230	2	1.140	0.410
15579	CCD-206	230	232	2	1.630	0.570
15580	CCD-206	232	234	2	0.970	0.300
15581	CCD-206	234	236	2	2.960	0.650
15582	CCD-206	236	238	2	0.610	0.220
15583	CCD-206	238	240	2	1.150	0.400
15584	CCD-206	240	242	2	0.990	0.330
15585	CCD-206	242	244	2	0.520	0.220
15586	CCD-206	244	246	2	1.230	0.490
15587	CCD-206	246	248	2	0.760	0.400
15588	CCD-206	248	250	2	0.610	0.260
15589	CCD-206	250	252	2	1.320	0.430
15590	CCD-206	252	254	2	0.840	0.290
15592	CCD-206	254	256	2	1.390	0.410
15593	CCD-206	256	258	2	1.747	0.588
15594	CCD-206	258	260	2	1.407	0.464
15595	CCD-206	260	262	2	0.989	0.342
15596	CCD-206	262	264	2	1.133	0.333
15597	CCD-206	264	266	2	0.647	0.237
15598	CCD-206	266	268	2	1.133	0.400
15599	CCD-206	268	270	2	1.493	0.631
15600	CCD-206	270	272	2	1.513	0.562
16051	CCD-206	272	274	2	2.107	0.838
16052	CCD-206	274	276	2	1.097	0.385
16053	CCD-206	276	278	2	1.527	0.579
16054	CCD-206	278	280	2	1.053	0.442
16055	CCD-206	280	282	2	1.073	0.416
16056	CCD-206	282	284	2	1.173	0.452
16058	CCD-206	284	286	2	0.847	0.387
16059	CCD-206	286	288	2	0.431	0.194
16060	CCD-206	288	290	2	0.589	0.246
16061	CCD-206	290	292	2	0.927	0.361
16062	CCD-206	292	294	2	1.187	0.300
16063	CCD-206	294	296	2	0.511	0.243
16064	CCD-206	296	298	2	0.684	0.308
16065	CCD-206	298	300	2	0.460	0.205
16066	CCD-206	300	302	2	0.513	0.348
16068	CCD-206	302	304	2	0.467	0.400
16069	CCD-206	304	306	2	0.671	0.274
16070	CCD-206	306	308	2	0.807	0.527
16071	CCD-206	308	310	2	0.387	0.233
16072	CCD-206	310	312	2	0.696	0.346
16074	CCD-206	312	314	2	1.300	0.595
16075	CCD-206	314	316	2	0.293	0.155
16076	CCD-206	316	318	2	0.371	0.221
16077	CCD-206	318	320	2	0.267	0.169
16078	CCD-206	320	322	2	0.300	0.164
16079	CCD-206	322	324	2	0.418	0.220

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16080	CCD-206	324	326	2	1.213	0.758
16081	CCD-206	326	328	2	0.687	0.416
16082	CCD-206	328	330	2	0.787	0.447
16083	CCD-206	330	332	2	0.626	0.366
16084	CCD-206	332	334	2	0.436	0.288
16086	CCD-206	334	336	2	0.731	0.473
16087	CCD-206	336	338	2	0.362	0.263
16088	CCD-206	338	340	2	0.476	0.310
16089	CCD-206	340	342	2	0.384	0.254
16091	CCD-206	342	344	2	0.420	0.280
16092	CCD-206	344	346	2	0.350	0.240
16093	CCD-206	346	348	2	0.290	0.210
16094	CCD-206	348	350	2	0.640	0.490
16095	CCD-206	350	352	2	0.270	0.190
16096	CCD-206	352	354	2	0.460	0.390
16097	CCD-206	354	356	2	0.690	0.500
16098	CCD-206	356	358	2	0.960	0.790
16099	CCD-206	358	360	2	0.500	0.440
16100	CCD-206	360	362	2	0.390	0.250
-1	CCD-206	362	364	2	-1.000	-1.000
-1	CCD-206	364	365	1	-1.000	-1.000
15701	CCD-207	0	2	2	1.120	0.050
15702	CCD-207	2	4	2	0.590	0.040
15703	CCD-207	4	6	2	1.600	0.080
15704	CCD-207	6	8	2	0.520	0.040
15705	CCD-207	8	10	2	0.610	0.030
15706	CCD-207	10	12	2	0.550	0.060
15707	CCD-207	12	14	2	0.760	0.080
15708	CCD-207	14	16	2	0.530	0.340
15709	CCD-207	16	18	2	0.840	0.450
15711	CCD-207	18	20	2	0.590	0.660
15712	CCD-207	20	22	2	3.290	2.740
15713	CCD-207	22	24	2	1.130	1.390
15714	CCD-207	24	26	2	1.250	0.630
15715	CCD-207	26	28	2	0.700	0.400
15716	CCD-207	28	30	2	0.930	0.410
15717	CCD-207	30	32	2	0.850	0.520
15718	CCD-207	32	34	2	0.800	0.360
15720	CCD-207	34	36	2	0.900	0.530
15721	CCD-207	36	38	2	0.400	0.220
15722	CCD-207	38	40	2	1.530	0.670
15723	CCD-207	40	42	2	1.130	0.620
15724	CCD-207	42	44	2	1.150	0.540
15725	CCD-207	44	46	2	1.490	0.790
15726	CCD-207	46	48	2	1.630	0.810
15727	CCD-207	48	50	2	0.710	0.340
15728	CCD-207	50	52	2	0.820	0.460
15729	CCD-207	52	54	2	0.940	0.500
15730	CCD-207	54	56	2	0.560	0.320
15731	CCD-207	56	58	2	0.770	0.360
15733	CCD-207	58	60	2	1.290	0.640
15734	CCD-207	60	62	2	1.050	0.530
15735	CCD-207	62	64	2	0.920	0.480
15736	CCD-207	64	66	2	0.700	0.360
15737	CCD-207	66	68	2	1.020	0.460

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
15738	CCD-207	68	70	2	1.210	0.670
15739	CCD-207	70	72	2	2.010	0.770
15740	CCD-207	72	74	2	1.140	0.620
15741	CCD-207	74	76	2	0.990	0.450
15743	CCD-207	76	78	2	0.430	0.400
15744	CCD-207	78	80	2	0.450	0.310
15745	CCD-207	80	82	2	0.350	0.240
15746	CCD-207	82	84	2	0.590	0.310
15747	CCD-207	84	86	2	0.450	0.240
15748	CCD-207	86	88	2	0.570	0.360
15749	CCD-207	88	90	2	0.870	0.440
15751	CCD-207	90	92	2	0.380	0.230
15752	CCD-207	92	94	2	0.610	0.330
15753	CCD-207	94	96	2	0.800	0.380
15754	CCD-207	96	98	2	0.730	0.420
15755	CCD-207	98	100	2	0.790	0.410
15756	CCD-207	100	102	2	0.610	0.270
15757	CCD-207	102	104	2	1.030	0.590
15758	CCD-207	104	106	2	1.240	0.480
15759	CCD-207	106	108	2	1.210	0.850
15760	CCD-207	108	110	2	1.680	0.900
15761	CCD-207	110	112	2	1.340	0.560
15762	CCD-207	112	114	2	0.780	0.460
15763	CCD-207	114	116	2	0.480	0.290
15764	CCD-207	116	118	2	0.980	0.540
15766	CCD-207	118	120	2	0.760	0.390
15767	CCD-207	120	122	2	0.640	0.370
15768	CCD-207	122	124	2	0.920	0.370
15769	CCD-207	124	126	2	0.680	0.370
15770	CCD-207	126	128	2	0.650	0.350
15771	CCD-207	128	130	2	0.510	0.290
15772	CCD-207	130	132	2	1.590	0.860
15774	CCD-207	132	134	2	0.450	0.250
15775	CCD-207	134	136	2	0.420	0.240
15776	CCD-207	136	138	2	0.850	0.400
15777	CCD-207	138	140	2	0.560	0.350
15778	CCD-207	140	142	2	1.090	0.460
15779	CCD-207	142	144	2	0.670	0.340
15781	CCD-207	144	146	2	0.760	0.410
15782	CCD-207	146	148	2	0.710	0.310
15783	CCD-207	148	150	2	0.600	0.360
15784	CCD-207	150	152	2	0.800	0.460
15785	CCD-207	152	154	2	0.570	0.300
15786	CCD-207	154	156	2	1.130	0.540
15787	CCD-207	156	158	2	0.680	0.370
15788	CCD-207	158	160	2	0.490	0.250
15789	CCD-207	160	162	2	0.680	0.380
15790	CCD-207	162	164	2	0.830	0.480
15792	CCD-207	164	166	2	0.900	0.460
15793	CCD-207	166	168	2	1.210	0.590
15794	CCD-207	168	170	2	0.830	0.460
15795	CCD-207	170	172	2	1.130	0.680
15797	CCD-207	172	174	2	0.490	0.330
15798	CCD-207	174	176	2	0.370	0.230
15799	CCD-207	176	178	2	0.390	0.220

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
15800	CCD-207	178	180	2	0.670	0.510
15801	CCD-207	180	182	2	0.520	0.410
15803	CCD-207	182	184	2	1.430	1.130
15804	CCD-207	184	186	2	0.790	0.590
15805	CCD-207	186	188	2	0.540	0.340
15806	CCD-207	188	190	2	0.580	0.380
15807	CCD-207	190	192	2	0.330	0.230
15808	CCD-207	192	194	2	0.510	0.510
15809	CCD-207	194	196	2	0.200	0.170
15810	CCD-207	196	198	2	0.190	0.180
15812	CCD-207	198	200	2	0.130	0.100
15813	CCD-207	200	202	2	0.380	0.340
15814	CCD-207	202	204	2	0.420	0.360
15815	CCD-207	204	206	2	0.550	0.550
15816	CCD-207	206	208	2	0.970	0.840
15817	CCD-207	208	210	2	0.500	0.470
15818	CCD-207	210	212	2	0.360	0.390
15820	CCD-207	212	214	2	0.220	0.280
15821	CCD-207	214	216	2	0.350	0.310
15822	CCD-207	216	218	2	0.390	0.430
15823	CCD-207	218	220	2	0.350	0.320
15825	CCD-207	220	222	2	0.270	0.440
15826	CCD-207	222	224	2	0.530	0.590
15827	CCD-207	224	226	2	0.290	0.360
15828	CCD-207	226	228	2	0.220	0.300
15829	CCD-207	228	230	2	0.350	0.410
15830	CCD-207	230	232	2	0.240	0.300
15831	CCD-207	232	234	2	0.240	0.290
15832	CCD-207	234	236	2	0.220	0.270
15833	CCD-207	236	238	2	0.280	0.440
15834	CCD-207	238	240	2	0.530	0.750
15835	CCD-207	240	242	2	0.300	0.450
15836	CCD-207	242	244	2	0.430	0.550
15837	CCD-207	244	246	2	0.270	0.200
15838	CCD-207	246	248	2	0.290	0.290
15839	CCD-207	248	250	2	0.280	0.320
15840	CCD-207	250	252	2	0.480	0.610
15841	CCD-207	252	254	2	0.350	0.400
15843	CCD-207	254	256	2	0.310	0.370
15844	CCD-207	256	258	2	0.290	0.310
15845	CCD-207	258	260	2	0.280	0.250
15846	CCD-207	260	262	2	0.380	0.290
15847	CCD-207	262	264	2	0.300	0.290
15848	CCD-207	264	266	2	0.260	0.260
15849	CCD-207	266	268	2	0.460	0.440
15850	CCD-207	268	270.7	2.7	0.280	0.300
-1	CCD-208	0	2	2	-1.000	-1.000
15902	CCD-208	2	4	2	0.540	0.110
15903	CCD-208	4	6	2	0.440	0.140
15904	CCD-208	6	8	2	0.440	0.210
15905	CCD-208	8	10	2	0.120	0.470
15906	CCD-208	10	12	2	0.160	0.660
15907	CCD-208	12	14	2	0.390	0.370
15908	CCD-208	14	16	2	0.660	0.180
15910	CCD-208	16	18	2	0.530	0.160

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
15911	CCD-208	18	20	2	0.610	0.230
15912	CCD-208	20	22	2	0.640	0.180
15913	CCD-208	22	24	2	0.680	0.240
15914	CCD-208	24	26	2	0.460	0.220
15916	CCD-208	26	28	2	0.260	0.700
15917	CCD-208	28	30	2	0.480	0.910
15918	CCD-208	30	32	2	1.210	0.990
15919	CCD-208	32	34	2	0.440	0.370
15920	CCD-208	34	36	2	0.520	0.460
15922	CCD-208	38	40	2	0.390	0.240
15923	CCD-208	40	42	2	0.820	0.550
15924	CCD-208	42	44	2	0.690	0.650
15925	CCD-208	44	46	2	0.660	0.710
15926	CCD-208	46	48	2	0.630	0.560
15928	CCD-208	48	50	2	0.730	1.040
15929	CCD-208	50	52	2	0.640	0.890
15930	CCD-208	52	54	2	0.500	0.940
15931	CCD-208	54	56	2	0.520	0.700
15933	CCD-208	56	58	2	0.550	0.900
15934	CCD-208	58	60	2	0.610	0.890
15935	CCD-208	60	62	2	0.860	1.060
15936	CCD-208	62	64	2	1.050	0.950
15937	CCD-208	64	66	2	0.770	1.000
15938	CCD-208	66	68	2	1.110	1.200
15939	CCD-208	68	70	2	1.050	1.020
15940	CCD-208	70	72	2	0.700	0.880
15941	CCD-208	72	74	2	0.450	0.730
15942	CCD-208	74	76	2	0.570	0.400
15943	CCD-208	76	78	2	0.510	0.440
15944	CCD-208	78	80	2	0.430	0.410
15945	CCD-208	80	82	2	0.290	0.300
15946	CCD-208	82	84	2	0.300	0.260
15947	CCD-208	84	86	2	0.290	0.330
15949	CCD-208	86	88	2	0.290	0.290
15950	CCD-208	88	90	2	0.350	0.320
15951	CCD-208	90	92	2	0.320	0.300
15952	CCD-208	92	94	2	0.240	0.180
15953	CCD-208	94	96	2	0.350	0.270
15954	CCD-208	96	98	2	0.370	0.300
15955	CCD-208	98	100	2	0.370	0.230
15956	CCD-208	100	102	2	0.410	0.270
15957	CCD-208	102	104	2	0.560	0.370
15958	CCD-208	104	106	2	1.550	1.110
15959	CCD-208	106	108	2	0.600	0.880
15960	CCD-208	108	110	2	0.540	0.370
15961	CCD-208	110	112	2	0.610	0.530
15962	CCD-208	112	114	2	0.480	0.470
15963	CCD-208	114	116	2	0.500	0.500
15965	CCD-208	116	118	2	0.353	0.261
15966	CCD-208	118	120	2	0.533	0.424
15967	CCD-208	120	122	2	0.373	0.299
15968	CCD-208	122	124	2	0.400	0.314
15969	CCD-208	124	126	2	0.466	0.398
15971	CCD-208	126	128	2	0.462	0.390
15972	CCD-208	128	130	2	0.607	0.541

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
15973	CCD-208	130	132	2	0.504	0.544
15974	CCD-208	132	134	2	0.560	0.645
15975	CCD-208	134	136	2	0.404	0.325
15976	CCD-208	136	138	2	0.491	0.562
15977	CCD-208	138	140	2	0.567	0.579
15978	CCD-208	140	142	2	0.667	0.584
15979	CCD-208	142	144	2	1.637	1.344
15980	CCD-208	144	146	2	1.827	1.568
15981	CCD-208	146	148	2	0.564	0.357
15982	CCD-208	148	150	2	0.416	0.261
15983	CCD-208	150	152	2	0.433	0.361
15985	CCD-208	152	154	2	0.496	0.390
15986	CCD-208	154	156	2	0.467	0.276
15988	CCD-208	156	158	2	0.640	0.405
15989	CCD-208	158	160	2	0.820	0.640
15990	CCD-208	160	162	2	0.612	0.345
15991	CCD-208	162	164	2	0.529	0.355
15992	CCD-208	164	166	2	0.813	0.494
15993	CCD-208	166	168	2	0.938	0.513
15994	CCD-208	168	170	2	0.996	0.508
15995	CCD-208	170	172	2	0.538	0.291
15996	CCD-208	172	174	2	0.578	0.303
15997	CCD-208	174	176	2	0.769	0.511
15998	CCD-208	176	178	2	1.473	0.807
15999	CCD-208	178	180	2	0.751	0.482
16000	CCD-208	180	182	2	0.686	0.428
16001	CCD-208	182	184	2	0.736	0.508
16002	CCD-208	184	186	2	0.749	0.520
16003	CCD-208	186	188	2	0.513	0.445
16005	CCD-208	188	190	2	0.651	0.456
16006	CCD-208	190	192	2	0.642	0.534
16007	CCD-208	192	194	2	0.462	0.407
16008	CCD-208	194	196	2	0.464	0.364
16009	CCD-208	196	198	2	0.593	0.482
16010	CCD-208	198	200	2	0.711	0.485
16012	CCD-208	200	202	2	1.220	0.918
16013	CCD-208	202	204	2	0.869	0.744
16014	CCD-208	204	206	2	0.967	0.640
16015	CCD-208	206	208	2	1.227	0.593
16016	CCD-208	208	210	2	0.938	0.713
16017	CCD-208	210	212	2	0.664	0.506
16018	CCD-208	212	214	2	0.622	0.504
16019	CCD-208	214	216	2	0.467	0.384
16021	CCD-208	216	218	2	0.722	0.624
16022	CCD-208	218	220	2	0.591	0.515
16023	CCD-208	220	222	2	0.476	0.459
16024	CCD-208	222	224	2	0.551	0.527
16025	CCD-208	224	226	2	0.527	0.619
16026	CCD-208	226	228	2	0.684	0.614
16027	CCD-208	228	230	2	0.493	0.499
16028	CCD-208	230	232	2	0.716	0.572
16029	CCD-208	232	234	2	0.496	0.501
16030	CCD-208	234	236	2	0.422	0.409
16031	CCD-208	236	238	2	0.484	0.471
16032	CCD-208	238	240	2	0.580	0.565

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16033	CCD-208	240	242	2	0.538	0.520
16035	CCD-208	242	244	2	0.618	0.468
16036	CCD-208	244	246	2	0.918	0.635
16037	CCD-208	246	248	2	0.711	0.619
16038	CCD-208	248	250	2	0.656	0.619
16039	CCD-208	250	252	2	0.740	0.581
16041	CCD-208	252	254	2	0.620	0.529
16042	CCD-208	254	256	2	0.398	0.365
16043	CCD-208	256	258	2	0.624	0.475
16044	CCD-208	258	260	2	0.713	0.708
16045	CCD-208	260	262	2	0.468	0.380
16046	CCD-208	262	264	2	0.642	0.511
16047	CCD-208	264	266	2	0.584	0.449
16048	CCD-208	266	268	2	0.651	0.529
16049	CCD-208	268	270	2	0.842	0.635
16050	CCD-208	270	272	2	0.884	0.659
17451	CCD-208	272	274	2	1.113	0.795
17452	CCD-208	274	276	2	0.927	0.654
17453	CCD-208	276	278	2	0.649	0.468
17455	CCD-208	278	280	2	0.771	0.508
17456	CCD-208	280	282	2	0.640	0.442
17457	CCD-208	282	284	2	0.330	0.366
17458	CCD-208	284	286	2	0.420	0.328
17459	CCD-208	286	288	2	0.453	0.612
17460	CCD-208	288	290	2	0.793	0.532
17461	CCD-208	290	292	2	0.583	0.435
17462	CCD-208	292	294	2	0.697	0.433
17463	CCD-208	294	296	2	0.628	0.407
17465	CCD-208	296	298	2	0.625	0.478
17466	CCD-208	298	300	2	0.667	0.449
17467	CCD-208	300	302	2	0.973	0.668
17468	CCD-208	302	304	2	0.307	0.239
17469	CCD-208	304	306	2	0.451	0.418
17470	CCD-208	306	308	2	0.445	0.515
17471	CCD-208	308	310	2	0.787	0.591
17472	CCD-208	310	312	2	0.673	0.536
17473	CCD-208	312	314	2	0.787	0.595
17474	CCD-208	314	316	2	0.512	0.381
17475	CCD-208	316	318	2	0.380	0.298
17476	CCD-208	318	320	2	0.453	0.293
17477	CCD-208	320	322	2	0.300	0.366
17478	CCD-208	322	324	2	0.383	0.241
17479	CCD-208	324	326	2	0.473	0.321
17480	CCD-208	326	328	2	0.445	0.286
17481	CCD-208	328	330	2	0.673	0.471
17482	CCD-208	330	332	2	0.073	0.116
17483	CCD-208	332	334	2	0.398	0.332
17484	CCD-208	334	336	2	0.460	0.366
17486	CCD-208	336	338	2	0.362	0.438
17487	CCD-208	338	340	2	0.743	0.494
16151	CCD-209	0	2	2	-1.000	-1.000
16152	CCD-209	2	4.54	2.54	-1.000	-1.000
16153	CCD-209	4.54	6	1.46	2.440	0.090
16154	CCD-209	6	8	2	2.760	0.030
16155	CCD-209	8	10	2	2.410	0.020

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16156	CCD-209	10	12	2	2.830	0.040
16157	CCD-209	12	14	2	1.690	0.050
16158	CCD-209	14	16	2	1.410	0.030
16159	CCD-209	16	18	2	1.480	0.060
16160	CCD-209	18	20	2	1.890	0.060
16161	CCD-209	20	22	2	2.170	0.060
16163	CCD-209	22	24	2	2.930	0.040
16164	CCD-209	24	26	2	5.000	0.040
16165	CCD-209	26	28	2	2.650	0.060
16166	CCD-209	28	30	2	2.390	0.030
16167	CCD-209	30	32	2	2.250	0.070
16169	CCD-209	32	34	2	2.200	0.230
16170	CCD-209	34	36	2	1.230	0.600
16171	CCD-209	36	38	2	0.930	0.300
16172	CCD-209	38	40	2	1.710	0.030
16173	CCD-209	40	42	2	1.970	0.120
16174	CCD-209	42	44	2	1.050	0.040
16175	CCD-209	44	46	2	0.940	0.020
16176	CCD-209	46	48	2	1.050	0.760
16177	CCD-209	48	50	2	1.240	0.110
16178	CCD-209	50	52	2	1.060	0.740
16179	CCD-209	52	54	2	0.830	0.730
16180	CCD-209	54	56	2	0.380	0.960
16181	CCD-209	56	58	2	0.670	2.100
16183	CCD-209	58	60	2	1.130	6.990
16184	CCD-209	60	62	2	0.490	2.120
16185	CCD-209	62	64	2	0.890	2.000
16187	CCD-209	64	66	2	0.440	1.570
16188	CCD-209	66	68	2	0.660	0.650
16189	CCD-209	68	70	2	1.090	3.150
16190	CCD-209	70	72	2	0.780	2.570
16191	CCD-209	72	74	2	0.780	1.620
16192	CCD-209	74	76	2	0.210	1.520
16193	CCD-209	76	78	2	0.240	1.130
16194	CCD-209	78	80	2	0.170	1.150
16195	CCD-209	80	82	2	0.630	1.120
16196	CCD-209	82	84	2	0.870	0.450
16197	CCD-209	84	86	2	0.680	1.190
16198	CCD-209	86	88	2	0.600	0.850
16199	CCD-209	88	90	2	0.780	1.090
16200	CCD-209	90	92	2	0.610	0.680
16202	CCD-209	92	94	2	0.390	0.370
16203	CCD-209	94	96	2	0.420	0.490
16204	CCD-209	96	98	2	0.520	0.470
16205	CCD-209	98	100	2	0.420	0.360
16206	CCD-209	100	102	2	0.340	0.400
16207	CCD-209	102	104	2	0.270	0.260
16209	CCD-209	104	106	2	0.250	0.290
16210	CCD-209	106	108	2	0.250	0.220
16211	CCD-209	108	110	2	0.210	0.180
16212	CCD-209	110	112	2	0.300	0.280
16213	CCD-209	112	114	2	0.220	0.290
16214	CCD-209	114	116	2	0.110	0.070
16215	CCD-209	116	118	2	0.180	0.140
16216	CCD-209	118	120	2	0.090	0.050

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16217	CCD-209	120	122	2	0.120	0.080
16218	CCD-209	122	124	2	0.190	0.200
16219	CCD-209	124	126	2	0.120	0.150
16221	CCD-209	126	128	2	0.170	0.180
16222	CCD-209	128	130	2	0.080	0.110
16223	CCD-209	130	132	2	0.140	0.220
16225	CCD-209	132	134	2	0.160	0.170
16226	CCD-209	134	136	2	0.070	0.080
16227	CCD-209	136	138	2	0.120	0.070
16228	CCD-209	138	140	2	0.100	0.120
16229	CCD-209	140	142	2	0.090	0.200
16230	CCD-209	142	144	2	0.110	0.220
16231	CCD-209	144	146	2	0.100	0.140
16232	CCD-209	146	148	2	0.080	0.090
16233	CCD-209	148	150	2	0.130	0.120
16234	CCD-209	150	152	2	0.080	0.090
16235	CCD-209	152	154	2	0.060	0.070
16236	CCD-209	154	156	2	0.070	0.060
16237	CCD-209	156	158	2	0.120	0.150
16239	CCD-209	158	160	2	0.070	0.090
16240	CCD-209	160	162	2	0.050	0.040
16241	CCD-209	162	164	2	0.010	0.030
16242	CCD-209	164	166	2	0.010	0.020
16243	CCD-209	166	168	2	0.030	0.050
16244	CCD-209	168	170	2	0.080	0.110
16245	CCD-209	170	172	2	0.090	0.050
16246	CCD-209	172	174	2	0.070	0.040
16247	CCD-209	174	176	2	0.070	0.020
16248	CCD-209	176	178	2	0.277	0.279
16249	CCD-209	178	180	2	0.023	0.040
16250	CCD-209	180	182	2	0.025	0.014
16251	CCD-209	182	184	2	0.010	0.012
16252	CCD-209	184	186	2	0.010	0.031
16253	CCD-209	186	188	2	0.010	0.020
16255	CCD-209	188	190	2	0.010	0.010
16256	CCD-209	190	192	2	0.010	0.023
16257	CCD-209	192	194	2	0.010	0.005
16258	CCD-209	194	196	2	0.010	0.010
16259	CCD-209	196	198	2	0.038	0.022
16260	CCD-209	198	200	2	0.010	0.011
16262	CCD-209	200	202	2	0.060	0.014
16263	CCD-209	202	204	2	0.045	0.054
16264	CCD-209	204	206	2	0.010	0.030
16265	CCD-209	206	208	2	0.010	0.005
16267	CCD-209	208	210	2	0.010	0.005
16268	CCD-209	210	212	2	0.010	0.005
16269	CCD-209	212	214	2	0.010	0.010
16270	CCD-209	214	216	2	0.010	0.005
16271	CCD-209	216	218	2	0.010	0.005
16272	CCD-209	218	220	2	0.010	0.005
16273	CCD-209	220	222	2	0.010	0.005
16274	CCD-209	222	224	2	0.010	0.005
16275	CCD-209	224	226	2	1.100	0.005
16276	CCD-209	226	228	2	0.010	0.005
16277	CCD-209	228	230	2	0.010	0.005

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16278	CCD-209	230	232	2	0.010	0.005
16280	CCD-209	232	234	2	0.010	0.010
16281	CCD-209	234	236	2	0.736	0.010
16282	CCD-209	236	238	2	0.010	0.005
16283	CCD-209	238	240	2	0.010	0.005
16284	CCD-209	240	242	2	0.010	0.005
16285	CCD-209	242	244	2	0.010	0.005
16286	CCD-209	244	246	2	0.010	0.005
16287	CCD-209	246	248	2	0.010	0.005
16288	CCD-209	248	250	2	0.010	0.005
16289	CCD-209	250	252	2	0.010	0.005
16290	CCD-209	252	254	2	0.010	0.022
16292	CCD-209	254	256	2	0.010	0.005
-1	CCD-209	256	258.2	2.2	-1.000	-1.000
16451	CCD-210	0	2	2	0.280	0.116
16452	CCD-210	2	4	2	0.100	0.029
16453	CCD-210	4	6	2	0.180	0.041
16454	CCD-210	6	8	2	0.130	0.495
16456	CCD-210	8	10	2	0.360	0.348
16457	CCD-210	10	12	2	0.390	0.482
16458	CCD-210	12	14	2	0.360	0.402
16459	CCD-210	14	16	2	0.245	0.378
16460	CCD-210	16	18	2	0.258	0.370
16461	CCD-210	18	20	2	0.223	0.378
16462	CCD-210	20	22	2	0.217	0.708
16463	CCD-210	22	24	2	0.313	0.704
16464	CCD-210	24	26	2	0.247	0.294
16465	CCD-210	26	28	2	0.413	0.513
16466	CCD-210	28	30	2	0.318	0.602
16467	CCD-210	30	32	2	0.478	0.565
16468	CCD-210	32	34	2	0.376	0.431
16469	CCD-210	34	36	2	0.167	0.407
16470	CCD-210	36	38	2	0.223	0.438
16471	CCD-210	38	40	2	0.295	0.392
16472	CCD-210	40	42	2	0.433	0.532
16473	CCD-210	42	44	2	0.369	0.368
16475	CCD-210	44	46	2	0.299	0.422
16476	CCD-210	46	48	2	0.402	1.082
16477	CCD-210	48	50	2	0.787	1.000
16478	CCD-210	50	52	2	0.273	0.288
16479	CCD-210	52	54	2	0.344	0.337
16480	CCD-210	54	56	2	0.243	0.278
16481	CCD-210	56	58	2	0.245	0.389
16482	CCD-210	58	60	2	0.353	0.546
16483	CCD-210	60	62	2	0.275	0.647
16484	CCD-210	62	64	2	0.357	0.419
16486	CCD-210	64	66	2	0.380	0.376
16487	CCD-210	66	68	2	0.378	0.228
16489	CCD-210	68	70	2	0.500	0.366
16490	CCD-210	70	72	2	0.349	0.475
16491	CCD-210	72	74	2	0.258	0.264
16492	CCD-210	74	76	2	0.298	0.202
16493	CCD-210	76	78	2	0.228	0.166
16494	CCD-210	78	80	2	0.369	0.240
16495	CCD-210	80	82	2	0.276	0.189

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16496	CCD-210	82	84	2	0.168	0.104
16497	CCD-210	84	86	2	0.473	0.412
16498	CCD-210	86	88	2	0.447	0.489
16500	CCD-210	88	90	2	0.373	0.292
16501	CCD-210	90	92	2	0.598	0.466
16502	CCD-210	92	94	2	0.416	0.212
16503	CCD-210	94	96	2	0.420	0.233
16504	CCD-210	96	98	2	0.413	0.269
16505	CCD-210	98	100	2	0.233	0.178
16506	CCD-210	100	102	2	0.123	0.330
16507	CCD-210	102	104	2	0.110	0.352
16508	CCD-210	104	106	2	0.122	0.300
16509	CCD-210	106	108	2	0.202	0.338
16510	CCD-210	108	110	2	0.215	0.433
16511	CCD-210	110	112	2	0.270	0.274
16512	CCD-210	112	114	2	0.130	0.142
16513	CCD-210	114	116	2	0.218	0.182
16514	CCD-210	116	118	2	0.188	0.189
16515	CCD-210	118	120	2	0.389	0.218
16517	CCD-210	120	122	2	0.384	0.234
16518	CCD-210	122	124	2	0.382	0.248
16519	CCD-210	124	126	2	0.340	0.368
16521	CCD-210	126	128	2	0.333	0.272
16522	CCD-210	128	130	2	0.360	0.213
16523	CCD-210	130	132	2	0.376	0.241
16524	CCD-210	132	134	2	0.349	0.126
16525	CCD-210	134	136	2	0.387	0.349
16526	CCD-210	136	138	2	0.344	0.206
16527	CCD-210	138	140	2	0.295	0.202
16528	CCD-210	140	142	2	0.362	0.251
16529	CCD-210	142	144	2	0.371	0.302
16530	CCD-210	144	146	2	0.245	0.200
16531	CCD-210	146	148	2	0.212	0.167
16532	CCD-210	148	150	2	0.360	0.190
16534	CCD-210	150	152	2	0.376	0.276
16535	CCD-210	152	154	2	0.384	0.247
16536	CCD-210	154	156	2	0.437	0.150
16537	CCD-210	156	158	2	1.107	0.236
16538	CCD-210	158	160	2	0.782	0.475
16539	CCD-210	160	162	2	0.422	0.138
16540	CCD-210	162	164	2	0.847	0.134
16542	CCD-210	164	166	2	0.482	0.209
16543	CCD-210	166	168	2	0.480	0.295
16544	CCD-210	168	170	2	0.305	0.177
16545	CCD-210	170	172	2	0.567	0.320
16546	CCD-210	172	174	2	0.511	0.339
16547	CCD-210	174	176	2	1.743	0.534
16548	CCD-210	176	178	2	0.292	0.120
16549	CCD-210	178	180	2	0.602	0.119
16550	CCD-210	180	182	2	0.307	0.102
16551	CCD-210	182	184	2	0.097	0.105
16552	CCD-210	184	186	2	1.287	0.190
16553	CCD-210	186	188	2	1.173	0.475
16555	CCD-210	188	190	2	0.220	0.063
16556	CCD-210	190	192	2	0.173	0.026

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16557	CCD-210	192	194	2	0.118	0.048
16558	CCD-210	194	196	2	0.077	0.021
16559	CCD-210	196	198	2	0.529	0.038
16560	CCD-210	198	200	2	0.175	0.082
16561	CCD-210	200	202	2	0.682	0.196
16563	CCD-210	202	204	2	0.589	0.452
16564	CCD-210	204	206	2	0.185	0.051
16565	CCD-210	206	208	2	0.356	0.117
16566	CCD-210	208	210	2	0.682	0.104
16567	CCD-210	210	212	2	0.280	0.133
16568	CCD-210	212	214	2	0.520	0.242
16569	CCD-210	214	216	2	0.587	0.160
16570	CCD-210	216	216.4	0.4	1.263	0.071
16601	CCD-211	0	2	2	0.010	0.034
16602	CCD-211	2	4	2	0.411	0.024
16603	CCD-211	4	6	2	0.469	0.025
16604	CCD-211	6	8	2	0.389	0.106
16605	CCD-211	8	10	2	0.933	0.159
16606	CCD-211	10	12	2	0.422	0.136
16607	CCD-211	12	14	2	0.613	0.031
16608	CCD-211	14	16	2	0.473	0.217
16610	CCD-211	16	18	2	0.629	0.075
16611	CCD-211	18	20	2	0.511	0.131
16612	CCD-211	20	22	2	0.247	0.089
16613	CCD-211	22	24	2	0.215	0.209
16614	CCD-211	24	26	2	0.263	0.593
16615	CCD-211	26	28	2	0.964	0.375
16616	CCD-211	28	30	2	0.510	0.172
16617	CCD-211	30	32	2	0.010	0.102
16619	CCD-211	32	34	2	0.247	0.094
16620	CCD-211	34	36	2	0.207	0.120
16621	CCD-211	36	38	2	0.684	0.125
16622	CCD-211	38	40	2	0.248	0.194
16623	CCD-211	40	42	2	0.458	0.402
16624	CCD-211	42	44	2	0.404	0.378
16625	CCD-211	44	46	2	0.582	0.544
16626	CCD-211	46	48	2	0.762	0.774
16627	CCD-211	48	50	2	0.620	0.358
16628	CCD-211	50	52	2	0.282	0.409
16629	CCD-211	52	54	2	0.607	0.205
16630	CCD-211	54	56	2	0.578	0.190
16632	CCD-211	56	58	2	0.312	0.539
16633	CCD-211	58	60	2	0.593	0.122
16634	CCD-211	60	62	2	0.580	0.216
16635	CCD-211	62	64	2	0.633	0.239
16636	CCD-211	64	66	2	0.600	0.206
16637	CCD-211	66	68	2	0.854	0.150
16638	CCD-211	68	70	2	0.760	0.279
16639	CCD-211	70	72	2	0.698	0.242
16640	CCD-211	72	74	2	0.702	0.255
16641	CCD-211	74	76	2	0.398	0.149
16642	CCD-211	76	78	2	0.560	0.222
16644	CCD-211	78	80	2	0.740	0.238
16645	CCD-211	80	82	2	0.473	0.174
16646	CCD-211	82	84	2	0.596	0.178

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16647	CCD-211	84	86	2	0.800	0.227
16648	CCD-211	86	88	2	0.693	0.238
16649	CCD-211	88	90	2	0.733	0.190
16650	CCD-211	90	92	2	0.609	0.206
16651	CCD-211	92	94	2	0.640	0.184
16653	CCD-211	94	96	2	0.660	0.163
16654	CCD-211	96	98	2	0.724	0.210
16655	CCD-211	98	100	2	0.762	0.194
16656	CCD-211	100	102	2	0.578	0.160
16657	CCD-211	102	104	2	0.389	0.103
16658	CCD-211	104	106	2	0.492	0.134
16659	CCD-211	106	108	2	0.349	0.105
16660	CCD-211	108	110	2	0.382	0.114
16661	CCD-211	110	112	2	0.447	0.123
16662	CCD-211	112	114	2	0.616	0.127
16663	CCD-211	114	116	2	0.317	0.157
16664	CCD-211	116	118	2	0.484	0.155
16666	CCD-211	118	120	2	0.338	0.153
16667	CCD-211	120	122	2	0.500	0.141
16668	CCD-211	122	124	2	0.584	0.174
16670	CCD-211	124	126	2	0.638	0.186
16671	CCD-211	126	128	2	0.778	0.216
16672	CCD-211	128	130	2	0.649	0.200
16673	CCD-211	130	132	2	0.518	0.161
16674	CCD-211	132	134	2	0.373	0.142
16675	CCD-211	134	136	2	0.307	0.096
16676	CCD-211	136	138	2	0.183	0.078
16677	CCD-211	138	140	2	0.273	0.107
16678	CCD-211	140	142	2	0.312	0.132
16679	CCD-211	142	144	2	0.305	0.118
16680	CCD-211	144	146	2	0.160	0.059
16681	CCD-211	146	148	2	0.135	0.070
16682	CCD-211	148	150	2	0.140	0.074
16683	CCD-211	150	152	2	0.175	0.075
16684	CCD-211	152	154	2	0.157	0.060
16685	CCD-211	154	156	2	0.217	0.046
16687	CCD-211	156	158	2	0.142	0.059
16688	CCD-211	158	160	2	0.150	0.048
16689	CCD-211	160	162	2	0.097	0.041
16691	CCD-211	162	164	2	0.162	0.064
16692	CCD-211	164	166	2	0.160	0.074
16693	CCD-211	166	168	2	0.173	0.075
16694	CCD-211	168	170	2	0.148	0.073
16695	CCD-211	170	172	2	0.073	0.043
16696	CCD-211	172	174	2	0.045	0.019
16697	CCD-211	174	176	2	0.153	0.059
16698	CCD-211	176	178	2	0.130	0.038
16699	CCD-211	178	180	2	0.230	0.087
16700	CCD-211	180	182	2	0.117	0.040
16701	CCD-211	182	184	2	0.080	0.042
16702	CCD-211	184	186	2	0.107	0.043
16703	CCD-211	186	188	2	0.138	0.056
16704	CCD-211	188	190	2	0.177	0.080
16706	CCD-211	190	192	2	0.112	0.048
16707	CCD-211	192	194	2	0.185	0.090

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16708	CCD-211	194	196	2	0.203	0.050
16709	CCD-211	196	198	2	0.212	0.060
16710	CCD-211	198	200	2	0.240	0.050
16711	CCD-211	200	202	2	0.192	0.040
16712	CCD-211	202	204	2	0.458	0.050
16713	CCD-211	204	206	2	0.462	0.030
16714	CCD-211	206	208	2	0.225	0.040
16715	CCD-211	208	210	2	0.293	0.090
16716	CCD-211	210	212	2	0.180	0.030
16717	CCD-211	212	214	2	0.207	0.050
16718	CCD-211	214	216	2	0.278	0.060
16720	CCD-211	216	218	2	0.433	0.070
16721	CCD-211	218	220	2	0.622	0.199
16723	CCD-211	220	222	2	0.822	0.239
16724	CCD-211	222	224	2	0.853	0.286
16725	CCD-211	224	226	2	0.911	0.285
16726	CCD-211	226	228	2	1.273	0.548
16727	CCD-211	228	230	2	0.742	0.207
16728	CCD-211	230	232	2	0.929	0.333
16729	CCD-211	232	234	2	1.767	0.461
16730	CCD-211	234	236	2	0.824	0.300
16731	CCD-211	236	238	2	0.701	0.294
16732	CCD-211	238	240	2	0.931	0.341
16733	CCD-211	240	242	2	1.520	0.405
16734	CCD-211	242	244	2	0.673	0.277
16735	CCD-211	244	246	2	0.433	0.218
16736	CCD-211	246	248	2	1.207	0.487
16737	CCD-211	248	250	2	0.813	0.358
16738	CCD-211	250	252	2	0.531	0.206
16739	CCD-211	252	254	2	1.280	0.370
16741	CCD-211	254	256	2	0.501	0.166
16742	CCD-211	256	258	2	0.420	0.212
16743	CCD-211	258	260	2	0.447	0.177
16745	CCD-211	260	262	2	0.764	0.307
16746	CCD-211	262	264	2	0.800	0.274
16747	CCD-211	264	266	2	0.751	0.252
16748	CCD-211	266	268	2	0.973	0.298
16749	CCD-211	268	270	2	1.053	0.314
16750	CCD-211	270	272	2	0.736	0.313
16751	CCD-211	272	274	2	0.240	0.118
16752	CCD-211	274	276	2	0.255	0.155
16753	CCD-211	276	278	2	0.183	0.120
16754	CCD-211	278	280.1	2.1	0.260	0.139
16801	CCD-212	0	2	2	0.298	0.042
16802	CCD-212	2	4	2	0.333	0.034
16803	CCD-212	4	6	2	0.035	0.052
16804	CCD-212	6	8	2	0.117	0.134
16805	CCD-212	8	10	2	0.473	0.117
16806	CCD-212	10	12	2	0.258	0.214
16807	CCD-212	12	14	2	0.222	0.513
16808	CCD-212	14	16	2	0.344	0.238
16810	CCD-212	16	18	2	0.344	0.461
16811	CCD-212	18	20	2	0.336	0.368
16812	CCD-212	20	22	2	0.409	0.454
16813	CCD-212	22	24	2	0.227	0.496

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16814	CCD-212	24	26	2	0.172	0.452
16815	CCD-212	26	28	2	0.138	0.638
16816	CCD-212	28	30	2	0.287	1.304
16817	CCD-212	30	32	2	0.353	0.692
16818	CCD-212	32	34	2	0.182	0.932
16820	CCD-212	34	36	2	0.447	0.833
16821	CCD-212	36	38	2	0.362	0.701
16822	CCD-212	38	40	2	0.613	0.739
16823	CCD-212	40	42	2	0.578	0.449
16824	CCD-212	42	44	2	0.323	0.311
16825	CCD-212	44	46	2	0.427	0.285
16826	CCD-212	46	48	2	0.464	0.382
16827	CCD-212	48	50	2	0.524	0.270
16828	CCD-212	50	52	2	0.664	0.565
16829	CCD-212	52	54	2	0.813	0.527
16830	CCD-212	54	56	2	0.567	0.359
16832	CCD-212	56	58	2	0.467	0.253
16833	CCD-212	58	60	2	0.398	0.276
16834	CCD-212	60	62	2	0.287	0.206
16835	CCD-212	62	64	2	0.278	0.262
16836	CCD-212	64	66	2	0.611	0.360
16838	CCD-212	66	68	2	0.447	0.273
16839	CCD-212	68	70	2	0.647	0.396
16840	CCD-212	70	72	2	0.967	0.560
16841	CCD-212	72	74	2	1.507	0.831
16842	CCD-212	74	76	2	1.603	0.778
16843	CCD-212	76	78	2	1.953	1.035
16844	CCD-212	78	80	2	0.904	1.144
16845	CCD-212	80	82	2	1.313	0.744
16846	CCD-212	82	84	2	1.147	0.944
16847	CCD-212	84	86	2	1.760	1.224
16848	CCD-212	86	88	2	1.753	0.755
16849	CCD-212	88	90	2	0.873	0.598
16850	CCD-212	90	92	2	1.140	1.085
16851	CCD-212	92	94	2	1.287	0.828
16853	CCD-212	94	96	2	1.107	0.664
16854	CCD-212	96	98	2	1.653	1.113
16855	CCD-212	98	100	2	0.927	0.569
16856	CCD-212	100	102	2	0.624	1.120
16857	CCD-212	102	104	2	1.053	1.584
16858	CCD-212	104	106	2	0.687	1.040
16859	CCD-212	106	108	2	0.447	0.882
16861	CCD-212	108	110	2	1.093	0.579
16862	CCD-212	110	112	2	0.882	0.913
16863	CCD-212	112	114	2	0.966	0.916
16864	CCD-212	114	116	2	0.913	0.440
16865	CCD-212	116	118	2	1.340	0.718
16866	CCD-212	118	120	2	1.067	0.471
16867	CCD-212	120	122	2	1.373	0.736
16868	CCD-212	122	124	2	1.213	0.529
16869	CCD-212	124	126	2	1.060	0.516
16870	CCD-212	126	128	2	1.193	0.631
16872	CCD-212	128	130	2	1.720	1.007
16873	CCD-212	130	132	2	1.327	0.701
16874	CCD-212	132	134	2	1.080	0.579

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16875	CCD-212	134	136	2	1.507	0.612
16876	CCD-212	136	138	2	2.013	2.200
16877	CCD-212	138	140	2	1.273	1.328
16878	CCD-212	140	142	2	1.700	0.847
16879	CCD-212	142	144	2	1.247	0.567
16880	CCD-212	144	146	2	1.060	0.546
16881	CCD-212	146	148	2	1.613	0.948
16882	CCD-212	148	150	2	1.313	0.579
16884	CCD-212	150	152	2	1.373	0.595
16886	CCD-212	152	154	2	2.313	1.167
16887	CCD-212	154	156	2	2.393	1.240
16888	CCD-212	156	158	2	1.687	1.456
16889	CCD-212	158	160	2	1.480	1.151
16890	CCD-212	160	162	2	0.578	0.742
16891	CCD-212	162	164	2	0.882	0.951
16892	CCD-212	164	166	2	1.127	0.901
16893	CCD-212	166	168	2	1.313	0.871
16894	CCD-212	168	170	2	1.320	0.713
16895	CCD-212	170	172	2	1.660	0.776
16896	CCD-212	172	174	2	2.127	1.148
16897	CCD-212	174	176	2	5.400	1.376
16898	CCD-212	176	178	2	2.133	0.842
16899	CCD-212	178	180	2	2.127	0.793
16900	CCD-212	180	182	2	1.813	0.873
16901	CCD-212	182	184	2	1.960	0.951
16903	CCD-212	184	186	2	1.740	1.440
16904	CCD-212	186	188	2	0.647	0.520
16905	CCD-212	188	190	2	0.953	0.558
16906	CCD-212	190	192	2	0.896	0.485
16907	CCD-212	192	194	2	0.687	0.400
16908	CCD-212	194	196	2	1.193	0.459
16909	CCD-212	196	198	2	1.247	0.753
16910	CCD-212	198	200	2	1.720	0.558
16912	CCD-212	200	202	2	3.160	1.089
16913	CCD-212	202	204	2	1.213	0.518
16914	CCD-212	204	206	2	1.607	0.694
16915	CCD-212	206	208	2	0.684	0.273
16916	CCD-212	208	210	2	1.120	0.508
16917	CCD-212	210	212	2	0.627	0.798
16918	CCD-212	212	214	2	1.193	0.459
16920	CCD-212	214	216	2	1.173	0.414
16921	CCD-212	216	218	2	1.320	0.551
16922	CCD-212	218	220	2	0.773	0.426
16923	CCD-212	220	222	2	0.255	0.148
16924	CCD-212	222	224	2	0.369	0.174
16925	CCD-212	224	226	2	0.893	0.346
16926	CCD-212	226	228	2	1.507	0.642
16927	CCD-212	228	230	2	1.260	0.536
16928	CCD-212	230	232	2	0.647	0.298
16929	CCD-212	232	234	2	1.227	0.628
16930	CCD-212	234	236	2	2.160	0.918
16931	CCD-212	236	238	2	0.589	0.297
16932	CCD-212	238	240	2	1.473	0.473
16933	CCD-212	240	242	2	1.067	0.378
16934	CCD-212	242	244	2	1.313	0.513

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16936	CCD-212	244	246	2	0.751	0.362
16937	CCD-212	246	248	2	1.067	0.449
16938	CCD-212	248	250	2	1.467	0.640
16940	CCD-212	250	252	2	1.673	0.772
16941	CCD-212	252	254	2	1.433	0.548
16942	CCD-212	254	256	2	1.680	0.682
16943	CCD-212	256	258	2	1.727	0.725
16944	CCD-212	258	260	2	1.547	0.660
16945	CCD-212	260	262	2	1.400	0.541
16946	CCD-212	262	264	2	1.507	0.395
16947	CCD-212	264	266	2	1.180	0.421
16948	CCD-212	266	268	2	2.453	1.033
16949	CCD-212	268	270	2	1.307	0.541
16950	CCD-212	270	272	2	1.073	0.473
16952	CCD-212	272	274	2	2.173	0.791
16953	CCD-212	274	276	2	1.327	0.518
16954	CCD-212	276	278	2	2.060	0.927
16955	CCD-212	278	280	2	2.093	0.812
16956	CCD-212	280	282	2	2.267	0.812
16957	CCD-212	282	284	2	1.890	0.511
16958	CCD-212	284	286	2	1.497	0.500
16960	CCD-212	286	288	2	0.927	0.330
16961	CCD-212	288	290	2	1.213	0.445
16962	CCD-212	290	290.21	0.21	2.263	0.774
16301	CCD-213	0	2	2	1.150	0.060
16302	CCD-213	2	4	2	0.790	0.050
16303	CCD-213	4	6	2	0.610	0.030
16304	CCD-213	6	8	2	0.910	0.050
16305	CCD-213	8	10	2	1.170	0.060
16306	CCD-213	10	12	2	0.690	0.030
16307	CCD-213	12	14	2	0.760	0.030
16309	CCD-213	14	16	2	1.390	0.020
16310	CCD-213	16	18	2	1.280	0.150
16311	CCD-213	18	20	2	1.340	0.670
16312	CCD-213	20	22	2	1.270	0.790
16313	CCD-213	22	24	2	0.700	0.670
16315	CCD-213	24	26	2	0.710	0.850
16316	CCD-213	26	28	2	1.170	0.930
16318	CCD-213	30	32	2	0.680	1.970
16319	CCD-213	32	34	2	1.190	1.030
16320	CCD-213	34	36	2	0.670	0.410
16321	CCD-213	36	38	2	1.290	0.750
16322	CCD-213	38	40	2	1.630	0.880
16323	CCD-213	40	42	2	1.970	0.520
16324	CCD-213	42	44	2	0.130	0.470
16325	CCD-213	44	46	2	0.160	0.600
16326	CCD-213	46	48	2	0.980	0.450
16327	CCD-213	48	50	2	0.730	0.340
16328	CCD-213	50	52	2	0.780	0.400
16329	CCD-213	52	54	2	0.540	0.270
16330	CCD-213	54	56	2	0.680	0.370
16332	CCD-213	56	58	2	0.710	0.400
16333	CCD-213	58	60	2	0.450	0.400
16334	CCD-213	60	62	2	0.198	0.728
16335	CCD-213	62	64	2	0.480	0.525

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16337	CCD-213	64	66	2	0.436	0.758
16338	CCD-213	66	68	2	0.484	0.330
16339	CCD-213	68	70	2	0.252	0.468
16340	CCD-213	70	72	2	0.584	0.591
16341	CCD-213	72	74	2	0.442	0.270
16342	CCD-213	74	76	2	0.380	0.350
16343	CCD-213	76	78	2	0.364	0.339
16344	CCD-213	78	80	2	0.158	0.382
16345	CCD-213	80	82	2	0.220	0.692
16346	CCD-213	82	84	2	0.369	0.447
16347	CCD-213	84	86	2	0.384	0.347
16348	CCD-213	86	88	2	0.010	0.050
16350	CCD-213	88	90	2	0.382	0.339
16351	CCD-213	90	92	2	0.195	0.213
16352	CCD-213	92	94	2	0.298	0.307
16353	CCD-213	94	96	2	0.282	0.414
16354	CCD-213	96	98	2	0.480	0.471
16355	CCD-213	98	100	2	0.230	0.535
16356	CCD-213	100	102	2	0.440	0.449
16357	CCD-213	102	104	2	0.550	0.708
16358	CCD-213	104	106	2	0.610	0.718
16359	CCD-213	106	108	2	0.190	0.696
16360	CCD-213	108	110	2	0.420	0.678
16361	CCD-213	110	112	2	0.620	0.631
16362	CCD-213	112	114	2	0.230	0.344
16363	CCD-213	114	116	2	0.140	0.302
16364	CCD-213	116	118	2	0.130	0.334
16366	CCD-213	118	120	2	0.440	0.384
16367	CCD-213	120	122	2	0.780	0.824
16368	CCD-213	122	124	2	0.700	0.661
16369	CCD-213	124	126	2	0.560	0.478
16371	CCD-213	126	128	2	0.367	0.283
16372	CCD-213	128	130	2	0.596	0.340
16373	CCD-213	130	132	2	0.312	0.424
16374	CCD-213	132	134	2	0.540	0.405
16375	CCD-213	134	136	2	0.493	0.386
16376	CCD-213	136	138	2	0.480	0.487
16377	CCD-213	138	140	2	0.290	0.298
16378	CCD-213	140	142	2	0.492	0.433
16379	CCD-213	142	144	2	0.929	0.692
16380	CCD-213	144	146	2	1.060	0.598
16381	CCD-213	146	148	2	0.367	0.377
16382	CCD-213	148	150	2	0.829	0.400
16384	CCD-213	150	152	2	0.400	0.175
16385	CCD-213	152	154	2	1.327	0.576
16386	CCD-213	154	156	2	1.153	0.553
16387	CCD-213	156	158	2	0.836	0.399
16388	CCD-213	158	160	2	0.488	0.258
16389	CCD-213	160	162	2	0.949	0.428
16390	CCD-213	162	164	2	0.270	0.153
16391	CCD-213	164	166	2	0.487	0.288
16393	CCD-213	166	168	2	1.120	0.595
16394	CCD-213	168	170	2	1.300	0.548
16395	CCD-213	170	172	2	1.173	0.525
16396	CCD-213	172	174	2	0.751	0.339

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
16397	CCD-213	174	176	2	0.776	0.371
16399	CCD-213	176	178	2	0.694	0.342
16400	CCD-213	178	180	2	1.600	0.373
16401	CCD-213	180	182	2	1.033	0.302
16402	CCD-213	182	184	2	1.113	0.452
16403	CCD-213	184	186	2	1.427	0.440
16404	CCD-213	186	188	2	1.080	0.397
16406	CCD-213	188	190	2	1.587	0.440
16407	CCD-213	190	192	2	1.527	0.487
16408	CCD-213	192	194	2	1.307	0.431
16409	CCD-213	194	196	2	1.053	0.285
16410	CCD-213	196	198	2	0.847	0.267
16411	CCD-213	198	200	2	2.020	0.551
16412	CCD-213	200	202	2	1.313	0.435
16413	CCD-213	202	204	2	1.327	0.358
16414	CCD-213	204	206	2	2.187	0.626
16415	CCD-213	206	208	2	1.493	0.480
16416	CCD-213	208	210	2	2.027	0.725
16417	CCD-213	210	212	2	1.727	0.499
16418	CCD-213	212	214	2	0.518	0.160
16419	CCD-213	214	216	2	0.502	0.178
16420	CCD-213	216	218	2	1.123	0.299
16422	CCD-213	218	220	2	0.840	0.281
16423	CCD-213	220	222	2	0.900	0.246
16424	CCD-213	222	224	2	1.893	0.480
16425	CCD-213	224	226	2	0.920	0.246
16426	CCD-213	226	228	2	1.140	0.359
16427	CCD-213	228	230	2	1.167	0.558
16428	CCD-213	230	232	2	0.704	0.340
16429	CCD-213	232	234	2	0.391	0.211
16430	CCD-213	234	236	2	0.349	0.178
16431	CCD-213	236	238	2	0.580	0.253
16432	CCD-213	238	240	2	0.562	0.299
16433	CCD-213	240	242	2	0.487	0.264
16434	CCD-213	242	244	2	0.233	0.134
16435	CCD-213	244	246	2	0.749	0.426
16436	CCD-213	246	248	2	0.558	0.360
16438	CCD-213	248	250	2	0.536	0.372
16439	CCD-213	250	252	2	0.527	0.276
16440	CCD-213	252	254	2	0.436	0.287
16442	CCD-213	254	256	2	0.458	0.374
16443	CCD-213	256	258	2	0.638	0.346
16444	CCD-213	258	260	2	0.802	0.297
16445	CCD-213	260	262	2	1.827	0.885
16446	CCD-213	262	264	2	1.087	0.621
16447	CCD-213	264	266	2	2.093	1.005
16448	CCD-213	266	268	2	1.093	0.541
16449	CCD-213	268	270	2	0.784	0.334
16450	CCD-213	270	272	2	0.824	0.433
17701	CCD-213	272	274	2	1.320	0.574
17702	CCD-213	274	276	2	0.429	0.258
17703	CCD-213	276	278	2	1.187	0.424
17704	CCD-213	278	280	2	0.442	0.162
17705	CCD-213	280	282	2	0.524	0.262
17706	CCD-213	282	284	2	0.849	0.356

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17707	CCD-213	284	286	2	0.929	0.344
17708	CCD-213	286	288	2	0.902	0.326
17709	CCD-213	288	290	2	0.351	0.161
17710	CCD-213	290	292	2	0.811	0.323
17711	CCD-213	292	294	2	0.713	0.292
17712	CCD-213	294	296	2	0.680	0.312
17714	CCD-213	296	298	2	1.173	0.459
17715	CCD-213	298	300	2	1.027	0.489
17716	CCD-213	300	302	2	1.173	0.438
17718	CCD-213	302	304	2	2.313	0.734
17719	CCD-213	304	306	2	1.680	0.569
17720	CCD-213	306	308	2	1.247	0.502
17721	CCD-213	308	310	2	0.822	0.296
17722	CCD-213	310	312	2	1.347	0.529
17723	CCD-213	312	314	2	0.622	0.303
17724	CCD-213	314	316	2	0.538	0.238
17725	CCD-213	316	318	2	0.396	0.146
17726	CCD-213	318	320	2	0.193	0.096
17727	CCD-213	320	322	2	0.516	0.242
17728	CCD-213	322	324	2	0.398	0.194
17729	CCD-213	324	326	2	0.491	0.246
17730	CCD-213	326	328	2	0.460	0.193
17731	CCD-213	328	330	2	0.736	0.280
17732	CCD-213	330	331.6	1.6	0.983	0.290
17001	CCD-214	0	2	2	0.222	0.037
17002	CCD-214	2	4	2	0.232	0.068
17003	CCD-214	4	6	2	0.222	0.050
17004	CCD-214	6	8	2	0.238	0.038
17005	CCD-214	8	10	2	0.107	0.028
17006	CCD-214	10	12	2	0.075	0.093
17007	CCD-214	12	14	2	0.195	0.713
17008	CCD-214	14	16	2	0.188	0.180
17009	CCD-214	16	18	2	0.122	0.060
17010	CCD-214	18	20	2	0.117	0.032
17012	CCD-214	20	22	2	0.102	0.078
17013	CCD-214	22	24	2	0.107	0.099
17015	CCD-214	24	26	2	0.063	0.104
17016	CCD-214	26	28	2	0.120	0.118
17017	CCD-214	28	30	2	0.100	0.094
17018	CCD-214	30	32	2	0.098	0.104
17019	CCD-214	32	34	2	0.082	0.035
17020	CCD-214	34	36	2	0.075	0.051
17021	CCD-214	36	38	2	0.126	0.032
17022	CCD-214	38	40	2	0.073	0.066
17023	CCD-214	40	42	2	0.075	0.035
17024	CCD-214	42	44	2	0.048	0.061
17025	CCD-214	44	46	2	0.048	0.058
17026	CCD-214	46	48	2	0.087	0.130
17027	CCD-214	48	50	2	0.030	0.060
17028	CCD-214	50	52	2	0.070	0.083
17029	CCD-214	52	54	2	0.040	0.150
17030	CCD-214	54	56	2	0.010	0.065
17031	CCD-214	56	58	2	0.040	0.162
17033	CCD-214	58	60	2	0.023	0.080
17034	CCD-214	60	62	2	0.010	0.246

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17035	CCD-214	62	64	2	0.010	0.091
17036	CCD-214	64	66	2	0.010	0.152
17037	CCD-214	66	68	2	0.010	0.162
17038	CCD-214	68	70	2	0.010	0.132
17039	CCD-214	70	72	2	0.010	0.052
17040	CCD-214	72	74	2	0.030	0.132
17041	CCD-214	74	76	2	0.020	0.148
17042	CCD-214	76	78	2	0.010	0.210
17043	CCD-214	78	80	2	0.020	0.235
17044	CCD-214	80	82	2	0.330	0.296
17045	CCD-214	82	84	2	0.242	0.278
17047	CCD-214	84	86	2	0.462	0.371
17048	CCD-214	86	88	2	0.596	0.438
17050	CCD-214	88	90	2	0.502	0.385
17051	CCD-214	90	92	2	0.373	0.239
17052	CCD-214	92	94	2	0.308	0.288
17053	CCD-214	94	96	2	0.496	0.332
17054	CCD-214	96	98	2	0.982	0.499
17055	CCD-214	98	100	2	0.353	0.621
17056	CCD-214	100	102	2	0.327	0.701
17057	CCD-214	102	104	2	0.587	0.668
17058	CCD-214	104	106	2	1.080	0.518
17059	CCD-214	106	108	2	0.724	0.251
17060	CCD-214	108	110	2	0.218	0.344
17061	CCD-214	110	112	2	0.328	0.100
17062	CCD-214	112	114	2	0.260	0.201
17063	CCD-214	114	116	2	0.337	0.175
17065	CCD-214	116	118	2	0.210	0.122
17066	CCD-214	118	120	2	0.671	0.468
17067	CCD-214	120	122	2	0.744	0.362
17068	CCD-214	122	124	2	0.110	0.133
17069	CCD-214	124	126	2	0.115	0.075
17071	CCD-214	126	128	2	0.088	0.144
17072	CCD-214	128	130	2	0.087	0.098
17073	CCD-214	130	132	2	0.187	0.139
17074	CCD-214	132	134	2	0.282	0.100
17075	CCD-214	134	136	2	0.282	0.118
17076	CCD-214	136	138	2	0.245	0.357
17077	CCD-214	138	140	2	0.222	0.195
17078	CCD-214	140	142	2	0.088	0.097
17079	CCD-214	142	144	2	0.117	0.168
17080	CCD-214	144	146	2	0.238	0.140
17081	CCD-214	146	148	2	0.122	0.103
17082	CCD-214	148	150	2	0.347	0.318
17083	CCD-214	150	152	2	0.070	0.093
17084	CCD-214	152	154	2	0.263	0.090
17085	CCD-214	154	156	2	0.337	0.113
17087	CCD-214	156	158	2	0.238	0.101
17088	CCD-214	158	160	2	0.073	0.050
17089	CCD-214	160	162	2	0.145	0.062
17090	CCD-214	162	164	2	0.095	0.078
17091	CCD-214	164	166	2	0.103	0.108
17092	CCD-214	166	168	2	0.112	0.103
17094	CCD-214	168	170	2	0.233	0.132
17095	CCD-214	170	172	2	0.346	0.251

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17097	CCD-214	172	174	2	0.267	0.172
17098	CCD-214	174	176	2	0.077	0.085
17099	CCD-214	176	178	2	0.075	0.108
17100	CCD-214	178	180	2	0.227	0.152
17101	CCD-214	180	182	2	0.293	0.170
17102	CCD-214	182	184	2	0.245	0.110
17103	CCD-214	184	186	2	0.529	0.206
17104	CCD-214	186	188	2	0.378	0.260
17105	CCD-214	188	190	2	0.153	0.057
17106	CCD-214	190	192	2	0.090	0.054
17107	CCD-214	192	194	2	0.522	0.259
17108	CCD-214	194	196	2	0.010	-0.010
17109	CCD-214	196	198	2	0.093	0.126
17110	CCD-214	198	200	2	0.103	0.090
17111	CCD-214	200	202	2	0.108	0.063
17112	CCD-214	202	204	2	0.384	0.356
17113	CCD-214	204	206	2	0.391	0.428
17114	CCD-214	206	208	2	0.524	0.327
17115	CCD-214	208	210	2	0.270	0.240
17116	CCD-214	210	212	2	0.123	0.264
17118	CCD-214	212	214	2	0.168	0.198
17119	CCD-214	214	216	2	0.696	0.337
17120	CCD-214	216	218	2	0.673	0.364
17121	CCD-214	218	220	2	0.744	0.315
17122	CCD-214	220	222	2	0.400	0.381
17123	CCD-214	222	224	2	0.453	0.315
17124	CCD-214	224	226	2	0.293	0.229
17125	CCD-214	226	228	2	0.303	0.292
17126	CCD-214	228	230	2	0.336	0.246
17127	CCD-214	230	232	2	0.188	0.389
17128	CCD-214	232	234	2	0.227	0.579
17130	CCD-214	234	236	2	0.187	0.701
17131	CCD-214	236	238	2	0.163	0.558
17132	CCD-214	238	240	2	1.067	0.536
17134	CCD-214	240	242	2	1.187	0.609
17135	CCD-214	242	244	2	0.424	0.602
17136	CCD-214	244	246	2	0.208	0.508
17137	CCD-214	246	248	2	1.053	0.447
17138	CCD-214	248	250	2	0.453	0.235
17139	CCD-214	250	252	2	0.140	0.409
17140	CCD-214	252	254	2	0.427	0.286
17141	CCD-214	254	256	2	0.292	0.276
17142	CCD-214	256	258	2	0.217	0.424
17143	CCD-214	258	260	2	0.520	0.220
17144	CCD-214	260	262	2	0.716	0.242
17145	CCD-214	262	264	2	0.338	0.348
17146	CCD-214	264	266	2	0.239	0.401
17147	CCD-214	266	268	2	0.916	0.324
17148	CCD-214	268	270	2	0.440	0.245
17149	CCD-214	270	272	2	0.582	0.210
17151	CCD-214	272	274	2	0.073	0.059
17152	CCD-214	274	276	2	0.253	0.165
17153	CCD-214	276	278	2	0.187	0.113
17154	CCD-214	278	280	2	0.095	0.048
17155	CCD-214	280	282	2	0.182	0.118

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17156	CCD-214	282	284	2	0.431	0.202
17158	CCD-214	284	286	2	0.411	0.174
17159	CCD-214	286	288	2	0.265	0.181
17160	CCD-214	288	290	2	0.320	0.155
17161	CCD-214	290	292	2	0.090	0.236
17162	CCD-214	292	294	2	0.471	0.321
17163	CCD-214	294	296	2	0.132	0.086
17164	CCD-214	296	298	2	0.237	0.188
17165	CCD-214	298	300	2	0.138	0.126
17166	CCD-214	300	302	2	0.771	0.338
17167	CCD-214	302	304	2	0.316	0.110
17168	CCD-214	304	306	2	0.712	0.535
17169	CCD-214	306	308	2	0.297	0.187
17171	CCD-214	308	310	2	0.166	0.130
17172	CCD-214	310	312	2	0.325	0.173
17173	CCD-214	312	314	2	0.452	0.146
17175	CCD-214	314	316	2	0.511	0.224
17176	CCD-214	316	318	2	0.376	0.248
17177	CCD-214	318	320	2	0.885	0.097
17178	CCD-214	320	322	2	0.379	0.104
17179	CCD-214	322	324	2	0.355	0.072
17180	CCD-214	324	326	2	0.270	0.070
17181	CCD-214	326	328	2	0.122	0.068
17182	CCD-214	328	330	2	0.111	0.082
17183	CCD-214	330	332	2	0.454	0.185
17184	CCD-214	332	334	2	0.410	0.215
17185	CCD-214	334	336	2	0.443	0.077
17186	CCD-214	336	338	2	0.098	0.061
17187	CCD-214	338	340	2	0.213	0.139
17189	CCD-214	340	342	2	0.256	0.193
17190	CCD-214	342	344	2	0.250	0.187
17191	CCD-214	344	346	2	0.291	0.135
17193	CCD-214	346	348	2	0.334	0.254
-1	CCD-215	0	3.1	3.1	-1.000	-1.000
17203	CCD-215	3.1	4	0.9	0.656	0.094
17204	CCD-215	4	6	2	0.185	0.330
17206	CCD-215	6	8	2	0.138	0.656
17207	CCD-215	8	10	2	0.210	0.591
17208	CCD-215	10	12	2	0.210	0.482
17209	CCD-215	12	14	2	0.228	0.586
17210	CCD-215	14	16	2	0.356	0.675
17211	CCD-215	16	18	2	0.288	0.459
17212	CCD-215	20	22	2	0.431	0.452
17213	CCD-215	22	24	2	0.310	0.374
17214	CCD-215	24	26	2	0.396	0.414
17215	CCD-215	26	28	2	0.560	0.469
17216	CCD-215	28	30	2	0.684	0.407
17217	CCD-215	30	32	2	0.867	0.687
17218	CCD-215	32	34	2	0.673	2.376
17219	CCD-215	34	36	2	0.900	1.536
17220	CCD-215	36	38	2	1.060	1.280
17221	CCD-215	38	40	2	0.980	1.864
17223	CCD-215	40	42	2	1.713	1.816
17224	CCD-215	42	44	2	0.880	2.240
17225	CCD-215	44	46	2	0.553	1.120

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17226	CCD-215	46	48	2	1.180	2.464
17227	CCD-215	48	50	2	0.616	1.872
17228	CCD-215	50	52	2	1.120	1.272
17230	CCD-215	52	54	2	0.896	0.635
17231	CCD-215	54	56	2	1.180	0.678
17232	CCD-215	56	58	2	0.924	0.428
17233	CCD-215	58	60	2	0.938	0.567
17234	CCD-215	60	62	2	1.160	0.744
17235	CCD-215	62	64	2	1.293	0.840
17236	CCD-215	64	66	2	1.480	0.842
17237	CCD-215	66	68	2	0.898	0.461
17238	CCD-215	68	70	2	1.060	0.405
17239	CCD-215	70	72	2	1.207	0.645
17240	CCD-215	72	74	2	1.373	0.812
17241	CCD-215	74	76	2	1.120	0.598
17242	CCD-215	76	78	2	1.347	0.729
17243	CCD-215	78	80	2	1.200	0.661
17245	CCD-215	80	82	2	1.347	0.800
17246	CCD-215	82	84	2	1.527	0.861
17247	CCD-215	84	86	2	1.953	1.014
17248	CCD-215	86	88	2	1.493	0.833
17249	CCD-215	88	90	2	1.440	1.028
17251	CCD-215	90	92	2	1.880	0.976
17252	CCD-215	92	94	2	1.667	0.885
17253	CCD-215	94	96	2	1.527	0.762
17254	CCD-215	96	98	2	1.667	0.776
17255	CCD-215	98	100	2	1.533	0.880
17256	CCD-215	100	102	2	2.113	0.748
17257	CCD-215	102	104	2	0.756	0.769
17258	CCD-215	104	106	2	0.816	0.734
17259	CCD-215	106	108	2	0.629	0.496
17260	CCD-215	108	110	2	0.944	0.508
17261	CCD-215	110	112	2	1.280	0.492
17262	CCD-215	112	114	2	1.233	0.485
17263	CCD-215	114	116	2	1.753	0.584
17264	CCD-215	116	118	2	1.193	0.440
17265	CCD-215	118	120	2	1.287	0.416
17267	CCD-215	120	122	2	1.420	0.551
17268	CCD-215	122	124	2	1.253	0.505
17269	CCD-215	124	126	2	1.667	0.548
17271	CCD-215	126	128	2	1.220	0.452
17272	CCD-215	128	130	2	1.380	0.529
17273	CCD-215	130	132	2	0.744	0.438
17274	CCD-215	132	134	2	1.607	0.459
17275	CCD-215	134	136	2	1.403	0.407
17276	CCD-215	136	138	2	1.593	0.525
17277	CCD-215	138	140	2	0.053	0.381
17278	CCD-215	140	142	2	1.733	0.518
17279	CCD-215	142	144	2	1.733	0.405
17280	CCD-215	144	146	2	1.840	0.442
17281	CCD-215	146	148	2	1.847	0.475
17282	CCD-215	148	150	2	2.173	0.407
17283	CCD-215	150	152	2	3.333	0.426
17284	CCD-215	152	154	2	2.633	0.520
17285	CCD-215	154	156	2	1.020	0.372

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17287	CCD-215	156	158	2	1.820	0.359
17289	CCD-215	158	160	2	1.440	0.290
17290	CCD-215	160	162	2	1.607	0.322
17291	CCD-215	162	164	2	1.380	0.278
17292	CCD-215	164	166	2	0.402	0.205
17293	CCD-215	166	168	2	1.133	0.232
17294	CCD-215	168	170	2	2.120	0.357
17295	CCD-215	170	172	2	0.549	0.166
17296	CCD-215	172	174	2	0.620	0.151
17297	CCD-215	174	176	2	0.378	0.111
17298	CCD-215	176	178	2	0.108	0.054
17299	CCD-215	178	180	2	0.519	0.100
17300	CCD-215	180	182	2	0.367	0.106
17301	CCD-215	182	184	2	0.257	0.106
17302	CCD-215	184	186	2	0.292	0.086
17304	CCD-215	186	188	2	0.342	0.082
17305	CCD-215	188	190	2	0.353	0.104
17306	CCD-215	190	192	2	0.153	0.096
17307	CCD-215	192	194	2	0.270	0.050
17308	CCD-215	194	196	2	0.203	0.070
17309	CCD-215	196	198	2	0.191	0.053
17311	CCD-215	198	200	2	0.217	0.040
17312	CCD-215	200	202	2	0.113	0.060
17313	CCD-215	202	204	2	0.212	0.040
17314	CCD-215	204	206	2	0.185	0.050
17315	CCD-215	206	208	2	0.262	0.053
17316	CCD-215	208	210	2	0.507	0.030
17317	CCD-215	210	212	2	0.243	0.087
17318	CCD-215	212	214	2	0.180	0.071
17319	CCD-215	214	216	2	0.178	0.074
17321	CCD-215	216	218	2	0.147	0.053
17322	CCD-215	218	220	2	0.162	0.040
17323	CCD-215	220	222	2	0.140	0.070
17324	CCD-215	222	224	2	0.262	0.082
17325	CCD-215	224	226	2	0.178	0.070
17326	CCD-215	226	228	2	0.142	0.071
17327	CCD-215	228	230	2	0.193	0.100
17328	CCD-215	230	232	2	0.364	0.062
17329	CCD-215	232	234	2	0.287	0.129
17330	CCD-215	234	236	2	0.148	0.056
17331	CCD-215	236	238	2	0.147	0.030
17333	CCD-215	238	240	2	0.128	0.072
17334	CCD-215	240	242	2	0.175	0.075
17335	CCD-215	242	244	2	0.137	0.043
17336	CCD-215	244	246	2	0.073	0.021
17338	CCD-215	246	248	2	0.132	0.086
17339	CCD-215	248	250	2	0.110	0.014
17340	CCD-215	250	252	2	0.118	0.053
17341	CCD-215	252	254	2	0.112	0.032
17342	CCD-215	254	256	2	0.093	0.031
17343	CCD-215	256	258	2	0.232	0.023
17344	CCD-215	258	260	2	0.077	0.034
17345	CCD-215	260	262	2	0.063	0.033
17346	CCD-215	262	264	2	0.138	0.030
17347	CCD-215	264	266	2	0.150	0.043

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17348	CCD-215	266	268	2	0.141	0.052
17349	CCD-215	268	270	2	0.220	0.110
17350	CCD-215	270	272	2	0.167	0.096
17351	CCD-215	272	274	2	0.187	0.098
17352	CCD-215	274	276	2	0.087	0.086
17353	CCD-215	276	278	2	0.409	0.050
17355	CCD-215	278	280	2	0.113	0.052
17356	CCD-215	280	282	2	0.098	0.027
17357	CCD-215	282	284	2	0.150	0.029
17358	CCD-215	284	286	2	0.126	0.062
17359	CCD-215	286	288	2	0.083	0.032
17361	CCD-215	288	290	2	0.060	0.022
17362	CCD-215	290	292	2	0.070	0.027
17363	CCD-215	292	294	2	0.118	0.024
17364	CCD-215	294	296	2	0.135	0.084
17365	CCD-215	296	298	2	0.062	0.058
17366	CCD-215	298	300	2	0.077	0.038
17367	CCD-215	300	302	2	0.010	-0.010
17369	CCD-215	302	304	2	0.058	0.045
17370	CCD-215	304	306	2	0.010	-0.010
17371	CCD-215	306	308	2	0.030	-0.010
17372	CCD-215	308	310	2	0.042	0.034
17373	CCD-215	310	312	2	0.093	0.020
17374	CCD-215	312	314	2	0.065	0.050
17375	CCD-215	314	316	2	0.098	0.040
17376	CCD-215	316	318	2	0.088	0.056
17377	CCD-215	318	320	2	0.057	0.022
17378	CCD-215	320	322	2	0.122	0.076
17379	CCD-215	322	324	2	0.166	0.045
17380	CCD-215	324	326	2	0.148	0.084
17381	CCD-215	326	328	2	0.172	0.096
17382	CCD-215	328	330	2	0.173	0.115
17383	CCD-215	330	332	2	0.183	0.100
17384	CCD-215	332	334	2	0.115	0.129
17385	CCD-215	334	336	2	0.203	0.121
17387	CCD-215	336	338	2	0.160	0.070
17388	CCD-215	338	340	2	0.275	0.167
17389	CCD-215	340	342	2	0.478	0.240
17390	CCD-215	342	344	2	0.378	0.237
17392	CCD-215	344	346	2	0.969	0.539
17393	CCD-215	346	348	2	0.173	0.086
17394	CCD-215	348	350	2	0.142	0.085
17395	CCD-215	350	352	2	0.123	0.086
17396	CCD-215	352	354	2	0.135	0.086
17397	CCD-215	354	356	2	0.193	0.144
17398	CCD-215	356	358	2	0.138	0.120
17399	CCD-215	358	360	2	0.085	0.070
17400	CCD-215	360	362	2	0.092	0.070
17401	CCD-215	362	364	2	0.078	0.050
17402	CCD-215	364	366	2	0.127	0.070
17403	CCD-215	366	368	2	0.163	0.093
17404	CCD-215	368	370	2	0.207	0.109
17405	CCD-215	370	372	2	0.283	0.130
17406	CCD-215	372	374	2	0.135	0.102
17407	CCD-215	374	376	2	0.152	0.108

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17409	CCD-215	376	378	2	0.313	0.085
17410	CCD-215	378	380	2	0.116	0.104
17411	CCD-215	380	382	2	0.175	0.121
17412	CCD-215	382	384	2	0.185	0.111
17413	CCD-215	384	386	2	0.193	0.128
17414	CCD-215	386	388	2	0.225	0.173
17415	CCD-215	388	390	2	0.128	0.072
17416	CCD-215	390	392	2	0.185	0.100
17417	CCD-215	392	393.8	1.8	0.147	0.091
17501	CCD-216	0	2	2	0.052	0.013
17502	CCD-216	2	4	2	0.027	0.024
17503	CCD-216	4	6	2	0.028	0.042
17504	CCD-216	6	8	2	0.027	0.018
17505	CCD-216	8	10	2	0.010	-0.010
17506	CCD-216	10	12	2	0.010	0.016
17507	CCD-216	12	14	2	0.032	0.024
17508	CCD-216	14	16	2	0.055	0.029
17510	CCD-216	16	18	2	0.092	0.050
17511	CCD-216	18	20	2	0.043	0.032
17512	CCD-216	20	22	2	0.364	0.046
17513	CCD-216	22	24	2	0.087	0.080
17514	CCD-216	24	26	2	0.237	0.092
17515	CCD-216	26	28	2	0.077	0.125
17516	CCD-216	28	30	2	0.010	-.010
17518	CCD-216	30	32	2	0.010	-0.010
17519	CCD-216	32	34	2	0.022	0.020
17520	CCD-216	34	36	2	0.032	-0.010
17521	CCD-216	36	38	2	0.053	0.031
17522	CCD-216	38	40	2	0.010	-0.010
17523	CCD-216	40	42	2	0.010	-0.010
17524	CCD-216	42	44	2	0.010	0.012
17525	CCD-216	44	46	2	0.038	0.012
17526	CCD-216	46	48	2	0.010	0.011
17527	CCD-216	48	50	2	0.010	-0.010
17528	CCD-216	50	52	2	0.055	0.029
17529	CCD-216	52	54	2	0.028	0.014
17530	CCD-216	54	56	2	0.010	-0.010
17531	CCD-216	56	58	2	0.040	0.040
17533	CCD-216	58	60	2	0.023	0.014
17534	CCD-216	60	62	2	0.010	-0.010
17535	CCD-216	62	64	2	0.010	0.011
17536	CCD-216	64	66	2	0.010	0.010
17537	CCD-216	66	68	2	0.010	-0.010
17538	CCD-216	68	70	2	0.010	0.027
17539	CCD-216	70	72	2	0.010	0.013
17541	CCD-216	72	74	2	0.010	0.024
17542	CCD-216	74	76	2	0.010	0.020
17543	CCD-216	76	78	2	0.010	0.005
17544	CCD-216	78	80	2	0.010	0.018
17545	CCD-216	80	82	2	0.040	0.040
17546	CCD-216	82	84	2	0.010	0.019
17547	CCD-216	84	86	2	0.010	0.020
17549	CCD-216	86	88	2	0.010	0.020
17550	CCD-216	88	90	2	0.010	0.012
17551	CCD-216	90	92	2	0.022	0.018

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17552	CCD-216	92	94	2	0.010	0.030
17553	CCD-216	94	96	2	0.010	0.029
17554	CCD-216	96	98	2	0.030	0.013
17555	CCD-216	98	100	2	0.010	0.028
17556	CCD-216	100	102	2	0.010	0.029
17557	CCD-216	102	104	2	0.010	0.032
17558	CCD-216	104	106	2	0.033	0.056
17559	CCD-216	106	108	2	0.060	0.077
17560	CCD-216	108	110	2	0.033	0.050
17562	CCD-216	110	112	2	0.010	0.042
17563	CCD-216	112	114	2	0.058	0.117
17564	CCD-216	114	116	2	0.030	0.116
17565	CCD-216	116	118	2	0.110	0.098
17567	CCD-216	118	120	2	0.080	0.087
17568	CCD-216	120	122	2	0.123	0.153
17569	CCD-216	122	124	2	0.327	0.236
17570	CCD-216	124	126	2	0.167	0.059
17571	CCD-216	126	128	2	0.163	0.077
17572	CCD-216	128	130	2	0.072	0.054
17573	CCD-216	130	132	2	0.235	0.238
17574	CCD-216	132	134	2	0.287	0.374
17575	CCD-216	134	136	2	0.260	1.664
17576	CCD-216	136	138	2	0.127	0.312
17578	CCD-216	138	140	2	0.616	0.164
17579	CCD-216	140	142	2	0.540	0.192
17580	CCD-216	142	144	2	0.507	0.154
17581	CCD-216	144	146	2	0.097	0.062
17582	CCD-216	146	148	2	0.416	0.414
17583	CCD-216	148	150	2	0.351	0.442
17584	CCD-216	150	152	2	0.262	0.181
17585	CCD-216	152	154	2	0.267	0.492
17587	CCD-216	154	156	2	0.502	0.428
17588	CCD-216	156	158	2	0.404	0.312
17589	CCD-216	158	160	2	0.303	0.366
17590	CCD-216	160	162	2	0.687	0.581
17591	CCD-216	162	164	2	0.513	0.431
17592	CCD-216	164	166	2	0.243	0.527
17593	CCD-216	166	168	2	0.769	0.408
17594	CCD-216	168	170	2	0.980	0.581
17595	CCD-216	170	172	2	1.400	0.584
17596	CCD-216	172	174	2	1.060	0.635
17597	CCD-216	174	176	2	0.891	0.659
17598	CCD-216	176	178	2	1.053	0.475
17599	CCD-216	178	180	2	1.200	0.478
17602	CCD-216	180	182	2	0.896	0.995
17603	CCD-216	182	184	2	0.998	0.499
17604	CCD-216	184	186	2	0.710	0.339
17605	CCD-216	186	188	2	0.729	0.397
17606	CCD-216	188	190	2	1.133	0.513
17607	CCD-216	190	192	2	1.300	0.680
17608	CCD-216	192	194	2	1.320	0.504
17609	CCD-216	194	196	2	1.580	0.875
17610	CCD-216	196	198	2	1.353	0.612
17611	CCD-216	198	200	2	1.793	0.885
17612	CCD-216	200	202	2	0.940	0.447

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17613	CCD-216	202	204	2	1.213	0.527
17614	CCD-216	204	206	2	1.250	0.555
17615	CCD-216	206	208	2	0.776	0.286
17616	CCD-216	208	210	2	1.613	0.546
17617	CCD-216	210	212	2	1.320	0.598
17618	CCD-216	212	214	2	1.147	0.489
17619	CCD-216	214	216	2	2.120	1.148
17620	CCD-216	216	218	2	1.740	0.720
17621	CCD-216	218	220	2	3.140	1.180
17623	CCD-216	220	222	2	1.350	0.419
17624	CCD-216	222	224	2	1.940	0.524
17625	CCD-216	224	226	2	1.850	0.631
17626	CCD-216	226	228	2	1.390	0.500
17627	CCD-216	228	230	2	1.960	0.589
17628	CCD-216	230	232	2	1.410	0.465
17629	CCD-216	232	234	2	3.430	0.485
17630	CCD-216	234	236	2	1.680	0.453
17631	CCD-216	236	238	2	1.870	0.619
17632	CCD-216	238	240	2	1.160	0.279
17633	CCD-216	240	242	2	1.450	0.397
17635	CCD-216	242	244	2	2.250	0.624
17636	CCD-216	244	246	2	1.590	0.386
17637	CCD-216	246	248	2	1.130	0.442
17638	CCD-216	248	250	2	1.940	0.559
17639	CCD-216	250	252	2	0.920	0.372
17640	CCD-216	252	254	2	0.880	0.274
17641	CCD-216	254	256	2	0.950	0.394
17642	CCD-216	256	258	2	1.030	0.304
17643	CCD-216	258	260	2	0.880	0.277
17644	CCD-216	260	262	2	0.920	0.377
17646	CCD-216	262	264	2	0.950	0.351
17647	CCD-216	264	266	2	0.920	0.277
17648	CCD-216	266	268	2	0.723	0.260
17649	CCD-216	268	270	2	0.553	0.200
17650	CCD-216	270	272	2	0.427	0.140
17651	CCD-216	272	274	2	0.432	0.140
17652	CCD-216	274	276	2	0.358	0.130
17653	CCD-216	276	278	2	0.410	0.220
17654	CCD-216	278	280	2	0.218	0.130
17656	CCD-216	280	282	2	0.218	0.100
17657	CCD-216	282	284	2	0.298	0.110
17658	CCD-216	284	286	2	0.290	0.140
17659	CCD-216	286	288	2	0.147	0.090
17660	CCD-216	288	290	2	0.272	0.180
17661	CCD-216	290	292	2	0.348	0.210
17662	CCD-216	292	294	2	0.507	0.220
-1	CCD-216	294	296	2	0.518	0.215
-1	CCD-216	296	298	2	0.217	0.110
-1	CCD-217	0	2	2	-1.000	-1.000
-1	CCD-217	2	3.6	1.6	-1.000	-1.000
18753	CCD-217	3.6	6	2.4	1.420	0.052
18754	CCD-217	6	8	2	1.047	0.042
18755	CCD-217	8	10	2	1.147	0.055
18756	CCD-217	10	12	2	1.587	0.042
18757	CCD-217	12	14	2	0.713	0.025

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
18758	CCD-217	14	16	2	0.678	0.055
18759	CCD-217	16	18	2	0.716	1.376
18760	CCD-217	18	20	2	0.484	0.925
18762	CCD-217	20	22	2	0.491	0.805
18763	CCD-217	22	24	2	0.353	0.861
18764	CCD-217	24	26	2	0.409	0.739
18765	CCD-217	26	28	2	0.958	1.280
18766	CCD-217	28	30	2	0.453	0.569
18767	CCD-217	30	32	2	0.255	0.334
18768	CCD-217	32	34	2	0.549	0.758
18769	CCD-217	34	36	2	0.360	0.335
18770	CCD-217	36	38	2	0.616	0.661
18771	CCD-217	38	40	2	0.451	0.295
18773	CCD-217	40	42	2	0.527	0.452
18774	CCD-217	42	44	2	0.607	0.320
18775	CCD-217	44	46	2	0.273	0.240
18776	CCD-217	46	48	2	0.353	0.283
18777	CCD-217	48	50	2	0.909	0.421
18778	CCD-217	50	52	2	0.998	1.520
18780	CCD-217	52	54	2	6.700	0.816
18781	CCD-217	54	56	2	0.471	0.262
18782	CCD-217	56	58	2	0.292	0.185
18783	CCD-217	58	60	2	0.387	0.250
18784	CCD-217	60	62	2	0.587	0.216
18785	CCD-217	62	64	2	0.598	0.234
18786	CCD-217	64	66	2	0.516	0.250
18787	CCD-217	66	68	2	0.620	0.363
18788	CCD-217	68	70	2	0.537	0.316
18789	CCD-217	70	72	2	0.384	0.397
18790	CCD-217	72	74	2	0.913	1.000
18791	CCD-217	74	76	2	0.589	1.007
18793	CCD-217	76	78	2	0.644	0.682
18794	CCD-217	78	80	2	0.128	0.487
18795	CCD-217	80	82	2	0.172	0.100
18796	CCD-217	82	84	2	0.780	0.113
18797	CCD-217	84	86	2	0.342	0.342
18799	CCD-217	86	88	2	0.137	0.106
18800	CCD-217	88	90	2	0.228	0.106
18801	CCD-217	90	92	2	0.344	0.128
18802	CCD-217	92	94	2	0.393	0.242
18803	CCD-217	94	96	2	0.342	0.211
18804	CCD-217	96	98	2	0.560	0.400
18805	CCD-217	98	100	2	0.418	0.302
18806	CCD-217	100	102	2	0.265	0.170
18807	CCD-217	102	104	2	0.420	0.253
18808	CCD-217	104	106	2	0.456	0.258
18809	CCD-217	106	108	2	0.305	0.189
18810	CCD-217	108	110	2	0.315	0.214
18811	CCD-217	110	112	2	0.460	0.260
18813	CCD-217	112	114	2	0.273	0.330
18814	CCD-217	114	116	2	0.183	0.171
18815	CCD-217	116	118	2	0.192	0.186
18816	CCD-217	118	120	2	0.151	0.158
18817	CCD-217	120	122	2	0.193	0.194
18819	CCD-217	122	124	2	0.217	0.228

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
18820	CCD-217	124	126	2	0.527	0.405
18821	CCD-217	126	128	2	0.315	0.473
18822	CCD-217	128	130	2	0.178	0.211
18823	CCD-217	130	132	2	0.197	0.209
18824	CCD-217	132	134	2	0.128	0.132
18825	CCD-217	134	136	2	0.205	0.190
18826	CCD-217	136	138	2	0.181	0.124
18827	CCD-217	138	140	2	0.138	0.194
18828	CCD-217	140	142	2	0.117	0.166
18829	CCD-217	142	144	2	0.095	0.171
18830	CCD-217	144	146	2	0.102	0.175
18831	CCD-217	146	148	2	0.283	0.226
18832	CCD-217	148	150	2	0.177	0.076
18833	CCD-217	150	152	2	0.162	0.106
18835	CCD-217	152	154	2	0.060	0.050
18836	CCD-217	154	156	2	0.077	0.114
18837	CCD-217	156	158	2	0.062	0.050
18839	CCD-217	158	160	2	0.056	0.094
18840	CCD-217	160	162	2	0.107	0.054
18841	CCD-217	162	164	2	0.122	0.050
18842	CCD-217	164	166	2	0.092	0.082
18843	CCD-217	166	168	2	0.067	0.090
18844	CCD-217	168	170	2	0.075	0.110
18845	CCD-217	170	172	2	0.045	0.090
18846	CCD-217	172	174	2	0.103	0.200
18847	CCD-217	174	176	2	0.117	0.196
18848	CCD-217	176	178.35	2.35	0.065	0.082
18851	CCD-218	0	2	2	0.958	0.046
18852	CCD-218	2	4	2	3.253	0.079
18853	CCD-218	4	6	2	2.733	0.099
18854	CCD-218	6	8	2	1.513	0.204
18855	CCD-218	8	10	2	1.367	0.177
18856	CCD-218	10	12	2	1.547	0.105
18857	CCD-218	12	14	2	1.833	0.621
18858	CCD-218	14	16	2	2.020	0.772
18859	CCD-218	16	18	2	1.717	0.695
18860	CCD-218	18	20	2	1.413	0.529
18861	CCD-218	20	22	2	2.527	1.464
18862	CCD-218	22	24	2	1.173	1.728
18863	CCD-218	24	26	2	2.180	0.831
18865	CCD-218	26	28	2	2.713	0.748
18866	CCD-218	28	30	2	2.547	0.814
18867	CCD-218	30	32	2	2.547	0.751
18868	CCD-218	32	34	2	1.907	0.635
18870	CCD-218	34	36	2	2.927	1.604
18871	CCD-218	36	38	2	2.287	0.838
18872	CCD-218	38	40	2	2.660	0.831
18873	CCD-218	40	42	2	2.993	0.995
18874	CCD-218	42	44	2	3.220	1.264
18875	CCD-218	44	46	2	3.060	1.059
18876	CCD-218	46	48	2	2.507	0.908
18877	CCD-218	48	50	2	2.867	1.035
18878	CCD-218	50	52	2	2.753	0.967
18879	CCD-218	52	54	2	2.273	0.955
18880	CCD-218	54	56	2	2.660	0.792

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
18881	CCD-218	56	58	2	2.400	0.922
18882	CCD-218	58	60	2	2.420	1.000
18884	CCD-218	60	62	2	2.293	0.776
18885	CCD-218	62	64	2	3.013	1.068
18886	CCD-218	64	66	2	3.113	1.336
18887	CCD-218	66	68	2	3.227	1.195
18888	CCD-218	68	70	2	3.147	1.195
18889	CCD-218	70	72	2	2.620	1.075
18890	CCD-218	72	74	2	3.053	1.115
18891	CCD-218	74	76	2	4.056	1.532
18892	CCD-218	76	78	2	2.773	0.960
18893	CCD-218	78	80	2	3.167	1.108
18894	CCD-218	80	82	2	3.333	1.162
18896	CCD-218	82	84	2	4.244	1.256
18897	CCD-218	84	86	2	2.320	1.165
18898	CCD-218	86	88	2	2.440	0.776
18899	CCD-218	88	90	2	2.807	0.972
18901	CCD-218	90	92	2	2.287	0.807
18902	CCD-218	92	94	2	2.553	1.166
18903	CCD-218	94	96	2	2.540	0.981
18904	CCD-218	96	98	2	2.507	1.376
18905	CCD-218	98	100	2	2.880	1.264
18906	CCD-218	100	102	2	2.167	0.958
18907	CCD-218	102	104	2	2.067	0.729
18908	CCD-218	104	106	2	2.280	
18909	CCD-218	106	108	2	1.820	1.296
18910	CCD-218	108	110	2	1.853	0.976
18911	CCD-218	110	112	2	1.387	1.002
18912	CCD-218	112	114	2	1.403	1.556
18914	CCD-218	114	116	2	1.620	0.791
18915	CCD-218	116	118	2	1.600	0.779
18916	CCD-218	118	120	2	1.587	0.856
18917	CCD-218	120	122	2	2.087	0.887
18919	CCD-218	122	124	2	2.200	0.786
18920	CCD-218	124	126	2	1.400	0.616
18921	CCD-218	126	128	2	2.220	0.438
18922	CCD-218	128	130	2	2.533	0.433
18923	CCD-218	130	132	2	0.998	0.329
18924	CCD-218	132	134	2	1.160	0.154
18925	CCD-218	134	136	2	1.900	0.732
18926	CCD-218	136	138	2	1.620	0.767
18927	CCD-218	138	140	2	3.247	0.718
18928	CCD-218	140	142	2	0.453	0.678
18929	CCD-218	142	144	2	0.267	0.419
18930	CCD-218	144	146	2	0.478	0.326
18931	CCD-218	146	148	2	0.429	0.290
18932	CCD-218	148	150	2	0.261	0.258
18933	CCD-218	150	152	2	0.339	0.275
18935	CCD-218	152	154	2	0.212	0.084
18936	CCD-218	154	156	2	0.066	0.193
18937	CCD-218	156	158	2	0.028	0.140
18938	CCD-218	158	160	2	0.049	0.092
18939	CCD-218	160	162	2	0.045	0.183
18940	CCD-218	162	164	2	0.058	0.233
18941	CCD-218	164	166	2	0.135	0.176

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
18942	CCD-218	166	168	2	0.090	0.073
18943	CCD-218	168	170	2	0.142	0.251
18944	CCD-218	170	172	2	0.115	0.148
18945	CCD-218	172	174	2	0.061	0.069
18947	CCD-218	174	176	2	0.074	0.094
18948	CCD-218	176	178	2	0.165	0.145
18949	CCD-218	178	180	2	0.078	0.093
18950	CCD-218	180	182	2	0.071	0.050
18951	CCD-218	182	184	2	0.051	0.105
18952	CCD-218	184	186	2	0.010	0.037
18953	CCD-218	186	188	2	0.055	0.060
18955	CCD-218	188	190	2	0.048	0.079
18956	CCD-218	190	192	2	0.018	0.027
18957	CCD-218	192	194	2	0.026	0.049
18958	CCD-218	194	196	2	0.010	0.023
18959	CCD-218	196	198	2	0.020	0.042
18960	CCD-218	198	200	2	0.010	0.046
18961	CCD-218	200	202	2	0.033	0.075
18962	CCD-218	202	204	2	0.055	0.068
18963	CCD-218	204	206	2	0.044	0.050
18964	CCD-218	206	208	2	0.017	0.014
18965	CCD-218	208	210	2	0.016	0.005
18966	CCD-218	210	212	2	0.016	0.013
18968	CCD-218	212	214	2	0.010	0.020
18969	CCD-218	214	216	2	0.010	0.033
18970	CCD-218	216	218	2	0.016	0.036
18972	CCD-218	218	220	2	0.029	0.018
18973	CCD-218	220	222	2	0.021	0.013
18974	CCD-218	222	224	2	0.041	0.057
18975	CCD-218	224	226	2	0.033	0.041
18976	CCD-218	226	228	2	0.027	0.040
18977	CCD-218	228	230	2	0.019	0.035
18978	CCD-218	230	232	2	0.041	0.041
18979	CCD-218	232	234	2	0.018	0.027
18980	CCD-218	234	236	2	0.024	0.017
18981	CCD-218	236	238	2	0.051	0.019
18982	CCD-218	238	240	2	0.024	0.005
19001	CCD-219	0	2	2	-1.000	-1.000
19002	CCD-219	2	4	2	-1.000	-1.000
19003	CCD-219	4	6	2	-1.000	-1.000
19004	CCD-219	6	8	2	1.160	0.107
19005	CCD-219	8	10	2	0.720	0.069
19006	CCD-219	10	12	2	0.573	0.083
19007	CCD-219	12	14	2	0.824	0.027
19009	CCD-219	14	16	2	0.578	0.032
19010	CCD-219	16	18	2	0.910	0.102
19011	CCD-219	18	20	2	1.173	0.090
19012	CCD-219	20	22	2	0.773	0.102
19014	CCD-219	22	24	2	1.517	0.057
19015	CCD-219	24	26	2	1.573	0.045
19016	CCD-219	26	28	2	1.283	0.068
19017	CCD-219	28	30	2	1.060	0.087
19018	CCD-219	30	32	2	1.170	0.056
19019	CCD-219	32	34	2	0.870	0.069
19020	CCD-219	34	36	2	1.670	0.066

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19021	CCD-219	36	38	2	1.310	0.083
19022	CCD-219	38	40	2	1.437	0.101
19023	CCD-219	40	42	2	1.163	0.094
19024	CCD-219	42	44	2	0.642	0.129
19025	CCD-219	44	46	2	0.565	0.035
19026	CCD-219	46	48	2	0.780	0.129
19027	CCD-219	48	50	2	0.495	0.028
19028	CCD-219	50	52	2	0.430	0.031
19029	CCD-219	52	54	2	0.419	0.045
19031	CCD-219	54	56	2	0.582	0.170
19032	CCD-219	56	58	2	0.558	0.139
19033	CCD-219	58	60	2	0.687	0.173
19034	CCD-219	60	62	2	0.332	0.179
19036	CCD-219	62	64	2	0.302	0.262
19037	CCD-219	64	66	2	0.613	0.097
19038	CCD-219	66	68	2	0.378	0.558
19039	CCD-219	68	70	2	0.367	0.365
19040	CCD-219	70	72	2	0.478	0.549
19041	CCD-219	72	74	2	0.953	0.736
19042	CCD-219	74	76	2	0.500	0.572
19043	CCD-219	76	78	2	0.385	0.762
19044	CCD-219	78	80	2	0.617	0.659
19045	CCD-219	80	82	2	0.195	0.238
19047	CCD-219	82	84	2	0.572	0.308
19048	CCD-219	84	86	2	0.603	0.382
19049	CCD-219	86	88	2	0.437	0.232
19050	CCD-219	88	90	2	0.688	0.315
19051	CCD-219	90	92	2	0.345	0.182
19052	CCD-219	92	94	2	0.543	0.431
19053	CCD-219	94	96	2	0.280	0.209
19054	CCD-219	96	98	2	0.235	0.186
19055	CCD-219	98	100	2	0.233	0.180
19056	CCD-219	100	102	2	0.540	0.281
19057	CCD-219	102	104	2	0.700	0.348
19058	CCD-219	104	106	2	0.320	0.184
19059	CCD-219	106	108	2	0.490	0.257
19060	CCD-219	108	110	2	0.360	0.206
19061	CCD-219	110	112	2	0.820	0.397
19062	CCD-219	112	114	2	0.490	0.254
19063	CCD-219	114	116	2	0.320	0.202
19064	CCD-219	116	118	2	0.350	0.214
19065	CCD-219	118	120	2	0.310	0.206
19066	CCD-219	120	122	2	0.290	0.171
19067	CCD-219	122	124	2	0.710	0.305
19069	CCD-219	124	126	2	0.550	0.327
19070	CCD-219	126	128	2	0.690	0.342
19071	CCD-219	128	130	2	0.630	0.339
19072	CCD-219	130	132	2	0.670	0.537
19073	CCD-219	132	134	2	0.900	0.400
19074	CCD-219	134	136	2	0.870	0.364
19076	CCD-219	136	138	2	0.620	0.346
19077	CCD-219	138	140	2	0.900	0.574
19078	CCD-219	140	142	2	0.820	0.461
19079	CCD-219	142	144	2	0.340	0.187
19080	CCD-219	144	146	2	0.310	0.269

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19081	CCD-219	146	148	2	0.520	0.325
19082	CCD-219	148	150	2	0.400	0.265
19083	CCD-219	150	152	2	0.510	0.351
19085	CCD-219	152	154	2	1.140	0.618
19086	CCD-219	154	156	2	0.640	0.500
19087	CCD-219	156	158	2	0.530	0.252
19088	CCD-219	158	160	2	0.390	0.259
19089	CCD-219	160	162	2	0.180	0.102
19090	CCD-219	162	164	2	0.240	0.158
19091	CCD-219	164	166	2	0.370	0.242
19092	CCD-219	166	168	2	0.270	0.213
19093	CCD-219	168	170	2	0.460	0.331
19094	CCD-219	170	172	2	0.470	0.274
19095	CCD-219	172	174	2	0.420	0.286
19096	CCD-219	174	176	2	0.370	0.381
19097	CCD-219	176	178	2	0.780	0.638
19099	CCD-219	178	180	2	0.440	0.720
19101	CCD-219	180	182	2	0.570	0.377
19102	CCD-219	182	184	2	0.540	0.406
19103	CCD-219	184	186	2	1.330	0.417
19104	CCD-219	186	188	2	0.760	0.724
19105	CCD-219	188	190	2	1.660	0.467
19106	CCD-219	190	192	2	0.358	0.290
19106	CCD-219	190	192	2	0.358	1.190
19107	CCD-219	192	194	2	0.357	0.310
19108	CCD-219	194	196	2	0.588	0.370
19109	CCD-219	196	198	2	0.352	0.280
19110	CCD-219	198	200	2	0.445	0.400
19111	CCD-219	200	202	2	0.567	0.440
19112	CCD-219	202	204	2	0.740	0.550
19113	CCD-219	204	206	2	0.448	0.400
19114	CCD-219	206	208	2	0.267	0.230
19115	CCD-219	208	210	2	0.500	0.410
19116	CCD-219	210	212	2	0.342	0.320
19117	CCD-219	212	214	2	0.205	0.170
19118	CCD-219	214	216	2	0.248	0.220
19119	CCD-219	216	218	2	0.240	0.260
19120	CCD-219	218	220	2	0.249	0.230
19122	CCD-219	220	222	2	0.177	0.180
19123	CCD-219	222	224	2	0.132	0.160
19124	CCD-219	224	226	2	0.133	0.120
19125	CCD-219	226	228	2	0.175	0.240
19126	CCD-219	228	230	2	0.287	0.290
19128	CCD-219	230	232	2	0.195	0.180
19129	CCD-219	232	234	2	0.242	0.190
19130	CCD-219	234	236	2	0.220	0.192
19131	CCD-219	236	238	2	0.270	0.236
19132	CCD-219	238	240	2	0.343	0.421
19133	CCD-219	240	242	2	0.095	0.147
19134	CCD-219	242	244	2	0.098	0.120
19135	CCD-219	244	246	2	0.102	0.146
19137	CCD-219	246	248	2	0.175	0.226
19138	CCD-219	248	250	2	0.073	0.117
19139	CCD-219	250	252	2	0.102	0.112
19140	CCD-219	252	254	2	0.185	0.175

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19141	CCD-219	254	256	2	0.067	0.101
19142	CCD-219	256	258	2	0.397	0.527
19143	CCD-219	258	260	2	0.217	0.229
19144	CCD-219	260	262	2	0.103	0.136
19146	CCD-219	262	264	2	0.173	0.184
19147	CCD-219	264	266	2	0.258	0.185
19148	CCD-219	266	268	2	0.155	0.182
19149	CCD-219	268	270	2	0.072	0.082
19150	CCD-219	270	272	2	0.188	0.134
19151	CCD-219	272	274	2	0.118	0.153
19152	CCD-219	274	276	2	0.143	0.178
19153	CCD-219	276	278	2	0.355	0.400
19154	CCD-219	278	280	2	0.257	0.163
19156	CCD-219	280	282	2	0.173	0.171
19157	CCD-219	282	284	2	0.137	0.186
19158	CCD-219	284	286	2	0.107	0.165
19159	CCD-219	286	288	2	0.345	0.632
19160	CCD-219	288	290	2	1.203	1.108
19161	CCD-219	290	292	2	0.257	0.291
19162	CCD-219	292	294	2	0.190	0.194
19164	CCD-219	294	296	2	0.142	0.159
19165	CCD-219	296	298	2	0.118	0.154
19166	CCD-219	298	300	2	0.203	0.138
19178	CCD-219	300	302	2	0.263	0.306
19179	CCD-219	302	304	2	0.232	0.654
19167	CCD-219	304	306	2	0.102	0.096
19168	CCD-219	306	308	2	0.097	0.068
19170	CCD-219	308	310	2	0.085	0.118
19171	CCD-219	310	312	2	0.107	0.155
19172	CCD-219	312	314	2	0.055	0.118
19173	CCD-219	314	316	2	0.090	0.106
19174	CCD-219	316	318	2	0.122	0.180
19175	CCD-219	318	320	2	0.120	0.222
19176	CCD-219	320	322	2	0.118	0.135
19177	CCD-219	322	324	2	0.195	0.212
19201	CCD-220	0	2	2	0.223	0.104
19202	CCD-220	2	4	2	0.588	0.075
19203	CCD-220	4	6	2	0.288	0.096
19204	CCD-220	6	8	2	0.128	0.055
19205	CCD-220	8	10	2	0.072	0.065
19206	CCD-220	10	12	2	0.145	0.072
19208	CCD-220	12	14	2	0.092	0.082
19209	CCD-220	14	16	2	0.052	0.103
19210	CCD-220	16	18	2	0.075	0.070
19211	CCD-220	18	20	2	0.213	0.117
19212	CCD-220	20	22	2	0.203	0.126
19213	CCD-220	22	24	2	0.263	0.227
19215	CCD-220	24	26	2	0.173	0.166
19216	CCD-220	26	28	2	0.118	0.087
19217	CCD-220	28	30	2	0.108	0.045
19218	CCD-220	30	32	2	0.138	0.107
19219	CCD-220	32	34	2	0.032	0.025
19220	CCD-220	34	36	2	0.110	0.078
19221	CCD-220	36	38	2	0.075	0.054
19222	CCD-220	38	40	2	0.055	0.046

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19223	CCD-220	40	42	2	0.128	0.098
19224	CCD-220	42	44	2	0.057	0.033
19225	CCD-220	44	46	2	0.145	0.115
19226	CCD-220	46	48	2	0.132	0.096
19227	CCD-220	48	50	2	0.153	0.216
19228	CCD-220	50	52	2	0.052	0.026
19230	CCD-220	52	54	2	0.058	0.028
19231	CCD-220	54	56	2	0.043	0.037
19232	CCD-220	56	58	2	0.037	0.023
19233	CCD-220	58	60	2	2.830	0.049
19234	CCD-220	60	62	2	0.037	0.027
19235	CCD-220	62	64	2	0.117	0.048
19236	CCD-220	64	66	2	0.073	0.046
19237	CCD-220	66	68	2	0.337	0.212
19238	CCD-220	68	70	2	0.203	0.202
19239	CCD-220	70	72	2	0.087	0.074
19240	CCD-220	72	74	2	0.170	0.174
19241	CCD-220	74	76	2	0.115	0.110
19242	CCD-220	76	78	2	0.147	0.107
19243	CCD-220	78	80	2	0.067	0.055
19244	CCD-220	80	82	2	0.127	0.113
19245	CCD-220	82	84	2	0.090	0.064
19247	CCD-220	84	86	2	0.087	0.078
19248	CCD-220	86	88	2	0.112	0.095
19249	CCD-220	88	90	2	0.128	0.108
19250	CCD-220	90	92	2	0.107	0.106
19252	CCD-220	92	94	2	0.123	0.095
19253	CCD-220	94	96	2	0.113	0.082
19254	CCD-220	96	98	2	0.208	0.144
19255	CCD-220	98	100	2	0.278	0.204
19256	CCD-220	100	102	2	0.183	0.147
19257	CCD-220	102	104	2	0.161	0.122
19258	CCD-220	104	106	2	0.333	0.374
19259	CCD-220	106	108	2	0.390	0.260
19260	CCD-220	108	110	2	0.493	0.337
19261	CCD-220	110	112	2	0.285	0.168
19262	CCD-220	112	114	2	0.338	0.186
19263	CCD-220	114	116	2	0.228	0.097
19264	CCD-220	116	118	2	0.172	0.090
19265	CCD-220	118	120	2	0.215	0.162
19267	CCD-220	120	122	2	0.227	0.136
19268	CCD-220	122	124	2	0.337	0.090
19269	CCD-220	124	126	2	0.372	0.378
19271	CCD-220	126	128	2	0.290	0.252
19272	CCD-220	128	130	2	0.172	0.151
19273	CCD-220	130	132	2	0.212	0.168
19274	CCD-220	132	134	2	0.317	0.217
19275	CCD-220	134	136	2	0.235	0.084
19276	CCD-220	136	138	2	0.228	0.139
19277	CCD-220	138	140	2	0.223	0.126
19278	CCD-220	140	142	2	0.227	0.097
19279	CCD-220	142	144	2	0.177	0.107
19280	CCD-220	144	146	2	0.115	0.053
19281	CCD-220	146	148	2	0.178	0.076
19282	CCD-220	148	150	2	0.165	0.074

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19283	CCD-220	150	152	2	0.202	0.076
19284	CCD-220	152	154	2	0.228	0.149
19285	CCD-220	154	156	2	0.130	0.187
19286	CCD-220	156	158	2	0.165	0.086
19288	CCD-220	158	160	2	0.180	0.096
19289	CCD-220	160	162	2	0.160	0.157
19290	CCD-220	162	164	2	0.280	0.353
19291	CCD-220	164	166	2	0.310	0.288
19292	CCD-220	166	168	2	0.150	0.178
19293	CCD-220	168	170	2	0.510	0.313
19294	CCD-220	170	172	2	0.500	0.134
19295	CCD-220	172	174	2	0.110	0.090
19297	CCD-220	174	176	2	0.140	0.124
19298	CCD-220	176	178	2	0.110	0.079
19299	CCD-220	178	180	2	0.120	0.064
19300	CCD-220	180	182	2	0.380	0.175
19301	CCD-220	182	184	2	0.120	0.089
19302	CCD-220	184	186	2	0.140	0.096
19303	CCD-220	186	188	2	0.410	0.254
19304	CCD-220	188	190	2	0.190	0.118
19306	CCD-220	190	192	2	0.160	0.074
19307	CCD-220	192	194	2	0.210	0.193
19308	CCD-220	194	196	2	0.340	0.297
19309	CCD-220	196	198	2	0.460	0.336
19311	CCD-220	198	200	2	0.480	0.444
19312	CCD-220	200	202	2	0.940	0.680
19313	CCD-220	202	204	2	0.230	0.164
19314	CCD-220	204	206	2	0.190	0.180
19315	CCD-220	206	208	2	0.190	0.150
19316	CCD-220	208	210	2	0.340	0.241
19317	CCD-220	210	212	2	0.180	0.152
19318	CCD-220	212	214	2	0.200	0.157
19319	CCD-220	214	216	2	0.260	0.169
19321	CCD-220	216	218	2	0.250	0.134
19322	CCD-220	218	220	2	0.310	0.195
19323	CCD-220	220	222	2	0.500	0.283
19324	CCD-220	222	224	2	0.730	0.397
19325	CCD-220	224	226	2	0.650	0.468
19326	CCD-220	226	228	2	0.400	0.235
19327	CCD-220	228	230	2	0.690	0.485
19328	CCD-220	230	232	2	0.450	0.249
19329	CCD-220	232	234	2	0.360	0.218
19330	CCD-220	234	236	2	0.330	0.218
19331	CCD-220	236	238	2	0.340	0.192
19332	CCD-220	238	240	2	0.240	0.140
19333	CCD-220	240	242	2	0.350	0.237
19334	CCD-220	242	244	2	0.310	0.159
19335	CCD-220	244	246	2	0.360	0.189
19337	CCD-220	246	248	2	0.320	0.188
19338	CCD-220	248	250	2	0.360	0.219
19339	CCD-220	250	252	2	0.340	0.214
19340	CCD-220	252	254	2	0.270	0.169
19341	CCD-220	254	256	2	0.340	0.247
19343	CCD-220	256	258	2	0.450	0.327
19344	CCD-220	258	260	2	0.570	0.460

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19345	CCD-220	260	262	2	0.720	0.514
19346	CCD-220	262	264	2	1.680	0.837
19347	CCD-220	264	266	2	0.520	0.360
19348	CCD-220	266	268	2	0.380	0.430
19349	CCD-220	268	270	2	0.400	0.379
19350	CCD-220	270	272	2	0.680	0.508
19351	CCD-220	272	274	2	0.390	0.382
19353	CCD-220	274	276	2	0.530	0.445
19354	CCD-220	276	278	2	0.720	0.562
19355	CCD-220	278	280	2	0.620	0.594
19356	CCD-220	280	282	2	0.940	0.850
19357	CCD-220	282	284	2	0.700	0.604
19358	CCD-220	284	286	2	0.468	0.372
19359	CCD-220	286	288	2	0.668	0.335
19360	CCD-220	288	290	2	0.505	0.389
19361	CCD-220	290	292	2	0.560	0.339
19362	CCD-220	292	294	2	0.509	0.387
19363	CCD-220	294	296	2	0.407	0.263
19364	CCD-220	296	298	2	0.578	0.406
19365	CCD-220	298	300	2	0.455	0.288
19366	CCD-220	300	302	2	0.297	0.261
19367	CCD-220	302	304	2	0.190	0.206
19369	CCD-220	304	306	2	0.230	0.217
19370	CCD-220	306	308	2	0.010	0.209
19371	CCD-220	308	310	2	0.961	0.769
19372	CCD-220	310	312	2	0.868	0.936
19373	CCD-220	312	314	2	0.466	0.472
19374	CCD-220	314	316	2	0.664	0.562
19376	CCD-220	316	318	2	0.405	0.346
19377	CCD-220	318	320	2	0.468	0.480
19378	CCD-220	320	322	2	0.404	0.363
19379	CCD-220	322	324	2	0.366	0.405
19380	CCD-220	324	326	2	0.301	0.359
19381	CCD-220	326	328	2	0.410	0.390
19382	CCD-220	328	330	2	0.279	0.306
19383	CCD-220	330	332	2	0.092	0.055
19384	CCD-220	332	334	2	0.037	0.022
19385	CCD-220	334	336	2	0.027	0.019
19386	CCD-220	336	338	2	0.021	0.030
19401	CCD-221	0	2	2	-1.000	-1.000
19402	CCD-221	2	4	2	1.500	0.050
19403	CCD-221	4	6	2	2.670	0.050
19404	CCD-221	6	8	2	6.270	0.150
19405	CCD-221	8	10	2	6.500	0.120
19406	CCD-221	10	12	2	5.300	0.080
19407	CCD-221	12	14	2	4.030	0.040
19408	CCD-221	14	16	2	1.980	0.060
19409	CCD-221	16	18	2	2.100	0.034
19410	CCD-221	18	20	2	3.330	0.058
19411	CCD-221	20	22	2	3.120	0.213
19412	CCD-221	22	24	2	2.240	0.062
19414	CCD-221	24	26	2	5.280	0.123
19415	CCD-221	26	28	2	1.880	0.149
19416	CCD-221	28	30	2	2.480	0.037
19417	CCD-221	30	32	2	1.950	1.101

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19418	CCD-221	32	34	2	2.010	1.198
19419	CCD-221	34	36	2	2.180	1.472
19420	CCD-221	36	38	2	1.180	1.092
19421	CCD-221	38	40	2	2.040	1.396
19422	CCD-221	40	42	2	2.230	1.568
19423	CCD-221	42	44	2	2.440	1.600
19424	CCD-221	44	46	2	1.520	0.889
19425	CCD-221	46	48	2	1.750	1.400
19426	CCD-221	48	50	2	1.730	1.106
19428	CCD-221	50	52	2	1.560	1.480
19429	CCD-221	52	54	2	1.420	0.805
19430	CCD-221	54	56	2	1.890	1.047
19431	CCD-221	56	58	2	0.650	0.539
19432	CCD-221	58	60	2	1.240	0.631
19433	CCD-221	60	62	2	1.080	0.366
19435	CCD-221	62	64	2	0.260	0.148
19436	CCD-221	64	66	2	1.460	0.485
19437	CCD-221	66	68	2	1.390	0.428
19438	CCD-221	68	70	2	1.030	0.525
19439	CCD-221	70	72	2	0.630	0.202
19440	CCD-221	72	74	2	1.270	0.680
19441	CCD-221	74	76	2	0.410	0.138
19442	CCD-221	76	78	2	0.810	0.374
19443	CCD-221	78	80	2	0.470	0.188
19444	CCD-221	80	82	2	0.330	0.154
19445	CCD-221	82	84	2	0.210	0.090
19446	CCD-221	84	86	2	0.280	0.203
19447	CCD-221	86	88	2	0.340	0.153
19449	CCD-221	88	90	2	0.250	0.161
19450	CCD-221	90	92	2	0.350	0.135
19451	CCD-221	92	94	2	0.340	0.241
19452	CCD-221	94	96	2	0.350	0.215
19453	CCD-221	96	98	2	0.340	0.237
19454	CCD-221	98	100	2	0.310	0.145
19455	CCD-221	100	102	2	0.260	0.115
19456	CCD-221	102	104	2	0.230	0.100
19457	CCD-221	104	106	2	0.290	0.129
19458	CCD-221	106	108	2	0.300	0.160
19459	CCD-221	108	110	2	0.970	0.689
19460	CCD-221	110	112	2	0.330	0.232
19461	CCD-221	112	114	2	0.260	0.112
19462	CCD-221	114	116	2	0.310	0.250
19463	CCD-221	116	118	2	0.350	0.209
19464	CCD-221	118	120	2	0.420	0.405
19465	CCD-221	120	122	2	0.400	0.245
19467	CCD-221	122	124	2	0.390	0.160
19468	CCD-221	124	126	2	0.520	0.228
19469	CCD-221	126	128	2	0.450	0.164
19470	CCD-221	128	130	2	0.450	0.103
19471	CCD-221	130	132	2	0.530	0.245
19472	CCD-221	132	134	2	0.500	0.201
19473	CCD-221	134	136	2	0.360	0.291
19475	CCD-221	136	138	2	0.780	0.354
19476	CCD-221	138	140	2	0.870	0.370
19477	CCD-221	140	142	2	1.570	0.532

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19478	CCD-221	142	144	2	1.230	0.438
19479	CCD-221	144	146	2	0.550	0.174
19480	CCD-221	146	148	2	0.730	0.191
19481	CCD-221	148	150	2	0.850	0.334
19482	CCD-221	150	152	2	0.590	0.216
19483	CCD-221	152	154	2	0.840	0.300
19484	CCD-221	154	156	2	2.730	0.640
19485	CCD-221	156	158	2	2.820	0.894
19487	CCD-221	158	160	2	1.670	0.558
19488	CCD-221	160	162	2	1.540	0.307
19489	CCD-221	162	164	2	0.650	0.191
19490	CCD-221	164	166	2	0.350	0.196
19491	CCD-221	166	168	2	0.550	0.274
19492	CCD-221	168	170	2	1.170	0.540
19493	CCD-221	170	172	2	0.730	0.400
19494	CCD-221	172	174	2	0.280	0.248
19495	CCD-221	174	176	2	0.450	0.235
19496	CCD-221	176	178	2	0.250	0.156
19497	CCD-221	178	180	2	0.420	0.208
-1	CCD-221	180	180.6	0.6	-1.000	-1.000
19501	CCD-222	0	3.1	3.1	-1.000	-1.000
19502	CCD-222	3.1	4	0.9	1.240	-1.000
19503	CCD-222	4	6	2	0.340	-1.000
19504	CCD-222	6	8	2	0.330	-1.000
19505	CCD-222	8	10	2	0.140	-1.000
19506	CCD-222	10	12	2	0.180	-1.000
19507	CCD-222	12	14	2	0.170	-1.000
19508	CCD-222	14	16	2	0.100	-1.000
19509	CCD-222	16	18	2	0.140	-1.000
19511	CCD-222	18	20	2	0.140	-1.000
19512	CCD-222	20	22	2	0.060	-1.000
19513	CCD-222	22	24	2	0.190	-1.000
19514	CCD-222	24	26	2	0.150	-1.000
19515	CCD-222	26	28	2	0.050	-1.000
19516	CCD-222	28	30	2	0.100	-1.000
19517	CCD-222	30	32	2	0.070	-1.000
19518	CCD-222	32	34	2	0.100	-1.000
19519	CCD-222	34	36	2	0.110	-1.000
19521	CCD-222	36	38	2	0.140	-1.000
19522	CCD-222	38	40	2	0.180	-1.000
19523	CCD-222	40	42	2	0.240	-1.000
19524	CCD-222	42	44	2	0.320	-1.000
19525	CCD-222	44	46	2	0.340	-1.000
19526	CCD-222	46	48	2	0.470	-1.000
19527	CCD-222	48	50	2	0.430	-1.000
19528	CCD-222	50	52	2	0.470	-1.000
19530	CCD-222	52	54	2	0.750	-1.000
19531	CCD-222	54	56	2	0.320	-1.000
19532	CCD-222	56	58	2	0.160	-1.000
19533	CCD-222	58	60	2	0.090	-1.000
19534	CCD-222	60	62	2	0.220	-1.000
19535	CCD-222	62	64	2	0.150	-1.000
19536	CCD-222	64	66	2	0.130	-1.000
19537	CCD-222	66	68	2	0.110	-1.000
19538	CCD-222	68	70	2	0.190	-1.000

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19539	CCD-222	70	72	2	0.330	-1.000
19540	CCD-222	72	74	2	0.180	-1.000
19541	CCD-222	74	76	2	0.150	-1.000
19543	CCD-222	76	78	2	0.100	-1.000
19544	CCD-222	78	80	2	0.240	-1.000
19545	CCD-222	80	82	2	0.150	-1.000
19546	CCD-222	82	84	2	0.170	-1.000
19547	CCD-222	84	86	2	0.090	-1.000
19549	CCD-222	86	88	2	0.130	-1.000
19550	CCD-222	88	90	2	0.320	-1.000
19551	CCD-222	90	92	2	0.480	-1.000
19552	CCD-222	92	94	2	0.520	-1.000
19553	CCD-222	94	96	2	0.440	-1.000
19554	CCD-222	96	98	2	0.440	-1.000
19555	CCD-222	98	100	2	0.310	-1.000
19556	CCD-222	100	102	2	0.540	-1.000
19557	CCD-222	102	104	2	0.520	-1.000
19558	CCD-222	104	106	2	0.250	-1.000
19559	CCD-222	106	108	2	0.440	-1.000
19560	CCD-222	108	110	2	0.590	-1.000
19561	CCD-222	110	112	2	1.360	-1.000
19562	CCD-222	112	114	2	0.570	-1.000
19563	CCD-222	114	116	2	0.760	-1.000
19564	CCD-222	116	118	2	0.710	-1.000
19566	CCD-222	118	120	2	0.220	-1.000
19567	CCD-222	120	122	2	0.290	-1.000
19568	CCD-222	122	124	2	0.380	-1.000
19569	CCD-222	124	126	2	0.310	-1.000
19570	CCD-222	126	128	2	0.240	-1.000
19571	CCD-222	128	130	2	0.230	-1.000
19572	CCD-222	130	132	2	0.180	-1.000
19573	CCD-222	132	134	2	0.170	-1.000
19575	CCD-222	134	136	2	0.190	-1.000
19576	CCD-222	136	138	2	0.240	-1.000
19577	CCD-222	138	140	2	0.600	-1.000
19578	CCD-222	140	142	2	0.300	-1.000
19579	CCD-222	142	144	2	0.220	-1.000
19580	CCD-222	144	146	2	0.330	-1.000
19581	CCD-222	146	148	2	0.380	-1.000
19582	CCD-222	148	150	2	0.440	-1.000
19583	CCD-222	150	152	2	0.160	-1.000
19584	CCD-222	152	154	2	0.220	-1.000
19586	CCD-222	154	156	2	0.320	-1.000
19587	CCD-222	156	158	2	0.160	-1.000
19588	CCD-222	158	160	2	0.340	-1.000
19589	CCD-222	160	162	2	0.290	-1.000
19590	CCD-222	162	164	2	0.270	-1.000
19591	CCD-222	164	166	2	0.100	-1.000
19592	CCD-222	166	168	2	0.260	-1.000
19594	CCD-222	168	170	2	0.470	-1.000
19595	CCD-222	170	172	2	0.280	-1.000
19596	CCD-222	172	174	2	0.260	-1.000
19597	CCD-222	174	176	2	0.330	-1.000
19598	CCD-222	176	178	2	0.190	-1.000
19599	CCD-222	178	180	2	0.340	-1.000

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19600	CCD-222	180	182	2	0.310	-1.000
19602	CCD-222	182	184	2	0.160	-1.000
19603	CCD-222	184	186	2	0.210	-1.000
19604	CCD-222	186	188	2	0.150	-1.000
19605	CCD-222	188	190	2	0.130	-1.000
19606	CCD-222	190	192	2	0.270	-1.000
19607	CCD-222	192	194	2	0.400	-1.000
19608	CCD-222	194	196	2	0.230	-1.000
19609	CCD-222	196	198	2	0.290	-1.000
19610	CCD-222	198	200	2	0.420	-1.000
19611	CCD-222	200	202	2	0.330	-1.000
19613	CCD-222	202	204	2	0.320	-1.000
19614	CCD-222	204	206	2	0.180	-1.000
19615	CCD-222	206	208	2	0.260	-1.000
19616	CCD-222	208	210	2	0.440	-1.000
19617	CCD-222	210	212	2	0.890	0.250
19618	CCD-222	212	214	2	0.640	0.260
19619	CCD-222	214	216	2	1.490	0.320
19620	CCD-222	216	218	2	1.160	0.270
19622	CCD-222	218	220	2	1.430	0.450
19623	CCD-222	220	222	2	0.700	0.340
19624	CCD-222	222	224	2	0.580	0.340
19625	CCD-222	224	226	2	1.060	0.360
19626	CCD-222	226	228	2	1.550	0.810
19627	CCD-222	228	230	2	0.640	0.510
19628	CCD-222	230	232	2	0.240	0.180
19629	CCD-222	232	234	2	0.320	0.280
19630	CCD-222	234	236	2	0.240	0.190
19632	CCD-222	236	238	2	0.280	0.290
19633	CCD-222	238	240	2	0.540	0.460
19634	CCD-222	240	242	2	0.120	0.300
19635	CCD-222	242	244	2	0.120	0.220
19636	CCD-222	244	246	2	0.120	0.260
19637	CCD-222	246	248	2	0.280	0.380
19638	CCD-222	248	250	2	0.200	0.230
19640	CCD-222	250	252.1	2.1	0.070	0.090
19801	CCD-223	0	2	2	0.010	0.090
19802	CCD-223	2	4	2	0.010	0.200
19803	CCD-223	4	6	2	0.070	0.190
19804	CCD-223	6	8	2	0.080	0.130
19805	CCD-223	8	10	2	0.090	0.180
19806	CCD-223	10	12	2	0.250	0.470
19808	CCD-223	12	14	2	0.080	0.120
19809	CCD-223	14	16	2	0.080	0.100
19810	CCD-223	16	18	2	0.010	0.030
19811	CCD-223	18	20	2	0.050	0.090
19812	CCD-223	20	22	2	0.060	0.060
19813	CCD-223	22	24	2	0.100	0.190
19814	CCD-223	24	26	2	0.100	0.150
19815	CCD-223	26	28	2	0.360	0.360
19816	CCD-223	28	30	2	0.900	0.250
19817	CCD-223	30	32	2	0.450	0.200
19818	CCD-223	32	34	2	0.160	0.210
19819	CCD-223	34	36	2	0.270	0.370
19820	CCD-223	36	38	2	0.080	0.130

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19821	CCD-223	38	40	2	0.100	0.220
19822	CCD-223	40	42	2	0.080	0.150
19823	CCD-223	42	44	2	0.070	0.070
19824	CCD-223	44	46	2	0.060	0.120
19825	CCD-223	46	48	2	0.060	0.100
19826	CCD-223	48	50	2	0.170	0.330
19827	CCD-223	50	52	2	0.220	0.580
19828	CCD-223	52	54	2	0.490	0.640
19830	CCD-223	54	56	2	0.180	0.228
19831	CCD-223	56	58	2	0.360	0.640
19832	CCD-223	58	60	2	0.160	0.356
19833	CCD-223	60	62	2	0.160	0.226
19834	CCD-223	62	64	2	0.220	0.232
19835	CCD-223	64	66	2	0.090	0.234
19836	CCD-223	66	68	2	0.420	0.576
19837	CCD-223	68	70	2	0.210	0.280
19838	CCD-223	70	72	2	0.110	0.228
19839	CCD-223	72	74	2	0.160	0.286
19840	CCD-223	74	76	2	0.080	0.141
19841	CCD-223	76	78	2	0.160	0.221
19842	CCD-223	78	80	2	0.140	0.201
19844	CCD-223	80	82	2	0.120	0.235
19845	CCD-223	82	84	2	0.130	0.178
19846	CCD-223	84	86	2	0.140	0.181
19847	CCD-223	86	88	2	0.110	0.178
19848	CCD-223	88	90	2	0.090	0.104
19849	CCD-223	90	92	2	0.120	0.195
19850	CCD-223	92	94	2	0.050	0.132
19851	CCD-223	94	96	2	0.090	0.085
19852	CCD-223	96	98	2	0.170	0.173
19853	CCD-223	98	100	2	0.220	0.309
19854	CCD-223	100	102	2	0.180	0.226
19855	CCD-223	102	104	2	0.090	0.139
19856	CCD-223	104	106	2	0.090	0.141
19857	CCD-223	106	108	2	0.160	0.203
19858	CCD-223	108	110	2	0.210	0.246
19859	CCD-223	110	112	2	0.280	0.226
19860	CCD-223	112	114	2	0.280	0.230
19862	CCD-223	114	116	2	0.340	0.340
19863	CCD-223	116	118	2	0.160	0.330
19864	CCD-223	118	120	2	0.060	0.192
19865	CCD-223	120	122	2	0.190	0.237
19866	CCD-223	122	124	2	0.220	0.181
19867	CCD-223	124	126	2	0.170	0.230
19868	CCD-223	126	128	2	0.130	0.270
19869	CCD-223	128	130	2	0.290	0.338
19870	CCD-223	130	132	2	0.300	0.310
19871	CCD-223	132	134	2	0.320	0.456
19872	CCD-223	134	136	2	0.230	0.666
19874	CCD-223	136	138	2	0.040	0.378
19875	CCD-223	138	140	2	0.160	0.518
19876	CCD-223	140	142	2	0.400	0.482
19877	CCD-223	142	144	2	0.370	0.492
19878	CCD-223	144	146	2	0.170	0.212
19879	CCD-223	146	148	2	0.190	0.218

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19880	CCD-223	148	150	2	0.170	0.239
19881	CCD-223	150	152	2	0.100	0.612
19882	CCD-223	152	154	2	0.080	0.391
19883	CCD-223	154	156	2	0.100	0.281
19884	CCD-223	156	158	2	0.310	0.211
19885	CCD-223	158	160	2	0.250	0.194
19886	CCD-223	160	162	2	0.040	0.154
19887	CCD-223	162	164	2	0.240	0.196
19888	CCD-223	164	166	2	0.280	0.204
19889	CCD-223	166	168	2	0.340	0.272
19890	CCD-223	168	170	2	0.270	0.246
19891	CCD-223	170	172	2	0.100	0.115
19893	CCD-223	172	174	2	0.120	0.136
19894	CCD-223	174	176	2	0.080	0.176
19895	CCD-223	176	178	2	0.070	0.072
19896	CCD-223	178	180	2	0.090	0.109
19897	CCD-223	180	182	2	0.040	0.040
19898	CCD-223	182	184	2	0.080	0.106
19899	CCD-223	184	186	2	0.100	0.104
19900	CCD-223	186	188	2	0.090	0.076
19901	CCD-223	188	190	2	0.080	0.070
19902	CCD-223	190	192	2	0.080	0.072
19903	CCD-223	192	194	2	0.160	0.148
19904	CCD-223	194	196	2	0.190	0.180
19906	CCD-223	196	198	2	0.080	0.093
19907	CCD-223	198	200	2	0.110	0.121
19908	CCD-223	200	202	2	0.110	0.193
19909	CCD-223	202	204	2	0.110	0.104
19910	CCD-223	204	206	2	0.140	0.150
19911	CCD-223	206	208	2	0.240	0.294
19912	CCD-223	208	210	2	0.370	0.412
19913	CCD-223	210	212	2	0.330	0.334
19914	CCD-223	212	214	2	0.110	0.120
19915	CCD-223	214	216	2	0.120	0.151
19916	CCD-223	216	218	2	0.140	0.121
19917	CCD-223	218	220	2	0.120	0.147
19918	CCD-223	220	222	2	0.070	0.063
19919	CCD-223	222	224	2	0.190	0.219
19920	CCD-223	224	226	2	0.150	0.131
19921	CCD-223	226	228	2	0.110	0.102
19922	CCD-223	228	230	2	0.120	0.124
19923	CCD-223	230	232	2	0.530	0.492
19924	CCD-223	232	234	2	0.370	0.400
19925	CCD-223	234	236	2	0.120	0.115
19926	CCD-223	236	238	2	0.090	0.072
19927	CCD-223	238	240	2	0.130	0.147
19928	CCD-223	240	242	2	0.110	0.131
19929	CCD-223	242	244	2	0.120	0.119
19930	CCD-223	244	246	2	0.090	0.120
19931	CCD-223	246	248	2	0.100	0.098
19932	CCD-223	248	250	2	0.080	0.094
19933	CCD-223	250	252	2	0.060	0.089
19934	CCD-223	252	254	2	0.100	0.094
19935	CCD-223	254	256	2	0.080	0.111
19937	CCD-223	256	258	2	0.090	0.139

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19938	CCD-223	258	260	2	0.090	0.125
19939	CCD-223	260	262	2	0.110	0.164
19940	CCD-223	262	264	2	0.090	0.100
19941	CCD-223	264	266	2	0.100	0.117
19942	CCD-223	266	268	2	0.110	0.135
19943	CCD-223	268	270	2	0.060	0.101
19944	CCD-223	270	272	2	0.160	0.146
19945	CCD-223	272	274	2	0.260	0.270
19946	CCD-223	274	276	2	0.110	0.138
19948	CCD-223	276	278	2	0.090	0.093
19949	CCD-223	278	280	2	0.070	0.079
19950	CCD-223	280	282	2	0.080	0.096
4251	CCD-223	282	284	2	0.240	0.284
4252	CCD-223	284	286	2	0.110	0.218
4253	CCD-223	286	288	2	0.110	0.132
4254	CCD-223	288	290	2	0.060	0.075
4255	CCD-223	290	292	2	0.110	0.085
4256	CCD-223	292	294	2	0.170	0.146
4257	CCD-223	294	296	2	0.080	0.108
4258	CCD-223	296	298	2	0.100	0.148
4259	CCD-223	298	300	2	0.070	0.122
4260	CCD-223	300	302	2	0.030	0.086
4261	CCD-223	302	304	2	0.050	0.066
4262	CCD-223	304	306	2	0.130	0.145
4263	CCD-223	306	308	2	0.090	0.096
4264	CCD-223	308	310	2	0.120	0.124
4266	CCD-223	310	312	2	0.060	0.060
4267	CCD-223	312	314	2	0.090	0.132
4268	CCD-223	314	316	2	0.010	0.036
4269	CCD-223	316	318	2	0.040	0.070
4270	CCD-223	318	320	2	0.060	0.083
4271	CCD-223	320	322	2	0.100	0.075
4272	CCD-223	322	322.8	0.8	0.060	0.058
19651	CCD-224	0	2	2	0.040	-1.000
19652	CCD-224	2	4	2	0.070	-1.000
19653	CCD-224	4	6	2	0.050	-1.000
19654	CCD-224	6	8	2	0.020	-1.000
19655	CCD-224	8	10	2	0.020	-1.000
19656	CCD-224	10	12	2	0.020	-1.000
19657	CCD-224	12	14	2	0.020	-1.000
19658	CCD-224	14	16	2	0.020	-1.000
19659	CCD-224	16	18	2	0.090	-1.000
19660	CCD-224	18	20	2	0.120	-1.000
19661	CCD-224	20	22	2	0.030	-1.000
19662	CCD-224	22	24	2	0.010	-1.000
19663	CCD-224	24	26	2	0.010	-1.000
19664	CCD-224	26	28	2	0.020	-1.000
19666	CCD-224	28	30	2	0.030	-1.000
19667	CCD-224	30	32	2	0.050	0.050
19668	CCD-224	32	34	2	0.040	0.054
19669	CCD-224	34	36	2	0.040	0.010
19670	CCD-224	36	38	2	0.050	0.078
19671	CCD-224	38	40	2	0.010	0.034
19672	CCD-224	40	42	2	0.010	0.010
19673	CCD-224	42	44	2	0.030	0.052

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19674	CCD-224	44	46	2	0.010	0.016
19675	CCD-224	46	48	2	0.010	0.024
19676	CCD-224	48	50	2	0.010	0.010
19677	CCD-224	50	52	2	0.030	0.014
19678	CCD-224	52	54	2	0.010	0.019
19680	CCD-224	54	56	2	0.010	-0.010
19681	CCD-224	56	58	2	0.030	0.030
19682	CCD-224	58	60	2	0.010	-0.010
19683	CCD-224	60	62	2	0.250	0.021
19684	CCD-224	62	64	2	0.450	0.040
19685	CCD-224	64	66	2	0.010	0.005
19686	CCD-224	66	68	2	0.010	0.041
19687	CCD-224	68	70	2	0.010	0.010
19688	CCD-224	70	72	2	0.010	0.022
19689	CCD-224	72	74	2	0.010	-0.010
19690	CCD-224	74	76	2	0.010	0.013
19691	CCD-224	76	78	2	0.050	-0.010
19693	CCD-224	78	80	2	0.030	0.054
19694	CCD-224	80	82	2	0.050	0.025
19695	CCD-224	82	84	2	0.100	0.030
19696	CCD-224	84	86	2	0.010	0.014
19697	CCD-224	86	88	2	0.080	0.030
19698	CCD-224	88	90	2	0.070	0.030
19699	CCD-224	90	92	2	0.030	0.022
19700	CCD-224	92	94	2	0.030	0.042
19701	CCD-224	94	96	2	0.030	0.078
19702	CCD-224	96	98	2	0.010	0.051
19703	CCD-224	98	100	2	0.030	0.045
19704	CCD-224	100	102	2	0.030	0.032
19705	CCD-224	102	104	2	0.040	0.052
19706	CCD-224	104	106	2	0.100	0.054
19707	CCD-224	106	108	2	0.040	0.050
19708	CCD-224	108	110	2	0.040	0.069
19709	CCD-224	110	112	2	0.030	0.053
19710	CCD-224	112	114	2	0.030	0.044
19711	CCD-224	114	116	2	0.080	0.107
19712	CCD-224	116	118	2	0.010	0.122
19713	CCD-224	118	120	2	0.030	0.068
19715	CCD-224	120	122	2	0.050	0.066
19716	CCD-224	122	124	2	0.030	0.040
19717	CCD-224	124	126	2	0.040	0.080
19718	CCD-224	126	128	2	0.110	0.078
19719	CCD-224	128	130	2	0.030	0.060
19720	CCD-224	130	132	2	0.060	0.051
19721	CCD-224	132	134	2	0.140	0.128
19722	CCD-224	134	136	2	0.160	0.134
19723	CCD-224	136	138	2	0.170	0.132
19724	CCD-224	138	140	2	0.130	0.111
19725	CCD-224	140	142	2	0.180	0.110
19726	CCD-224	142	144	2	0.150	0.147
19727	CCD-224	144	146	2	0.160	0.178
19729	CCD-224	146	148	2	0.150	0.181
19730	CCD-224	148	150	2	0.160	0.135
19731	CCD-224	150	152	2	0.090	0.057
19732	CCD-224	152	154	2	0.140	0.099

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19733	CCD-224	154	156	2	0.140	0.076
19734	CCD-224	156	158	2	0.150	0.075
19735	CCD-224	158	160	2	0.240	0.212
19736	CCD-224	160	162	2	0.270	0.279
19737	CCD-224	162	164	2	0.410	0.294
19738	CCD-224	164	166	2	0.150	0.198
19739	CCD-224	166	168	2	0.140	0.149
19740	CCD-224	168	170	2	0.830	0.642
19741	CCD-224	170	172	2	0.810	0.527
19742	CCD-224	172	174	2	1.070	0.485
19743	CCD-224	174	176	2	0.920	0.267
19744	CCD-224	176	178	2	1.450	0.297
19745	CCD-224	178	180	2	0.950	0.529
19746	CCD-224	180	182	2	1.940	0.649
19748	CCD-224	182	184	2	2.270	0.720
19749	CCD-224	184	186	2	0.920	0.397
19750	CCD-224	186	188	2	0.350	0.290
19751	CCD-224	188	190	2	0.680	0.098
19752	CCD-224	190	192	2	1.510	0.348
19753	CCD-224	192	194	2	1.240	0.407
19754	CCD-224	194	196	2	0.630	0.424
19755	CCD-224	196	198	2	0.760	0.473
19756	CCD-224	198	200	2	0.530	0.518
19757	CCD-224	200	202	2	1.150	0.600
19758	CCD-224	202	204	2	1.350	1.132
19759	CCD-224	204	206	2	0.940	0.636
19760	CCD-224	206	208	2	0.880	0.489
19761	CCD-224	208	210	2	1.170	0.720
19762	CCD-224	210	212	2	1.040	0.421
19763	CCD-224	212	214	2	0.930	0.328
19764	CCD-224	214	216	2	1.210	0.214
19765	CCD-224	216	218	2	1.310	0.323
19766	CCD-224	218	220	2	2.270	0.134
19767	CCD-224	220	222	2	0.330	0.159
19769	CCD-224	222	224	2	0.510	0.386
19770	CCD-224	224	226	2	0.160	0.034
19771	CCD-224	226	228	2	0.030	0.016
19772	CCD-224	228	230	2	0.150	0.166
19773	CCD-224	230	232	2	0.190	0.244
19774	CCD-224	232	234	2	0.140	0.159
19775	CCD-224	234	236	2	0.120	0.058
19776	CCD-224	236	238	2	0.050	0.016
19777	CCD-224	238	240	2	0.060	0.044
19778	CCD-224	240	242	2	0.150	0.175
19779	CCD-224	242	244	2	0.070	0.063
19780	CCD-224	244	246	2	0.060	0.078
19781	CCD-224	246	248	2	0.050	0.064
19782	CCD-224	248	250	2	0.090	0.072
19784	CCD-224	250	252	2	0.060	0.032
19785	CCD-224	252	254	2	0.050	0.019
19786	CCD-224	254	256	2	0.120	0.024
19787	CCD-224	256	258	2	0.060	0.015
19788	CCD-224	258	260	2	0.190	0.014
19789	CCD-224	260	262	2	0.960	0.034
19790	CCD-224	262	264	2	0.130	0.042

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
19791	CCD-224	264	266	2	0.110	0.041
19792	CCD-224	266	268	2	0.120	0.032
19793	CCD-224	268	270	2	0.080	0.068
19794	CCD-224	270	272	2	0.040	0.023
19795	CCD-224	272	274	2	0.040	0.020
19797	CCD-224	274	276	2	0.130	0.053
19798	CCD-224	276	278	2	0.010	0.017
19799	CCD-224	278	280	2	0.060	0.056
19800	CCD-224	280	282	2	0.040	0.024
19951	CCD-224	282	284	2	0.010	0.016
19952	CCD-224	284	286	2	0.030	0.032
47501	CCD-225	0	2	2	0.270	0.022
47502	CCD-225	2	4	2	0.390	0.025
47503	CCD-225	4	6	2	0.380	0.010
47504	CCD-225	6	8	2	0.310	0.030
47505	CCD-225	8	10	2	0.450	0.038
47506	CCD-225	10	12	2	0.450	0.034
47507	CCD-225	12	14	2	0.370	0.021
47508	CCD-225	14	16	2	0.220	0.010
47509	CCD-225	16	18	2	0.230	0.023
47510	CCD-225	18	20	2	0.490	0.032
47511	CCD-225	20	22	2	0.380	0.032
47512	CCD-225	22	24	2	0.320	0.034
47514	CCD-225	24	26	2	0.320	0.045
47515	CCD-225	26	28	2	0.430	0.074
47516	CCD-225	28	30	2	0.260	0.063
47517	CCD-225	30	32	2	0.160	0.357
47518	CCD-225	32	34	2	0.720	0.551
47519	CCD-225	34	36	2	0.330	0.696
47520	CCD-225	36	38	2	0.260	0.889
47521	CCD-225	38	40	2	0.280	0.584
47522	CCD-225	40	42	2	0.220	0.472
47523	CCD-225	42	44	2	0.230	0.320
47524	CCD-225	44	46	2	0.500	0.301
47525	CCD-225	46	48	2	0.270	0.142
47526	CCD-225	48	50	2	0.330	0.195
47527	CCD-225	50	52	2	0.370	0.176
47528	CCD-225	52	54	2	0.360	0.187
47529	CCD-225	54	56	2	0.400	0.176
47530	CCD-225	56	58	2	0.490	0.166
47531	CCD-225	58	60	2	0.540	0.138
47533	CCD-225	60	62	2	0.430	0.103
47534	CCD-225	62	64	2	0.570	0.125
47535	CCD-225	64	66	2	0.540	0.122
47536	CCD-225	66	68	2	0.910	0.195
47537	CCD-225	68	70	2	0.520	0.196
47538	CCD-225	70	72	2	0.670	0.247
47539	CCD-225	72	74	2	0.500	0.171
47540	CCD-225	74	76	2	0.480	0.122
47541	CCD-225	76	78	2	0.910	0.243
47542	CCD-225	78	80	2	0.300	0.148
47543	CCD-225	80	82	2	0.670	0.249
47544	CCD-225	82	84	2	0.940	0.328
47546	CCD-225	84	86	2	0.780	0.306
47547	CCD-225	86	88	2	0.980	0.340

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
47548	CCD-225	88	90	2	0.650	0.245
47549	CCD-225	90	92	2	0.670	0.284
47550	CCD-225	92	94	2	0.770	0.262
47551	CCD-225	94	96	2	0.760	0.314
47552	CCD-225	96	98	2	0.670	0.282
47553	CCD-225	98	100	2	0.690	0.214
47554	CCD-225	100	102	2	0.530	0.207
47555	CCD-225	102	104	2	0.640	0.229
47556	CCD-225	104	106	2	0.610	0.252
47557	CCD-225	106	108	2	0.490	0.141
47558	CCD-225	108	110	2	0.620	0.242
47560	CCD-225	110	112	2	0.630	0.241
47561	CCD-225	112	114	2	0.420	0.186
47562	CCD-225	114	116	2	0.600	0.234
47563	CCD-225	116	118	2	0.490	0.182
47564	CCD-225	118	120	2	0.620	0.186
47565	CCD-225	120	122	2	0.270	0.139
47566	CCD-225	122	124	2	0.410	0.179
47567	CCD-225	124	126	2	0.450	0.186
47568	CCD-225	126	128	2	0.300	0.150
47569	CCD-225	128	130	2	0.630	0.198
47570	CCD-225	130	132	2	0.630	0.234
47571	CCD-225	132	134	2	0.480	0.155
47572	CCD-225	134	136	2	0.630	0.291
47573	CCD-225	136	138	2	0.490	0.189
47574	CCD-225	138	140	2	0.620	0.186
47575	CCD-225	140	142	2	0.630	0.261
47576	CCD-225	142	144	2	0.570	0.202
47577	CCD-225	144	146	2	0.610	0.260
47578	CCD-225	146	148	2	0.490	0.168
47579	CCD-225	148	150	2	0.370	0.141
47580	CCD-225	150	152	2	0.680	0.246
47581	CCD-225	152	154	2	0.470	0.214
47583	CCD-225	154	156	2	0.620	0.158
47584	CCD-225	156	158	2	0.540	0.183
47585	CCD-225	158	160	2	0.620	0.186
47586	CCD-225	160	162	2	0.640	0.153
47587	CCD-225	162	164	2	0.510	0.116
47588	CCD-225	164	166	2	0.810	0.229
47589	CCD-225	166	168	2	0.500	0.150
47590	CCD-225	168	170	2	0.670	0.229
47591	CCD-225	170	172	2	1.050	0.304
47592	CCD-225	172	174	2	0.670	0.268
47593	CCD-225	174	176	2	0.560	0.277
47594	CCD-225	176	178	2	1.360	0.362
47595	CCD-225	178	180	2	1.070	0.330
47596	CCD-225	180	182	2	0.970	0.297
47597	CCD-225	182	184	2	0.940	0.320
47598	CCD-225	184	186	2	0.680	0.293
47599	CCD-225	186	188	2	0.840	0.302
47601	CCD-225	188	190	2	0.900	0.308
47602	CCD-225	190	192	2	1.100	0.384
47603	CCD-225	192	194	2	1.060	0.346
47604	CCD-225	194	196	2	1.280	0.449
47605	CCD-225	196	198	2	0.840	0.377

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
47606	CCD-225	198	200	2	1.260	0.539
47607	CCD-225	200	202	2	1.190	0.513
47608	CCD-225	202	204	2	0.670	0.338
47609	CCD-225	204	206	2	0.750	0.432
47610	CCD-225	206	208	2	0.670	0.363
47611	CCD-225	208	210	2	0.550	0.336
47612	CCD-225	210	212	2	0.730	0.400
47613	CCD-225	212	214	2	0.600	0.544
47614	CCD-225	214	216	2	0.510	0.478
47615	CCD-225	216	218	2	0.600	0.433
47616	CCD-225	218	220	2	0.400	0.317
47617	CCD-225	220	222	2	0.350	0.318
47619	CCD-225	222	224	2	0.390	0.258
47620	CCD-225	224	226	2	0.380	0.370
47621	CCD-225	226	228	2	0.400	0.357
47622	CCD-225	228	230	2	0.450	0.421
47623	CCD-225	230	232	2	0.420	0.371
47624	CCD-225	232	234	2	0.480	0.511
47625	CCD-225	234	236	2	0.310	0.342
47627	CCD-225	236	238	2	0.350	0.359
47628	CCD-225	238	240	2	0.430	0.489
47629	CCD-225	240	242	2	0.410	0.524
47630	CCD-225	242	244	2	0.350	0.390
47631	CCD-225	244	246	2	0.400	0.384
47632	CCD-225	246	248	2	0.710	0.645
47633	CCD-225	248	250	2	0.520	0.682
47634	CCD-225	250	252	2	0.240	0.326
47635	CCD-225	252	254	2	0.430	0.438
47636	CCD-225	254	256	2	0.230	0.274
47637	CCD-225	256	258	2	0.350	0.299
47638	CCD-225	258	260	2	0.410	0.360
47639	CCD-225	260	262	2	0.190	0.239
47640	CCD-225	262	264	2	0.150	0.187
47641	CCD-225	264	266	2	0.260	0.396
47642	CCD-225	266	268	2	0.310	0.356
47643	CCD-225	268	270	2	0.240	0.274
47644	CCD-225	270	272	2	0.230	0.250
47645	CCD-225	272	274	2	0.160	0.197
47646	CCD-225	274	276	2	0.170	0.215
47647	CCD-225	276	278	2	0.110	0.150
47649	CCD-225	278	280	2	0.190	0.270
47650	CCD-225	280	282	2	0.260	0.384
5651	CCD-225	282	284	2	0.180	0.260
5652	CCD-225	284	286	2	0.280	0.360
5653	CCD-225	286	288	2	0.210	0.326
5654	CCD-225	288	290	2	0.370	0.506
5655	CCD-225	290	292	2	0.260	0.346
5656	CCD-225	292	294	2	0.170	0.248
5657	CCD-225	294	296	2	0.310	0.426
5658	CCD-225	296	298	2	0.200	0.244
5659	CCD-225	298	300	2	0.170	0.250
5660	CCD-225	300	302	2	0.210	0.274
5661	CCD-225	302	304	2	0.210	0.210
5662	CCD-225	304	306	2	0.190	0.199
5663	CCD-225	306	308	2	0.250	0.221

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
5664	CCD-225	308	310	2	0.280	0.326
5665	CCD-225	310	312	2	0.270	0.196
5666	CCD-225	312	314	2	0.360	0.372
5667	CCD-225	314	316	2	0.240	0.294
5669	CCD-225	316	318	2	0.340	0.318
5670	CCD-225	318	320	2	0.380	0.454
5671	CCD-225	320	322	2	0.180	0.180
5672	CCD-225	322	324	2	0.150	0.163
5673	CCD-225	324	326	2	0.230	0.270
5674	CCD-225	326	328	2	0.130	0.156
5675	CCD-225	328	330	2	0.130	0.225
5676	CCD-225	330	332	2	0.190	0.237
5677	CCD-225	332	334	2	0.170	0.182
5678	CCD-225	334	336	2	0.190	0.200
5679	CCD-225	336	338	2	0.200	0.177
5680	CCD-225	338	340	2	0.380	0.387
5681	CCD-225	340	342	2	0.700	0.682
5682	CCD-225	342	344	2	0.580	0.504
5683	CCD-225	344	346	2	0.470	0.729
5684	CCD-225	346	348	2	0.310	0.368
5685	CCD-225	348	350	2	0.500	0.492
5686	CCD-225	350	352	2	0.320	0.371
5687	CCD-225	352	354	2	0.610	0.605
5689	CCD-225	354	356	2	0.330	0.428
5690	CCD-225	356	358	2	0.490	0.569
5691	CCD-225	358	360	2	0.450	0.518
5692	CCD-225	360	362	2	0.160	0.228
5693	CCD-225	362	364	2	0.480	0.595
5694	CCD-225	364	366	2	0.530	0.626
5695	CCD-225	366	368	2	0.600	0.689
5696	CCD-225	368	370	2	0.640	0.638
5697	CCD-225	370	372	2	0.730	0.819
5698	CCD-225	372	374	2	0.450	0.708
5699	CCD-225	374	376	2	0.700	0.740
5700	CCD-225	376	378	2	0.470	0.480
9101	CCD-225	378	380	2	0.700	0.624
9102	CCD-225	380	382	2	0.540	0.527
9103	CCD-225	382	384	2	1.050	1.134
9104	CCD-225	384	386	2	0.720	0.729
9105	CCD-225	386	388	2	0.450	0.461
9106	CCD-225	388	390	2	0.580	0.482
9107	CCD-225	390	392	2	0.580	0.859
9108	CCD-225	392	394	2	0.420	0.551
9109	CCD-225	394	396	2	0.550	0.504
9110	CCD-225	396	398	2	0.480	0.506
9111	CCD-225	398	400	2	0.520	0.626
9113	CCD-225	400	402	2	0.780	0.920
9114	CCD-225	402	404	2	0.560	0.626
9115	CCD-225	404	405.05	1.05	0.290	0.274
21501	CCD-226	0	2	2	0.020	0.190
21502	CCD-226	2	4	2	0.160	0.240
21503	CCD-226	4	6	2	0.250	0.280
21504	CCD-226	6	8	2	0.400	0.890
21505	CCD-226	8	10	2	0.080	0.100
21506	CCD-226	10	12	2	0.060	0.110

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
21507	CCD-226	12	14	2	0.050	0.050
21508	CCD-226	14	16	2	0.200	0.330
21509	CCD-226	16	18	2	0.060	0.080
21510	CCD-226	18	20	2	0.060	0.090
21511	CCD-226	20	22	2	0.180	0.260
21512	CCD-226	22	24	2	0.050	0.260
21513	CCD-226	24	26	2	0.160	0.250
21515	CCD-226	26	28	2	0.090	0.110
21516	CCD-226	28	30	2	0.050	0.140
21517	CCD-226	30	32	2	0.210	0.550
21518	CCD-226	32	34	2	0.170	0.230
21519	CCD-226	34	36	2	0.100	0.140
21520	CCD-226	36	38	2	0.110	0.080
21521	CCD-226	38	40	2	0.050	0.050
21522	CCD-226	40	42	2	0.050	0.060
21523	CCD-226	42	44	2	0.040	0.080
21524	CCD-226	44	46	2	0.080	0.110
21525	CCD-226	46	48	2	0.360	0.280
21526	CCD-226	48	50	2	0.130	0.130
21528	CCD-226	50	52	2	0.070	0.080
21529	CCD-226	52	54	2	0.070	0.120
21530	CCD-226	54	56	2	0.080	0.170
21531	CCD-226	56	58	2	0.050	0.070
21532	CCD-226	58	60	2	0.150	0.170
21533	CCD-226	60	62	2	0.370	0.230
21534	CCD-226	62	64	2	0.080	0.140
21535	CCD-226	64	66	2	0.070	0.010
21536	CCD-226	66	68	2	0.050	0.005
21537	CCD-226	68	70	2	0.070	0.020
21538	CCD-226	70	72	2	0.060	0.005
21539	CCD-226	72	74	2	0.050	0.010
21540	CCD-226	74	76	2	0.080	0.010
21541	CCD-226	76	78	2	0.050	0.010
21543	CCD-226	78	80	2	0.040	0.010
21544	CCD-226	80	82	2	0.060	0.010
21545	CCD-226	82	84	2	0.040	0.005
21546	CCD-226	84	86	2	0.090	0.030
21547	CCD-226	86	88	2	0.070	0.010
21548	CCD-226	88	90	2	0.030	0.040
21549	CCD-226	90	92	2	0.050	0.073
21550	CCD-226	92	94	2	0.050	0.192
21551	CCD-226	94	96	2	0.060	0.148
21552	CCD-226	96	98	2	0.050	0.117
21553	CCD-226	98	100	2	0.050	0.084
21554	CCD-226	100	102	2	0.080	0.152
21555	CCD-226	102	104	2	0.080	0.156
21556	CCD-226	104	106	2	0.170	0.261
21557	CCD-226	106	108	2	0.170	0.471
21558	CCD-226	108	110	2	0.100	0.210
21559	CCD-226	110	112	2	0.130	0.276
21560	CCD-226	112	114	2	0.160	0.292
21561	CCD-226	114	116	2	0.090	0.144
21563	CCD-226	116	118	2	0.170	0.229
21564	CCD-226	118	120	2	0.240	0.460
21565	CCD-226	120	122	2	0.220	0.310

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
21566	CCD-226	122	124	2	0.250	0.456
21567	CCD-226	124	126	2	0.070	0.110
21568	CCD-226	126	128	2	0.100	0.118
21569	CCD-226	128	130	2	0.050	0.045
21570	CCD-226	130	132	2	0.040	0.046
21571	CCD-226	132	134	2	0.120	0.116
21572	CCD-226	134	136	2	0.050	0.063
21574	CCD-226	136	138	2	0.120	0.148
21575	CCD-226	138	140	2	0.140	0.193
21576	CCD-226	140	142	2	0.120	0.236
21577	CCD-226	142	144	2	0.040	0.052
21578	CCD-226	144	146	2	0.070	0.133
21579	CCD-226	146	148	2	0.060	0.093
21580	CCD-226	148	150	2	0.090	0.196
21581	CCD-226	150	152	2	0.060	0.173
21582	CCD-226	152	154	2	0.060	0.152
21583	CCD-226	154	156	2	0.040	0.108
21584	CCD-226	156	158	2	0.120	0.180
21585	CCD-226	158	160	2	0.130	0.106
21586	CCD-226	160	162	2	0.070	0.075
21587	CCD-226	162	164	2	0.080	0.117
21588	CCD-226	164	166	2	0.130	0.210
21589	CCD-226	166	168	2	0.190	0.278
21590	CCD-226	168	170	2	0.060	0.070
21591	CCD-226	170	172	2	0.070	0.175
21592	CCD-226	172	174	2	0.080	0.130
21594	CCD-226	174	176	2	0.120	0.227
21595	CCD-226	176	178	2	0.080	0.177
21596	CCD-226	178	180	2	0.040	0.086
21597	CCD-226	180	182	2	0.190	0.122
21598	CCD-226	182	184	2	0.080	0.070
21599	CCD-226	184	186	2	0.190	0.242
21600	CCD-226	186	188	2	0.150	0.392
21601	CCD-226	188	190	2	0.060	0.098
21602	CCD-226	190	192	2	0.120	0.276
21603	CCD-226	192	194	2	0.240	0.324
21604	CCD-226	194	196	2	0.140	0.100
21605	CCD-226	196	198	2	0.110	0.080
21606	CCD-226	198	200	2	0.150	0.318
21607	CCD-226	200	202	2	0.110	0.091
21608	CCD-226	202	204	2	0.070	0.147
21609	CCD-226	204	206	2	0.080	0.133
21610	CCD-226	206	208	2	0.080	0.136
21611	CCD-226	208	210	2	0.070	0.112
21613	CCD-226	210	212	2	0.050	0.085
21614	CCD-226	212	214	2	0.180	0.213
21615	CCD-226	214	216	2	0.080	0.113
21616	CCD-226	216	218	2	0.090	0.135
21617	CCD-226	218	220	2	0.080	0.076
21618	CCD-226	220	222	2	0.060	0.050
21619	CCD-226	222	224	2	0.140	0.088
21620	CCD-226	224	226	2	0.130	0.138
21621	CCD-226	226	228	2	0.060	0.050
21622	CCD-226	228	230	2	0.040	0.042
21623	CCD-226	230	232	2	0.070	0.062

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
21624	CCD-226	232	234	2	0.200	0.117
21625	CCD-226	234	236	2	0.130	0.132
21626	CCD-226	236	238	2	0.170	0.153
21627	CCD-226	238	240	2	0.380	0.146
21628	CCD-226	240	242	2	0.230	0.093
21629	CCD-226	242	244	2	0.110	0.109
21631	CCD-226	244	246	2	0.740	0.400
21632	CCD-226	246	248	2	0.160	0.050
21633	CCD-226	248	250	2	0.100	0.098
21634	CCD-226	250	252	2	0.100	0.142
21635	CCD-226	252	254	2	0.030	0.045
21636	CCD-226	254	256	2	0.030	0.055
21637	CCD-226	256	258	2	0.030	0.071
21638	CCD-226	258	260	2	0.060	0.057
21639	CCD-226	260	262	2	0.040	0.066
21640	CCD-226	262	264	2	0.040	0.090
21641	CCD-226	264	266	2	0.050	0.093
21642	CCD-226	266	268	2	0.050	0.058
21643	CCD-226	268	270	2	0.100	0.075
21644	CCD-226	270	272	2	0.110	0.041
21645	CCD-226	272	274	2	0.120	0.107
21646	CCD-226	274	276	2	0.080	0.057
21647	CCD-226	276	278	2	0.070	0.052
21649	CCD-226	278	280	2	0.040	0.046
21650	CCD-226	280	282	2	0.040	0.041
47651	CCD-226	282	284	2	0.060	0.048
47652	CCD-226	284	286	2	0.060	0.085
47653	CCD-226	286	288	2	0.050	0.075
47654	CCD-226	288	290	2	0.040	0.029
47655	CCD-226	290	292	2	0.050	0.044
47656	CCD-226	292	294	2	0.040	0.031
47657	CCD-226	294	296	2	0.050	0.043
47658	CCD-226	296	298	2	0.060	0.077
47660	CCD-226	298	300	2	0.010	0.044
47661	CCD-226	300	302	2	0.030	0.128
47662	CCD-226	302	304	2	0.030	0.221
47663	CCD-226	304	306	2	0.010	0.089
47664	CCD-226	306	308	2	0.020	0.134
47665	CCD-226	308	310	2	0.040	0.038
47666	CCD-226	310	312	2	0.020	0.051
47667	CCD-226	312	314	2	0.010	0.036
47668	CCD-226	314	316	2	0.010	0.039
47669	CCD-226	316	318	2	0.060	0.058
47670	CCD-226	318	320	2	0.060	0.110
47671	CCD-226	320	322	2	0.040	0.048
47673	CCD-226	322	324	2	0.030	0.033
47674	CCD-226	324	326	2	0.040	0.033
47675	CCD-226	326	328	2	0.030	0.050
47676	CCD-226	328	330	2	0.030	0.032
47677	CCD-226	330	332	2	0.030	0.029
47678	CCD-226	332	334	2	0.010	0.036
47679	CCD-226	334	336	2	0.040	0.018
47680	CCD-226	336	338	2	0.040	0.030
47681	CCD-226	338	340	2	0.020	0.016
47682	CCD-226	340	342	2	0.390	0.040

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
47683	CCD-226	342	344	2	0.080	0.080
47684	CCD-226	344	346	2	0.100	0.102
47685	CCD-226	346	348	2	0.060	0.082
47686	CCD-226	348	350	2	0.110	0.200
47687	CCD-226	350	352	2	0.030	0.039
47688	CCD-226	352	354	2	0.040	0.043
47690	CCD-226	354	356	2	0.100	0.122
47691	CCD-226	356	358	2	0.110	0.101
47692	CCD-226	358	360	2	0.070	0.054
47693	CCD-226	360	362	2	0.110	0.108
47694	CCD-226	362	364	2	0.130	0.159
47695	CCD-226	364	366	2	0.150	0.163
47696	CCD-226	366	368	2	0.120	0.146
47697	CCD-226	368	370	2	0.040	0.056
47698	CCD-226	370	372	2	0.050	0.047
47699	CCD-226	372	374	2	0.060	0.031
21651	CCD-227	0	2	2	0.150	0.119
21652	CCD-227	2	4	2	0.170	0.194
21653	CCD-227	4	6	2	0.070	0.176
21654	CCD-227	6	8	2	0.060	0.165
21655	CCD-227	8	10	2	0.040	0.104
21656	CCD-227	10	12	2	0.050	0.085
21657	CCD-227	12	14	2	0.040	0.040
21658	CCD-227	14	16	2	0.060	0.078
21659	CCD-227	16	18	2	0.050	0.062
21660	CCD-227	18	20	2	0.070	0.076
21661	CCD-227	20	22	2	0.130	0.108
21662	CCD-227	22	24	2	0.290	0.248
21664	CCD-227	24	26	2	0.090	0.093
21665	CCD-227	26	28	2	0.080	0.058
21666	CCD-227	28	30	2	0.180	0.104
21667	CCD-227	30	32	2	0.130	0.114
21668	CCD-227	32	34	2	0.100	0.050
21669	CCD-227	34	36	2	0.080	0.058
21670	CCD-227	36	38	2	0.240	0.193
21671	CCD-227	38	40	2	0.150	0.072
21672	CCD-227	40	42	2	0.170	0.128
21673	CCD-227	42	44	2	0.160	0.144
21674	CCD-227	44	46	2	0.120	0.095
21675	CCD-227	46	48	2	0.160	0.029
21677	CCD-227	48	50	2	0.080	0.040
21678	CCD-227	50	52	2	0.080	0.062
21679	CCD-227	52	54	2	0.060	0.040
21680	CCD-227	54	56	2	0.080	0.082
21681	CCD-227	56	58	2	0.050	0.023
21682	CCD-227	58	60	2	0.050	0.035
21683	CCD-227	60	62	2	0.070	0.094
21684	CCD-227	62	64	2	0.050	0.037
21685	CCD-227	64	66	2	0.090	0.075
21686	CCD-227	66	68	2	0.060	0.037
21687	CCD-227	68	70	2	0.040	0.018
21688	CCD-227	70	72	2	0.040	0.034
21689	CCD-227	72	74	2	0.030	0.026
21690	CCD-227	74	76	2	0.060	0.036
21691	CCD-227	76	78	2	0.060	0.031

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
21693	CCD-227	78	80	2	0.040	0.032
21694	CCD-227	80	82	2	0.120	0.120
21695	CCD-227	82	84	2	0.320	0.264
21696	CCD-227	84	86	2	0.340	0.150
21697	CCD-227	86	88	2	0.070	0.032
21698	CCD-227	88	90	2	0.050	0.029
21699	CCD-227	90	92	2	0.080	0.054
21700	CCD-227	92	94	2	0.070	0.053
21701	CCD-227	94	96	2	0.110	0.112
21702	CCD-227	96	98	2	0.100	0.084
21703	CCD-227	98	100	2	0.080	0.062
21704	CCD-227	100	102	2	0.100	0.107
21705	CCD-227	102	104	2	0.140	0.125
21706	CCD-227	104	106	2	0.260	0.133
21708	CCD-227	106	108	2	0.140	0.090
21709	CCD-227	108	110	2	0.120	0.063
21710	CCD-227	110	112	2	0.200	0.112
21711	CCD-227	112	114	2	0.290	0.130
21712	CCD-227	114	116	2	0.230	0.130
21713	CCD-227	116	118	2	0.150	0.105
21714	CCD-227	118	120	2	0.100	0.072
21715	CCD-227	120	122	2	0.150	0.130
21716	CCD-227	122	124	2	0.300	0.192
21717	CCD-227	124	126	2	0.390	0.246
21718	CCD-227	126	128	2	0.130	0.081
21719	CCD-227	128	130	2	0.200	0.104
21720	CCD-227	130	132	2	0.480	0.350
21721	CCD-227	132	134	2	0.170	0.107
21722	CCD-227	134	136	2	0.800	0.162
21724	CCD-227	136	138	2	0.090	0.173
21725	CCD-227	138	140	2	0.070	0.097
21726	CCD-227	140	142	2	0.050	0.071
21727	CCD-227	142	144	2	0.760	0.394
21728	CCD-227	144	146	2	0.530	0.187
21729	CCD-227	146	148	2	0.180	0.090
21730	CCD-227	148	150	2	0.110	0.075
21731	CCD-227	150	152	2	0.170	0.115
21732	CCD-227	152	154	2	1.800	0.626
21733	CCD-227	154	156	2	1.670	0.605
21734	CCD-227	156	158	2	12.520	3.248
21735	CCD-227	158	160	2	4.480	1.304
21736	CCD-227	160	162	2	6.000	1.094
21737	CCD-227	162	164	2	6.220	2.704
21738	CCD-227	164	166	2	7.130	2.688
21739	CCD-227	166	168	2	4.300	1.368
21740	CCD-227	168	170	2	2.270	0.979
21741	CCD-227	170	172	2	1.920	0.605
21742	CCD-227	172	174	2	1.750	0.499
21743	CCD-227	174	176	2	1.470	0.918
21744	CCD-227	176	178	2	2.880	0.921
21746	CCD-227	178	180	2	3.330	1.158
21747	CCD-227	180	182	2	1.920	0.496
21748	CCD-227	182	184	2	1.970	0.607
21749	CCD-227	184	186	2	2.750	0.776
21750	CCD-227	186	188	2	2.190	0.786

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
21751	CCD-227	188	190	2	1.660	0.489
21752	CCD-227	190	192	2	2.540	0.628
21753	CCD-227	192	194	2	2.650	0.918
21754	CCD-227	194	196	2	1.900	0.594
21755	CCD-227	196	198	2	3.900	1.248
21756	CCD-227	198	200	2	2.420	0.856
21757	CCD-227	200	202	2	1.710	0.576
21758	CCD-227	202	204	2	1.390	0.485
21759	CCD-227	204	206	2	1.060	0.385
21761	CCD-227	206	208	2	2.970	0.906
21762	CCD-227	208	210	2	1.230	0.388
21763	CCD-227	210	212	2	1.860	0.744
21764	CCD-227	212	214	2	1.720	0.595
21765	CCD-227	214	216	2	1.530	0.638
21766	CCD-227	216	218	2	1.430	0.576
21767	CCD-227	218	220	2	2.220	0.762
21768	CCD-227	220	222	2	1.010	0.390
21769	CCD-227	222	224	2	0.830	0.340
21770	CCD-227	224	226	2	0.840	0.314
21771	CCD-227	226	228	2	1.070	0.494
21772	CCD-227	228	230	2	1.430	0.649
21773	CCD-227	230	232	2	0.980	0.487
21774	CCD-227	232	234	2	1.630	0.545
21775	CCD-227	234	236	2	0.450	0.291
21776	CCD-227	236	238	2	0.520	0.307
21777	CCD-227	238	240	2	0.300	0.238
21778	CCD-227	240	242	2	0.490	0.433
21779	CCD-227	242	244	2	0.230	0.159
21780	CCD-227	244	246	2	0.160	0.103
21781	CCD-227	246	248	2	0.580	1.099
21782	CCD-227	248	250	2	0.450	0.160
21783	CCD-227	250	252	2	0.340	0.286
21785	CCD-227	252	254	2	0.560	0.409
21786	CCD-227	254	256	2	0.330	0.296
21787	CCD-227	256	258	2	0.310	0.158
21788	CCD-227	258	260	2	0.540	0.233
21789	CCD-227	260	262	2	0.590	0.586
21790	CCD-227	262	264	2	1.230	0.800
21791	CCD-227	264	266	2	1.110	0.718
21792	CCD-227	266	268	2	0.970	0.621
21793	CCD-227	268	270	2	0.620	0.390
21794	CCD-227	270	272	2	0.830	0.388
21796	CCD-227	272	274	2	0.690	0.478
21797	CCD-227	274	276	2	0.690	0.487
21798	CCD-227	276	278	2	0.770	0.508
21799	CCD-227	278	280	2	0.680	0.428
21800	CCD-227	280	282	2	0.550	0.282
3651	CCD-227	282	284	2	0.470	0.624
3652	CCD-227	284	286	2	0.750	0.512
3653	CCD-227	286	288	2	0.330	0.316
3654	CCD-227	288	290	2	0.200	0.254
3655	CCD-227	290	292	2	0.480	0.338
3656	CCD-227	292	294	2	0.540	0.319
3657	CCD-227	294	296	2	0.340	0.224
3658	CCD-227	296	298	2	0.570	0.310

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3659	CCD-227	298	300	2	0.520	0.272
3660	CCD-227	300	302	2	0.470	0.270
3661	CCD-227	302	304	2	0.440	0.322
3662	CCD-227	304	306	2	0.300	0.367
3663	CCD-227	306	308	2	0.210	0.163
3664	CCD-227	308	310	2	0.180	0.168
3665	CCD-227	310	312	2	0.240	0.197
3666	CCD-227	312	314	2	0.240	0.171
3668	CCD-227	314	316	2	0.270	0.164
3669	CCD-227	316	318	2	0.310	0.218
3670	CCD-227	318	320	2	0.260	0.124
3671	CCD-227	320	322	2	0.160	0.148
3672	CCD-227	322	324	2	0.100	0.157
3673	CCD-227	324	326	2	0.180	0.270
3674	CCD-227	326	328	2	0.200	0.177
3675	CCD-227	328	330	2	0.190	0.185
3676	CCD-227	330	332	2	0.170	0.213
3677	CCD-227	332	334	2	0.100	0.159
3678	CCD-227	334	336	2	0.180	0.225
3679	CCD-227	336	338	2	0.110	0.179
3680	CCD-227	338	340	2	0.160	0.247
3681	CCD-227	340	342	2	0.320	0.152
3682	CCD-227	342	343.64	1.64	0.430	0.176
-1	CCD-227	343.64	346	2.36	-1.000	-1.000
-1	CCD-228	0	2	2	-1.000	-1.000
-1	CCD-228	2	4	2	-1.000	-1.000
-1	CCD-228	4	6	2	-1.000	-1.000
-1	CCD-228	6	8	2	-1.000	-1.000
47706	CCD-228	8	10	2	0.390	0.145
47707	CCD-228	10	12	2	0.400	0.781
47708	CCD-228	12	14	2	1.390	0.225
47709	CCD-228	14	16	2	0.980	0.059
47710	CCD-228	16	18	2	0.360	0.157
47711	CCD-228	18	20	2	0.590	0.060
47712	CCD-228	20	22	2	0.990	0.054
47713	CCD-228	22	24	2	1.510	0.077
47714	CCD-228	24	26	2	1.320	0.144
47715	CCD-228	26	28	2	0.830	0.041
47716	CCD-228	28	30	2	0.750	0.040
47717	CCD-228	30	32	2	1.010	0.055
47718	CCD-228	32	34	2	1.120	0.102
47719	CCD-228	34	36	2	0.920	0.079
47720	CCD-228	36	38	2	0.830	0.056
47721	CCD-228	38	40	2	1.110	0.076
47722	CCD-228	40	42	2	1.190	0.094
47723	CCD-228	42	44	2	1.180	0.072
47724	CCD-228	44	46	2	0.610	0.145
47725	CCD-228	46	48	2	0.520	0.067
47727	CCD-228	48	50	2	0.570	0.151
47728	CCD-228	50	52	2	0.720	0.131
47729	CCD-228	52	54	2	0.520	0.170
47730	CCD-228	54	56	2	0.570	0.250
47731	CCD-228	56	58	2	0.930	0.173
47732	CCD-228	58	60	2	0.770	0.317
47733	CCD-228	60	62	2	0.870	0.464

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
47734	CCD-228	62	64	2	1.170	0.348
47735	CCD-228	64	66	2	1.180	0.614
47736	CCD-228	66	68	2	2.190	1.680
47737	CCD-228	68	70	2	0.710	0.809
47738	CCD-228	70	72	2	0.900	0.915
47739	CCD-228	72	74	2	1.580	1.600
47741	CCD-228	74	76	2	1.400	1.320
47742	CCD-228	76	78	2	0.920	1.344
47743	CCD-228	78	80	2	1.590	1.712
47744	CCD-228	80	82	2	1.140	1.240
47745	CCD-228	82	84	2	1.240	1.464
47746	CCD-228	84	86	2	0.950	1.560
47747	CCD-228	86	88	2	1.260	1.496
47748	CCD-228	88	90	2	2.200	3.016
47749	CCD-228	90	92	2	1.380	1.640
47750	CCD-228	92	94	2	0.860	2.416
47751	CCD-228	94	96	2	1.290	1.058
47752	CCD-228	96	98	2	0.740	0.760
47753	CCD-228	98	100	2	1.320	0.960
47754	CCD-228	100	102	2	1.190	1.144
47755	CCD-228	102	104	2	1.450	1.200
47756	CCD-228	104	106	2	0.970	0.755
47757	CCD-228	106	108	2	1.420	0.993
47758	CCD-228	108	110	2	1.320	1.031
47759	CCD-228	110	112	2	1.300	1.176
47760	CCD-228	112	114	2	1.610	1.728
47761	CCD-228	114	116	2	1.640	1.448
47762	CCD-228	116	118	2	1.350	1.488
47764	CCD-228	118	120	2	1.060	1.320
47765	CCD-228	120	122	2	1.050	1.184
47766	CCD-228	122	124	2	0.890	0.868
47767	CCD-228	124	126	2	1.220	1.320
47768	CCD-228	126	128	2	1.390	1.280
47769	CCD-228	128	130	2	1.070	1.296
47770	CCD-228	130	132	2	0.620	0.536
47771	CCD-228	132	134	2	0.620	0.485
47772	CCD-228	134	136	2	1.170	0.925
47773	CCD-228	136	138	2	0.700	0.736
47774	CCD-228	138	140	2	0.670	0.710
47775	CCD-228	140	142	2	0.920	0.748
47776	CCD-228	142	144	2	0.610	0.489
47777	CCD-228	144	146	2	0.440	0.282
47778	CCD-228	146	148	2	0.440	0.266
47779	CCD-228	148	150	2	0.440	0.303
47780	CCD-228	150	152	2	0.430	0.308
47781	CCD-228	152	154	2	0.880	0.616
47782	CCD-228	154	156	2	0.560	0.389
47783	CCD-228	156	158	2	0.350	0.180
47785	CCD-228	158	160	2	0.310	0.429
47786	CCD-228	160	162	2	0.670	0.619
47787	CCD-228	162	164	2	0.460	0.795
47788	CCD-228	164	166	2	0.410	0.351
47789	CCD-228	166	168	2	0.840	0.541
47790	CCD-228	168	170	2	0.630	0.369
47791	CCD-228	170	172	2	0.710	0.402

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
47792	CCD-228	172	174	2	0.780	0.447
47793	CCD-228	174	176	2	0.300	0.268
47794	CCD-228	176	178	2	0.550	0.342
47795	CCD-228	178	180	2	0.600	0.421
47796	CCD-228	180	182	2	0.920	1.033
47797	CCD-228	182	184	2	0.730	0.600
47798	CCD-228	184	186	2	1.550	0.675
47800	CCD-228	186	188	2	1.860	1.198
47801	CCD-228	188	190	2	1.690	0.713
47802	CCD-228	190	192	2	1.320	0.645
47803	CCD-228	192	194	2	0.940	0.402
47804	CCD-228	194	196	2	1.040	0.431
47805	CCD-228	196	198	2	1.210	0.491
47806	CCD-228	198	200	2	0.880	0.482
47807	CCD-228	200	202	2	0.670	0.431
47808	CCD-228	202	204	2	1.140	0.485
47809	CCD-228	204	206	2	0.700	0.871
47810	CCD-228	206	208	2	0.670	0.485
47811	CCD-228	208	210	2	0.460	0.264
47812	CCD-228	210	212	2	0.660	0.473
47813	CCD-228	212	214	2	0.850	0.312
47814	CCD-228	214	216	2	0.550	0.322
47815	CCD-228	216	218	2	0.630	0.316
47816	CCD-228	218	220	2	0.720	0.311
47818	CCD-228	220	222	2	0.850	0.390
47819	CCD-228	222	224	2	0.550	0.183
47820	CCD-228	224	226	2	0.680	0.270
47821	CCD-228	226	228	2	0.400	0.222
47822	CCD-228	228	230	2	0.740	0.447
47823	CCD-228	230	232	2	1.010	0.913
47824	CCD-228	232	234	2	1.120	0.682
47825	CCD-228	234	236	2	0.640	0.352
47826	CCD-228	236	238	2	0.380	0.206
47827	CCD-228	238	240	2	0.420	0.309
47828	CCD-228	240	242	2	0.680	0.364
47829	CCD-228	242	244	2	0.300	0.225
47830	CCD-228	244	246	2	0.280	0.145
47832	CCD-228	246	248	2	0.590	0.400
47833	CCD-228	248	250	2	1.070	0.565
47834	CCD-228	250	252	2	0.450	0.272
47835	CCD-228	252	254	2	0.120	0.198
47836	CCD-228	254	256	2	0.090	0.073
47837	CCD-228	256	258	2	0.160	0.114
47838	CCD-228	258	260	2	0.220	0.129
47839	CCD-228	260	262	2	0.080	0.054
47840	CCD-228	262	264	2	0.170	0.145
47841	CCD-228	264	266	2	0.390	0.198
47842	CCD-228	266	268	2	0.240	0.179
47843	CCD-228	268	270	2	0.610	0.624
47844	CCD-228	270	272	2	0.410	0.199
47846	CCD-228	272	274	2	0.930	0.741
47847	CCD-228	274	276	2	0.160	0.452
47848	CCD-228	276	278	2	0.650	0.656
47849	CCD-228	278	280	2	1.150	0.781
47850	CCD-228	280	282	2	0.220	0.146

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
47851	CCD-228	282	284	2	0.420	0.134
47852	CCD-228	284	286	2	0.210	0.160
47853	CCD-228	286	288	2	0.370	0.290
47854	CCD-228	288	290	2	0.410	0.304
47855	CCD-228	290	292	2	0.230	0.156
47856	CCD-228	292	294	2	0.100	0.075
47857	CCD-228	294	296	2	0.190	0.116
47858	CCD-228	296	298	2	0.280	0.215
47859	CCD-228	298	300	2	0.450	0.317
47860	CCD-228	300	302	2	0.620	0.182
47861	CCD-228	302	304	2	0.830	0.696
47862	CCD-228	304	306	2	0.370	0.254
47863	CCD-228	306	308	2	0.190	0.176
47864	CCD-228	308	310	2	0.110	0.095
47865	CCD-228	310	312	2	0.120	0.118
47866	CCD-228	312	314	2	0.230	0.187
47867	CCD-228	314	316	2	0.200	0.165
47868	CCD-228	316	318	2	0.280	0.219
47870	CCD-228	318	320	2	0.280	0.231
47871	CCD-228	320	322	2	0.250	0.309
47872	CCD-228	322	324	2	0.390	0.289
47873	CCD-228	324	326	2	0.150	0.139
47874	CCD-228	326	328	2	0.360	0.297
47875	CCD-228	328	330	2	0.170	0.077
47876	CCD-228	330	332	2	0.080	0.074
47877	CCD-228	332	334	2	0.080	0.064
47951	CCD-229	0	2.5	2.5	0.010	0.063
47952	CCD-229	2.5	4	1.5	0.050	0.051
47953	CCD-229	4	6	2	0.070	0.050
47954	CCD-229	6	8	2	0.080	0.086
47955	CCD-229	8	10	2	0.020	0.020
47956	CCD-229	10	12	2	0.030	0.031
47957	CCD-229	12	14	2	0.040	0.033
47958	CCD-229	14	16	2	0.040	0.033
47959	CCD-229	16	18	2	0.100	0.067
47961	CCD-229	18	20	2	0.090	0.075
47962	CCD-229	20	22	2	0.150	0.107
47963	CCD-229	22	24	2	0.300	0.325
47964	CCD-229	24	26	2	0.340	0.229
47965	CCD-229	26	28	2	0.180	0.117
47966	CCD-229	28	30	2	0.100	0.063
47967	CCD-229	30	32	2	0.020	0.026
47968	CCD-229	32	34	2	0.010	0.029
47969	CCD-229	34	36	2	0.140	0.127
47970	CCD-229	36	38	2	0.130	0.119
47971	CCD-229	38	40	2	0.140	0.088
47972	CCD-229	40	42	2	0.140	0.088
47973	CCD-229	42	44	2	0.100	0.071
47974	CCD-229	44	46	2	0.200	0.105
47975	CCD-229	46	48	2	0.060	0.033
47976	CCD-229	48	50	2	0.270	0.206
47977	CCD-229	50	52	2	0.100	0.056
47978	CCD-229	52	54	2	0.130	0.105
47979	CCD-229	54	56	2	0.310	0.312
47981	CCD-229	56	58	2	0.200	0.148

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
47982	CCD-229	58	60	2	0.340	0.276
47983	CCD-229	60	62	2	0.220	0.127
47984	CCD-229	62	64	2	0.060	0.063
47985	CCD-229	64	66	2	0.120	0.120
47986	CCD-229	66	68	2	0.070	0.072
47987	CCD-229	68	70	2	0.100	0.095
47988	CCD-229	70	72	2	0.250	0.271
47989	CCD-229	72	74	2	0.120	0.079
47990	CCD-229	74	76	2	0.120	0.063
47992	CCD-229	76	78	2	0.100	0.078
47993	CCD-229	78	80	2	0.110	0.132
47994	CCD-229	80	82	2	0.090	0.080
47995	CCD-229	82	84	2	0.130	0.071
47996	CCD-229	84	86	2	0.210	0.131
47997	CCD-229	86	88	2	0.170	0.120
47998	CCD-229	88	90	2	0.130	0.070
47999	CCD-229	90	92	2	0.170	0.136
48000	CCD-229	92	94	2	0.200	0.174
3101	CCD-229	94	96	2	0.100	0.049
3102	CCD-229	96	98	2	0.190	0.131
3103	CCD-229	98	100	2	0.400	0.150
3104	CCD-229	100	102	2	0.350	0.324
3105	CCD-229	102	104	2	0.270	0.245
3106	CCD-229	104	106	2	0.160	0.102
3107	CCD-229	106	108	2	0.230	0.213
3108	CCD-229	108	110	2	0.330	0.261
3109	CCD-229	110	112	2	0.370	0.359
3110	CCD-229	112	114	2	0.340	0.282
3111	CCD-229	114	116	2	0.270	0.159
3112	CCD-229	116	118	2	0.210	0.164
3113	CCD-229	118	120	2	0.230	0.268
3115	CCD-229	120	122	2	0.160	0.173
3116	CCD-229	122	124	2	0.380	0.602
3117	CCD-229	124	126	2	0.220	0.567
3118	CCD-229	126	128	2	0.180	0.206
3119	CCD-229	128	130	2	0.210	0.220
3120	CCD-229	130	132	2	0.170	0.206
3121	CCD-229	132	134	2	0.300	0.350
3122	CCD-229	134	136	2	0.410	0.390
3123	CCD-229	136	138	2	0.250	0.211
3124	CCD-229	138	140	2	0.470	0.496
3125	CCD-229	140	142	2	0.140	0.152
3126	CCD-229	142	144	2	0.310	0.407
3127	CCD-229	144	146	2	0.220	0.174
3128	CCD-229	146	148	2	0.300	0.340
3129	CCD-229	148	150	2	0.330	0.292
3131	CCD-229	150	152	2	0.180	0.187
3132	CCD-229	152	154	2	0.170	0.152
3133	CCD-229	154	156	2	0.290	0.302
3134	CCD-229	156	158	2	0.170	0.124
3135	CCD-229	158	160	2	0.130	0.121
3136	CCD-229	160	162	2	0.060	0.071
3137	CCD-229	162	164	2	0.310	0.362
3138	CCD-229	164	166	2	0.190	0.198
3139	CCD-229	166	168	2	0.230	0.214

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3140	CCD-229	168	170	2	0.090	0.174
3141	CCD-229	170	172	2	0.270	0.103
3142	CCD-229	172	174	2	0.280	0.270
3143	CCD-229	174	176	2	0.650	0.302
3144	CCD-229	176	178	2	0.320	0.704
3145	CCD-229	178	180	2	0.700	0.322
3146	CCD-229	180	182	2	0.400	0.795
3147	CCD-229	182	184	2	0.530	0.461
3148	CCD-229	184	186	2	0.870	0.478
3149	CCD-229	186	188	2	1.230	0.927
3150	CCD-229	188	190	2	1.820	0.482
3152	CCD-229	190	192	2	0.120	0.142
3153	CCD-229	192	194	2	0.230	0.160
3154	CCD-229	194	196	2	0.590	0.274
3155	CCD-229	196	198	2	0.340	0.456
3156	CCD-229	198	200	2	0.100	0.402
3157	CCD-229	200	202	2	0.150	0.113
3158	CCD-229	202	204	2	0.230	0.176
3159	CCD-229	204	206	2	0.370	0.600
3160	CCD-229	206	208	2	0.220	0.268
3161	CCD-229	208	210	2	0.090	0.161
3162	CCD-229	210	212	2	0.180	0.152
3163	CCD-229	212	214	2	0.460	0.459
3164	CCD-229	214	216	2	0.440	0.492
3165	CCD-229	216	218	2	0.190	0.225
3166	CCD-229	218	220	2	0.410	0.440
3167	CCD-229	220	222	2	0.260	0.294
3169	CCD-229	222	224	2	0.150	0.130
3170	CCD-229	224	226	2	0.070	0.096
3171	CCD-229	226	228	2	0.170	0.193
3172	CCD-229	228	230	2	0.170	0.174
3173	CCD-229	230	232	2	0.260	0.283
3174	CCD-229	232	234	2	0.210	0.183
3175	CCD-229	234	236	2	0.140	0.145
3176	CCD-229	236	238	2	0.190	0.294
3177	CCD-229	238	240	2	0.170	0.188
3178	CCD-229	240	242	2	0.230	0.280
3179	CCD-229	242	244	2	0.310	0.340
3180	CCD-229	244	246	2	0.540	0.419
3181	CCD-229	246	248	2	0.170	0.156
3182	CCD-229	248	250	2	0.250	0.163
3184	CCD-229	250	252	2	0.200	0.162
3185	CCD-229	252	254	2	0.130	0.095
3186	CCD-229	254	256	2	0.270	0.179
3187	CCD-229	256	258	2	0.360	0.275
3188	CCD-229	258	260	2	0.150	0.095
3189	CCD-229	260	262	2	0.170	0.136
3190	CCD-229	262	264	2	0.160	0.148
3191	CCD-229	264	266	2	0.270	0.287
3192	CCD-229	266	268	2	0.650	0.553
3193	CCD-229	268	270	2	0.340	0.370
3194	CCD-229	270	272	2	0.290	0.305
3195	CCD-229	272	274	2	0.350	0.382
3196	CCD-229	274	276	2	0.040	0.158
3197	CCD-229	276	278	2	0.330	0.319

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
3199	CCD-229	278	280	2	0.240	0.184
3200	CCD-229	280	282	2	0.310	0.240
8140	CCD-229	282	284.74	2.74	0.340	0.188
8141	CCD-229	284.74	286	1.26	0.190	0.158
50001	CCD-230	0	2	2	0.830	0.030
50002	CCD-230	2	4	2	0.930	0.050
50003	CCD-230	4	6	2	1.260	0.036
50004	CCD-230	6	8	2	0.730	0.013
50005	CCD-230	8	10	2	0.880	0.016
50006	CCD-230	10	12	2	1.060	0.028
50007	CCD-230	12	14	2	1.210	0.051
50008	CCD-230	14	16	2	0.790	0.018
50009	CCD-230	16	18	2	0.640	0.030
50010	CCD-230	18	20	2	0.950	0.021
50012	CCD-230	20	22	2	0.650	0.087
50013	CCD-230	22	24	2	0.650	0.150
50014	CCD-230	24	26	2	0.480	0.184
50015	CCD-230	26	28	2	0.370	0.052
50016	CCD-230	28	30	2	0.510	0.241
50017	CCD-230	30	32	2	0.260	0.150
50018	CCD-230	32	34	2	0.420	0.182
50019	CCD-230	34	36	2	0.380	0.141
50020	CCD-230	36	38	2	0.330	0.065
50021	CCD-230	38	40	2	0.580	0.227
50022	CCD-230	40	42	2	0.580	0.247
50023	CCD-230	42	44	2	0.590	0.412
50025	CCD-230	44	46	2	0.370	0.332
50026	CCD-230	46	48	2	0.380	0.186
50027	CCD-230	48	50	2	0.290	0.179
50028	CCD-230	50	52	2	0.420	0.344
50029	CCD-230	52	54	2	0.420	0.400
50030	CCD-230	54	56	2	0.490	0.395
50031	CCD-230	56	58	2	0.410	0.374
50033	CCD-230	58	60	2	0.410	0.605
50034	CCD-230	60	62	2	0.340	0.301
50035	CCD-230	62	64	2	0.520	0.362
50036	CCD-230	64	66	2	0.190	0.244
50037	CCD-230	66	68	2	0.210	0.250
50038	CCD-230	68	70	2	0.300	0.267
50039	CCD-230	70	72	2	0.370	0.242
50040	CCD-230	72	74	2	0.340	0.355
50041	CCD-230	74	76	2	0.250	0.176
50042	CCD-230	76	78	2	0.270	0.213
50043	CCD-230	78	80	2	0.260	0.214
50044	CCD-230	80	82	2	0.410	0.149
50045	CCD-230	82	84	2	0.600	0.183
50047	CCD-230	84	86	2	0.660	0.224
50048	CCD-230	86	88	2	0.440	0.225
50049	CCD-230	88	90	2	0.500	0.250
50050	CCD-230	90	92	2	0.660	0.183
50051	CCD-230	92	94	2	0.540	0.156
50052	CCD-230	94	96	2	0.220	0.059
50053	CCD-230	96	98	2	0.450	0.126
50054	CCD-230	98	100	2	0.520	0.167
50055	CCD-230	100	102	2	0.500	0.152

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50056	CCD-230	102	104	2	0.560	0.167
50057	CCD-230	104	106	2	0.460	0.147
50058	CCD-230	106	108	2	0.300	0.130
50059	CCD-230	108	110	2	0.640	0.182
50060	CCD-230	110	112	2	0.580	0.155
50061	CCD-230	112	114	2	0.400	0.118
50062	CCD-230	114	116	2	0.450	0.110
50063	CCD-230	116	118	2	0.480	0.115
50064	CCD-230	118	120	2	0.390	0.102
50066	CCD-230	120	122	2	0.410	0.122
50067	CCD-230	122	124	2	0.360	0.099
50068	CCD-230	124	126	2	0.280	0.123
50069	CCD-230	126	128	2	0.460	0.132
50070	CCD-230	128	130	2	0.970	0.209
50071	CCD-230	130	132	2	0.740	0.189
50072	CCD-230	132	134	2	0.400	0.090
50073	CCD-230	134	136	2	0.390	0.110
50074	CCD-230	136	138	2	0.310	0.100
50075	CCD-230	138	140	2	0.360	0.103
50076	CCD-230	140	142	2	0.400	0.129
50077	CCD-230	142	144	2	0.630	0.159
50078	CCD-230	144	146	2	0.430	0.126
50079	CCD-230	146	148	2	0.360	0.097
50080	CCD-230	148	150	2	0.120	0.030
50081	CCD-230	150	152	2	0.060	0.026
50083	CCD-230	152	154	2	0.090	0.034
50084	CCD-230	154	156	2	0.060	0.024
50085	CCD-230	156	158	2	0.350	0.082
50086	CCD-230	158	160	2	0.460	0.086
50087	CCD-230	160	162	2	0.370	0.089
50088	CCD-230	162	164	2	0.260	0.076
50089	CCD-230	164	166	2	0.150	0.045
50090	CCD-230	166	168	2	0.340	0.093
50091	CCD-230	168	170	2	0.590	0.182
50092	CCD-230	170	172	2	0.390	0.107
50093	CCD-230	172	174	2	0.230	0.033
50094	CCD-230	174	176	2	0.190	0.026
50096	CCD-230	176	178	2	0.150	0.030
50097	CCD-230	178	180	2	0.190	0.045
50098	CCD-230	180	182	2	0.040	0.029
50099	CCD-230	182	184	2	0.170	0.088
50101	CCD-230	184	186	2	0.130	0.034
50102	CCD-230	186	188	2	0.100	0.025
50103	CCD-230	188	190	2	0.110	0.072
50104	CCD-230	190	192	2	0.080	0.033
50105	CCD-230	192	194	2	0.050	0.025
50106	CCD-230	194	196	2	0.100	0.028
50107	CCD-230	196	198	2	0.080	0.024
50108	CCD-230	198	200	2	0.080	0.034
50109	CCD-230	200	202	2	0.050	0.021
50110	CCD-230	202	204	2	0.040	0.026
50111	CCD-230	204	206	2	0.080	0.028
50112	CCD-230	206	208	2	0.130	0.031
50114	CCD-230	208	210	2	0.070	0.020
50115	CCD-230	210	212	2	0.080	0.010

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50116	CCD-230	212	214	2	0.070	0.026
50117	CCD-230	214	216	2	0.060	0.026
50118	CCD-230	216	218	2	0.100	0.025
50119	CCD-230	218	220	2	0.110	0.045
50120	CCD-230	220	222	2	0.070	0.016
50122	CCD-230	222	224	2	0.140	0.025
50123	CCD-230	224	226	2	0.070	0.025
50124	CCD-230	226	228	2	0.100	0.025
50125	CCD-230	228	230	2	0.160	0.031
50126	CCD-230	230	232	2	1.740	0.018
50127	CCD-230	232	234	2	0.110	0.018
50128	CCD-230	234	236	2	0.250	0.032
50129	CCD-230	236	238	2	0.090	0.032
50130	CCD-230	238	240	2	0.080	0.035
50131	CCD-230	240	242	2	0.090	0.044
50132	CCD-230	242	244	2	0.100	0.045
50133	CCD-230	244	246	2	0.130	0.057
50134	CCD-230	246	248	2	0.220	0.083
50135	CCD-230	248	250	2	0.180	0.077
50137	CCD-230	250	252	2	0.100	0.063
50138	CCD-230	252	254	2	0.080	0.058
50139	CCD-230	254	256	2	0.130	0.057
50140	CCD-230	256	258	2	0.090	0.063
50141	CCD-230	258	260	2	0.300	0.157
50142	CCD-230	260	262	2	0.240	0.113
50143	CCD-230	262	264	2	0.250	0.106
50144	CCD-230	264	266	2	0.440	0.175
50145	CCD-230	266	268	2	0.490	3.008
50146	CCD-230	268	270	2	0.610	0.233
50147	CCD-230	270	272	2	0.560	0.213
50148	CCD-230	272	274	2	0.650	0.192
50149	CCD-230	274	276	2	0.820	0.265
50150	CCD-230	276	278	2	1.250	0.344
50151	CCD-230	278	280	2	1.090	0.314
50153	CCD-230	280	282	2	0.960	0.327
50154	CCD-230	282	284	2	0.940	0.296
50155	CCD-230	284	286	2	0.670	0.209
50156	CCD-230	286	288	2	0.670	0.171
50157	CCD-230	288	290	2	0.560	0.191
50158	CCD-230	290	292	2	0.510	0.147
50159	CCD-230	292	294	2	0.450	0.163
50160	CCD-230	294	296	2	0.420	0.143
50161	CCD-230	296	298	2	0.590	0.187
50162	CCD-230	298	300	2	0.600	0.186
50163	CCD-230	300	302	2	0.670	0.180
50164	CCD-230	302	304	2	0.540	0.229
50165	CCD-230	304	306	2	0.520	0.227
50166	CCD-230	306	308	2	0.700	0.304
50167	CCD-230	308	310	2	1.180	0.382
50168	CCD-230	310	312	2	0.830	0.301
50169	CCD-230	312	314	2	1.130	0.381
50170	CCD-230	314	316	2	0.990	0.342
50172	CCD-230	316	318	2	1.170	0.310
50173	CCD-230	318	320	2	0.730	0.241
50174	CCD-230	320	322	2	0.480	0.236

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50175	CCD-230	322	324	2	1.100	0.374
50176	CCD-230	324	326	2	1.060	0.378
50177	CCD-230	326	328	2	2.050	0.456
50178	CCD-230	328	330	2	1.590	0.553
50179	CCD-230	330	332	2	0.990	0.494
50180	CCD-230	332	334	2	1.760	0.682
50181	CCD-230	334	336	2	1.160	0.600
50182	CCD-230	336	338	2	1.170	0.586
50183	CCD-230	338	340	2	1.800	0.725
50184	CCD-230	340	342	2	1.700	0.847
50251	CCD-231	0	2	2	0.040	0.032
50252	CCD-231	2	4	2	0.060	0.036
50253	CCD-231	4	6	2	0.050	0.016
50254	CCD-231	6	8	2	0.220	0.014
50255	CCD-231	8	10	2	0.320	0.024
50256	CCD-231	10	12	2	0.450	0.023
50257	CCD-231	12	14	2	0.540	0.017
50258	CCD-231	14	16	2	0.570	-0.010
50259	CCD-231	16	18	2	0.550	-0.010
50260	CCD-231	18	20	2	0.500	-0.010
50261	CCD-231	20	22	2	0.370	0.012
50262	CCD-231	22	24	2	0.550	-0.010
50264	CCD-231	24	26	2	0.490	0.016
50265	CCD-231	26	28	2	0.450	0.014
50266	CCD-231	28	30	2	0.440	0.022
50267	CCD-231	30	32	2	0.510	0.018
50268	CCD-231	32	34	2	0.420	0.014
50269	CCD-231	34	36	2	0.230	0.028
50270	CCD-231	36	38	2	0.460	0.019
50271	CCD-231	38	40	2	0.320	0.021
50272	CCD-231	40	42	2	0.350	0.031
50273	CCD-231	42	44	2	0.440	0.034
50274	CCD-231	44	46	2	0.270	0.015
50275	CCD-231	46	48	2	0.260	0.017
50276	CCD-231	48	50	2	0.370	0.011
50277	CCD-231	50	52	2	0.350	0.085
50278	CCD-231	52	54	2	0.180	0.057
50279	CCD-231	54	56	2	0.200	0.072
50280	CCD-231	56	58	2	0.270	0.063
50281	CCD-231	58	60	2	0.210	0.068
50282	CCD-231	60	62	2	0.190	0.075
50284	CCD-231	62	64	2	0.240	0.114
50285	CCD-231	64	66	2	0.270	0.136
50286	CCD-231	66	68	2	0.320	0.151
50288	CCD-231	68	70	2	0.170	0.087
50289	CCD-231	70	72	2	0.230	0.144
50290	CCD-231	72	74	2	0.420	0.204
50291	CCD-231	74	76	2	0.320	0.171
50292	CCD-231	76	78	2	0.310	0.183
50293	CCD-231	78	80	2	0.440	0.220
50294	CCD-231	80	82	2	0.240	0.248
50295	CCD-231	82	84	2	0.250	0.245
50296	CCD-231	84	86	2	0.200	0.290
50298	CCD-231	86	88	2	0.220	0.094
50299	CCD-231	88	90	2	0.270	0.124

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50300	CCD-231	90	92	2	0.150	0.157
50301	CCD-231	92	94	2	0.130	0.362
50302	CCD-231	94	96	2	0.090	0.301
50303	CCD-231	96	98	2	0.090	0.227
50304	CCD-231	98	100	2	0.190	0.194
50305	CCD-231	100	102	2	0.110	0.364
50306	CCD-231	102	104	2	1.200	0.189
50307	CCD-231	104	106	2	0.170	0.072
50308	CCD-231	106	108	2	0.190	0.089
50309	CCD-231	108	110	2	0.200	0.068
50310	CCD-231	110	112	2	0.290	0.080
50311	CCD-231	112	114	2	0.370	0.090
50312	CCD-231	114	116	2	0.420	0.169
50313	CCD-231	116	118	2	0.240	0.084
50314	CCD-231	118	120	2	0.250	0.086
50315	CCD-231	120	122	2	0.110	0.102
50316	CCD-231	122	124	2	0.330	0.094
50317	CCD-231	124	126	2	0.410	0.106
50319	CCD-231	126	128	2	0.330	0.079
50320	CCD-231	128	130	2	0.150	0.046
50321	CCD-231	130	132	2	0.330	0.160
50323	CCD-231	132	134	2	0.250	0.082
50324	CCD-231	134	136	2	0.370	0.085
50325	CCD-231	136	138	2	0.230	0.064
50326	CCD-231	138	140	2	0.270	0.071
50327	CCD-231	140	142	2	0.180	0.100
50328	CCD-231	142	144	2	0.320	0.109
50329	CCD-231	144	146	2	0.310	0.114
50330	CCD-231	146	148	2	0.360	0.172
50331	CCD-231	148	150	2	0.300	0.158
50332	CCD-231	150	152	2	0.540	0.214
50333	CCD-231	152	154	2	0.110	0.042
50335	CCD-231	154	156	2	0.120	0.048
50336	CCD-231	156	158	2	0.160	0.164
50337	CCD-231	158	160	2	0.270	0.115
50338	CCD-231	160	162	2	0.190	0.065
50339	CCD-231	162	164	2	0.260	0.088
50340	CCD-231	164	166	2	0.330	0.097
50341	CCD-231	166	168	2	0.280	0.063
50342	CCD-231	168	170	2	0.210	0.055
50343	CCD-231	170	172	2	0.230	0.050
50344	CCD-231	172	174	2	0.190	0.063
50345	CCD-231	174	176	2	0.220	0.084
50346	CCD-231	176	178	2	0.150	0.056
50347	CCD-231	178	180	2	0.140	0.052
50348	CCD-231	180	182	2	0.140	0.089
50349	CCD-231	182	184	2	0.010	0.048
50350	CCD-231	184	186	2	0.290	0.065
50351	CCD-231	186	188	2	0.130	0.067
50353	CCD-231	188	190	2	0.140	0.057
50354	CCD-231	190	192	2	0.180	0.096
50355	CCD-231	192	194	2	0.170	0.039
50356	CCD-231	194	196	2	0.110	0.066
50357	CCD-231	196	198	2	0.220	0.083
50358	CCD-231	198	200	2	0.190	0.090

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50359	CCD-231	200	202	2	0.140	0.081
50360	CCD-231	202	204	2	0.140	0.068
50361	CCD-231	204	206	2	0.130	0.042
50362	CCD-231	206	208	2	0.180	0.077
50363	CCD-231	208	210	2	0.330	0.210
50364	CCD-231	210	212	2	0.200	0.093
50365	CCD-231	212	214	2	0.140	0.063
50366	CCD-231	214	216	2	0.130	0.079
50368	CCD-231	216	218	2	0.340	0.183
50369	CCD-231	218	220	2	0.370	0.142
50370	CCD-231	220	222	2	0.290	0.119
50371	CCD-231	222	224	2	0.620	0.285
50372	CCD-231	224	226	2	0.220	0.172
50373	CCD-231	226	228	2	0.260	0.159
50374	CCD-231	228	230	2	0.230	0.315
50375	CCD-231	230	232	2	0.240	0.103
50376	CCD-231	232	234	2	0.810	0.299
50377	CCD-231	234	236	2	0.210	0.099
50378	CCD-231	236	238	2	0.330	0.095
50379	CCD-231	238	240	2	0.260	0.099
50381	CCD-231	240	242	2	0.180	0.090
50382	CCD-231	242	244	2	0.180	0.073
50383	CCD-231	244	246	2	0.300	0.073
50384	CCD-231	246	248	2	0.110	0.066
50385	CCD-231	248	250	2	0.070	0.041
50387	CCD-231	250	252	2	0.120	0.051
50388	CCD-231	252	254	2	0.150	0.058
50389	CCD-231	254	256	2	0.100	0.099
50390	CCD-231	256	258.2	2.2	0.160	0.089
50451	CCD-232	0	2	2	0.320	0.083
50452	CCD-232	2	4	2	0.350	0.086
50453	CCD-232	4	6	2	0.310	0.132
50454	CCD-232	6	8	2	0.290	0.122
50455	CCD-232	8	10	2	0.460	0.180
50456	CCD-232	10	12	2	0.960	0.272
50457	CCD-232	12	14	2	1.290	0.245
50459	CCD-232	14	16	2	1.240	0.169
50460	CCD-232	16	18	2	0.870	0.290
50461	CCD-232	18	20	2	0.350	0.177
50462	CCD-232	20	22	2	0.370	0.170
50463	CCD-232	22	24	2	0.410	0.090
50464	CCD-232	24	26	2	0.470	0.174
50465	CCD-232	26	28	2	0.250	0.066
50466	CCD-232	28	30	2	0.160	0.053
50467	CCD-232	30	32	2	0.240	0.090
50468	CCD-232	32	34	2	0.240	0.067
50469	CCD-232	34	36	2	0.230	0.093
50470	CCD-232	36	38	2	0.200	0.096
50471	CCD-232	38	40	2	0.190	0.088
50472	CCD-232	40	42	2	0.170	0.101
50473	CCD-232	42	44	2	0.230	0.238
50474	CCD-232	44	46	2	0.050	0.027
50475	CCD-232	46	48	2	0.200	0.094
50477	CCD-232	48	50	2	0.160	0.086
50478	CCD-232	50	52	2	0.150	0.066

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50479	CCD-232	52	54	2	0.070	0.029
50480	CCD-232	54	56	2	0.070	0.032
50482	CCD-232	56	58	2	0.110	0.058
50483	CCD-232	58	60	2	0.100	0.035
50484	CCD-232	60	62	2	0.160	0.088
50485	CCD-232	62	64	2	0.120	0.059
50486	CCD-232	64	66	2	0.130	0.064
50487	CCD-232	66	68	2	0.060	0.044
50488	CCD-232	68	70	2	0.040	0.030
50489	CCD-232	70	72	2	0.170	0.123
50490	CCD-232	72	74	2	0.130	0.132
50491	CCD-232	74	76	2	0.090	0.044
50492	CCD-232	76	78	2	0.090	0.041
50493	CCD-232	78	80	2	0.100	0.050
50494	CCD-232	80	82	2	0.070	0.036
50495	CCD-232	82	84	2	0.120	0.055
50496	CCD-232	84	86	2	0.200	0.124
50497	CCD-232	86	88	2	0.130	0.087
50498	CCD-232	88	90	2	1.120	0.064
50500	CCD-232	90	92	2	0.150	0.085
50501	CCD-232	92	94	2	0.120	0.092
50502	CCD-232	94	96	2	0.090	0.083
50503	CCD-232	96	98	2	0.120	0.057
50504	CCD-232	98	100	2	0.130	0.119
50505	CCD-232	100	102	2	0.100	0.074
50506	CCD-232	102	104	2	0.090	0.066
50507	CCD-232	104	106	2	0.070	0.054
50508	CCD-232	106	108	2	0.110	0.089
50509	CCD-232	108	110	2	0.110	0.117
50510	CCD-232	110	112	2	0.110	0.142
50511	CCD-232	112	114	2	0.080	0.111
50512	CCD-232	114	116	2	0.130	0.134
50513	CCD-232	116	118	2	0.110	0.164
50514	CCD-232	118	120	2	0.060	0.063
50515	CCD-232	120	122	2	0.140	0.128
50516	CCD-232	122	124	2	0.110	0.139
50517	CCD-232	124	126	2	0.230	0.165
50519	CCD-232	126	128	2	0.830	0.682
50651	CCD-233	0	2	2	0.220	0.038
50652	CCD-233	2	4	2	0.230	0.051
50653	CCD-233	4	6	2	0.290	0.036
50654	CCD-233	6	8	2	0.230	0.021
50656	CCD-233	8	10	2	0.180	0.014
50657	CCD-233	10	12	2	0.200	0.016
50658	CCD-233	12	14	2	0.250	0.025
50659	CCD-233	14	16	2	0.370	0.036
50660	CCD-233	16	18	2	0.270	0.053
50661	CCD-233	18	20	2	0.220	0.023
50662	CCD-233	20	22	2	0.250	0.053
50663	CCD-233	22	24	2	0.270	0.291
50664	CCD-233	24	26	2	0.230	1.096
50665	CCD-233	26	28	2	0.230	1.408
50666	CCD-233	28	30	2	0.240	3.080
50667	CCD-233	30	32	2	0.240	1.832
50668	CCD-233	32	34	2	0.350	1.344

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50669	CCD-233	34	36	2	0.380	0.807
50670	CCD-233	36	38	2	0.300	0.452
50672	CCD-233	38	40	2	0.270	0.466
50673	CCD-233	40	42	2	0.730	0.520
50674	CCD-233	42	44	2	0.470	0.356
50675	CCD-233	44	46	2	0.510	0.365
50676	CCD-233	46	48	2	0.160	0.208
50677	CCD-233	48	50	2	0.290	0.168
50678	CCD-233	50	52	2	0.240	0.202
50679	CCD-233	52	54	2	0.210	0.165
50680	CCD-233	54	56	2	0.520	0.190
50682	CCD-233	56	58	2	0.270	0.400
50683	CCD-233	58	60	2	0.420	0.456
50684	CCD-233	60	62	2	0.380	0.265
50685	CCD-233	62	64	2	0.370	0.471
50686	CCD-233	64	66	2	0.540	0.734
50687	CCD-233	66	68	2	0.550	0.390
50688	CCD-233	68	70	2	0.480	0.282
50689	CCD-233	70	72	2	0.340	0.400
50690	CCD-233	72	74	2	0.440	0.471
50691	CCD-233	74	76	2	0.460	0.560
50692	CCD-233	76	78	2	0.480	0.565
50693	CCD-233	78	80	2	0.440	0.307
50694	CCD-233	80	82	2	0.580	0.401
50695	CCD-233	82	84	2	0.700	0.459
50696	CCD-233	84	86	2	0.670	0.431
50697	CCD-233	86	88	2	0.720	0.518
50699	CCD-233	88	90	2	0.720	0.419
50700	CCD-233	90	92	2	0.670	0.370
50701	CCD-233	92	94	2	0.670	0.466
50702	CCD-233	94	96	2	0.930	0.541
50703	CCD-233	96	98	2	0.970	0.600
50704	CCD-233	98	100	2	0.740	0.518
50705	CCD-233	100	102	2	1.330	0.993
50706	CCD-233	102	104	2	0.670	0.372
50707	CCD-233	104	106	2	0.670	0.342
50708	CCD-233	106	108	2	0.620	0.369
50709	CCD-233	108	110	2	0.670	0.389
50710	CCD-233	110	112	2	0.600	0.358
50711	CCD-233	112	114	2	0.670	0.405
50712	CCD-233	114	116	2	0.670	0.384
50713	CCD-233	116	118	2	0.700	0.342
-1	CCD-233	118	120	2	-1.000	-1.000
50851	CCD-234	0	2	2	0.570	0.198
50852	CCD-234	2	4	2	0.180	0.186
50853	CCD-234	4	6	2	0.190	0.185
50854	CCD-234	6	8	2	0.090	0.150
50855	CCD-234	8	10	2	0.210	0.163
50856	CCD-234	10	12	2	0.250	0.235
50857	CCD-234	12	14	2	0.550	0.213
50858	CCD-234	14	16	2	0.330	0.216
50859	CCD-234	16	18	2	0.090	0.045
50860	CCD-234	18	20	2	0.030	0.044
50861	CCD-234	20	22	2	0.080	0.083
50863	CCD-234	22	24	2	0.090	0.066

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50864	CCD-234	24	26	2	0.390	0.320
50865	CCD-234	26	28	2	0.250	0.246
50866	CCD-234	28	30	2	0.130	0.141
50867	CCD-234	30	32	2	0.150	0.267
50868	CCD-234	32	34	2	0.020	0.178
50869	CCD-234	34	36	2	0.030	0.116
50870	CCD-234	36	38	2	0.060	0.106
50871	CCD-234	38	40	2	0.040	0.080
50872	CCD-234	40	42	2	0.050	0.078
50873	CCD-234	42	44	2	0.070	0.184
50874	CCD-234	44	46	2	0.040	0.068
50875	CCD-234	46	48	2	0.170	0.123
50876	CCD-234	48	50	2	0.010	0.040
50877	CCD-234	50	52	2	0.080	0.135
50878	CCD-234	52	54	2	0.100	0.183
50879	CCD-234	54	56	2	0.090	0.085
50880	CCD-234	56	58	2	0.070	0.084
50882	CCD-234	58	60	2	0.080	0.048
50883	CCD-234	60	62	2	0.230	0.222
50884	CCD-234	62	64	2	0.320	0.196
50885	CCD-234	64	66	2	0.190	0.137
50886	CCD-234	66	68	2	0.050	0.025
50887	CCD-234	68	70	2	0.670	0.208
50888	CCD-234	70	72	2	0.370	0.279
50889	CCD-234	72	74	2	0.600	0.400
50890	CCD-234	74	76	2	0.330	0.241
50892	CCD-234	76	78	2	0.430	0.157
50893	CCD-234	78	80	2	0.230	0.223
50894	CCD-234	80	82	2	0.100	0.078
50895	CCD-234	82	84	2	0.130	0.228
50896	CCD-234	84	86	2	0.060	0.096
50897	CCD-234	86	88	2	0.070	0.094
50898	CCD-234	88	90	2	0.030	0.038
50899	CCD-234	90	92	2	0.040	0.039
50900	CCD-234	92	94	2	0.090	0.043
50902	CCD-234	94	96	2	0.060	0.044
50903	CCD-234	96	98	2	0.060	0.054
50904	CCD-234	98	100	2	0.010	0.038
50905	CCD-234	100	102	2	0.090	0.044
50906	CCD-234	102	104	2	0.050	0.063
50907	CCD-234	104	106	2	0.030	0.074
50908	CCD-234	106	108	2	0.030	0.080
50909	CCD-234	108	110	2	0.010	0.059
50910	CCD-234	110	112	2	0.050	0.095
50911	CCD-234	112	114	2	0.130	0.183
50912	CCD-234	114	116	2	0.050	0.051
50913	CCD-234	116	118	2	0.060	0.052
50915	CCD-234	118	120	2	0.050	0.060
50916	CCD-234	120	122	2	0.010	0.034
50917	CCD-234	122	124	2	0.030	0.029
50918	CCD-234	124	126	2	0.060	0.034
50919	CCD-234	126	128	2	0.040	0.037
50920	CCD-234	128	130	2	0.020	0.095
50921	CCD-234	130	132	2	0.010	0.018
50922	CCD-234	132	134	2	0.010	0.029

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50923	CCD-234	134	136	2	0.040	0.054
50924	CCD-234	136	138	2	0.010	0.107
50925	CCD-234	138	140	2	0.100	0.170
50927	CCD-234	140	142	2	0.010	-0.010
50928	CCD-234	142	144	2	0.010	0.010
50929	CCD-234	144	146	2	0.010	0.075
50930	CCD-234	146	148	2	0.010	0.022
50931	CCD-234	148	150	2	0.010	0.019
50932	CCD-234	150	152	2	0.010	0.038
50933	CCD-234	152	154	2	0.040	0.101
50935	CCD-234	154	156	2	0.010	0.019
50936	CCD-234	156	158	2	0.010	0.021
50937	CCD-234	158	160	2	0.010	0.016
50938	CCD-234	160	162	2	0.010	0.012
50939	CCD-234	162	164	2	0.010	0.014
50940	CCD-234	164	166	2	0.010	0.027
50941	CCD-234	166	168	2	0.010	0.015
50942	CCD-234	168	170	2	0.010	0.015
50943	CCD-234	170	172	2	0.010	0.013
50944	CCD-234	172	174	2	0.010	0.016
50945	CCD-234	174	176	2	0.010	0.061
50946	CCD-234	176	178	2	0.010	0.014
50947	CCD-234	178	180	2	0.010	0.040
50948	CCD-234	180	182	2	0.020	0.080
50949	CCD-234	182	184	2	0.010	0.053
50950	CCD-234	184	186	2	0.010	0.031
50951	CCD-234	186	188	2	0.010	0.029
50952	CCD-234	188	190	2	0.010	0.033
50954	CCD-234	190	192	2	0.010	0.050
50955	CCD-234	192	194	2	0.010	0.037
50956	CCD-234	194	196	2	0.010	0.034
50957	CCD-234	196	198	2	0.010	0.038
50958	CCD-234	198	200	2	0.010	0.036
50959	CCD-234	200	202	2	0.040	0.049
50960	CCD-234	202	204	2	0.010	0.030
50961	CCD-234	204	206	2	0.060	0.067
50962	CCD-234	206	208	2	0.010	0.067
50963	CCD-234	208	210	2	0.060	0.050
50964	CCD-234	210	212	2	0.010	0.033
50965	CCD-234	212	214	2	0.010	0.046
50966	CCD-234	214	216	2	0.120	0.132
50967	CCD-234	216	218	2	0.040	0.069
50969	CCD-234	218	220	2	0.040	0.015
50970	CCD-234	220	222	2	0.080	0.016
50971	CCD-234	222	224	2	0.050	0.028
50972	CCD-234	224	226	2	0.050	0.046
50973	CCD-234	226	228	2	0.120	0.104
50974	CCD-234	228	230	2	0.130	0.199
50975	CCD-234	230	232	2	0.080	0.098
50976	CCD-234	232	234	2	0.100	0.309
50977	CCD-234	234	236	2	0.080	0.100
50978	CCD-234	236	238	2	0.070	0.067
50979	CCD-234	238	240	2	0.080	0.116
50980	CCD-234	240	242	2	0.040	0.067
50981	CCD-234	242	244	2	0.050	0.068

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50982	CCD-234	244	246	2	0.060	0.087
50983	CCD-234	246	248	2	0.060	0.030
50984	CCD-234	248	250	2	0.050	0.069
50985	CCD-234	250	252	2	0.050	0.076
50986	CCD-234	252	254	2	0.040	0.073
50988	CCD-234	254	256	2	0.030	0.058
50989	CCD-234	256	258	2	0.070	0.078
50990	CCD-234	258	260	2	0.030	0.054
50991	CCD-234	260	262	2	0.060	0.074
50992	CCD-234	262	264	2	0.070	0.060
50993	CCD-234	264	266	2	0.070	0.073
50994	CCD-234	266	268	2	0.030	0.052
50995	CCD-234	268	270	2	0.010	0.019
50996	CCD-234	270	272	2	0.040	0.016
51051	CCD-235	0	2	2	0.070	0.078
51052	CCD-235	2	4	2	0.070	0.065
51053	CCD-235	4	6	2	0.190	0.352
51054	CCD-235	6	8	2	0.390	0.233
51055	CCD-235	8	10	2	0.170	0.139
51056	CCD-235	10	12	2	0.130	0.123
51057	CCD-235	12	14	2	0.120	0.049
51058	CCD-235	14	16	2	0.050	0.059
51059	CCD-235	16	18	2	0.180	0.145
51060	CCD-235	18	20	2	0.240	0.155
51061	CCD-235	20	22	2	0.110	0.091
51062	CCD-235	22	24	2	0.080	0.066
51063	CCD-235	24	26	2	0.050	0.047
51065	CCD-235	26	28	2	0.080	0.062
51066	CCD-235	28	30	2	0.040	0.038
51067	CCD-235	30	32	2	0.140	0.105
51068	CCD-235	32	34	2	0.070	0.063
51069	CCD-235	34	36	2	0.070	0.045
51070	CCD-235	36	38	2	0.070	0.049
51071	CCD-235	38	40	2	0.190	0.090
51072	CCD-235	40	42	2	0.580	0.338
51073	CCD-235	42	44	2	0.220	0.105
51074	CCD-235	44	46	2	0.110	0.049
51075	CCD-235	46	48	2	0.750	0.409
51076	CCD-235	48	50	2	0.180	0.103
51077	CCD-235	50	52	2	0.980	0.170
51078	CCD-235	52	54	2	0.680	0.225
51080	CCD-235	54	56	2	0.480	0.199
51081	CCD-235	56	58	2	0.870	0.337
51082	CCD-235	58	60	2	1.010	0.332
51084	CCD-235	60	62	2	0.860	0.335
51085	CCD-235	62	64	2	0.850	0.261
51086	CCD-235	64	66	2	0.910	0.289
51087	CCD-235	66	68	2	0.780	0.255
51088	CCD-235	68	70	2	0.710	0.325
51089	CCD-235	70	72	2	0.980	0.350
51090	CCD-235	72	74	2	1.140	0.350
51091	CCD-235	74	76	2	1.160	0.339
51092	CCD-235	76	78	2	2.650	0.438
51093	CCD-235	78	80	2	1.850	0.588
51094	CCD-235	80	82	2	1.350	0.511

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
51095	CCD-235	82	84	2	1.540	0.473
51096	CCD-235	84	86	2	0.970	0.312
51097	CCD-235	86	88	2	1.130	0.376
51098	CCD-235	88	90	2	1.210	0.360
51099	CCD-235	90	92	2	0.620	0.216
51100	CCD-235	92	94	2	0.470	0.177
51102	CCD-235	94	96	2	0.280	0.060
51103	CCD-235	96	98	2	0.590	0.187
51104	CCD-235	98	100	2	0.410	0.118
51105	CCD-235	100	102	2	0.250	0.063
51106	CCD-235	102	104	2	0.380	0.134
51107	CCD-235	104	106	2	1.120	0.295
51108	CCD-235	106	108	2	1.880	0.501
51109	CCD-235	108	110	2	0.850	0.237
51110	CCD-235	110	112	2	0.490	0.165
51111	CCD-235	112	114	2	0.960	0.361
51112	CCD-235	114	116	2	0.520	0.228
51113	CCD-235	116	118	2	0.340	0.195
51114	CCD-235	118	120	2	0.300	0.152
51115	CCD-235	120	122	2	0.500	0.264
51116	CCD-235	122	124	2	0.330	0.268
51118	CCD-235	124	126	2	0.500	0.212
51119	CCD-235	126	128	2	0.440	0.222
51120	CCD-235	128	130	2	0.240	0.258
51121	CCD-235	130	132	2	0.310	0.140
51122	CCD-235	132	134	2	0.390	0.276
51123	CCD-235	134	136	2	0.250	0.301
51124	CCD-235	136	138	2	0.260	0.294
51125	CCD-235	138	140	2	0.470	0.370
51126	CCD-235	140	142	2	0.550	0.506
51127	CCD-235	142	144	2	0.540	0.266
51128	CCD-235	144	146	2	0.220	0.407
51129	CCD-235	146	148	2	0.430	0.856
51130	CCD-235	148	150	2	0.360	0.378
51131	CCD-235	150	152	2	0.160	0.137
51133	CCD-235	152	154	2	0.220	0.160
51134	CCD-235	154	156	2	0.140	0.104
51135	CCD-235	156	158	2	0.110	0.115
51136	CCD-235	158	160	2	0.430	0.294
51137	CCD-235	160	162	2	0.350	0.282
51138	CCD-235	162	164	2	0.210	0.214
51139	CCD-235	164	166	2	0.170	0.100
51141	CCD-235	166	168	2	0.150	0.060
51142	CCD-235	168	170	2	0.080	0.053
51143	CCD-235	170	172	2	0.150	0.098
51144	CCD-235	172	174	2	0.190	0.222
51145	CCD-235	174	176	2	0.340	0.398
51146	CCD-235	176	178	2	0.300	0.315
51147	CCD-235	178	180	2	0.140	0.166
51148	CCD-235	180	182	2	0.170	0.143
51149	CCD-235	182	184	2	0.270	0.440
51150	CCD-235	184	186	2	0.230	0.293
51151	CCD-235	186	188	2	0.230	0.208
51152	CCD-235	188	190	2	0.380	0.654
51154	CCD-235	190	192	2	0.090	0.175

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
51155	CCD-235	192	194	2	0.170	0.133
51156	CCD-235	194	196	2	0.140	0.234
51157	CCD-235	196	198	2	0.090	0.141
51158	CCD-235	198	200	2	0.070	0.066
51159	CCD-235	200	202	2	0.080	0.131
51160	CCD-235	202	204	2	0.090	0.169
51161	CCD-235	204	206	2	0.200	0.299
51162	CCD-235	206	208	2	0.150	0.155
51163	CCD-235	208	210	2	0.070	0.109
51164	CCD-235	210	212	2	0.260	0.050
51165	CCD-235	212	214	2	0.040	0.038
51166	CCD-235	214	216	2	0.040	0.095
51167	CCD-235	216	218	2	0.060	0.046
51168	CCD-235	218	220	2	0.150	0.078
51170	CCD-235	220	222	2	0.070	0.027
51171	CCD-235	222	224	2	0.030	0.039
51172	CCD-235	224	226	2	0.500	0.044
51173	CCD-235	226	228	2	0.100	0.139
51174	CCD-235	228	230	2	0.050	0.050
51175	CCD-235	230	232	2	0.120	0.137
51176	CCD-235	232	234	2	0.120	0.095
51177	CCD-235	234	236	2	0.060	0.034
51178	CCD-235	236	238	2	0.100	0.080
51179	CCD-235	238	240	2	0.050	0.134
51180	CCD-235	240	242	2	0.050	0.035
51181	CCD-235	242	244	2	0.090	0.071
51182	CCD-235	244	246	2	0.150	0.097
51183	CCD-235	246	248	2	0.010	0.043
51184	CCD-235	248	250	2	0.130	0.065
51185	CCD-235	250	252	2	0.130	0.105
51187	CCD-235	252	254	2	0.050	0.052
51188	CCD-235	254	256	2	0.050	0.105
51189	CCD-235	256	258	2	0.090	0.207
51190	CCD-235	258	260	2	0.090	0.153
51191	CCD-235	260	262	2	0.090	0.100
51192	CCD-235	262	264	2	0.050	0.077
50001	CCD-230	0	2	2	0.830	0.030
50002	CCD-230	2	4	2	0.930	0.050
50003	CCD-230	4	6	2	1.260	0.036
50004	CCD-230	6	8	2	0.730	0.013
50005	CCD-230	8	10	2	0.880	0.016
50006	CCD-230	10	12	2	1.060	0.028
50007	CCD-230	12	14	2	1.210	0.051
50008	CCD-230	14	16	2	0.790	0.018
50009	CCD-230	16	18	2	0.640	0.030
50010	CCD-230	18	20	2	0.950	0.021
50012	CCD-230	20	22	2	0.650	0.087
50013	CCD-230	22	24	2	0.650	0.150
50014	CCD-230	24	26	2	0.480	0.184
50015	CCD-230	26	28	2	0.370	0.052
50016	CCD-230	28	30	2	0.510	0.241
50017	CCD-230	30	32	2	0.260	0.150
50018	CCD-230	32	34	2	0.420	0.182
50019	CCD-230	34	36	2	0.380	0.141
50020	CCD-230	36	38	2	0.330	0.065

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50021	CCD-230	38	40	2	0.580	0.227
50022	CCD-230	40	42	2	0.580	0.247
50023	CCD-230	42	44	2	0.590	0.412
50025	CCD-230	44	46	2	0.370	0.332
50026	CCD-230	46	48	2	0.380	0.186
50027	CCD-230	48	50	2	0.290	0.179
50028	CCD-230	50	52	2	0.420	0.344
50029	CCD-230	52	54	2	0.420	0.400
50030	CCD-230	54	56	2	0.490	0.395
50031	CCD-230	56	58	2	0.410	0.374
50033	CCD-230	58	60	2	0.410	0.605
50034	CCD-230	60	62	2	0.340	0.301
50035	CCD-230	62	64	2	0.520	0.362
50036	CCD-230	64	66	2	0.190	0.244
50037	CCD-230	66	68	2	0.210	0.250
50038	CCD-230	68	70	2	0.300	0.267
50039	CCD-230	70	72	2	0.370	0.242
50040	CCD-230	72	74	2	0.340	0.355
50041	CCD-230	74	76	2	0.250	0.176
50042	CCD-230	76	78	2	0.270	0.213
50043	CCD-230	78	80	2	0.260	0.214
50044	CCD-230	80	82	2	0.410	0.149
50045	CCD-230	82	84	2	0.600	0.183
50047	CCD-230	84	86	2	0.660	0.224
50048	CCD-230	86	88	2	0.440	0.225
50049	CCD-230	88	90	2	0.500	0.250
50050	CCD-230	90	92	2	0.660	0.183
50051	CCD-230	92	94	2	0.540	0.156
50052	CCD-230	94	96	2	0.220	0.059
50053	CCD-230	96	98	2	0.450	0.126
50054	CCD-230	98	100	2	0.520	0.167
50055	CCD-230	100	102	2	0.500	0.152
50056	CCD-230	102	104	2	0.560	0.167
50057	CCD-230	104	106	2	0.460	0.147
50058	CCD-230	106	108	2	0.300	0.130
50059	CCD-230	108	110	2	0.640	0.182
50060	CCD-230	110	112	2	0.580	0.155
50061	CCD-230	112	114	2	0.400	0.118
50062	CCD-230	114	116	2	0.450	0.110
50063	CCD-230	116	118	2	0.480	0.115
50064	CCD-230	118	120	2	0.390	0.102
50066	CCD-230	120	122	2	0.410	0.122
50067	CCD-230	122	124	2	0.360	0.099
50068	CCD-230	124	126	2	0.280	0.123
50069	CCD-230	126	128	2	0.460	0.132
50070	CCD-230	128	130	2	0.970	0.209
50071	CCD-230	130	132	2	0.740	0.189
50072	CCD-230	132	134	2	0.400	0.090
50073	CCD-230	134	136	2	0.390	0.110
50074	CCD-230	136	138	2	0.310	0.100
50075	CCD-230	138	140	2	0.360	0.103
50076	CCD-230	140	142	2	0.400	0.129
50077	CCD-230	142	144	2	0.630	0.159
50078	CCD-230	144	146	2	0.430	0.126
50079	CCD-230	146	148	2	0.360	0.097

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50080	CCD-230	148	150	2	0.120	0.030
50081	CCD-230	150	152	2	0.060	0.026
50083	CCD-230	152	154	2	0.090	0.034
50084	CCD-230	154	156	2	0.060	0.024
50085	CCD-230	156	158	2	0.350	0.082
50086	CCD-230	158	160	2	0.460	0.086
50087	CCD-230	160	162	2	0.370	0.089
50088	CCD-230	162	164	2	0.260	0.076
50089	CCD-230	164	166	2	0.150	0.045
50090	CCD-230	166	168	2	0.340	0.093
50091	CCD-230	168	170	2	0.590	0.182
50092	CCD-230	170	172	2	0.390	0.107
50093	CCD-230	172	174	2	0.230	0.033
50094	CCD-230	174	176	2	0.190	0.026
50096	CCD-230	176	178	2	0.150	0.030
50097	CCD-230	178	180	2	0.190	0.045
50098	CCD-230	180	182	2	0.040	0.029
50099	CCD-230	182	184	2	0.170	0.088
50101	CCD-230	184	186	2	0.130	0.034
50102	CCD-230	186	188	2	0.100	0.025
50103	CCD-230	188	190	2	0.110	0.072
50104	CCD-230	190	192	2	0.080	0.033
50105	CCD-230	192	194	2	0.050	0.025
50106	CCD-230	194	196	2	0.100	0.028
50107	CCD-230	196	198	2	0.080	0.024
50108	CCD-230	198	200	2	0.080	0.034
50109	CCD-230	200	202	2	0.050	0.021
50110	CCD-230	202	204	2	0.040	0.026
50111	CCD-230	204	206	2	0.080	0.028
50112	CCD-230	206	208	2	0.130	0.031
50114	CCD-230	208	210	2	0.070	0.020
50115	CCD-230	210	212	2	0.080	0.010
50116	CCD-230	212	214	2	0.070	0.026
50117	CCD-230	214	216	2	0.060	0.026
50118	CCD-230	216	218	2	0.100	0.025
50119	CCD-230	218	220	2	0.110	0.045
50120	CCD-230	220	222	2	0.070	0.016
50122	CCD-230	222	224	2	0.140	0.025
50123	CCD-230	224	226	2	0.070	0.025
50124	CCD-230	226	228	2	0.100	0.025
50125	CCD-230	228	230	2	0.160	0.031
50126	CCD-230	230	232	2	1.740	0.018
50127	CCD-230	232	234	2	0.110	0.018
50128	CCD-230	234	236	2	0.250	0.032
50129	CCD-230	236	238	2	0.090	0.032
50130	CCD-230	238	240	2	0.080	0.035
50131	CCD-230	240	242	2	0.090	0.044
50132	CCD-230	242	244	2	0.100	0.045
50133	CCD-230	244	246	2	0.130	0.057
50134	CCD-230	246	248	2	0.220	0.083
50135	CCD-230	248	250	2	0.180	0.077
50137	CCD-230	250	252	2	0.100	0.063
50138	CCD-230	252	254	2	0.080	0.058
50139	CCD-230	254	256	2	0.130	0.057
50140	CCD-230	256	258	2	0.090	0.063

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50141	CCD-230	258	260	2	0.300	0.157
50142	CCD-230	260	262	2	0.240	0.113
50143	CCD-230	262	264	2	0.250	0.106
50144	CCD-230	264	266	2	0.440	0.175
50145	CCD-230	266	268	2	0.490	3.008
50146	CCD-230	268	270	2	0.610	0.233
50147	CCD-230	270	272	2	0.560	0.213
50148	CCD-230	272	274	2	0.650	0.192
50149	CCD-230	274	276	2	0.820	0.265
50150	CCD-230	276	278	2	1.250	0.344
50151	CCD-230	278	280	2	1.090	0.314
50153	CCD-230	280	282	2	0.960	0.327
50154	CCD-230	282	284	2	0.940	0.296
50155	CCD-230	284	286	2	0.670	0.209
50156	CCD-230	286	288	2	0.670	0.171
50157	CCD-230	288	290	2	0.560	0.191
50158	CCD-230	290	292	2	0.510	0.147
50159	CCD-230	292	294	2	0.450	0.163
50160	CCD-230	294	296	2	0.420	0.143
50161	CCD-230	296	298	2	0.590	0.187
50162	CCD-230	298	300	2	0.600	0.186
50163	CCD-230	300	302	2	0.670	0.180
50164	CCD-230	302	304	2	0.540	0.229
50165	CCD-230	304	306	2	0.520	0.227
50166	CCD-230	306	308	2	0.700	0.304
50167	CCD-230	308	310	2	1.180	0.382
50168	CCD-230	310	312	2	0.830	0.301
50169	CCD-230	312	314	2	1.130	0.381
50170	CCD-230	314	316	2	0.990	0.342
50172	CCD-230	316	318	2	1.170	0.310
50173	CCD-230	318	320	2	0.730	0.241
50174	CCD-230	320	322	2	0.480	0.236
50175	CCD-230	322	324	2	1.100	0.374
50176	CCD-230	324	326	2	1.060	0.378
50177	CCD-230	326	328	2	2.050	0.456
50178	CCD-230	328	330	2	1.590	0.553
50179	CCD-230	330	332	2	0.990	0.494
50180	CCD-230	332	334	2	1.760	0.682
50181	CCD-230	334	336	2	1.160	0.600
50182	CCD-230	336	338	2	1.170	0.586
50183	CCD-230	338	340	2	1.800	0.725
50184	CCD-230	340	342	2	1.700	0.847
50185	CCD-230	342	344	2	1.470	0.595
50187	CCD-230	344	346	2	1.410	0.621
50188	CCD-230	346	348	2	1.670	0.659
50189	CCD-230	348	350	2	2.397	0.824
50191	CCD-230	350	352	2	2.110	0.929
50192	CCD-230	352	354	2	2.557	0.800
50193	CCD-230	354	356	2	1.863	0.685
50194	CCD-230	356	358	2	1.787	0.828
50195	CCD-230	358	360	2	1.810	0.379
50196	CCD-230	360	362	2	2.290	1.073
50197	CCD-230	362	364	2	2.920	0.776
50198	CCD-230	364	366	2	1.563	0.779
50199	CCD-230	366	368	2	1.440	0.701

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50200	CCD-230	368	370	2	0.773	0.347
50201	CCD-230	370	372	2	1.043	0.487
50202	CCD-230	372	374	2	1.113	0.607
50203	CCD-230	374	376	2	0.933	0.400
50204	CCD-230	376	378	2	1.243	0.536
50205	CCD-230	378	380	2	0.930	0.875
50207	CCD-230	380	382	2	1.370	0.605
50208	CCD-230	382	384	2	1.053	0.438
50209	CCD-230	384	386	2	1.437	0.711
50210	CCD-230	386	388	2	1.362	0.765
50211	CCD-230	388	390	2	1.310	0.720
50212	CCD-230	390	392	2	1.067	0.588
50213	CCD-230	392	394	2	1.033	0.800
50214	CCD-230	394	396	2	2.773	0.699
50215	CCD-230	396	398	2	1.503	0.447
50216	CCD-230	398	400	2	0.923	0.376
50251	CCD-231	0	2	2	0.040	0.032
50252	CCD-231	2	4	2	0.060	0.036
50253	CCD-231	4	6	2	0.050	0.016
50254	CCD-231	6	8	2	0.220	0.014
50255	CCD-231	8	10	2	0.320	0.024
50256	CCD-231	10	12	2	0.450	0.023
50257	CCD-231	12	14	2	0.540	0.017
50258	CCD-231	14	16	2	0.570	0.005
50259	CCD-231	16	18	2	0.550	0.005
50260	CCD-231	18	20	2	0.500	0.005
50261	CCD-231	20	22	2	0.370	0.012
50262	CCD-231	22	24	2	0.550	0.005
50264	CCD-231	24	26	2	0.490	0.016
50265	CCD-231	26	28	2	0.450	0.014
50266	CCD-231	28	30	2	0.440	0.022
50267	CCD-231	30	32	2	0.510	0.018
50268	CCD-231	32	34	2	0.420	0.014
50269	CCD-231	34	36	2	0.230	0.028
50270	CCD-231	36	38	2	0.460	0.019
50271	CCD-231	38	40	2	0.320	0.021
50272	CCD-231	40	42	2	0.350	0.031
50273	CCD-231	42	44	2	0.440	0.034
50274	CCD-231	44	46	2	0.270	0.015
50275	CCD-231	46	48	2	0.260	0.017
50276	CCD-231	48	50	2	0.370	0.011
50277	CCD-231	50	52	2	0.350	0.085
50278	CCD-231	52	54	2	0.180	0.057
50279	CCD-231	54	56	2	0.200	0.072
50280	CCD-231	56	58	2	0.270	0.063
50281	CCD-231	58	60	2	0.210	0.068
50282	CCD-231	60	62	2	0.190	0.075
50284	CCD-231	62	64	2	0.240	0.114
50285	CCD-231	64	66	2	0.270	0.136
50286	CCD-231	66	68	2	0.320	0.151
50288	CCD-231	68	70	2	0.170	0.087
50289	CCD-231	70	72	2	0.230	0.144
50290	CCD-231	72	74	2	0.420	0.204
50291	CCD-231	74	76	2	0.320	0.171
50292	CCD-231	76	78	2	0.310	0.183

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50293	CCD-231	78	80	2	0.440	0.220
50294	CCD-231	80	82	2	0.240	0.248
50295	CCD-231	82	84	2	0.250	0.245
50296	CCD-231	84	86	2	0.200	0.290
50298	CCD-231	86	88	2	0.220	0.094
50299	CCD-231	88	90	2	0.270	0.124
50300	CCD-231	90	92	2	0.150	0.157
50301	CCD-231	92	94	2	0.130	0.362
50302	CCD-231	94	96	2	0.090	0.301
50303	CCD-231	96	98	2	0.090	0.227
50304	CCD-231	98	100	2	0.190	0.194
50305	CCD-231	100	102	2	0.110	0.364
50306	CCD-231	102	104	2	1.200	0.189
50307	CCD-231	104	106	2	0.170	0.072
50308	CCD-231	106	108	2	0.190	0.089
50309	CCD-231	108	110	2	0.200	0.068
50310	CCD-231	110	112	2	0.290	0.080
50311	CCD-231	112	114	2	0.370	0.090
50312	CCD-231	114	116	2	0.420	0.169
50313	CCD-231	116	118	2	0.240	0.084
50314	CCD-231	118	120	2	0.250	0.086
50315	CCD-231	120	122	2	0.110	0.102
50316	CCD-231	122	124	2	0.330	0.094
50317	CCD-231	124	126	2	0.410	0.106
50319	CCD-231	126	128	2	0.330	0.079
50320	CCD-231	128	130	2	0.150	0.046
50321	CCD-231	130	132	2	0.330	0.160
50323	CCD-231	132	134	2	0.250	0.082
50324	CCD-231	134	136	2	0.370	0.085
50325	CCD-231	136	138	2	0.230	0.064
50326	CCD-231	138	140	2	0.270	0.071
50327	CCD-231	140	142	2	0.180	0.100
50328	CCD-231	142	144	2	0.320	0.109
50329	CCD-231	144	146	2	0.310	0.114
50330	CCD-231	146	148	2	0.360	0.172
50331	CCD-231	148	150	2	0.300	0.158
50332	CCD-231	150	152	2	0.540	0.214
50333	CCD-231	152	154	2	0.110	0.042
50335	CCD-231	154	156	2	0.120	0.048
50336	CCD-231	156	158	2	0.160	0.164
50337	CCD-231	158	160	2	0.270	0.115
50338	CCD-231	160	162	2	0.190	0.065
50339	CCD-231	162	164	2	0.260	0.088
50340	CCD-231	164	166	2	0.330	0.097
50341	CCD-231	166	168	2	0.280	0.063
50342	CCD-231	168	170	2	0.210	0.055
50343	CCD-231	170	172	2	0.230	0.050
50344	CCD-231	172	174	2	0.190	0.063
50345	CCD-231	174	176	2	0.220	0.084
50346	CCD-231	176	178	2	0.150	0.056
50347	CCD-231	178	180	2	0.140	0.052
50348	CCD-231	180	182	2	0.140	0.089
50349	CCD-231	182	184	2	0.010	0.048
50350	CCD-231	184	186	2	0.290	0.065
50351	CCD-231	186	188	2	0.130	0.067

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50353	CCD-231	188	190	2	0.140	0.057
50354	CCD-231	190	192	2	0.180	0.096
50355	CCD-231	192	194	2	0.170	0.039
50356	CCD-231	194	196	2	0.110	0.066
50357	CCD-231	196	198	2	0.220	0.083
50358	CCD-231	198	200	2	0.190	0.090
50359	CCD-231	200	202	2	0.140	0.081
50360	CCD-231	202	204	2	0.140	0.068
50361	CCD-231	204	206	2	0.130	0.042
50362	CCD-231	206	208	2	0.180	0.077
50363	CCD-231	208	210	2	0.330	0.210
50364	CCD-231	210	212	2	0.200	0.093
50365	CCD-231	212	214	2	0.140	0.063
50366	CCD-231	214	216	2	0.130	0.079
50368	CCD-231	216	218	2	0.340	0.183
50369	CCD-231	218	220	2	0.370	0.142
50370	CCD-231	220	222	2	0.290	0.119
50371	CCD-231	222	224	2	0.620	0.285
50372	CCD-231	224	226	2	0.220	0.172
50373	CCD-231	226	228	2	0.260	0.159
50374	CCD-231	228	230	2	0.230	0.315
50375	CCD-231	230	232	2	0.240	0.103
50376	CCD-231	232	234	2	0.810	0.299
50377	CCD-231	234	236	2	0.210	0.099
50378	CCD-231	236	238	2	0.330	0.095
50379	CCD-231	238	240	2	0.260	0.099
50381	CCD-231	240	242	2	0.180	0.090
50382	CCD-231	242	244	2	0.180	0.073
50383	CCD-231	244	246	2	0.300	0.073
50384	CCD-231	246	248	2	0.110	0.066
50385	CCD-231	248	250	2	0.070	0.041
50387	CCD-231	250	252	2	0.120	0.051
50388	CCD-231	252	254	2	0.150	0.058
50389	CCD-231	254	256	2	0.100	0.099
50390	CCD-231	256	258.2	2.2	0.160	0.089
50391	CCD-231	258	260	2	0.147	0.101
50392	CCD-231	260	262	2	0.148	0.045
50393	CCD-231	262	264	2	0.062	0.023
50394	CCD-231	264	266	2	0.080	0.080
50395	CCD-231	266	268	2	0.167	0.080
50396	CCD-231	268	270	2	0.283	0.079
50397	CCD-231	270	272	2	0.205	0.069
50398	CCD-231	272	274	2	0.443	0.077
50399	CCD-231	274	276	2	0.187	0.087
50400	CCD-231	276	278	2	0.145	0.077
50401	CCD-231	278	280	2	0.117	0.074
50402	CCD-231	280	282	2	0.077	0.060
50403	CCD-231	282	284	2	0.230	0.105
50405	CCD-231	284	286	2	0.172	0.103
50406	CCD-231	286	288	2	0.155	0.073
50407	CCD-231	288	290	2	0.133	0.081
50408	CCD-231	290	292	2	0.142	0.033
50409	CCD-231	292	294	2	0.195	0.101
50410	CCD-231	294	296	2	0.193	0.121
50411	CCD-231	296	298	2	0.165	0.101

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50412	CCD-231	298	300	2	0.226	0.119
50413	CCD-231	300	302	2	0.062	0.034
50414	CCD-231	302	304	2	0.098	0.082
50415	CCD-231	304	306	2	0.297	0.158
50416	CCD-231	306	308	2	0.077	0.053
50417	CCD-231	308	310	2	0.112	0.040
50418	CCD-231	310	312	2	0.130	0.078
50419	CCD-231	312	314	2	0.083	0.048
50421	CCD-231	314	316	2	0.098	0.053
50422	CCD-231	316	318	2	0.094	0.073
50423	CCD-231	318	320	2	0.090	0.088
50424	CCD-231	320	322	2	0.172	0.052
50425	CCD-231	322	324	2	0.225	0.068
50426	CCD-231	324	326	2	0.025	0.039
50427	CCD-231	326	328	2	0.075	0.037
50428	CCD-231	328	330	2	0.022	0.020
50430	CCD-231	330	332	2	0.047	0.029
50431	CCD-231	332	334	2	0.012	0.020
50432	CCD-231	334	336	2	0.090	0.062
50433	CCD-231	336	338	2	0.217	0.094
50434	CCD-231	338	340	2	0.258	0.082
50435	CCD-231	340	342	2	0.085	0.087
50436	CCD-231	342	344	2	0.095	0.057
50437	CCD-231	344	346	2	0.130	0.050
50438	CCD-231	346	348	2	0.102	0.064
50440	CCD-231	348	350	2	0.268	0.119
50451	CCD-232	0	2	2	0.320	0.083
50452	CCD-232	2	4	2	0.350	0.086
50453	CCD-232	4	6	2	0.310	0.132
50454	CCD-232	6	8	2	0.290	0.122
50455	CCD-232	8	10	2	0.460	0.180
50456	CCD-232	10	12	2	0.960	0.272
50457	CCD-232	12	14	2	1.290	0.245
50459	CCD-232	14	16	2	1.240	0.169
50460	CCD-232	16	18	2	0.870	0.290
50461	CCD-232	18	20	2	0.350	0.177
50462	CCD-232	20	22	2	0.370	0.170
50463	CCD-232	22	24	2	0.410	0.090
50464	CCD-232	24	26	2	0.470	0.174
50465	CCD-232	26	28	2	0.250	0.066
50466	CCD-232	28	30	2	0.160	0.053
50467	CCD-232	30	32	2	0.240	0.090
50468	CCD-232	32	34	2	0.240	0.067
50469	CCD-232	34	36	2	0.230	0.093
50470	CCD-232	36	38	2	0.200	0.096
50471	CCD-232	38	40	2	0.190	0.088
50472	CCD-232	40	42	2	0.170	0.101
50473	CCD-232	42	44	2	0.230	0.238
50474	CCD-232	44	46	2	0.050	0.027
50475	CCD-232	46	48	2	0.200	0.094
50477	CCD-232	48	50	2	0.160	0.086
50478	CCD-232	50	52	2	0.150	0.066
50479	CCD-232	52	54	2	0.070	0.029
50480	CCD-232	54	56	2	0.070	0.032
50482	CCD-232	56	58	2	0.110	0.058

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50483	CCD-232	58	60	2	0.100	0.035
50484	CCD-232	60	62	2	0.160	0.088
50485	CCD-232	62	64	2	0.120	0.059
50486	CCD-232	64	66	2	0.130	0.064
50487	CCD-232	66	68	2	0.060	0.044
50488	CCD-232	68	70	2	0.040	0.030
50489	CCD-232	70	72	2	0.170	0.123
50490	CCD-232	72	74	2	0.130	0.132
50491	CCD-232	74	76	2	0.090	0.044
50492	CCD-232	76	78	2	0.090	0.041
50493	CCD-232	78	80	2	0.100	0.050
50494	CCD-232	80	82	2	0.070	0.036
50495	CCD-232	82	84	2	0.120	0.055
50496	CCD-232	84	86	2	0.200	0.124
50497	CCD-232	86	88	2	0.130	0.087
50498	CCD-232	88	90	2	1.120	0.064
50500	CCD-232	90	92	2	0.150	0.085
50501	CCD-232	92	94	2	0.120	0.092
50502	CCD-232	94	96	2	0.090	0.083
50503	CCD-232	96	98	2	0.120	0.057
50504	CCD-232	98	100	2	0.130	0.119
50505	CCD-232	100	102	2	0.100	0.074
50506	CCD-232	102	104	2	0.090	0.066
50507	CCD-232	104	106	2	0.070	0.054
50508	CCD-232	106	108	2	0.110	0.089
50509	CCD-232	108	110	2	0.110	0.117
50510	CCD-232	110	112	2	0.110	0.142
50511	CCD-232	112	114	2	0.080	0.111
50512	CCD-232	114	116	2	0.130	0.134
50513	CCD-232	116	118	2	0.110	0.164
50514	CCD-232	118	120	2	0.060	0.063
50515	CCD-232	120	122	2	0.140	0.128
50516	CCD-232	122	124	2	0.110	0.139
50517	CCD-232	124	126	2	0.230	0.165
50519	CCD-232	126	128	2	0.830	0.682
17804	CCD-232A	6	8	2	0.482	0.187
17805	CCD-232A	8	10	2	0.475	0.162
17806	CCD-232A	10	12	2	0.523	0.148
17807	CCD-232A	12	14	2	1.400	0.442
17808	CCD-232A	14	16	2	1.503	0.494
17810	CCD-232A	16	18	2	0.680	0.107
17811	CCD-232A	18	20	2	0.367	0.105
17813	CCD-232A	20	22	2	0.375	0.109
17814	CCD-232A	22	24	2	0.417	0.171
17815	CCD-232A	24	26	2	0.340	0.121
17816	CCD-232A	26	28	2	0.257	0.074
17817	CCD-232A	28	30	2	0.252	0.105
17818	CCD-232A	30	32	2	0.207	0.080
17819	CCD-232A	32	34	2	0.182	0.073
17820	CCD-232A	34	36	2	0.157	0.059
17821	CCD-232A	36	38	2	0.168	0.133
17822	CCD-232A	38	40	2	0.207	0.076
17823	CCD-232A	40	42	2	0.183	0.096
17824	CCD-232A	42	44	2	0.235	0.116
17825	CCD-232A	44	46	2	0.262	0.104

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17826	CCD-232A	46	48	2	1.133	0.475
17827	CCD-232A	48	50	2	0.401	0.204
17828	CCD-232A	50	52	2	0.125	0.057
17830	CCD-232A	52	54	2	0.132	0.059
17831	CCD-232A	54	56	2	0.135	0.060
17832	CCD-232A	56	58	2	0.242	0.137
17833	CCD-232A	58	60	2	0.248	0.115
17834	CCD-232A	60	62	2	0.113	0.070
17835	CCD-232A	62	64	2	0.172	0.071
17836	CCD-232A	64	66	2	0.115	0.073
17837	CCD-232A	66	68	2	0.127	0.074
17838	CCD-232A	68	70	2	0.182	0.103
17839	CCD-232A	70	72	2	0.032	0.034
17840	CCD-232A	72	74	2	0.112	0.089
17842	CCD-232A	74	76	2	0.247	0.150
17843	CCD-232A	76	78	2	0.230	0.088
17844	CCD-232A	78	80	2	0.127	0.079
17845	CCD-232A	80	82	2	0.135	0.141
17846	CCD-232A	82	84	2	0.245	0.158
17848	CCD-232A	84	86	2	0.200	0.089
17849	CCD-232A	86	88	2	0.170	0.130
17850	CCD-232A	88	90	2	0.155	0.133
17851	CCD-232A	90	92	2	0.233	0.070
17852	CCD-232A	92	94	2	0.233	0.182
17853	CCD-232A	94	96	2	0.223	0.184
17854	CCD-232A	96	98	2	0.255	0.145
17855	CCD-232A	98	100	2	0.340	0.160
17856	CCD-232A	100	102	2	0.990	0.102
17857	CCD-232A	102	104	2	0.050	0.059
17858	CCD-232A	104	106	2	0.070	0.030
17859	CCD-232A	106	108	2	0.097	0.065
17860	CCD-232A	108	110	2	0.050	0.066
17861	CCD-232A	110	112	2	0.155	0.128
17863	CCD-232A	112	114	2	0.100	0.096
17864	CCD-232A	114	116	2	0.123	0.089
17865	CCD-232A	116	118	2	0.565	0.084
17867	CCD-232A	118	120	2	0.090	0.083
17868	CCD-232A	120	122	2	0.122	0.170
17869	CCD-232A	122	124	2	0.317	0.276
17870	CCD-232A	124	126	2	0.317	0.244
17871	CCD-232A	126	128	2	0.055	0.091
17872	CCD-232A	128	130	2	0.173	0.129
17873	CCD-232A	130	132	2	0.092	0.141
17874	CCD-232A	132	134	2	0.040	0.096
17875	CCD-232A	134	136	2	0.235	0.146
17876	CCD-232A	136	138	2	0.475	0.344
17877	CCD-232A	138	140	2	0.435	0.419
17878	CCD-232A	140	142	2	0.293	0.378
17879	CCD-232A	142	144	2	0.340	0.286
17880	CCD-232A	144	146	2	0.202	0.155
17881	CCD-232A	146	148	2	0.137	0.131
17883	CCD-232A	148	150	2	0.297	0.244
17884	CCD-232A	150	152	2	0.200	0.213
17885	CCD-232A	152	154	2	0.465	0.631
17886	CCD-232A	154	156	2	0.190	0.220

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17888	CCD-232A	156	158	2	0.167	0.191
17889	CCD-232A	158	160	2	0.232	0.222
17890	CCD-232A	160	162	2	0.230	0.164
17891	CCD-232A	162	164	2	0.070	0.069
17892	CCD-232A	164	166	2	0.230	0.218
17893	CCD-232A	166	168	2	0.240	0.212
17894	CCD-232A	168	170	2	0.222	0.180
17895	CCD-232A	170	172	2	0.208	0.196
17896	CCD-232A	172	174	2	0.150	0.123
17897	CCD-232A	174	176	2	0.055	0.050
17898	CCD-232A	176	178	2	0.107	0.143
17899	CCD-232A	178	180	2	0.157	0.250
17901	CCD-232A	180	182	2	0.122	0.105
17902	CCD-232A	182	184	2	0.103	0.110
17903	CCD-232A	184	186	2	0.080	0.081
17904	CCD-232A	186	188	2	0.153	0.132
17905	CCD-232A	188	190	2	0.082	0.063
17906	CCD-232A	190	192	2	0.069	0.058
17907	CCD-232A	192	194	2	0.055	0.065
17908	CCD-232A	194	196	2	0.075	0.070
17909	CCD-232A	196	198	2	0.045	0.064
17910	CCD-232A	198	200	2	0.083	0.115
17911	CCD-232A	200	202	2	0.097	0.151
17913	CCD-232A	202	204	2	0.230	0.314
17914	CCD-232A	204	206	2	0.092	0.126
17915	CCD-232A	206	208	2	0.087	0.134
17916	CCD-232A	208	210	2	0.127	0.169
17918	CCD-232A	210	212	2	0.072	0.077
17919	CCD-232A	212	214	2	0.128	0.134
17920	CCD-232A	214	216	2	0.050	0.044
17921	CCD-232A	216	218	2	0.113	0.111
17922	CCD-232A	218	220	2	0.072	0.068
17923	CCD-232A	220	222	2	0.128	0.125
17924	CCD-232A	222	224	2	0.128	0.151
17925	CCD-232A	224	226	2	0.167	0.197
17926	CCD-232A	226	228	2	0.175	0.187
17927	CCD-232A	228	230	2	0.372	0.366
17928	CCD-232A	230	232	2	0.424	0.405
17929	CCD-232A	232	234	2	0.280	0.276
17930	CCD-232A	234	236	2	0.240	0.208
17931	CCD-232A	236	238	2	0.175	0.116
17933	CCD-232A	238	240	2	0.113	0.049
17934	CCD-232A	240	242	2	0.075	0.033
17936	CCD-232A	242	244	2	0.010	0.060
17937	CCD-232A	244	246	2	0.232	0.236
17938	CCD-232A	246	248	2	0.302	0.221
17939	CCD-232A	248	250	2	0.129	0.172
17940	CCD-232A	250	252	2	0.222	0.266
17941	CCD-232A	252	254	2	0.322	0.414
17942	CCD-232A	254	256	2	0.303	0.334
17943	CCD-232A	256	258	2	0.215	0.318
17944	CCD-232A	258	260	2	0.113	0.152
17945	CCD-232A	260	262	2	0.067	0.061
17946	CCD-232A	262	264	2	0.138	0.148
17947	CCD-232A	264	266	2	0.143	0.107

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
17948	CCD-232A	266	268	2	0.080	0.071
17949	CCD-232A	268	270	2	0.039	0.053
17950	CCD-232A	270	272	2	0.135	0.209
17951	CCD-232A	272	274	2	0.258	0.294
17953	CCD-232A	274	276	2	0.088	0.112
17954	CCD-232A	276	278	2	0.183	0.249
17955	CCD-232A	278	280	2	0.060	0.095
17956	CCD-232A	280	282	2	0.153	0.160
17957	CCD-232A	282	284	2	0.193	0.253
17958	CCD-232A	284	286	2	0.060	0.105
17959	CCD-232A	286	288	2	0.250	0.318
17960	CCD-232A	288	290	2	0.063	0.094
17961	CCD-232A	290	292	2	0.222	0.221
17962	CCD-232A	292	294	2	0.135	0.204
17963	CCD-232A	294	296	2	0.145	0.155
17964	CCD-232A	296	298	2	0.125	0.127
17966	CCD-232A	298	300	2	0.232	0.274
17967	CCD-232A	300	302	2	0.253	0.307
17969	CCD-232A	302	304	2	0.053	0.087
17970	CCD-232A	304	306	2	0.133	0.155
17971	CCD-232A	306	308	2	0.157	0.109
17972	CCD-232A	308	310	2	0.182	0.184
17973	CCD-232A	310	312	2	0.067	0.076
17974	CCD-232A	312	314	2	0.037	0.066
17975	CCD-232A	314	316	2	0.138	0.118
17976	CCD-232A	316	318	2	0.125	0.102
17977	CCD-232A	318	320	2	0.102	0.070
17978	CCD-232A	320	322	2	0.228	0.238
17979	CCD-232A	322	324	2	0.132	0.127
17980	CCD-232A	324	326	2	0.258	0.256
17981	CCD-232A	326	328	2	0.142	0.229
17982	CCD-232A	328	330	2	0.262	0.218
17983	CCD-232A	330	332	2	0.550	0.522
17984	CCD-232A	332	334	2	0.133	0.104
17985	CCD-232A	334	336	2	0.297	0.233
17987	CCD-232A	336	338	2	0.565	0.231
17988	CCD-232A	338	340	2	0.252	0.274
17989	CCD-232A	340	342	2	0.233	0.188
17991	CCD-232A	342	344	2	0.145	0.151
17992	CCD-232A	344	346	2	0.125	0.118
17993	CCD-232A	346	348	2	0.080	0.079
17994	CCD-232A	348	350	2	0.142	0.142
50651	CCD-233	0	2	2	0.220	0.038
50652	CCD-233	2	4	2	0.230	0.051
50653	CCD-233	4	6	2	0.290	0.036
50654	CCD-233	6	8	2	0.230	0.021
50656	CCD-233	8	10	2	0.180	0.014
50657	CCD-233	10	12	2	0.200	0.016
50658	CCD-233	12	14	2	0.250	0.025
50659	CCD-233	14	16	2	0.370	0.036
50660	CCD-233	16	18	2	0.270	0.053
50661	CCD-233	18	20	2	0.220	0.023
50662	CCD-233	20	22	2	0.250	0.053
50663	CCD-233	22	24	2	0.270	0.291
50664	CCD-233	24	26	2	0.230	1.096

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50665	CCD-233	26	28	2	0.230	1.408
50666	CCD-233	28	30	2	0.240	3.080
50667	CCD-233	30	32	2	0.240	1.832
50668	CCD-233	32	34	2	0.350	1.344
50669	CCD-233	34	36	2	0.380	0.807
50670	CCD-233	36	38	2	0.300	0.452
50672	CCD-233	38	40	2	0.270	0.466
50673	CCD-233	40	42	2	0.730	0.520
50674	CCD-233	42	44	2	0.470	0.356
50675	CCD-233	44	46	2	0.510	0.365
50676	CCD-233	46	48	2	0.160	0.208
50677	CCD-233	48	50	2	0.290	0.168
50678	CCD-233	50	52	2	0.240	0.202
50679	CCD-233	52	54	2	0.210	0.165
50680	CCD-233	54	56	2	0.520	0.190
50682	CCD-233	56	58	2	0.270	0.400
50683	CCD-233	58	60	2	0.420	0.456
50684	CCD-233	60	62	2	0.380	0.265
50685	CCD-233	62	64	2	0.370	0.471
50686	CCD-233	64	66	2	0.540	0.734
50687	CCD-233	66	68	2	0.550	0.390
50688	CCD-233	68	70	2	0.480	0.282
50689	CCD-233	70	72	2	0.340	0.400
50690	CCD-233	72	74	2	0.440	0.471
50691	CCD-233	74	76	2	0.460	0.560
50692	CCD-233	76	78	2	0.480	0.565
50693	CCD-233	78	80	2	0.440	0.307
50694	CCD-233	80	82	2	0.580	0.401
50695	CCD-233	82	84	2	0.700	0.459
50696	CCD-233	84	86	2	0.670	0.431
50697	CCD-233	86	88	2	0.720	0.518
50699	CCD-233	88	90	2	0.720	0.419
50700	CCD-233	90	92	2	0.670	0.370
50701	CCD-233	92	94	2	0.670	0.466
50702	CCD-233	94	96	2	0.930	0.541
50703	CCD-233	96	98	2	0.970	0.600
50704	CCD-233	98	100	2	0.740	0.518
50705	CCD-233	100	102	2	1.330	0.993
50706	CCD-233	102	104	2	0.670	0.372
50707	CCD-233	104	106	2	0.670	0.342
50708	CCD-233	106	108	2	0.620	0.369
50709	CCD-233	108	110	2	0.670	0.389
50710	CCD-233	110	112	2	0.600	0.358
50711	CCD-233	112	114	2	0.670	0.405
50712	CCD-233	114	116	2	0.670	0.384
50713	CCD-233	116	118	2	0.700	0.342
50714	CCD-233	118	120	2	0.710	0.356
50715	CCD-233	120	122	2	0.953	0.624
50716	CCD-233	122	124	2	1.780	1.125
50718	CCD-233	124	126	2	1.043	0.562
50719	CCD-233	126	128	2	0.897	0.506
50720	CCD-233	128	130	2	0.743	0.416
50721	CCD-233	130	132	2	0.907	0.593
50722	CCD-233	132	134	2	0.592	0.551
50723	CCD-233	134	136	2	0.730	0.374

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50724	CCD-233	136	138	2	0.907	0.363
50725	CCD-233	138	140	2	0.860	0.445
50726	CCD-233	140	142	2	0.770	0.407
50727	CCD-233	142	144	2	0.545	0.334
50728	CCD-233	144	146	2	0.470	0.228
50729	CCD-233	146	148	2	0.750	0.424
50730	CCD-233	148	150	2	0.937	0.506
50731	CCD-233	150	152	2	0.800	0.394
50732	CCD-233	152	154	2	1.070	0.522
50734	CCD-233	154	156	2	1.033	0.374
50735	CCD-233	156	158	2	0.793	0.414
50736	CCD-233	158	160	2	0.780	0.461
50737	CCD-233	160	162	2	0.717	0.307
50738	CCD-233	162	164	2	0.635	0.456
50739	CCD-233	164	166	2	0.760	0.428
50740	CCD-233	166	168	2	0.773	0.387
50741	CCD-233	168	170	2	0.613	0.409
50743	CCD-233	170	172	2	0.632	0.492
50744	CCD-233	172	174	2	0.687	0.335
50745	CCD-233	174	176	2	0.987	0.296
50746	CCD-233	176	178	2	0.535	0.331
50747	CCD-233	178	180	2	0.415	0.275
50748	CCD-233	180	182	2	0.450	0.433
50749	CCD-233	182	184	2	0.740	0.424
50751	CCD-233	184	186	2	0.777	0.342
50752	CCD-233	186	188	2	0.743	0.480
50753	CCD-233	188	190	2	0.437	0.322
50754	CCD-233	190	192	2	0.443	0.266
50755	CCD-233	192	194	2	0.355	0.181
50756	CCD-233	194	196	2	0.743	0.264
50757	CCD-233	196	198	2	0.457	0.203
50758	CCD-233	198	200	2	0.472	0.265
50759	CCD-233	200	202	2	0.373	0.189
50760	CCD-233	202	204	2	1.100	0.894
50761	CCD-233	204	206	2	0.280	0.133
50762	CCD-233	206	208	2	0.590	0.157
50763	CCD-233	208	210	2	0.370	0.240
50764	CCD-233	210	212	2	0.393	0.242
50765	CCD-233	212	214	2	0.650	0.340
50766	CCD-233	214	216	2	0.538	0.255
50767	CCD-233	216	218	2	0.223	0.093
50768	CCD-233	218	220	2	0.350	0.166
50770	CCD-233	220	222	2	0.393	0.153
50771	CCD-233	222	224	2	0.760	0.139
50772	CCD-233	224	226	2	0.497	0.328
50773	CCD-233	226	228	2	0.462	0.286
50774	CCD-233	228	230	2	0.500	0.317
50775	CCD-233	230	232	2	0.208	0.102
50776	CCD-233	232	234	2	0.400	0.272
50777	CCD-233	234	236	2	0.515	0.409
50778	CCD-233	236	238	2	0.733	0.303
50779	CCD-233	238	240	2	0.747	0.424
50780	CCD-233	240	242	2	0.603	0.210
50781	CCD-233	242	244	2	0.590	0.189
50782	CCD-233	244	246	2	0.797	0.326

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50784	CCD-233	246	248	2	0.953	0.593
50785	CCD-233	248	250	2	1.738	1.440
50787	CCD-233	250	252	2	1.037	0.489
50788	CCD-233	252	254	2	1.030	0.421
50789	CCD-233	254	256	2	0.770	0.350
50790	CCD-233	256	258	2	0.417	0.157
50791	CCD-233	258	260	2	0.487	0.160
50792	CCD-233	260	262	2	0.447	0.180
50793	CCD-233	262	264	2	1.047	0.569
50794	CCD-233	264	266	2	1.030	0.544
50795	CCD-233	266	268	2	0.792	0.314
50796	CCD-233	268	270	2	0.550	0.184
50797	CCD-233	270	272	2	2.533	0.454
50798	CCD-233	272	274	2	1.187	0.687
50799	CCD-233	274	276	2	0.950	0.374
50800	CCD-233	276	278	2	1.000	0.419
50801	CCD-233	278	280	2	1.130	0.464
50802	CCD-233	280	282	2	0.807	0.435
50803	CCD-233	282	284	2	0.697	0.351
50804	CCD-233	284	286	2	1.700	0.586
50806	CCD-233	286	288	2	0.823	0.466
50807	CCD-233	288	290	2	1.217	0.642
50808	CCD-233	290	292	2	1.013	0.694
50809	CCD-233	292	294	2	0.897	0.454
50810	CCD-233	294	296	2	0.973	0.520
50811	CCD-233	296	298	2	1.127	0.631
50812	CCD-233	298	300	2	0.095	0.361
50813	CCD-233	300	302	2	0.622	0.398
50814	CCD-233	302	304	2	0.305	0.122
50815	CCD-233	304	306	2	0.176	0.053
50816	CCD-233	306	308	2	0.243	0.104
50817	CCD-233	308	310	2	0.638	0.330
50818	CCD-233	310	312	2	0.920	0.544
50819	CCD-233	312	314	2	0.508	0.293
50821	CCD-233	314	316	2	0.200	0.128
50822	CCD-233	316	318	2	0.347	0.181
50823	CCD-233	318	320	2	0.365	0.232
50824	CCD-233	320	322	2	0.460	0.356
50825	CCD-233	322	324	2	0.777	0.473
50826	CCD-233	324	326	2	0.697	0.426
50827	CCD-233	326	328	2	0.582	0.335
50828	CCD-233	328	330	2	0.903	0.581
50851	CCD-234	0	2	2	0.570	0.198
50852	CCD-234	2	4	2	0.180	0.186
50853	CCD-234	4	6	2	0.190	0.185
50854	CCD-234	6	8	2	0.090	0.150
50855	CCD-234	8	10	2	0.210	0.163
50856	CCD-234	10	12	2	0.250	0.235
50857	CCD-234	12	14	2	0.550	0.213
50858	CCD-234	14	16	2	0.330	0.216
50859	CCD-234	16	18	2	0.090	0.045
50860	CCD-234	18	20	2	0.030	0.044
50861	CCD-234	20	22	2	0.080	0.083
50863	CCD-234	22	24	2	0.090	0.066
50864	CCD-234	24	26	2	0.390	0.320

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50865	CCD-234	26	28	2	0.250	0.246
50866	CCD-234	28	30	2	0.130	0.141
50867	CCD-234	30	32	2	0.150	0.267
50868	CCD-234	32	34	2	0.020	0.178
50869	CCD-234	34	36	2	0.030	0.116
50870	CCD-234	36	38	2	0.060	0.106
50871	CCD-234	38	40	2	0.040	0.080
50872	CCD-234	40	42	2	0.050	0.078
50873	CCD-234	42	44	2	0.070	0.184
50874	CCD-234	44	46	2	0.040	0.068
50875	CCD-234	46	48	2	0.170	0.123
50876	CCD-234	48	50	2	0.010	0.040
50877	CCD-234	50	52	2	0.080	0.135
50878	CCD-234	52	54	2	0.100	0.183
50879	CCD-234	54	56	2	0.090	0.085
50880	CCD-234	56	58	2	0.070	0.084
50882	CCD-234	58	60	2	0.080	0.048
50883	CCD-234	60	62	2	0.230	0.222
50884	CCD-234	62	64	2	0.320	0.196
50885	CCD-234	64	66	2	0.190	0.137
50886	CCD-234	66	68	2	0.050	0.025
50887	CCD-234	68	70	2	0.670	0.208
50888	CCD-234	70	72	2	0.370	0.279
50889	CCD-234	72	74	2	0.600	0.400
50890	CCD-234	74	76	2	0.330	0.241
50892	CCD-234	76	78	2	0.430	0.157
50893	CCD-234	78	80	2	0.230	0.223
50894	CCD-234	80	82	2	0.100	0.078
50895	CCD-234	82	84	2	0.130	0.228
50896	CCD-234	84	86	2	0.060	0.096
50897	CCD-234	86	88	2	0.070	0.094
50898	CCD-234	88	90	2	0.030	0.038
50899	CCD-234	90	92	2	0.040	0.039
50900	CCD-234	92	94	2	0.090	0.043
50902	CCD-234	94	96	2	0.060	0.044
50903	CCD-234	96	98	2	0.060	0.054
50904	CCD-234	98	100	2	0.010	0.038
50905	CCD-234	100	102	2	0.090	0.044
50906	CCD-234	102	104	2	0.050	0.063
50907	CCD-234	104	106	2	0.030	0.074
50908	CCD-234	106	108	2	0.030	0.080
50909	CCD-234	108	110	2	0.010	0.059
50910	CCD-234	110	112	2	0.050	0.095
50911	CCD-234	112	114	2	0.130	0.183
50912	CCD-234	114	116	2	0.050	0.051
50913	CCD-234	116	118	2	0.060	0.052
50915	CCD-234	118	120	2	0.050	0.060
50916	CCD-234	120	122	2	0.010	0.034
50917	CCD-234	122	124	2	0.030	0.029
50918	CCD-234	124	126	2	0.060	0.034
50919	CCD-234	126	128	2	0.040	0.037
50920	CCD-234	128	130	2	0.020	0.095
50921	CCD-234	130	132	2	0.010	0.018
50922	CCD-234	132	134	2	0.010	0.029
50923	CCD-234	134	136	2	0.040	0.054

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50924	CCD-234	136	138	2	0.010	0.107
50925	CCD-234	138	140	2	0.100	0.170
50927	CCD-234	140	142	2	0.010	0.005
50928	CCD-234	142	144	2	0.010	0.010
50929	CCD-234	144	146	2	0.010	0.075
50930	CCD-234	146	148	2	0.010	0.022
50931	CCD-234	148	150	2	0.010	0.019
50932	CCD-234	150	152	2	0.010	0.038
50933	CCD-234	152	154	2	0.040	0.101
50935	CCD-234	154	156	2	0.010	0.019
50936	CCD-234	156	158	2	0.010	0.021
50937	CCD-234	158	160	2	0.010	0.016
50938	CCD-234	160	162	2	0.010	0.012
50939	CCD-234	162	164	2	0.010	0.014
50940	CCD-234	164	166	2	0.010	0.027
50941	CCD-234	166	168	2	0.010	0.015
50942	CCD-234	168	170	2	0.010	0.015
50943	CCD-234	170	172	2	0.010	0.013
50944	CCD-234	172	174	2	0.010	0.016
50945	CCD-234	174	176	2	0.010	0.061
50946	CCD-234	176	178	2	0.010	0.014
50947	CCD-234	178	180	2	0.010	0.040
50948	CCD-234	180	182	2	0.020	0.080
50949	CCD-234	182	184	2	0.010	0.053
50950	CCD-234	184	186	2	0.010	0.031
50951	CCD-234	186	188	2	0.010	0.029
50952	CCD-234	188	190	2	0.010	0.033
50954	CCD-234	190	192	2	0.010	0.050
50955	CCD-234	192	194	2	0.010	0.037
50956	CCD-234	194	196	2	0.010	0.034
50957	CCD-234	196	198	2	0.010	0.038
50958	CCD-234	198	200	2	0.010	0.036
50959	CCD-234	200	202	2	0.040	0.049
50960	CCD-234	202	204	2	0.010	0.030
50961	CCD-234	204	206	2	0.060	0.067
50962	CCD-234	206	208	2	0.010	0.067
50963	CCD-234	208	210	2	0.060	0.050
50964	CCD-234	210	212	2	0.010	0.033
50965	CCD-234	212	214	2	0.010	0.046
50966	CCD-234	214	216	2	0.120	0.132
50967	CCD-234	216	218	2	0.040	0.069
50969	CCD-234	218	220	2	0.040	0.015
50970	CCD-234	220	222	2	0.080	0.016
50971	CCD-234	222	224	2	0.050	0.028
50972	CCD-234	224	226	2	0.050	0.046
50973	CCD-234	226	228	2	0.120	0.104
50974	CCD-234	228	230	2	0.130	0.199
50975	CCD-234	230	232	2	0.080	0.098
50976	CCD-234	232	234	2	0.100	0.309
50977	CCD-234	234	236	2	0.080	0.100
50978	CCD-234	236	238	2	0.070	0.067
50979	CCD-234	238	240	2	0.080	0.116
50980	CCD-234	240	242	2	0.040	0.067
50981	CCD-234	242	244	2	0.050	0.068
50982	CCD-234	244	246	2	0.060	0.087

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
50983	CCD-234	246	248	2	0.060	0.030
50984	CCD-234	248	250	2	0.050	0.069
50985	CCD-234	250	252	2	0.050	0.076
50986	CCD-234	252	254	2	0.040	0.073
50988	CCD-234	254	256	2	0.030	0.058
50989	CCD-234	256	258	2	0.070	0.078
50990	CCD-234	258	260	2	0.030	0.054
50991	CCD-234	260	262	2	0.060	0.074
50992	CCD-234	262	264	2	0.070	0.060
50993	CCD-234	264	266	2	0.070	0.073
50994	CCD-234	266	268	2	0.030	0.052
50995	CCD-234	268	270	2	0.010	0.019
50996	CCD-234	270	272	2	0.040	0.016
50998	CCD-234	272	274	2	0.028	0.018
50999	CCD-234	274	276	2	0.010	0.020
51000	CCD-234	276	278	2	0.010	0.022
51001	CCD-234	278	280	2	0.035	0.045
51002	CCD-234	280	282	2	0.010	0.058
51003	CCD-234	282	284	2	0.010	0.037
51005	CCD-234	284	286	2	0.032	0.034
51006	CCD-234	286	288	2	0.022	0.058
51007	CCD-234	288	290	2	0.010	0.017
51008	CCD-234	290	292	2	0.010	0.026
51009	CCD-234	292	294	2	0.010	0.048
51010	CCD-234	294	296	2	0.023	0.048
51011	CCD-234	296	298	2	0.010	0.056
51012	CCD-234	298	300	2	0.030	0.205
51013	CCD-234	300	302	2	0.038	0.110
51014	CCD-234	302	304	2	0.022	0.039
51015	CCD-234	304	306	2	0.037	0.044
51016	CCD-234	306	308	2	0.010	0.072
51017	CCD-234	308	310	2	0.010	0.048
51018	CCD-234	310	312	2	1.020	0.072
51019	CCD-234	312	314	2	0.010	0.070
51021	CCD-234	314	316	2	0.010	0.083
51022	CCD-234	316	318	2	0.010	0.028
51023	CCD-234	318	320	2	0.010	0.025
51024	CCD-234	320	322	2	0.010	0.028
51025	CCD-234	322	324	2	0.010	0.025
51026	CCD-234	324	326	2	0.010	0.020
51027	CCD-234	326	328	2	0.010	0.047
51028	CCD-234	328	330	2	0.035	0.039
51029	CCD-234	330	332	2	0.038	0.046
51031	CCD-234	332	334	2	0.032	0.055
51032	CCD-234	334	336	2	0.022	0.029
51033	CCD-234	336	338	2	0.047	0.060
51034	CCD-234	338	340	2	0.032	0.050
51035	CCD-234	340	342	2	0.042	0.055
51036	CCD-234	342	344	2	0.067	0.066
51037	CCD-234	344	346	2	0.075	0.079
51039	CCD-234	346	348	2	0.065	0.128
51040	CCD-234	348	350	2	0.065	0.105
51041	CCD-234	350	352	2	0.063	0.162
51042	CCD-234	352	354	2	0.085	0.160
51043	CCD-234	354	356	2	0.050	0.114

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
51044	CCD-234	356	358	2	0.053	0.097
51045	CCD-234	358	360	2	0.042	0.057
51046	CCD-234	360	362	2	0.053	0.094
51047	CCD-234	362	364	2	0.060	0.109
51048	CCD-234	364	366	2	0.087	0.180
51049	CCD-234	366	368	2	0.080	0.170
51050	CCD-234	368	370	2	0.103	0.180
52451	CCD-234	370	372	2	0.022	0.056
52452	CCD-234	372	374	2	0.025	0.071
52453	CCD-234	374	376	2	0.010	0.058
52454	CCD-234	376	378	2	0.010	0.107
52455	CCD-234	378	380	2	0.010	0.071
52456	CCD-234	380	382	2	0.010	0.046
52458	CCD-234	382	384	2	0.010	0.071
52459	CCD-234	384	386	2	0.010	0.041
52460	CCD-234	386	388	2	0.010	0.052
52461	CCD-234	388	390	2	0.010	0.040
52462	CCD-234	390	392	2	0.010	0.026
52463	CCD-234	392	394	2	0.010	0.037
52464	CCD-234	394	396	2	0.010	0.032
51051	CCD-235	0	2	2	0.070	0.078
51052	CCD-235	2	4	2	0.070	0.065
51053	CCD-235	4	6	2	0.190	0.352
51054	CCD-235	6	8	2	0.390	0.233
51055	CCD-235	8	10	2	0.170	0.139
51056	CCD-235	10	12	2	0.130	0.123
51057	CCD-235	12	14	2	0.120	0.049
51058	CCD-235	14	16	2	0.050	0.059
51059	CCD-235	16	18	2	0.180	0.145
51060	CCD-235	18	20	2	0.240	0.155
51061	CCD-235	20	22	2	0.110	0.091
51062	CCD-235	22	24	2	0.080	0.066
51063	CCD-235	24	26	2	0.050	0.047
51065	CCD-235	26	28	2	0.080	0.062
51066	CCD-235	28	30	2	0.040	0.038
51067	CCD-235	30	32	2	0.140	0.105
51068	CCD-235	32	34	2	0.070	0.063
51069	CCD-235	34	36	2	0.070	0.045
51070	CCD-235	36	38	2	0.070	0.049
51071	CCD-235	38	40	2	0.190	0.090
51072	CCD-235	40	42	2	0.580	0.338
51073	CCD-235	42	44	2	0.220	0.105
51074	CCD-235	44	46	2	0.110	0.049
51075	CCD-235	46	48	2	0.750	0.409
51076	CCD-235	48	50	2	0.180	0.103
51077	CCD-235	50	52	2	0.980	0.170
51078	CCD-235	52	54	2	0.680	0.225
51080	CCD-235	54	56	2	0.480	0.199
51081	CCD-235	56	58	2	0.870	0.337
51082	CCD-235	58	60	2	1.010	0.332
51084	CCD-235	60	62	2	0.860	0.335
51085	CCD-235	62	64	2	0.850	0.261
51086	CCD-235	64	66	2	0.910	0.289
51087	CCD-235	66	68	2	0.780	0.255
51088	CCD-235	68	70	2	0.710	0.325

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
51089	CCD-235	70	72	2	0.980	0.350
51090	CCD-235	72	74	2	1.140	0.350
51091	CCD-235	74	76	2	1.160	0.339
51092	CCD-235	76	78	2	2.650	0.438
51093	CCD-235	78	80	2	1.850	0.588
51094	CCD-235	80	82	2	1.350	0.511
51095	CCD-235	82	84	2	1.540	0.473
51096	CCD-235	84	86	2	0.970	0.312
51097	CCD-235	86	88	2	1.130	0.376
51098	CCD-235	88	90	2	1.210	0.360
51099	CCD-235	90	92	2	0.620	0.216
51100	CCD-235	92	94	2	0.470	0.177
51102	CCD-235	94	96	2	0.280	0.060
51103	CCD-235	96	98	2	0.590	0.187
51104	CCD-235	98	100	2	0.410	0.118
51105	CCD-235	100	102	2	0.250	0.063
51106	CCD-235	102	104	2	0.380	0.134
51107	CCD-235	104	106	2	1.120	0.295
51108	CCD-235	106	108	2	1.880	0.501
51109	CCD-235	108	110	2	0.850	0.237
51110	CCD-235	110	112	2	0.490	0.165
51111	CCD-235	112	114	2	0.960	0.361
51112	CCD-235	114	116	2	0.520	0.228
51113	CCD-235	116	118	2	0.340	0.195
51114	CCD-235	118	120	2	0.300	0.152
51115	CCD-235	120	122	2	0.500	0.264
51116	CCD-235	122	124	2	0.330	0.268
51118	CCD-235	124	126	2	0.500	0.212
51119	CCD-235	126	128	2	0.440	0.222
51120	CCD-235	128	130	2	0.240	0.258
51121	CCD-235	130	132	2	0.310	0.140
51122	CCD-235	132	134	2	0.390	0.276
51123	CCD-235	134	136	2	0.250	0.301
51124	CCD-235	136	138	2	0.260	0.294
51125	CCD-235	138	140	2	0.470	0.370
51126	CCD-235	140	142	2	0.550	0.506
51127	CCD-235	142	144	2	0.540	0.266
51128	CCD-235	144	146	2	0.220	0.407
51129	CCD-235	146	148	2	0.430	0.856
51130	CCD-235	148	150	2	0.360	0.378
51131	CCD-235	150	152	2	0.160	0.137
51133	CCD-235	152	154	2	0.220	0.160
51134	CCD-235	154	156	2	0.140	0.104
51135	CCD-235	156	158	2	0.110	0.115
51136	CCD-235	158	160	2	0.430	0.294
51137	CCD-235	160	162	2	0.350	0.282
51138	CCD-235	162	164	2	0.210	0.214
51139	CCD-235	164	166	2	0.170	0.100
51141	CCD-235	166	168	2	0.150	0.060
51142	CCD-235	168	170	2	0.080	0.053
51143	CCD-235	170	172	2	0.150	0.098
51144	CCD-235	172	174	2	0.190	0.222
51145	CCD-235	174	176	2	0.340	0.398
51146	CCD-235	176	178	2	0.300	0.315
51147	CCD-235	178	180	2	0.140	0.166

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
51148	CCD-235	180	182	2	0.170	0.143
51149	CCD-235	182	184	2	0.270	0.440
51150	CCD-235	184	186	2	0.230	0.293
51151	CCD-235	186	188	2	0.230	0.208
51152	CCD-235	188	190	2	0.380	0.654
51154	CCD-235	190	192	2	0.090	0.175
51155	CCD-235	192	194	2	0.170	0.133
51156	CCD-235	194	196	2	0.140	0.234
51157	CCD-235	196	198	2	0.090	0.141
51158	CCD-235	198	200	2	0.070	0.066
51159	CCD-235	200	202	2	0.080	0.131
51160	CCD-235	202	204	2	0.090	0.169
51161	CCD-235	204	206	2	0.200	0.299
51162	CCD-235	206	208	2	0.150	0.155
51163	CCD-235	208	210	2	0.070	0.109
51164	CCD-235	210	212	2	0.260	0.050
51165	CCD-235	212	214	2	0.040	0.038
51166	CCD-235	214	216	2	0.040	0.095
51167	CCD-235	216	218	2	0.060	0.046
51168	CCD-235	218	220	2	0.150	0.078
51170	CCD-235	220	222	2	0.070	0.027
51171	CCD-235	222	224	2	0.030	0.039
51172	CCD-235	224	226	2	0.500	0.044
51173	CCD-235	226	228	2	0.100	0.139
51174	CCD-235	228	230	2	0.050	0.050
51175	CCD-235	230	232	2	0.120	0.137
51176	CCD-235	232	234	2	0.120	0.095
51177	CCD-235	234	236	2	0.060	0.034
51178	CCD-235	236	238	2	0.100	0.080
51179	CCD-235	238	240	2	0.050	0.134
51180	CCD-235	240	242	2	0.050	0.035
51181	CCD-235	242	244	2	0.090	0.071
51182	CCD-235	244	246	2	0.150	0.097
51183	CCD-235	246	248	2	0.010	0.043
51184	CCD-235	248	250	2	0.130	0.065
51185	CCD-235	250	252	2	0.130	0.105
51187	CCD-235	252	254	2	0.050	0.052
51188	CCD-235	254	256	2	0.050	0.105
51189	CCD-235	256	258	2	0.090	0.207
51190	CCD-235	258	260	2	0.090	0.153
51191	CCD-235	260	262	2	0.090	0.100
51192	CCD-235	262	264	2	0.050	0.077
51193	CCD-235	264	266	2	0.068	0.170
51195	CCD-235	266	268	2	0.038	0.072
51196	CCD-235	268	270	2	0.042	0.093
51197	CCD-235	270	272	2	0.055	0.113
51198	CCD-235	272	274	2	0.032	0.060
51199	CCD-235	274	276	2	0.068	0.129
51200	CCD-235	276	278	2	0.075	0.049
51201	CCD-235	278	280	2	0.087	0.014
51202	CCD-235	280	282	2	0.118	0.055
51204	CCD-235	282	284	2	1.947	0.053
51205	CCD-235	284	286	2	0.045	0.039
51206	CCD-235	286	288	2	0.063	0.025
51207	CCD-235	288	290	2	0.070	0.022

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
51208	CCD-235	290	292	2	0.023	0.021
51209	CCD-235	292	294	2	0.041	0.034
51210	CCD-235	294	296	2	0.030	0.045
51211	CCD-235	296	298	2	0.023	0.036
51212	CCD-235	298	300	2	0.068	0.103
51213	CCD-235	300	302	2	0.010	0.005
51214	CCD-235	302	304	2	0.027	0.016
51215	CCD-235	304	306	2	0.025	0.017
51216	CCD-235	306	308	2	0.025	0.021
51217	CCD-235	308	310	2	0.027	0.026
51218	CCD-235	310	312	2	0.010	0.022
51219	CCD-235	312	314	2	0.033	0.033
51221	CCD-235	314	316	2	0.027	0.070
51222	CCD-235	316	318	2	0.030	0.084
51223	CCD-235	318	320	2	0.065	0.075
51224	CCD-235	320	322	2	0.010	0.025
51225	CCD-235	322	324	2	0.010	0.015
51226	CCD-235	324	326	2	0.092	0.060
51227	CCD-235	326	328	2	0.010	0.021
51228	CCD-235	328	330	2	0.022	0.019
51229	CCD-235	330	332	2	0.067	0.228
51230	CCD-235	332	334	2	0.102	0.030
51231	CCD-235	334	336	2	0.010	0.021
51232	CCD-235	336	338	2	0.010	0.015
51233	CCD-235	338	340	2	0.010	0.005
51234	CCD-235	340	342	2	0.010	0.005
51235	CCD-235	342	344	2	0.022	0.014
51236	CCD-235	344	346	2	0.010	0.014
51237	CCD-235	346	348	2	0.010	0.005
51239	CCD-235	348	350	2	0.010	0.005
51240	CCD-235	350	352	2	0.010	0.005
51241	CCD-235	352	354	2	0.010	0.005
51242	CCD-235	354	356	2	0.010	0.005
51243	CCD-235	356	358	2	0.010	0.012
51244	CCD-235	358	360	2	0.010	0.005
51246	CCD-235	360	362	2	0.010	0.005
51247	CCD-235	362	364	2	0.028	0.055
51248	CCD-235	364	366	2	0.010	0.014
51249	CCD-235	366	368	2	0.010	0.015
51250	CCD-235	368	370	2	0.010	0.011
50601	CCD-235	370	372	2	0.010	0.005
50602	CCD-235	372	374	2	0.010	0.005
50603	CCD-235	374	376	2	0.010	0.005
50604	CCD-235	376	378	2	0.010	0.005
50605	CCD-235	378	380	2	0.010	0.039
51751	CCD-236	0	2	2	0.385	0.043
51752	CCD-236	2	4	2	0.948	0.044
51753	CCD-236	4	6	2	1.067	0.038
51754	CCD-236	6	8	2	0.930	0.032
51755	CCD-236	8	10	2	0.720	0.005
51756	CCD-236	10	12	2	0.943	0.005
51757	CCD-236	12	14	2	0.820	0.005
51758	CCD-236	14	16	2	0.930	0.005
51759	CCD-236	16	18	2	1.897	0.005
51760	CCD-236	18	20	2	0.913	0.013

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
51762	CCD-236	20	22	2	1.918	0.018
51763	CCD-236	22	24	2	1.860	0.015
51764	CCD-236	24	26	2	1.817	0.026
51765	CCD-236	26	28	2	1.583	0.025
51766	CCD-236	28	30	2	1.107	0.020
51767	CCD-236	30	32	2	0.900	0.397
51768	CCD-236	32	34	2	0.757	0.468
51769	CCD-236	34	36	2	0.482	0.122
51770	CCD-236	36	38	2	0.597	0.605
51771	CCD-236	38	40	2	0.707	0.405
51772	CCD-236	40	42	2	0.635	0.391
51773	CCD-236	42	44	2	0.783	0.298
51774	CCD-236	44	46	2	0.410	0.143
51775	CCD-236	46	48	2	0.385	0.163
51776	CCD-236	48	50	2	0.447	0.170
51777	CCD-236	50	52	2	0.237	0.103
51778	CCD-236	52	54	2	0.292	0.115
51779	CCD-236	54	56	2	0.178	0.058
51780	CCD-236	56	58	2	0.280	0.119
51782	CCD-236	58	60	2	0.136	0.054
51783	CCD-236	60	62	2	0.057	0.026
51784	CCD-236	62	64	2	0.143	0.049
51785	CCD-236	64	66	2	0.158	0.065
51786	CCD-236	66	68	2	0.093	0.035
51787	CCD-236	68	70	2	0.340	0.250
51788	CCD-236	70	72	2	0.175	0.128
51789	CCD-236	72	74	2	0.123	0.097
51790	CCD-236	74	76	2	0.155	0.083
51791	CCD-236	76	78	2	0.208	0.089
51792	CCD-236	78	80	2	0.385	0.198
51793	CCD-236	80	82	2	0.480	0.341
51794	CCD-236	82	84	2	0.068	0.085
51795	CCD-236	84	86	2	0.155	0.166
51796	CCD-236	86	88	2	0.190	0.272
51797	CCD-236	88	90	2	0.027	0.158
51799	CCD-236	90	92	2	0.210	0.197
51800	CCD-236	92	94	2	0.212	0.282
51801	CCD-236	94	96	2	0.228	0.146
51802	CCD-236	96	98	2	0.384	0.212
51803	CCD-236	98	100	2	0.305	0.225
51804	CCD-236	100	102	2	0.883	0.142
51805	CCD-236	102	104	2	0.187	0.166
51806	CCD-236	104	106	2	0.213	0.263
51807	CCD-236	106	108	2	0.168	0.175
51808	CCD-236	108	110	2	0.172	0.125
51809	CCD-236	110	112	2	0.147	0.152
51810	CCD-236	112	114	2	0.233	0.145
51811	CCD-236	114	116	2	0.183	0.169
51812	CCD-236	116	118	2	0.131	0.093
51813	CCD-236	118	120	2	0.172	0.151
51814	CCD-236	120	122	2	0.290	0.190
51816	CCD-236	122	124	2	0.162	0.136
51817	CCD-236	124	126	2	0.192	0.157
51818	CCD-236	126	128	2	0.332	0.175
51819	CCD-236	128	130	2	0.465	0.344

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
51820	CCD-236	130	132	2	1.137	0.986
51821	CCD-236	132	134	2	0.485	0.459
51822	CCD-236	134	136	2	0.187	0.168
51823	CCD-236	136	138	2	0.400	0.246
51824	CCD-236	138	140	2	0.148	0.807
51825	CCD-236	140	142	2	0.402	0.508
51826	CCD-236	142	144	2	0.273	0.241
51827	CCD-236	144	146	2	0.472	0.414
51828	CCD-236	146	148	2	0.178	0.172
51829	CCD-236	148	150	2	0.213	0.553
51830	CCD-236	150	152	2	0.280	0.635
51831	CCD-236	152	154	2	0.158	0.480
51832	CCD-236	154	156	2	0.477	0.588
51833	CCD-236	156	158	2	0.593	0.518
51835	CCD-236	158	160	2	0.177	0.216
51836	CCD-236	160	162	2	0.165	0.172
51837	CCD-236	162	164	2	0.143	0.169
51838	CCD-236	164	166	2	0.125	0.182
51839	CCD-236	166	168	2	0.283	0.569
51840	CCD-236	168	170	2	0.328	0.407
51841	CCD-236	170	172	2	0.173	0.345
51842	CCD-236	172	174	2	0.241	0.190
51843	CCD-236	174	176	2	0.120	0.233
51844	CCD-236	176	178	2	0.150	0.262
51845	CCD-236	178	180	2	0.310	0.185
51846	CCD-236	180	182	2	0.242	0.416
51847	CCD-236	182	184	2	0.557	0.182
51849	CCD-236	184	186	2	0.257	0.348
51850	CCD-236	186	188	2	0.267	0.313
51851	CCD-236	188	190	2	0.233	0.186
51852	CCD-236	190	192	2	0.164	0.373
51853	CCD-236	192	194	2	0.108	0.220
51854	CCD-236	194	196	2	0.108	0.508
51855	CCD-236	196	198	2	0.222	0.621
51856	CCD-236	198	200	2	0.053	0.513
51857	CCD-236	200	202	2	0.062	0.061
51858	CCD-236	202	204	2	0.087	0.212
51859	CCD-236	204	206	2	0.100	0.080
51860	CCD-236	206	208	2	0.047	0.067
51861	CCD-236	208	210	2	0.027	0.041
51862	CCD-236	210	212	2	0.048	0.091
51863	CCD-236	212	214	2	0.050	0.028
51864	CCD-236	214	216	2	0.067	0.040
51865	CCD-236	216	218	2	0.147	0.061
51866	CCD-236	218	220	2	0.570	0.047
51868	CCD-236	220	222	2	0.147	0.101
51869	CCD-236	222	224	2	0.095	0.035
51870	CCD-236	224	226	2	0.152	0.030
51871	CCD-236	226	228	2	0.160	0.062
51872	CCD-236	228	230	2	0.163	0.151
51873	CCD-236	230	232	2	0.022	0.101
51874	CCD-236	232	234	2	0.010	0.042
51875	CCD-236	234	236	2	0.053	0.124
51876	CCD-236	236	238	2	0.125	0.050
51877	CCD-236	238	240	2	0.268	0.277

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
51878	CCD-236	240	242	2	0.217	0.112
51879	CCD-236	242	244	2	0.322	0.074
51880	CCD-236	244	246	2	0.138	0.071
51881	CCD-236	246	248	2	0.175	0.057
51882	CCD-236	248	250	2	0.047	0.084
51883	CCD-236	250	252	2	0.093	0.057
51885	CCD-236	252	254	2	0.092	0.095
51886	CCD-236	254	256	2	0.108	0.185
51887	CCD-236	256	258	2	0.135	0.110
51888	CCD-236	258	260	2	0.107	0.069
51889	CCD-236	260	262	2	0.130	0.079
51890	CCD-236	262	264	2	0.352	0.076
51891	CCD-236	264	266	2	0.097	0.046
51892	CCD-236	266	268	2	0.043	0.030
51893	CCD-236	268	270	2	0.090	0.047
51894	CCD-236	270	272	2	0.093	0.068
51895	CCD-236	272	274	2	0.118	0.051
51896	CCD-236	274	276	2	0.046	0.039
51897	CCD-236	276	278	2	0.092	0.056
51899	CCD-236	278	280	2	0.082	0.049
51901	CCD-237	0	2	2	0.082	0.109
51902	CCD-237	2	4	2	0.048	0.128
51903	CCD-237	4	6	2	0.026	0.081
51904	CCD-237	6	8	2	0.048	0.156
51906	CCD-237	8	10	2	0.077	0.286
51907	CCD-237	10	12	2	0.042	0.163
51908	CCD-237	12	14	2	0.060	0.338
51909	CCD-237	14	16	2	0.065	0.269
51910	CCD-237	16	18	2	0.072	0.360
51911	CCD-237	18	20	2	0.053	0.153
51912	CCD-237	20	22	2	0.172	0.206
51913	CCD-237	22	24	2	0.210	0.136
51914	CCD-237	24	26	2	0.177	0.203
51915	CCD-237	26	28	2	0.075	0.198
51916	CCD-237	28	30	2	0.032	0.068
51917	CCD-237	30	32	2	0.032	0.046
51918	CCD-237	32	34	2	0.037	0.052
51919	CCD-237	34	36	2	0.045	0.053
51920	CCD-237	36	38	2	0.112	0.176
51921	CCD-237	38	40	2	0.107	0.094
51922	CCD-237	40	42	2	0.087	0.081
51923	CCD-237	42	44	2	0.042	0.057
51924	CCD-237	44	46	2	0.050	0.053
51925	CCD-237	46	48	2	0.027	0.056
51926	CCD-237	48	50	2	0.045	0.069
51927	CCD-237	50	52	2	0.035	0.049
51929	CCD-237	52	54	2	0.048	0.066
51930	CCD-237	54	56	2	0.025	0.050
51931	CCD-237	56	58	2	0.023	0.038
51932	CCD-237	58	60	2	0.025	0.014
51933	CCD-237	60	62	2	0.028	0.051
51934	CCD-237	62	64	2	0.042	0.070
51935	CCD-237	64	66	2	0.068	0.104
51936	CCD-237	66	68	2	0.130	0.044
51937	CCD-237	68	70	2	0.030	0.034

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
51938	CCD-237	70	72	2	0.030	0.038
51939	CCD-237	72	74	2	0.010	0.026
51940	CCD-237	74	76	2	0.028	0.049
51941	CCD-237	76	78	2	0.072	0.090
51942	CCD-237	78	80	2	0.040	0.054
51943	CCD-237	80	82	2	0.044	0.052
51944	CCD-237	82	84	2	0.045	0.049
51945	CCD-237	84	86	2	0.100	0.151
51946	CCD-237	86	88	2	0.045	0.042
51948	CCD-237	88	90	2	0.022	0.031
51949	CCD-237	90	92	2	0.025	0.057
51950	CCD-237	92	94	2	0.040	0.052
51951	CCD-237	94	96	2	0.385	0.063
51952	CCD-237	96	98	2	0.060	0.051
51953	CCD-237	98	100	2	0.039	0.046
51954	CCD-237	100	102	2	0.030	0.072
51955	CCD-237	102	104	2	0.037	0.057
51956	CCD-237	104	106	2	0.032	0.049
51957	CCD-237	106	108	2	0.052	0.075
51958	CCD-237	108	110	2	0.042	0.120
51959	CCD-237	110	112	2	0.022	0.047
51960	CCD-237	112	114	2	0.010	0.073
51961	CCD-237	114	116	2	0.010	0.070
51962	CCD-237	116	118	2	0.032	0.097
51963	CCD-237	118	120	2	0.010	0.064
51964	CCD-237	120	122	2	0.030	0.083
51965	CCD-237	122	124	2	0.010	0.053
51967	CCD-237	124	126	2	0.030	0.071
51968	CCD-237	126	128	2	0.050	0.058
51969	CCD-237	128	130	2	0.027	0.052
51970	CCD-237	130	132	2	0.035	0.089
51971	CCD-237	132	134	2	0.032	0.077
51972	CCD-237	134	136	2	0.040	0.119
51973	CCD-237	136	138	2	0.047	0.077
51974	CCD-237	138	140	2	0.023	0.077
51975	CCD-237	140	142	2	0.033	0.123
51976	CCD-237	142	144	2	0.027	0.051
51977	CCD-237	144	146	2	0.025	0.035
51978	CCD-237	146	148	2	0.078	0.122
51979	CCD-237	148	150	2	0.107	0.217
51980	CCD-237	150	152	2	0.033	0.035
51981	CCD-237	152	154	2	0.042	0.030
51982	CCD-237	154	156	2	1.433	0.023
51983	CCD-237	156	158	2	0.027	0.033
51985	CCD-237	158	160	2	0.027	0.027
51986	CCD-237	160	162	2	0.032	0.048
51987	CCD-237	162	164	2	0.043	0.048
51988	CCD-237	164	166	2	0.038	0.053
51989	CCD-237	166	168	2	0.033	0.038
51990	CCD-237	168	170	2	0.037	0.043
51991	CCD-237	170	172	2	0.053	0.041
51992	CCD-237	172	174	2	0.090	0.092
51993	CCD-237	174	176	2	0.010	0.027
51994	CCD-237	176	178	2	0.010	0.013
51995	CCD-237	178	180	2	0.010	-0.010

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
51996	CCD-237	180	182	2	0.010	0.014
51998	CCD-237	182	184	2	0.030	0.028
51999	CCD-237	184	186	2	0.010	-0.010
52000	CCD-237	186	188	2	0.010	0.010
52001	CCD-237	188	190	2	0.010	-0.010
52002	CCD-237	190	192	2	0.010	-0.010
52003	CCD-237	192	194	2	0.010	0.011
52004	CCD-237	194	196	2	0.010	-0.010
52005	CCD-237	196	198	2	0.040	-0.010
52006	CCD-237	198	200	2	0.010	0.015
52007	CCD-237	200	202	2	0.010	-0.010
52008	CCD-237	202	204	2	0.010	-0.010
52009	CCD-237	204	206	2	0.010	-0.010
52010	CCD-237	206	208	2	0.010	-0.010
52011	CCD-237	208	210	2	0.010	-0.010
52012	CCD-237	210	212	2	0.010	0.025
52013	CCD-237	212	214	2	0.010	0.005
52014	CCD-237	214	216	2	0.010	0.015
52015	CCD-237	216	218	2	0.010	0.005
52016	CCD-237	218	220	2	0.010	0.030
52018	CCD-237	220	222	2	0.010	0.005
52019	CCD-237	222	224	2	0.010	0.005
52020	CCD-237	224	226	2	0.010	0.005
52021	CCD-237	226	228	2	0.010	0.020
52022	CCD-237	228	230	2	0.010	0.005
52023	CCD-237	230	232	2	0.010	0.040
52024	CCD-237	232	234	2	0.010	0.005
52025	CCD-237	234	236	2	0.010	0.005
52026	CCD-237	236	238	2	0.010	0.013
52027	CCD-237	238	240	2	0.035	0.020
52028	CCD-237	240	242	2	0.025	0.016
52352	CCD-238	2	4	2	0.185	0.027
52353	CCD-238	4	6	2	0.138	0.035
52354	CCD-238	6	8	2	0.760	0.089
52355	CCD-238	8	10	2	0.382	0.296
52356	CCD-238	10	12	2	0.318	0.241
52357	CCD-238	12	14	2	0.455	0.178
52358	CCD-238	14	16	2	0.402	0.175
52359	CCD-238	16	18	2	0.237	0.068
52360	CCD-238	18	20	2	0.240	0.085
52362	CCD-238	20	22	2	0.238	0.097
52363	CCD-238	22	24	2	0.272	0.123
52364	CCD-238	24	26	2	0.225	0.119
52365	CCD-238	26	28	2	0.187	0.187
52366	CCD-238	28	30	2	0.330	0.306
52367	CCD-238	30	32	2	0.440	0.222
52368	CCD-238	32	34	2	0.247	0.191
52369	CCD-238	34	36	2	0.269	0.142
52370	CCD-238	36	38	2	0.917	0.447
52371	CCD-238	38	40	2	0.178	0.489
52372	CCD-238	40	42	2	1.497	0.360
52373	CCD-238	42	44	2	0.770	0.214
52374	CCD-238	44	46	2	2.637	0.828
52375	CCD-238	46	48	2	0.983	0.242
52376	CCD-238	48	50	2	0.408	0.106

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
52377	CCD-238	50	52	2	0.433	0.106
52378	CCD-238	52	54	2	0.303	0.074
52379	CCD-238	54	56	2	0.400	0.100
52381	CCD-238	56	58	2	0.273	0.066
52382	CCD-238	58	60	2	0.238	0.062
52383	CCD-238	60	62	2	0.162	0.046
52384	CCD-238	62	64	2	0.238	0.060
52385	CCD-238	64	66	2	0.397	0.118
52386	CCD-238	66	68	2	0.142	0.047
52387	CCD-238	68	70	2	0.203	0.107
52388	CCD-238	70	72	2	0.133	0.049
52389	CCD-238	72	74	2	0.217	0.082
52391	CCD-238	74	76	2	0.138	0.041
52392	CCD-238	76	78	2	0.257	0.057
52393	CCD-238	78	80	2	0.657	0.085
52394	CCD-238	80	82	2	0.314	0.164
52395	CCD-238	82	84	2	0.225	0.409
52397	CCD-238	84	86	2	0.930	0.475
52398	CCD-238	86	88	2	1.167	0.473
52399	CCD-238	88	90	2	1.127	0.786
52400	CCD-238	90	92	2	1.193	0.616
52401	CCD-238	92	94	2	0.613	0.162
52402	CCD-238	94	96	2	1.437	0.428
52403	CCD-238	96	98	2	2.347	0.635
52404	CCD-238	98	100	2	2.553	0.704
52405	CCD-238	100	102	2	2.417	0.383
52406	CCD-238	102	104	2	2.680	0.621
52407	CCD-238	104	106	2	2.110	0.656
52408	CCD-238	106	108	2	1.970	0.753
52409	CCD-238	108	110	2	4.883	1.352
52410	CCD-238	110	112	2	2.930	0.951
52411	CCD-238	112	114	2	3.267	1.049
52413	CCD-238	114	116	2	3.047	0.866
52414	CCD-238	116	118	2	2.253	0.713
52416	CCD-238	118	120	2	2.853	1.024
52417	CCD-238	120	122	2	2.175	0.732
52418	CCD-238	122	124	2	2.907	1.068
52419	CCD-238	124	126	2	2.887	0.067
52420	CCD-238	126	128	2	2.563	0.060
52421	CCD-238	128	130	2	1.020	0.037
52422	CCD-238	130	132	2	1.580	0.045
52423	CCD-238	132	134	2	1.580	0.041
52424	CCD-238	134	136	2	1.563	0.026
52425	CCD-238	136	138	2	5.350	0.078
52426	CCD-238	138	140	2	1.257	0.061
52427	CCD-238	140	142	2	1.547	0.055
52428	CCD-238	142	144	2	0.474	0.093
52429	CCD-238	144	146	2	1.333	0.029
52431	CCD-238	146	148	2	1.090	0.015
52432	CCD-238	148	150	2	1.220	0.024
52433	CCD-238	150	152	2	0.727	0.016
52434	CCD-238	152	154	2	1.130	0.015
52435	CCD-238	154	156	2	0.517	0.012
52436	CCD-238	156	158	2	0.507	0.013
52437	CCD-238	158	160	2	0.707	0.021

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
52438	CCD-238	160	162	2	0.820	0.035
52439	CCD-238	162	164	2	0.948	0.029
52440	CCD-238	164	166	2	0.857	-0.010
52441	CCD-238	166	168	2	0.523	0.011
52442	CCD-238	168	170	2	0.418	0.016
52443	CCD-238	170	172	2	0.683	0.018
52444	CCD-238	172	174	2	0.608	0.019
52445	CCD-238	174	176	2	0.502	0.027
52446	CCD-238	176	178	2	0.787	0.021
52447	CCD-238	178	180	2	0.543	0.019
52449	CCD-238	180	182	2	0.538	0.022
52450	CCD-238	182	184	2	0.385	0.028
12901	CCD-238	184	186	2	0.463	0.023
12902	CCD-238	186	188	2	0.388	0.018
12903	CCD-238	188	190	2	0.773	0.037
12904	CCD-238	190	192	2	0.648	0.028
12905	CCD-238	192	194	2	0.592	0.036
12906	CCD-238	194	196	2	0.645	0.036
12907	CCD-238	196	198	2	0.368	0.018
12908	CCD-238	198	200	2	0.773	0.053
12909	CCD-238	200	202	2	0.385	0.031
12910	CCD-238	202	204	2	0.263	0.014
12911	CCD-238	204	206	2	0.327	0.020
12912	CCD-238	206	208	2	0.145	-0.010
12913	CCD-238	208	210	2	0.175	0.010
12914	CCD-238	210	212	2	0.140	-0.010
12916	CCD-238	212	214	2	0.370	0.015
12917	CCD-238	214	216	2	0.072	-0.010
12918	CCD-238	216	218	2	0.072	-0.010
12919	CCD-238	218	220	2	0.233	-0.010
12921	CCD-238	220	222	2	0.127	-0.010
12922	CCD-238	222	224	2	0.312	-0.010
12923	CCD-238	224	226	2	0.145	-0.010
12924	CCD-238	226	228	2	0.213	-0.010
12925	CCD-238	228	230	2	0.122	-0.010
12926	CCD-238	230	232	2	0.077	-0.010
12927	CCD-238	232	234	2	0.208	-0.010
12928	CCD-238	234	236	2	0.482	0.027
12929	CCD-238	236	238	2	0.647	0.025
12930	CCD-238	238	240	2	0.278	0.013
12931	CCD-238	240	242	2	0.162	-0.010
12932	CCD-238	242	244	2	0.398	0.027
12933	CCD-238	244	246	2	0.223	-0.010
12934	CCD-238	246	248	2	0.207	-0.010
12936	CCD-238	248	250	2	0.315	0.026
12937	CCD-238	250	252	2	0.380	0.037
52052	CCD-239	2	4	2	0.887	0.064
52053	CCD-239	4	6	2	0.270	0.052
52054	CCD-239	6	8	2	0.275	0.051
52055	CCD-239	8	10	2	0.185	0.057
52056	CCD-239	10	12	2	0.133	0.029
52057	CCD-239	12	14	2	0.132	0.029
52058	CCD-239	14	16	2	0.143	0.023
52059	CCD-239	16	18	2	0.273	0.032
52060	CCD-239	18	20	2	0.463	0.030

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
52062	CCD-239	20	22	2	0.253	0.033
52063	CCD-239	22	24	2	0.238	0.103
52064	CCD-239	24	26	2	0.203	0.042
52065	CCD-239	26	28	2	0.292	0.416
52066	CCD-239	28	30	2	0.243	0.635
52067	CCD-239	30	32	2	0.458	0.290
52068	CCD-239	32	34	2	0.635	0.722
52069	CCD-239	34	36	2	0.448	1.188
52070	CCD-239	36	38	2	0.797	1.042
52071	CCD-239	38	40	2	1.097	1.153
52072	CCD-239	40	42	2	0.572	2.840
52073	CCD-239	42	44	2	1.243	1.824
52074	CCD-239	44	46	2	1.333	1.165
52075	CCD-239	46	48	2	0.737	1.320
52076	CCD-239	48	50	2	0.542	2.128
52077	CCD-239	50	52	2	0.730	1.888
52078	CCD-239	52	54	2	0.652	1.472
52079	CCD-239	54	56	2	1.090	1.176
52080	CCD-239	56	58	2	1.260	1.129
52081	CCD-239	58	60	2	1.483	1.560
52083	CCD-239	60	62	2	0.977	3.080
52084	CCD-239	62	64	2	0.533	3.088
52085	CCD-239	64	66	2	0.572	2.688
52086	CCD-239	66	68	2	0.433	2.176
52087	CCD-239	68	70	2	0.305	1.472
52088	CCD-239	70	72	2	0.625	0.722
52089	CCD-239	72	74	2	0.552	0.358
52090	CCD-239	74	76	2	0.553	0.355
52091	CCD-239	76	78	2	0.625	0.314
52092	CCD-239	78	80	2	0.617	0.422
52093	CCD-239	80	82	2	0.645	0.555
52094	CCD-239	82	84	2	0.513	0.405
52095	CCD-239	84	86	2	0.287	0.262
52096	CCD-239	86	88	2	0.250	0.250
52097	CCD-239	88	90	2	0.312	0.223
52098	CCD-239	90	92	2	0.240	0.172
52099	CCD-239	92	94	2	0.277	0.210
52101	CCD-239	94	96	2	0.372	0.346
52102	CCD-239	96	98	2	0.405	0.323
52103	CCD-239	98	100	2	0.322	0.206
52104	CCD-239	100	102	2	0.510	0.459
52105	CCD-239	102	104	2	0.223	0.244
52106	CCD-239	104	106	2	0.248	0.274
52107	CCD-239	106	108	2	0.312	0.202
52108	CCD-239	108	110	2	0.333	0.251
52109	CCD-239	110	112	2	0.408	0.232
52110	CCD-239	112	114	2	0.270	0.152
52111	CCD-239	114	116	2	0.210	0.082
52112	CCD-239	116	118	2	0.353	0.287
52114	CCD-239	118	120	2	0.480	0.250
52115	CCD-239	120	122	2	0.208	0.150
52116	CCD-239	122	124	2	0.332	0.226
52117	CCD-239	124	126	2	0.222	0.229
52118	CCD-239	126	128	2	0.293	0.182
52119	CCD-239	128	130	2	0.295	0.010

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
52120	CCD-239	130	132	2	0.325	0.014
52121	CCD-239	132	134	2	0.188	0.011
52122	CCD-239	134	136	2	0.153	0.220
52123	CCD-239	136	138	2	0.238	0.005
52124	CCD-239	138	140	2	0.323	0.017
52125	CCD-239	140	142	2	0.328	0.017
52126	CCD-239	142	144	2	0.302	0.016
52127	CCD-239	144	146	2	0.248	0.020
52128	CCD-239	146	148	2	0.315	0.024
52129	CCD-239	148	150	2	0.237	0.019
52130	CCD-239	150	152	2	0.227	0.017
52131	CCD-239	152	154	2	0.272	0.328
52132	CCD-239	154	156	2	0.397	0.300
52133	CCD-239	156	158	2	0.252	0.334
52135	CCD-239	158	160	2	0.192	0.235
52136	CCD-239	160	162	2	0.253	0.384
52137	CCD-239	162	164	2	0.255	0.310
52138	CCD-239	164	166	2	0.215	0.238
52139	CCD-239	166	168	2	0.618	0.722
52140	CCD-239	168	170	2	0.318	0.579
52141	CCD-239	170	172	2	0.342	0.326
52142	CCD-239	172	174	2	0.392	0.494
52143	CCD-239	174	176	2	0.432	0.522
52144	CCD-239	176	178	2	0.325	0.671
52145	CCD-239	178	180	2	0.367	0.266
52146	CCD-239	180	182	2	0.757	0.635
52147	CCD-239	182	184	2	0.893	0.504
52149	CCD-239	184	186	2	0.757	0.344
52150	CCD-239	186	188	2	0.687	0.225
52151	CCD-239	188	190	2	0.683	0.299
52152	CCD-239	190	192	2	0.723	0.873
52153	CCD-239	192	194	2	0.512	0.534
52154	CCD-239	194	196	2	0.602	0.329
52155	CCD-239	196	198	2	0.717	0.285
52156	CCD-239	198	200	2	0.723	0.314
52157	CCD-239	200	202	2	0.743	0.414
52158	CCD-239	202	204	2	1.137	0.426
52159	CCD-239	204	206	2	0.862	0.475
52160	CCD-239	206	208	2	1.477	0.652
52161	CCD-239	208	210	2	0.787	0.362
52162	CCD-239	210	212	2	0.592	0.301
52163	CCD-239	212	214	2	1.487	0.624
52164	CCD-239	214	216	2	1.027	0.378
52165	CCD-239	216	218	2	0.847	0.508
52167	CCD-239	218	220	2	1.100	0.605
52168	CCD-239	220	222	2	0.970	0.478
52169	CCD-239	222	224	2	1.457	0.555
52170	CCD-239	224	226	2	1.700	0.544
52171	CCD-239	226	228	2	1.183	0.713
52172	CCD-239	228	230	2	1.443	0.553
52173	CCD-239	230	232	2	1.027	0.480
52174	CCD-239	232	234	2	1.337	0.732
52175	CCD-239	234	236	2	1.783	1.089
52176	CCD-239	236	238	2	2.070	0.706
52177	CCD-239	238	240	2	1.117	0.480

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
52178	CCD-239	240	242	2	0.697	0.318
52179	CCD-239	242	244	2	0.790	0.303
52180	CCD-239	244	246	2	1.263	0.548
52181	CCD-239	246	248	2	1.257	0.358
52183	CCD-239	248	250	2	0.940	0.400
52184	CCD-239	250	252	2	1.300	0.612
52203	CCD-240	4	6	2	2.257	0.056
52204	CCD-240	6	8	2	1.627	0.085
52205	CCD-240	8	10	2	1.430	0.091
52206	CCD-240	10	12	2	1.710	0.086
52207	CCD-240	12	14	2	1.747	0.079
52208	CCD-240	14	16	2	2.130	0.058
52210	CCD-240	16	18	2	2.527	0.070
52211	CCD-240	18	20	2	2.077	0.247
52212	CCD-240	20	22	2	1.857	0.223
52213	CCD-240	22	24	2	1.570	0.713
52214	CCD-240	24	26	2	1.137	0.640
52215	CCD-240	26	28	2	1.347	1.200
52216	CCD-240	28	30	2	1.173	1.192
52217	CCD-240	30	32	2	0.953	2.848
52218	CCD-240	32	34	2	1.130	1.912
52219	CCD-240	34	36	2	0.933	1.800
52220	CCD-240	36	38	2	1.067	1.152
52221	CCD-240	38	40	2	0.820	1.328
52222	CCD-240	40	42	2	1.197	1.056
52223	CCD-240	42	44	2	1.343	0.929
52224	CCD-240	44	46	2	1.347	0.431
52225	CCD-240	46	48	2	1.710	0.864
52226	CCD-240	48	50	2	1.257	0.614
52227	CCD-240	50	52	2	1.202	0.480
52228	CCD-240	52	54	2	1.653	0.776
52230	CCD-240	54	56	2	0.777	0.323
52231	CCD-240	56	58	2	0.703	0.230
52232	CCD-240	58	60	2	1.000	0.489
52233	CCD-240	60	62	2	1.120	0.579
52234	CCD-240	62	64	2	0.967	0.499
52235	CCD-240	64	66	2	0.462	0.369
52236	CCD-240	66	68	2	0.873	0.562
52237	CCD-240	68	70	2	1.340	0.687
52238	CCD-240	70	72	2	1.990	0.941
52239	CCD-240	72	74	2	1.387	0.671
52240	CCD-240	74	76	2	2.333	0.795
52241	CCD-240	76	78	2	2.100	0.838
52242	CCD-240	78	80	2	1.233	0.569
52243	CCD-240	80	82	2	1.383	0.588
52244	CCD-240	82	84	2	1.053	0.478
52245	CCD-240	84	86	2	0.907	0.372
52246	CCD-240	86	88	2	0.880	0.402
52247	CCD-240	88	90	2	0.489	0.468
52249	CCD-240	90	92	2	0.570	0.064
52250	CCD-240	92	94	2	0.913	0.348
18651	CCD-240	94	96	2	1.107	0.414
18652	CCD-240	96	98	2	1.347	0.656
18653	CCD-240	98	100	2	2.490	1.184
18654	CCD-240	100	102	2	1.830	0.802

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
18655	CCD-240	102	104	2	1.017	0.567
18656	CCD-240	104	106	2	1.577	0.894
18657	CCD-240	106	108	2	1.743	0.831
18658	CCD-240	108	110	2	2.377	0.894
18659	CCD-240	110	112	2	1.993	0.753
18660	CCD-240	112	114	2	2.790	0.889
18661	CCD-240	114	116	2	1.630	0.687
18662	CCD-240	116	118	2	1.663	0.598
18663	CCD-240	118	120	2	1.627	0.675
18665	CCD-240	120	122	2	1.633	0.605
18666	CCD-240	122	124	2	2.133	0.788
18667	CCD-240	124	126	2	1.317	0.588
18668	CCD-240	126	128	2	2.503	0.861
18669	CCD-240	128	130	2	1.097	0.473
18670	CCD-240	130	132	2	1.113	0.520
18671	CCD-240	132	134	2	2.043	0.776
18672	CCD-240	134	136	2	2.030	0.786
18673	CCD-240	136	138	2	1.087	0.459
18674	CCD-240	138	140	2	1.330	0.671
18675	CCD-240	140	142	2	2.873	1.192
18676	CCD-240	142	144	2	2.580	0.786
18677	CCD-240	144	146	2	2.283	0.800
18678	CCD-240	146	148	2	2.063	0.713
18680	CCD-240	148	150	2	1.683	0.579
18681	CCD-240	150	152	2	1.687	0.628
18682	CCD-240	152	154	2	2.117	0.609
18684	CCD-240	154	156	2	3.433	0.849
18685	CCD-240	156	158	2	1.110	0.399
18686	CCD-240	158	160	2	1.413	0.544
18687	CCD-240	160	162	2	1.063	0.384
18688	CCD-240	162	164	2	0.947	0.398
18689	CCD-240	164	166	2	1.842	0.616
18690	CCD-240	166	168	2	1.053	0.518
18691	CCD-240	168	170	2	1.160	0.405
18692	CCD-240	170	172	2	1.373	0.428
18693	CCD-240	172	174	2	2.130	0.786
18694	CCD-240	174	176	2	1.273	0.800
18696	CCD-240	176	178	2	0.990	1.480
18697	CCD-240	178	180	2	2.043	0.951
18698	CCD-240	180	182	2	1.217	0.480
18700	CCD-240	182	184	2	1.160	0.456
18701	CCD-240	184	186	2	3.067	1.328
18702	CCD-240	186	188	2	2.000	0.715
18703	CCD-240	188	190	2	2.660	1.198
18704	CCD-240	190	192	2	1.430	0.824
18705	CCD-240	192	194	2	1.323	0.555
18706	CCD-240	194	196	2	1.630	0.560
18707	CCD-240	196	198	2	1.663	0.522
18708	CCD-240	198	200	2	1.463	0.715
18709	CCD-240	200	202	2	1.433	0.776
18710	CCD-240	202	204	2	1.242	0.480
18711	CCD-240	204	206	2	2.187	0.762
18712	CCD-240	206	208	2	1.853	0.605
18713	CCD-240	208	210	2	1.153	0.393
18714	CCD-240	210	212	2	1.307	0.447

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
18715	CCD-240	212	214	2	1.613	0.407
18717	CCD-240	214	216	2	0.907	0.343
18719	CCD-240	216	218	2	1.273	0.532
18720	CCD-240	218	220	2	1.523	0.518
18721	CCD-240	220	222	2	2.313	0.842
18722	CCD-240	222	224	2	1.120	0.595
18723	CCD-240	224	226	2	1.488	0.419
18724	CCD-240	226	228	2	1.143	0.414
18725	CCD-240	228	230	2	2.460	1.031
18726	CCD-240	230	232	2	0.233	0.440
18727	CCD-240	232	234	2	1.250	0.435
18728	CCD-240	234	236	2	1.327	0.536
18729	CCD-240	236	238	2	2.603	0.901
18730	CCD-240	238	240	2	1.013	0.456
18731	CCD-240	240	242	2	2.677	1.208
18732	CCD-240	242	244	2	1.057	0.478
18733	CCD-240	244	246	2	1.412	0.614
18735	CCD-240	246	248	2	1.720	0.878
18736	CCD-240	248	250	2	1.493	0.609
18737	CCD-240	250	252	2	1.340	0.635
53001	CCD-241	70	72	2	1.797	0.838
53002	CCD-241	72	74	2	1.010	1.048
53003	CCD-241	74	76	2	1.817	0.974
53004	CCD-241	76	78	2	1.827	0.812
53005	CCD-241	78	80	2	1.657	0.736
53006	CCD-241	80	82	2	0.990	0.464
53007	CCD-241	82	84	2	1.493	0.412
53008	CCD-241	84	86	2	1.727	0.518
53009	CCD-241	86	88	2	1.397	0.607
53010	CCD-241	88	90	2	1.283	0.466
53011	CCD-241	90	92	2	1.620	0.595
53012	CCD-241	92	94	2	1.517	0.555
53014	CCD-241	94	96	2	1.550	0.579
53015	CCD-241	96	98	2	1.173	0.499
53017	CCD-241	98	100	2	1.247	0.431
53018	CCD-241	100	102	2	1.453	0.541
53019	CCD-241	102	104	2	2.023	0.685
53020	CCD-241	104	106	2	1.247	0.485
53021	CCD-241	106	108	2	1.383	0.616
53022	CCD-241	108	110	2	1.588	0.555
53023	CCD-241	110	112	2	1.770	0.581
53024	CCD-241	112	114	2	1.423	0.478
53025	CCD-241	114	116	2	0.843	0.354
53026	CCD-241	116	118	2	0.673	0.390
53027	CCD-241	118	120	2	0.913	0.400
53028	CCD-241	120	122	2	0.803	0.438
53029	CCD-241	122	124	2	0.823	0.508
53030	CCD-241	124	126	2	1.387	0.614
53031	CCD-241	126	128	2	1.000	1.288
53033	CCD-241	128	130	2	2.558	0.944
53034	CCD-241	130	132	2	1.270	0.525
53035	CCD-241	132	134	2	0.987	0.399
53036	CCD-241	134	136	2	0.870	0.555
53037	CCD-241	136	138	2	1.010	0.546
53038	CCD-241	138	140	2	1.093	0.485

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
53039	CCD-241	140	142	2	1.317	0.569
53040	CCD-241	142	144	2	1.013	0.449
53041	CCD-241	144	146	2	1.477	0.456
53042	CCD-241	146	148	2	1.107	0.464
53043	CCD-241	148	150	2	1.550	0.527
53044	CCD-241	150	152	2	1.477	0.647
53045	CCD-241	152	154	2	1.427	0.541
53046	CCD-241	154	156	2	0.823	0.518
53047	CCD-241	156	158	2	0.903	0.405
53049	CCD-241	158	160	2	1.137	0.466
53050	CCD-241	160	162	2	0.827	0.315
53051	CCD-241	162	164	2	1.827	0.807
53052	CCD-241	164	166	2	1.193	0.718
53053	CCD-241	166	168	2	1.843	0.814
53054	CCD-241	168	170	2	1.773	0.642
53055	CCD-241	170	172	2	1.760	0.664
53056	CCD-241	172	174	2	2.500	0.612
53057	CCD-241	174	176	2	4.283	1.280
53058	CCD-241	176	178	2	1.627	0.461
53059	CCD-241	178	180	2	3.170	1.408
53060	CCD-241	180	182	2	2.030	2.104
53061	CCD-241	182	184	2	1.560	0.715
53062	CCD-241	184	186	2	1.493	0.640
53063	CCD-241	186	188	2	2.023	0.882
53064	CCD-241	188	190	2	1.277	0.616
53065	CCD-241	190	192	2	1.790	0.812
53067	CCD-241	192	194	2	1.930	0.767
53068	CCD-241	194	196	2	1.207	0.529
53069	CCD-241	196	198	2	1.487	0.652
53070	CCD-241	198	200	2	4.383	1.376
53071	CCD-241	200	202	2	4.117	1.856
53072	CCD-241	202	204	2	3.163	1.096
53073	CCD-241	204	206	2	2.127	0.699
53074	CCD-241	206	208	2	2.983	1.089
53075	CCD-241	208	210	2	1.360	0.715
53076	CCD-241	210	212	2	0.890	0.370
53077	CCD-241	212	214	2	0.773	0.399
53079	CCD-241	214	216	2	1.590	0.600
53080	CCD-241	216	218	2	0.963	0.407
53081	CCD-241	218	220	2	1.340	0.424
53082	CCD-241	220	222	2	1.403	0.593
53083	CCD-241	222	224	2	0.915	0.475
53085	CCD-241	224	226	2	0.993	0.962
53086	CCD-241	226	228	2	0.920	0.739
53087	CCD-241	228	230	2	0.940	0.558
53088	CCD-241	230	232	2	1.267	0.386
53089	CCD-241	232	234	2	1.163	0.548
53090	CCD-241	234	236	2	1.047	0.407
53091	CCD-241	236	238	2	1.620	0.991
53092	CCD-241	238	240	2	0.500	0.408
53093	CCD-241	240	242	2	1.430	0.729
53094	CCD-241	242	244	2	1.210	0.440
53095	CCD-241	244	246	2	2.117	0.581
53096	CCD-241	246	248	2	1.667	0.666
53097	CCD-241	248	250	2	1.287	0.496

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
53099	CCD-241	250	252	2	0.642	0.788
53100	CCD-241	252	254	2	1.667	0.835
53101	CCD-241	254	256	2	1.913	0.824
53102	CCD-241	256	258	2	1.650	0.809
53103	CCD-241	258	260	2	1.600	0.762
53104	CCD-241	260	262	2	1.250	0.979
53105	CCD-241	262	264	2	0.635	0.534
53106	CCD-241	264	266	2	0.507	0.426
53107	CCD-241	266	268	2	0.683	0.768
53108	CCD-241	268	270	2	0.303	0.635
53109	CCD-241	270	272	2	0.897	0.431
53110	CCD-241	272	274	2	0.970	0.562
53111	CCD-241	274	276	2	0.990	0.555
53112	CCD-241	276	278	2	2.480	1.122
53114	CCD-241	278	280	2	2.183	0.838
53115	CCD-241	280	282	2	1.083	0.833
53116	CCD-241	282	284	2	0.977	0.489
53117	CCD-241	284	286	2	1.370	0.668
53118	CCD-241	286	288	2	1.130	0.528
53119	CCD-241	288	290	2	0.910	0.518
53120	CCD-241	290	292	2	0.960	0.482
53121	CCD-241	292	294	2	0.920	0.666
53122	CCD-241	294	296	2	0.618	0.412
53123	CCD-241	296	298	2	1.000	0.428
53124	CCD-241	298	300	2	1.557	0.522
53125	CCD-241	300	302	2	0.947	0.541
53126	CCD-241	302	304	2	0.633	0.499
53127	CCD-241	304	306	2	1.167	0.576
53128	CCD-241	306	308	2	0.850	0.754
53129	CCD-241	308	310	2	0.827	0.496
53130	CCD-241	310	312	2	1.057	0.591
53131	CCD-241	312	314	2	0.793	0.652
53132	CCD-241	314	316	2	0.612	0.668
53134	CCD-241	316	318	2	0.438	0.449
53135	CCD-241	318	320	2	0.652	0.649
53136	CCD-241	320	322	2	0.870	0.579
53138	CCD-241	322	324	2	1.130	0.501
53139	CCD-241	324	326	2	0.717	0.518
53140	CCD-241	326	328	2	1.462	0.693
53141	CCD-241	328	330	2	1.080	0.824
53142	CCD-241	330	332	2	1.020	0.729
53143	CCD-241	332	334	2	2.057	1.122
53144	CCD-241	334	336	2	1.830	1.068
53145	CCD-241	336	338	2	1.337	1.148
53146	CCD-241	338	340	2	0.707	0.988
53147	CCD-241	340	342	2	0.800	0.482
53148	CCD-241	342	344	2	0.553	0.489
53149	CCD-241	344	346	2	0.475	0.452
53150	CCD-241	346	348	2	0.447	0.405
53151	CCD-241	348	350	2	0.388	0.289
53152	CCD-241	350	352	2	0.425	0.358
53154	CCD-241	352	354	2	0.507	0.454
53155	CCD-241	354	356	2	0.987	0.828
53156	CCD-241	356	358	2	0.327	0.350
53157	CCD-241	358	360	2	0.628	0.438

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
53158	CCD-241	360	362	2	0.530	0.374
53201	CCD-242	70	72	2	0.637	0.380
53202	CCD-242	72	74	2	0.603	0.480
53203	CCD-242	74	76	2	0.287	0.231
53204	CCD-242	76	78	2	0.212	0.149
53205	CCD-242	78	80	2	0.150	0.194
53206	CCD-242	80	82	2	0.458	0.350
53207	CCD-242	82	84	2	0.183	0.340
53208	CCD-242	84	86	2	0.410	0.293
53210	CCD-242	86	88	2	0.345	0.220
53211	CCD-242	88	90	2	0.583	0.156
53212	CCD-242	90	92	2	0.267	0.213
53213	CCD-242	92	94	2	0.210	0.128
53214	CCD-242	94	96	2	0.270	0.230
53215	CCD-242	96	98	2	0.478	0.380
53216	CCD-242	98	100	2	0.570	0.567
53217	CCD-242	100	102	2	0.433	0.508
53218	CCD-242	102	104	2	0.395	0.362
53219	CCD-242	104	106	2	0.153	0.125
53220	CCD-242	106	108	2	0.092	0.218
53221	CCD-242	108	110	2	0.302	0.259
53223	CCD-242	110	112	2	0.350	0.459
53224	CCD-242	112	114	2	0.522	0.541
53225	CCD-242	114	116	2	0.478	0.652
53226	CCD-242	116	118	2	0.637	0.536
53228	CCD-242	118	120	2	0.780	0.682
53229	CCD-242	120	122	2	0.960	1.094
53230	CCD-242	122	124	2	0.700	0.720
53231	CCD-242	124	126	2	0.740	0.598
53232	CCD-242	126	128	2	0.473	0.344
53233	CCD-242	128	130	2	0.515	0.442
53234	CCD-242	130	132	2	0.632	0.718
53235	CCD-242	132	134	2	1.553	1.047
53236	CCD-242	134	136	2	0.637	0.600
53237	CCD-242	136	138	2	0.325	0.482
53238	CCD-242	138	140	2	0.573	0.508
53239	CCD-242	140	142	2	0.532	0.464
53240	CCD-242	142	144	2	0.493	0.421
53241	CCD-242	144	146	2	0.925	0.687
53242	CCD-242	146	148	2	0.428	0.428
53243	CCD-242	148	150	2	0.635	0.471
53244	CCD-242	150	152	2	0.490	0.421
53245	CCD-242	152	154	2	0.412	0.392
53246	CCD-242	154	156	2	0.523	0.402
53247	CCD-242	156	158	2	0.380	0.346
53249	CCD-242	158	160	2	0.398	0.306
53250	CCD-242	160	162	2	0.458	0.363
53251	CCD-242	162	164	2	0.502	0.412
53252	CCD-242	164	166	2	0.583	0.334
53253	CCD-242	166	168	2	0.773	0.360
53254	CCD-242	168	170	2	0.388	0.200
53255	CCD-242	170	172	2	0.581	0.422
53256	CCD-242	172	174	2	0.602	0.352
53257	CCD-242	174	176	2	0.582	0.294
53258	CCD-242	176	178	2	0.860	0.263

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
53259	CCD-242	178	180	2	0.368	0.293
53260	CCD-242	180	182	2	0.388	0.300
53261	CCD-242	182	184	2	0.558	0.424
53262	CCD-242	184	186	2	0.997	0.720
53263	CCD-242	186	188	2	1.290	1.776
53265	CCD-242	188	190	2	0.687	0.553
53266	CCD-242	190	192	2	1.350	0.708
53267	CCD-242	192	194	2	0.528	0.466
53268	CCD-242	194	196	2	0.385	0.290
53269	CCD-242	196	198	2	0.333	0.312
53270	CCD-242	198	200	2	0.773	0.461
53271	CCD-242	200	202	2	0.567	0.270
53272	CCD-242	202	204	2	0.613	0.447
53273	CCD-242	204	206	2	0.415	0.317
53274	CCD-242	206	208	2	0.367	0.588
53275	CCD-242	208	210	2	0.605	0.518
53276	CCD-242	210	212	2	0.982	0.719
53277	CCD-242	212	214	2	0.733	0.581
53278	CCD-242	214	216	2	0.470	0.358
53279	CCD-242	216	218	2	0.650	0.558
53280	CCD-242	218	220	2	0.853	0.819
53281	CCD-242	220	222	2	0.655	0.475
53283	CCD-242	222	224	2	0.670	0.616
53284	CCD-242	224	226	2	0.837	1.148
53285	CCD-242	226	228	2	1.077	0.494
53286	CCD-242	228	230	2	0.777	0.539
53287	CCD-242	230	232	2	0.352	0.279
53288	CCD-242	232	234	2	0.508	0.266
53289	CCD-242	234	236	2	0.360	0.274
53290	CCD-242	236	238	2	0.455	0.358
53291	CCD-242	238	240	2	0.638	0.449
53292	CCD-242	240	242	2	0.923	0.741
53293	CCD-242	242	244	2	0.482	0.384
53295	CCD-242	244	246	2	0.150	0.181
53296	CCD-242	246	248	2	0.263	0.226
53351	CCD-243	46	48	2	0.907	0.360
53352	CCD-243	48	50	2	1.207	0.515
53353	CCD-243	50	52	2	0.803	0.485
53354	CCD-243	52	54	2	1.267	0.591
53355	CCD-243	54	56	2	0.817	0.475
53356	CCD-243	56	58	2	1.567	0.896
53357	CCD-243	58	60	2	1.250	0.788
53359	CCD-243	60	62	2	0.780	0.436
53360	CCD-243	62	64	2	1.000	0.569
53361	CCD-243	64	66	2	0.510	0.440
53362	CCD-243	66	68	2	0.450	0.473
53363	CCD-243	68	70	2	0.760	0.409
53364	CCD-243	70	72	2	0.930	0.359
53365	CCD-243	72	74	2	0.153	-0.010
53366	CCD-243	74	76	2	0.418	0.824
53367	CCD-243	76	78	2	0.552	0.475
53368	CCD-243	78	80	2	0.143	0.089
53369	CCD-243	80	82	2	0.200	0.080
53370	CCD-243	82	84	2	0.110	0.055
53371	CCD-243	84	86	2	0.190	0.120

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
53372	CCD-243	86	88	2	0.180	0.080
53374	CCD-243	88	90	2	0.920	0.628
53375	CCD-243	90	92	2	0.060	0.054
53376	CCD-243	92	94	2	0.310	0.188
53377	CCD-243	94	96	2	0.202	0.163
53378	CCD-243	96	98	2	0.065	0.055
53379	CCD-243	98	100	2	0.137	0.103
53380	CCD-243	100	102	2	0.242	0.153
53382	CCD-243	102	104	2	0.503	0.475
53383	CCD-243	104	106	2	0.542	0.478
53384	CCD-243	106	108	2	0.502	0.442
53385	CCD-243	108	110	2	0.520	0.450
53386	CCD-243	110	112	2	0.495	0.473
53387	CCD-243	112	114	2	0.390	0.373
53388	CCD-243	114	116	2	0.720	0.565
53389	CCD-243	116	118	2	0.910	0.729
53390	CCD-243	118	120	2	0.182	0.143
53391	CCD-243	120	122	2	0.473	0.388
53392	CCD-243	122	124	2	0.368	0.242
53393	CCD-243	124	126	2	0.562	0.369
53394	CCD-243	126	128	2	0.217	0.130
53395	CCD-243	128	130	2	0.310	0.049
53396	CCD-243	130	132	2	0.102	0.050
53397	CCD-243	132	134	2	0.168	0.039
53398	CCD-243	134	136	2	0.257	0.149
53400	CCD-243	136	138	2	0.248	0.101
53401	CCD-243	138	140	2	0.133	0.046
53402	CCD-243	140	142	2	0.237	0.058
53403	CCD-243	142	144	2	0.187	0.033
53404	CCD-243	144	146	2	0.108	0.051
53405	CCD-243	146	148	2	0.177	0.067
53406	CCD-243	148	150	2	0.190	0.079
53407	CCD-243	150	152	2	0.387	0.226
53408	CCD-243	152	154	2	0.943	0.635
53409	CCD-243	154	156	2	0.853	0.525
53410	CCD-243	156	158	2	0.947	0.508
53412	CCD-243	158	160	2	0.970	0.598
53413	CCD-243	160	162	2	0.168	0.107
53414	CCD-243	162	164	2	0.773	0.405
53415	CCD-243	164	166	2	0.548	0.541
53417	CCD-243	166	168	2	0.903	0.456
53418	CCD-243	168	170	2	0.970	0.420
53419	CCD-243	170	172	2	1.150	0.562
53420	CCD-243	172	174	2	1.300	0.572
53421	CCD-243	174	176	2	0.847	0.402
53422	CCD-243	176	178	2	1.660	0.753
53423	CCD-243	178	180	2	0.840	0.482
53424	CCD-243	180	182	2	0.598	0.329
53425	CCD-243	182	184	2	0.800	0.421
53426	CCD-243	184	186	2	1.010	0.696
53427	CCD-243	186	188	2	0.115	0.098
53428	CCD-243	188	190	2	0.145	0.306
53429	CCD-243	190	192	2	0.368	0.296
53430	CCD-243	192	194	2	0.102	0.070
53431	CCD-243	194	196	2	0.078	0.084

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
53433	CCD-243	196	198	2	0.032	0.053
53434	CCD-243	198	200	2	0.247	0.298
53435	CCD-243	200	202	2	0.783	0.213
53436	CCD-243	202	204	2	0.137	0.197
53437	CCD-243	204	206	2	0.107	0.132
53438	CCD-243	206	208	2	0.043	0.061
53439	CCD-243	208	210	2	0.190	0.206
53440	CCD-243	210	212	2	0.035	0.056
53441	CCD-243	212	214	2	0.027	0.040
53442	CCD-243	214	216	2	0.983	0.598
53443	CCD-243	216	218	2	1.240	0.788
53444	CCD-243	218	220	2	1.193	0.696
53445	CCD-243	220	222	2	0.853	0.619
53446	CCD-243	222	224	2	0.790	0.449
53447	CCD-243	224	226	2	0.863	0.433
53449	CCD-243	226	228	2	0.867	0.527
53450	CCD-243	228	230	2	0.990	0.627
53451	CCD-243	230	232	2	0.518	0.334
53452	CCD-243	232	234	2	1.107	0.402
53453	CCD-243	234	236	2	0.088	1.073
53454	CCD-243	236	238	2	0.853	0.765
53455	CCD-243	238	240	2	0.700	0.569
53456	CCD-243	240	242	2	0.573	0.456
53457	CCD-243	242	244	2	0.790	0.692
53458	CCD-243	244	246	2	0.583	0.616
53459	CCD-243	246	248	2	0.585	0.666
53460	CCD-243	248	250	2	0.380	0.401
53461	CCD-243	250	252	2	0.503	0.539
53462	CCD-243	252	254	2	0.583	0.541
53463	CCD-243	254	256	2	0.225	0.249
53464	CCD-243	256	258	2	0.285	0.242
53465	CCD-243	258	260	2	0.415	0.373
53466	CCD-243	260	262	2	0.533	0.426
53467	CCD-243	262	264	2	0.387	0.312
53469	CCD-243	264	266	2	0.327	0.271
53470	CCD-243	266	268	2	0.252	0.234
53471	CCD-243	268	270	2	0.400	0.302
53472	CCD-243	270	272	2	0.465	0.376
53473	CCD-243	272	274	2	0.730	0.496
53474	CCD-243	274	276	2	0.605	0.471
53475	CCD-243	276	278	2	0.528	0.405
53476	CCD-243	278	280	2	0.555	0.380
53477	CCD-243	280	282	2	0.530	0.367
53478	CCD-243	282	284	2	1.110	0.776
53479	CCD-243	284	286	2	1.317	0.718
53480	CCD-243	286	288	2	0.690	0.581
53481	CCD-243	288	290	2	0.650	0.441
53483	CCD-243	290	292	2	0.630	0.475
53484	CCD-243	292	294	2	0.330	0.290
53485	CCD-243	294	296	2	0.482	0.419
53486	CCD-243	296	298	2	0.495	0.452
53487	CCD-243	298	300	2	0.342	0.312
54051	CCD-244	0	2	2	0.148	0.039
54052	CCD-244	2	4	2	0.192	0.042
54053	CCD-244	4	6	2	0.258	0.026

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54054	CCD-244	6	8	2	0.192	0.043
54055	CCD-244	8	10	2	0.187	0.094
54056	CCD-244	10	12	2	0.077	0.078
54057	CCD-244	12	14	2	0.112	0.080
54058	CCD-244	14	16	2	0.375	0.162
54059	CCD-244	16	18	2	0.351	0.247
54060	CCD-244	18	20	2	0.155	0.546
54061	CCD-244	20	22	2	0.210	0.635
54062	CCD-244	22	24	2	0.817	0.471
54064	CCD-244	24	26	2	0.553	0.132
54065	CCD-244	26	28	2	0.265	0.127
54066	CCD-244	28	30	2	0.330	0.123
54067	CCD-244	30	32	2	0.523	0.153
54068	CCD-244	32	34	2	0.278	0.143
54069	CCD-244	34	36	2	0.683	0.178
54070	CCD-244	36	38	2	0.330	0.080
54071	CCD-244	38	40	2	0.200	0.189
54072	CCD-244	40	42	2	0.427	0.515
54073	CCD-244	42	44	2	0.592	0.647
54074	CCD-244	44	46	2	0.210	0.198
54075	CCD-244	46	48	2	0.315	0.354
54076	CCD-244	48	50	2	0.392	0.405
54077	CCD-244	50	52	2	0.502	0.337
54079	CCD-244	52	54	2	0.867	0.372
54080	CCD-244	54	56	2	0.980	0.654
54081	CCD-244	56	58	2	0.523	0.270
54082	CCD-244	58	60	2	0.407	0.213
54083	CCD-244	60	62	2	0.608	0.473
54084	CCD-244	62	64	2	0.538	0.247
54085	CCD-244	64	66	2	1.070	0.572
54086	CCD-244	66	68	2	0.600	0.265
54087	CCD-244	68	70	2	0.323	0.217
54088	CCD-244	70	72	2	0.560	0.298
54089	CCD-244	72	74	2	1.087	0.501
54090	CCD-244	74	76	2	0.642	0.270
54091	CCD-244	76	78	2	0.870	0.412
54092	CCD-244	78	80	2	0.490	0.318
54093	CCD-244	80	82	2	0.913	0.384
54094	CCD-244	82	84	2	1.800	0.979
54095	CCD-244	84	86	2	1.170	0.751
54097	CCD-244	86	88	2	0.477	0.303
54098	CCD-244	88	90	2	0.710	0.494
54099	CCD-244	90	92	2	0.597	0.449
54100	CCD-244	92	94	2	0.763	0.447
54101	CCD-244	94	96	2	0.683	0.400
54102	CCD-244	96	98	2	0.740	0.511
54103	CCD-244	98	100	2	0.720	0.372
54104	CCD-244	100	102	2	1.227	0.744
54105	CCD-244	102	104	2	1.053	0.584
54106	CCD-244	104	106	2	0.673	0.340
54107	CCD-244	106	108	2	0.628	0.461
54108	CCD-244	108	110	2	0.823	0.155
54109	CCD-244	110	112	2	1.867	0.242
54110	CCD-244	112	114	2	1.737	0.049
54111	CCD-244	114	116	2	0.900	0.322

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54112	CCD-244	116	118	2	1.200	0.270
54113	CCD-244	118	120	2	0.553	0.345
53501	CCD-245	0	2	2	1.003	0.043
53502	CCD-245	2	4	2	0.337	0.047
53503	CCD-245	4	6	2	0.300	0.041
53504	CCD-245	6	8	2	0.323	0.052
53505	CCD-245	8	10	2	0.299	0.072
53506	CCD-245	10	12	2	0.540	0.083
53507	CCD-245	12	14	2	0.697	0.053
53509	CCD-245	14	16	2	0.375	0.039
53510	CCD-245	16	18	2	0.423	0.049
53511	CCD-245	18	20	2	0.317	0.058
53512	CCD-245	20	22	2	0.272	0.047
53513	CCD-245	22	24	2	0.123	0.045
53514	CCD-245	24	26	2	0.163	0.114
53515	CCD-245	26	28	2	0.100	0.033
53516	CCD-245	28	30	2	0.134	0.042
53517	CCD-245	30	32	2	0.102	0.028
53518	CCD-245	32	34	2	0.180	0.074
53519	CCD-245	34	36	2	0.133	0.066
53520	CCD-245	36	38	2	0.095	0.310
53521	CCD-245	38	40	2	0.135	0.264
53522	CCD-245	40	42	2	0.398	0.271
53523	CCD-245	42	44	2	0.233	0.428
53524	CCD-245	44	46	2	0.227	0.433
53525	CCD-245	46	48	2	0.120	0.180
53527	CCD-245	48	50	2	0.410	0.118
53528	CCD-245	50	52	2	0.470	0.234
53529	CCD-245	52	54	2	0.200	0.342
53530	CCD-245	54	56	2	0.600	0.998
53531	CCD-245	56	58	2	0.470	0.649
53532	CCD-245	58	60	2	0.570	0.612
53533	CCD-245	60	62	2	0.470	0.633
53534	CCD-245	62	64	2	0.630	0.765
53535	CCD-245	64	66	2	0.470	0.293
53536	CCD-245	66	68	2	0.375	0.240
53537	CCD-245	68	70	2	0.348	0.265
53538	CCD-245	70	72	2	0.248	0.255
53540	CCD-245	72	74	2	0.300	0.290
53541	CCD-245	74	76	2	0.123	0.249
53542	CCD-245	76	78	2	0.302	0.232
53543	CCD-245	78	80	2	0.843	0.308
53544	CCD-245	80	82	2	0.348	0.229
53546	CCD-245	82	84	2	0.285	0.205
53547	CCD-245	84	86	2	0.371	0.260
53548	CCD-245	86	88	2	0.412	0.290
53549	CCD-245	88	90	2	0.260	0.194
53550	CCD-245	90	92	2	0.147	0.102
53551	CCD-245	92	94	2	0.397	0.254
53552	CCD-245	94	96	2	0.397	0.234
53553	CCD-245	96	98	2	0.593	0.382
53554	CCD-245	98	100	2	1.013	0.379
53555	CCD-245	100	102	2	0.347	0.207
53556	CCD-245	102	104	2	0.307	0.219
53557	CCD-245	104	106	2	0.363	0.287

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
53558	CCD-245	106	108	2	0.498	0.354
53559	CCD-245	108	110	2	0.700	0.400
53560	CCD-245	110	112	2	0.483	0.296
53561	CCD-245	112	114	2	0.507	0.285
53562	CCD-245	114	116	2	0.790	0.640
53564	CCD-245	116	118	2	0.580	0.341
53565	CCD-245	118	120	2	0.803	0.373
53566	CCD-245	120	122	2	0.597	0.532
53567	CCD-245	122	124	2	1.003	0.487
53568	CCD-245	124	126	2	0.663	0.414
53569	CCD-245	126	128	2	0.890	0.527
53570	CCD-245	128	130	2	0.445	0.824
53571	CCD-245	130	132	2	0.547	0.624
53572	CCD-245	132	134	2	0.747	0.342
53573	CCD-245	134	136	2	0.890	0.397
53574	CCD-245	136	138	2	2.060	1.920
53575	CCD-245	138	140	2	1.290	0.805
53576	CCD-245	140	142	2	1.313	0.696
53578	CCD-245	142	144	2	2.090	1.288
53579	CCD-245	144	146	2	1.138	0.734
53580	CCD-245	146	148	2	1.043	0.939
53581	CCD-245	148	150	2	0.508	0.438
53582	CCD-245	150	152	2	1.477	1.141
53583	CCD-245	152	154	2	0.933	0.492
53584	CCD-245	154	156	2	0.983	0.529
53585	CCD-245	156	158	2	1.320	0.847
53587	CCD-245	158	160	2	1.467	0.758
53588	CCD-245	160	162	2	0.897	1.111
53589	CCD-245	162	164	2	1.280	0.412
53590	CCD-245	164	166	2	0.993	0.749
53591	CCD-245	166	168	2	0.535	0.904
53592	CCD-245	168	170	2	0.457	1.087
53593	CCD-245	170	172	2	1.437	1.424
53594	CCD-245	172	174	2	0.433	0.235
53595	CCD-245	174	176	2	0.810	0.402
53596	CCD-245	176	178	2	1.000	0.400
53597	CCD-245	178	180	2	1.000	0.456
53599	CCD-245	180	182	2	0.937	0.536
53600	CCD-245	182	184	2	0.528	0.283
53601	CCD-245	184	186	2	0.753	0.805
53602	CCD-245	186	188	2	0.917	0.501
53603	CCD-245	188	190	2	0.743	0.445
53604	CCD-245	190	192	2	0.860	0.520
53605	CCD-245	192	194	2	0.900	0.400
53606	CCD-245	194	196	2	0.957	0.476
53607	CCD-245	196	198	2	1.987	0.918
53608	CCD-245	198	200	2	1.160	0.595
54151	CCD-246	93.67	94	0.33	1.927	0.501
54152	CCD-246	94	96	2	1.527	0.386
54153	CCD-246	96	98	2	1.633	0.409
54154	CCD-246	98	100	2	1.487	0.473
54155	CCD-246	100	102	2	1.332	0.342
54156	CCD-246	102	104	2	1.397	0.409
54158	CCD-246	104	106	2	1.260	0.266
54159	CCD-246	106	108	2	1.000	0.248

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54160	CCD-246	108	110	2	1.257	0.362
54161	CCD-246	110	112	2	1.303	0.400
54162	CCD-246	112	114	2	1.140	0.368
54163	CCD-246	114	116	2	1.257	0.372
54164	CCD-246	116	118	2	0.960	0.285
54165	CCD-246	118	120	2	1.013	0.288
54166	CCD-246	120	122	2	0.745	0.210
54167	CCD-246	122	124	2	0.833	0.240
54168	CCD-246	124	126	2	1.020	0.262
54169	CCD-246	126	128	2	0.568	0.186
54170	CCD-246	128	130	2	0.443	0.150
54171	CCD-246	130	132	2	0.673	0.202
54172	CCD-246	132	134	2	0.730	0.227
54173	CCD-246	134	136	2	0.505	0.160
54175	CCD-246	136	138	2	0.348	0.126
54176	CCD-246	138	140	2	0.360	0.131
54177	CCD-246	140	142	2	0.393	0.157
54178	CCD-246	142	144	2	0.512	0.171
54179	CCD-246	144	146	2	0.475	0.144
54180	CCD-246	146	148	2	0.227	0.113
54181	CCD-246	148	150	2	0.395	0.175
54182	CCD-246	150	152	2	0.252	0.120
54183	CCD-246	152	154	2	0.377	0.155
54184	CCD-246	154	156	2	0.707	0.336
54185	CCD-246	156	158	2	0.298	0.130
54186	CCD-246	158	160	2	0.295	0.122
54187	CCD-246	160	162	2	0.288	0.122
54188	CCD-246	162	164	2	0.563	0.222
54189	CCD-246	164	166	2	0.352	0.143
54190	CCD-246	166	168	2	0.500	0.215
54191	CCD-246	168	170	2	0.492	0.182
54192	CCD-246	170	172	2	0.388	0.195
54193	CCD-246	172	174	2	0.330	0.245
54195	CCD-246	174	176	2	0.272	0.159
54196	CCD-246	176	178	2	0.667	0.168
54197	CCD-246	178	180	2	0.440	0.138
54198	CCD-246	180	182	2	0.448	0.145
54199	CCD-246	182	184	2	0.670	0.180
54200	CCD-246	184	186	2	0.710	0.194
54201	CCD-246	186	188	2	0.317	0.105
54202	CCD-246	188	190	2	0.572	0.222
54203	CCD-246	190	192	2	0.545	0.204
54204	CCD-246	192	194	2	0.497	0.144
54205	CCD-246	194	196	2	0.690	0.254
54206	CCD-246	196	198	2	0.710	0.266
54207	CCD-246	198	200	2	0.977	0.266
54208	CCD-246	200	202	2	0.663	0.193
54209	CCD-246	202	204	2	0.237	0.120
54210	CCD-246	204	206	2	0.343	0.099
54211	CCD-246	206	208	2	0.253	0.111
54212	CCD-246	208	210	2	0.127	0.067
54213	CCD-246	210	212	2	0.367	0.169
54214	CCD-246	212	214	2	0.275	0.081
54216	CCD-246	214	216	2	0.643	0.211
54217	CCD-246	216	218	2	0.602	0.208

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54218	CCD-246	218	220	2	0.677	0.254
54219	CCD-246	220	222	2	0.538	0.187
54220	CCD-246	222	224	2	0.538	0.198
54221	CCD-246	224	226	2	0.680	0.290
54222	CCD-246	226	228	2	0.462	0.254
54223	CCD-246	228	230	2	0.458	0.242
54224	CCD-246	230	232	2	0.390	0.221
54225	CCD-246	232	234	2	0.360	0.237
54226	CCD-246	234	236	2	0.423	0.250
54227	CCD-246	236	238	2	0.415	0.251
54228	CCD-246	238	240	2	0.485	0.267
54251	CCD-247	0	2	2	1.230	0.031
54252	CCD-247	2	4	2	1.030	0.044
54253	CCD-247	4	6	2	1.270	0.046
54254	CCD-247	6	8	2	1.700	0.079
54255	CCD-247	8	10	2	2.070	0.080
54256	CCD-247	10	12	2	1.530	0.076
54257	CCD-247	12	14	2	1.170	0.071
54258	CCD-247	14	16	2	2.000	0.081
54260	CCD-247	16	18	2	1.300	0.051
54261	CCD-247	18	20	2	1.430	0.021
54262	CCD-247	20	22	2	1.270	0.022
54263	CCD-247	22	24	2	1.090	0.056
54264	CCD-247	24	26	2	1.340	0.034
54265	CCD-247	26	28	2	1.327	0.208
54266	CCD-247	28	30	2	1.193	0.256
54267	CCD-247	30	32	2	1.293	0.459
54268	CCD-247	32	34	2	1.387	0.965
54269	CCD-247	34	36	2	3.417	0.847
54270	CCD-247	36	38	2	1.063	1.080
54271	CCD-247	38	40	2	1.090	0.725
54272	CCD-247	40	42	2	1.973	1.544
54273	CCD-247	42	44	2	2.268	1.296
54274	CCD-247	44	46	2	2.367	0.753
54275	CCD-247	46	48	2	2.070	0.894
54276	CCD-247	48	50	2	1.083	0.953
54278	CCD-247	50	52	2	0.787	1.552
54279	CCD-247	52	54	2	1.103	1.104
54280	CCD-247	54	56	2	1.590	0.800
54281	CCD-247	56	58	2	1.423	1.016
54282	CCD-247	58	60	2	2.310	0.769
54283	CCD-247	60	62	2	1.533	0.936
54284	CCD-247	62	64	2	0.900	1.032
54285	CCD-247	64	66	2	1.870	0.791
54286	CCD-247	66	68	2	1.670	0.769
54287	CCD-247	68	70	2	1.480	0.576
54288	CCD-247	70	72	2	1.767	1.012
54289	CCD-247	72	74	2	2.177	1.040
54290	CCD-247	74	76	2	1.973	0.944
54291	CCD-247	76	78	2	1.983	0.925
54293	CCD-247	78	80	2	1.940	0.932
54294	CCD-247	80	82	2	2.230	0.984
54295	CCD-247	82	84	2	1.872	0.856
54296	CCD-247	84	86	2	2.310	1.012
54297	CCD-247	86	88	2	2.303	1.184

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54298	CCD-247	88	90	2	2.697	0.991
54299	CCD-247	90	92	2	2.040	1.059
54300	CCD-247	92	94	2	2.270	1.106
54301	CCD-247	94	96	2	2.503	1.108
54302	CCD-247	96	98	2	2.890	1.304
54303	CCD-247	98	100	2	2.217	1.012
54304	CCD-247	100	102	2	1.163	0.984
54305	CCD-247	102	104	2	1.097	0.948
54306	CCD-247	104	106	2	2.440	1.488
54307	CCD-247	106	108	2	2.705	1.191
54308	CCD-247	108	110	2	2.303	1.012
54309	CCD-247	110	112	2	1.327	0.642
54310	CCD-247	112	114	2	1.563	1.031
54311	CCD-247	114	116	2	1.120	1.122
54313	CCD-247	116	118	2	2.193	0.868
54314	CCD-247	118	120	2	2.340	1.082
54315	CCD-247	120	122	2	2.997	0.852
54316	CCD-247	122	124	2	3.230	0.948
54317	CCD-247	124	126	2	2.130	0.955
54318	CCD-247	126	128	2	2.335	1.284
54319	CCD-247	128	130	2	2.687	1.099
54320	CCD-247	130	132	2	1.910	1.296
54321	CCD-247	132	134	2	2.537	0.958
54322	CCD-247	134	136	2	1.567	0.078
54323	CCD-247	136	138	2	1.327	0.861
54324	CCD-247	138	140	2	2.050	0.795
54325	CCD-247	140	142	2	2.600	0.918
54326	CCD-247	142	144	2	2.060	0.955
54327	CCD-247	144	146	2	2.447	1.144
54328	CCD-247	146	148	2	2.230	1.119
54329	CCD-247	148	150	2	2.630	0.958
54330	CCD-247	150	152	2	2.290	0.965
54331	CCD-247	152	154	2	2.410	0.908
54332	CCD-247	154	156	2	1.807	0.720
54333	CCD-247	156	158	2	2.050	0.847
54335	CCD-247	158	160	2	1.953	0.976
54336	CCD-247	160	162	2	2.627	1.047
54337	CCD-247	162	164	2	5.667	1.148
54338	CCD-247	164	166	2	2.140	1.195
54339	CCD-247	166	168	2	2.142	0.929
54340	CCD-247	168	170	2	3.137	1.195
54341	CCD-247	170	172	2	1.847	0.861
54342	CCD-247	172	174	2	2.013	0.965
54343	CCD-247	174	176	2	2.223	1.033
54344	CCD-247	176	178	2	3.157	1.408
54345	CCD-247	178	180	2	2.233	0.859
54346	CCD-247	180	182	2	2.080	0.894
54347	CCD-247	182	184	2	1.990	0.847
54348	CCD-247	184	186	2	2.193	0.786
54349	CCD-247	186	188	2	1.733	0.535
54351	CCD-247	188	190	2	1.483	0.788
54352	CCD-247	190	192	2	2.103	1.026
54353	CCD-247	192	194	2	1.387	0.607
54354	CCD-247	194	196	2	4.000	1.708
54355	CCD-247	196	198	2	2.833	1.146

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54356	CCD-247	198	200	2	1.443	0.560
54357	CCD-247	200	202	2	1.483	0.598
54358	CCD-247	202	204	2	1.317	0.551
54359	CCD-247	204	206	2	1.190	0.433
54360	CCD-247	206	208	2	1.373	0.588
54361	CCD-247	208	210	2	1.627	0.581
54362	CCD-247	210	212	2	1.063	0.544
54363	CCD-247	212	214	2	0.777	0.371
54365	CCD-247	214	216	2	1.633	0.564
54366	CCD-247	216	218	2	1.130	0.485
54367	CCD-247	218	220	2	1.590	0.936
54368	CCD-247	220	222	2	1.160	0.598
54369	CCD-247	222	224	2	1.250	1.005
54370	CCD-247	224	226	2	0.640	0.753
54371	CCD-247	226	228	2	0.500	0.409
54372	CCD-247	228	230	2	1.500	0.532
54373	CCD-247	230	232	2	1.310	0.711
54374	CCD-247	232	234	2	0.790	0.595
54375	CCD-247	234	236	2	0.740	0.660
54376	CCD-247	236	238	2	0.740	0.612
54377	CCD-247	238	240	2	0.880	0.412
54378	CCD-247	240	242	2	1.030	0.370
54402	CCD-248	2	4	2	1.043	0.022
54403	CCD-248	4	6	2	1.097	0.043
54404	CCD-248	6	8	2	1.130	0.173
54405	CCD-248	8	10	2	1.160	0.228
54406	CCD-248	10	12	2	0.713	0.245
54407	CCD-248	12	14	2	0.883	0.369
54409	CCD-248	14	16	2	0.813	0.370
54410	CCD-248	16	18	2	1.027	0.459
54411	CCD-248	18	20	2	1.067	0.433
54412	CCD-248	20	22	2	0.885	0.320
54413	CCD-248	22	24	2	0.740	0.682
54414	CCD-248	24	26	2	0.713	1.616
54415	CCD-248	26	28	2	0.890	1.200
54416	CCD-248	28	30	2	0.923	0.708
54417	CCD-248	30	32	2	0.713	0.255
54418	CCD-248	32	34	2	0.953	0.323
54419	CCD-248	34	36	2	0.557	0.310
54420	CCD-248	36	38	2	0.683	0.330
54421	CCD-248	38	40	2	0.723	0.270
54422	CCD-248	40	42	2	0.778	0.275
54424	CCD-248	42	44	2	1.020	0.368
54425	CCD-248	44	46	2	1.300	0.390
54426	CCD-248	46	48	2	0.563	0.237
54427	CCD-248	48	50	2	0.498	0.218
54428	CCD-248	50	52	2	0.960	0.442
54429	CCD-248	52	54	2	0.625	0.225
54430	CCD-248	54	56	2	0.600	0.258
54431	CCD-248	56	58	2	0.903	0.298
54432	CCD-248	58	60	2	0.837	0.293
54433	CCD-248	60	62	2	0.853	0.316
54434	CCD-248	62	64	2	0.655	0.228
54435	CCD-248	64	66	2	0.568	0.151
54436	CCD-248	66	68	2	0.567	0.195

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54437	CCD-248	68	70	2	0.428	0.139
54438	CCD-248	70	72	2	0.467	0.130
54439	CCD-248	72	74	2	0.445	0.140
54440	CCD-248	74	76	2	0.503	0.170
54441	CCD-248	76	78	2	0.417	0.107
54442	CCD-248	78	80	2	0.628	0.326
54444	CCD-248	80	82	2	0.798	0.288
54445	CCD-248	82	84	2	0.950	0.197
54446	CCD-248	84	86	2	0.837	0.310
54447	CCD-248	86	88	2	1.560	0.454
54448	CCD-248	88	90	2	0.740	0.184
54449	CCD-248	90	92	2	0.493	0.186
54450	CCD-248	92	94	2	0.468	0.296
54451	CCD-248	94	96	2	0.428	0.167
54452	CCD-248	96	98	2	0.518	0.134
54453	CCD-248	98	100	2	0.363	0.127
54454	CCD-248	100	102	2	0.188	0.083
54455	CCD-248	102	104	2	0.283	0.115
54456	CCD-248	104	106	2	0.582	0.186
54457	CCD-248	106	108	2	0.392	0.129
54458	CCD-248	108	110	2	0.573	0.198
54459	CCD-248	110	112	2	0.680	0.282
54460	CCD-248	112	114	2	0.470	0.185
54462	CCD-248	114	116	2	0.637	0.193
54463	CCD-248	116	118	2	0.568	0.188
54464	CCD-248	118	120	2	0.760	0.202
54465	CCD-248	120	122	2	1.060	0.285
54466	CCD-248	122	124	2	1.157	0.351
54467	CCD-248	124	126	2	0.933	0.355
54468	CCD-248	126	128	2	0.913	0.273
54469	CCD-248	128	130	2	0.610	0.214
54470	CCD-248	130	132	2	0.528	0.229
54471	CCD-248	132	134	2	0.367	0.152
54472	CCD-248	134	136	2	0.363	0.204
54473	CCD-248	136	138	2	0.280	0.139
54474	CCD-248	138	140	2	0.273	0.065
54475	CCD-248	140	142	2	0.423	0.128
54476	CCD-248	142	144	2	0.602	0.225
54477	CCD-248	144	146	2	0.467	0.197
54478	CCD-248	146	148	2	0.210	0.070
54479	CCD-248	148	150	2	0.315	0.134
54480	CCD-248	150	152	2	0.185	0.079
54481	CCD-248	152	154	2	0.168	0.061
54482	CCD-248	154	156	2	0.205	0.073
54484	CCD-248	156	158	2	0.258	0.111
54485	CCD-248	158	160	2	0.218	0.072
54486	CCD-248	160	162	2	0.135	0.068
54487	CCD-248	162	164	2	0.108	0.021
54488	CCD-248	164	166	2	0.352	0.024
54489	CCD-248	166	168	2	0.189	0.039
54490	CCD-248	168	170	2	0.225	0.095
54491	CCD-248	170	172	2	0.175	0.037
54492	CCD-248	172	174	2	0.108	0.039
54493	CCD-248	174	176	2	0.252	0.065
54494	CCD-248	176	178	2	0.242	0.069

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54495	CCD-248	178	180	2	0.100	0.045
54496	CCD-248	180	182	2	0.077	0.046
54497	CCD-248	182	184	2	0.087	0.036
54498	CCD-248	184	186	2	0.187	0.087
54500	CCD-248	186	188	2	0.096	0.037
54501	CCD-248	188	190	2	0.183	0.082
54502	CCD-248	190	192	2	0.127	0.057
54503	CCD-248	192	194	2	0.095	0.049
54504	CCD-248	194	196	2	0.073	0.027
54505	CCD-248	196	198	2	0.203	0.089
54506	CCD-248	198	200	2	0.192	0.069
54507	CCD-248	200	202	2	0.083	0.079
54508	CCD-248	202	204	2	0.128	0.037
54509	CCD-248	204	206	2	0.113	0.059
54510	CCD-248	206	208	2	0.112	0.058
54511	CCD-248	208	210	2	0.137	0.081
54512	CCD-248	210	212	2	0.195	0.093
54513	CCD-248	212	214	2	0.293	0.058
54514	CCD-248	214	216	2	0.143	0.043
54515	CCD-248	216	218	2	0.108	0.054
54516	CCD-248	218	220	2	0.163	0.056
54517	CCD-248	220	222	2	0.235	0.098
54518	CCD-248	222	224	2	0.207	0.073
54520	CCD-248	224	226	2	0.163	0.058
54521	CCD-248	226	228	2	0.043	0.023
54522	CCD-248	228	230	2	0.058	0.027
54523	CCD-248	230	232	2	0.058	0.027
54524	CCD-248	232	234	2	0.113	0.053
54525	CCD-248	234	236	2	0.113	0.021
54526	CCD-248	236	238	2	0.090	0.043
54527	CCD-248	238	240	2	0.067	0.022
54552	CCD-249	2	4	2	1.627	0.041
54553	CCD-249	4	6	2	2.170	0.044
54554	CCD-249	6	8	2	1.940	0.036
54555	CCD-249	8	10	2	1.657	0.033
54556	CCD-249	10	12	2	2.157	0.037
54557	CCD-249	12	14	2	2.500	0.046
54558	CCD-249	14	16	2	2.633	0.045
54559	CCD-249	16	18	2	1.993	0.046
54561	CCD-249	18	20	2	2.270	0.040
54562	CCD-249	20	22	2	1.847	0.049
54563	CCD-249	22	24	2	2.047	0.059
54564	CCD-249	24	26	2	1.407	0.051
54565	CCD-249	26	28	2	2.143	0.084
54566	CCD-249	28	30	2	2.600	0.112
54567	CCD-249	30	32	2	1.320	0.075
54568	CCD-249	32	34	2	1.383	0.022
54569	CCD-249	34	36	2	1.850	0.041
54570	CCD-249	36	38	2	0.900	0.029
54571	CCD-249	38	40	2	1.120	0.044
54572	CCD-249	40	42	2	1.457	0.170
54573	CCD-249	42	44	2	1.453	0.673
54574	CCD-249	44	46	2	1.167	0.595
54576	CCD-249	46	48	2	1.263	0.934
54577	CCD-249	48	50	2	1.560	2.288

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54578	CCD-249	50	52	2	1.070	1.232
54579	CCD-249	52	54	2	1.190	1.520
54580	CCD-249	54	56	2	1.422	2.188
54581	CCD-249	56	58	2	1.710	1.832
54582	CCD-249	58	60	2	1.130	1.320
54583	CCD-249	60	62	2	0.970	1.496
54584	CCD-249	62	64	2	1.577	1.792
54585	CCD-249	64	66	2	1.787	2.048
54586	CCD-249	66	68	2	1.480	1.115
54587	CCD-249	68	70	2	1.133	0.560
54588	CCD-249	70	72	2	1.123	0.504
54589	CCD-249	72	74	2	1.053	0.419
54590	CCD-249	74	76	2	1.123	0.465
54591	CCD-249	76	78	2	1.380	1.026
54592	CCD-249	78	80	2	1.623	0.713
54594	CCD-249	80	82	2	1.573	0.409
54595	CCD-249	82	84	2	1.060	0.598
54596	CCD-249	84	86	2	1.220	0.478
54597	CCD-249	86	88	2	0.707	0.440
54598	CCD-249	88	90	2	0.887	0.478
54599	CCD-249	90	92	2	0.720	0.407
54600	CCD-249	92	94	2	0.717	0.270
54601	CCD-249	94	96	2	0.963	0.298
54602	CCD-249	96	98	2	1.567	0.560
54603	CCD-249	98	100	2	1.637	0.607
54604	CCD-249	100	102	2	1.927	0.492
54605	CCD-249	102	104	2	1.267	0.471
54606	CCD-249	104	106	2	1.533	0.591
54607	CCD-249	106	108	2	1.540	0.656
54608	CCD-249	108	110	2	1.687	0.652
54609	CCD-249	110	112	2	1.030	0.391
54610	CCD-249	112	114	2	1.313	0.456
54611	CCD-249	114	116	2	1.418	0.501
54613	CCD-249	116	118	2	1.073	0.485
54614	CCD-249	118	120	2	1.467	0.480
54615	CCD-249	120	122	2	1.463	0.539
54616	CCD-249	122	124	2	1.263	0.398
54617	CCD-249	124	126	2	0.807	0.324
54618	CCD-249	126	128	2	1.043	0.492
54619	CCD-249	128	130	2	1.260	0.529
54620	CCD-249	130	132	2	0.870	0.354
54621	CCD-249	132	134	2	1.537	0.586
54622	CCD-249	134	136	2	1.347	0.471
54623	CCD-249	136	138	2	1.120	0.372
54624	CCD-249	138	140	2	0.847	0.318
54625	CCD-249	140	142	2	1.263	0.412
54626	CCD-249	142	144	2	1.570	0.586
54627	CCD-249	144	146	2	1.523	0.400
54628	CCD-249	146	148	2	1.467	0.362
54630	CCD-249	148	150	2	0.913	0.447
54631	CCD-249	150	152	2	1.337	0.398
54632	CCD-249	152	154	2	1.663	0.455
54633	CCD-249	154	156	2	1.667	0.478
54634	CCD-249	156	158	2	1.960	0.544
54635	CCD-249	158	160	2	1.053	0.392

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54636	CCD-249	160	162	2	1.013	0.400
54637	CCD-249	162	164	2	1.327	0.579
54638	CCD-249	164	166	2	2.800	0.621
54639	CCD-249	166	168	2	2.430	0.631
54640	CCD-249	168	170	2	3.160	0.991
54641	CCD-249	170	172	2	2.113	0.569
54642	CCD-249	172	174	2	2.460	0.827
54643	CCD-249	174	176	2	1.777	0.838
54644	CCD-249	176	178	2	1.667	0.802
54645	CCD-249	178	180	2	0.963	0.539
54646	CCD-249	180	182	2	2.230	0.732
54647	CCD-249	182	184	2	1.413	0.478
54649	CCD-249	184	186	2	3.040	0.765
54650	CCD-249	186	188	2	1.273	0.440
54651	CCD-249	188	190	2	1.720	0.445
54652	CCD-249	190	192	2	2.133	0.624
54653	CCD-249	192	194	2	2.550	0.752
54654	CCD-249	194	196	2	3.300	0.885
54655	CCD-249	196	198	2	2.730	0.640
54656	CCD-249	198	200	2	1.700	0.849
54657	CCD-249	200	202	2	1.330	0.626
54658	CCD-249	202	204	2	0.963	0.781
54659	CCD-249	204	206	2	0.843	0.619
54660	CCD-249	206	208	2	0.943	0.532
54661	CCD-249	208	210	2	0.897	0.421
54663	CCD-249	210	212	2	0.813	0.567
54664	CCD-249	212	214	2	1.185	0.460
54665	CCD-249	214	216	2	2.090	0.751
54666	CCD-249	216	218	2	1.793	0.856
54667	CCD-249	218	220	2	2.697	1.368
54668	CCD-249	220	222	2	2.717	1.312
54669	CCD-249	222	224	2	4.130	1.520
54670	CCD-249	224	226	2	5.260	1.616
54671	CCD-249	226	228	2	4.200	1.113
54672	CCD-249	228	230	2	1.807	0.607
54673	CCD-249	230	232	2	2.080	0.755
54674	CCD-249	232	234	2	1.933	0.898
54675	CCD-249	234	236	2	1.170	0.522
54676	CCD-249	236	238	2	1.853	0.779
54677	CCD-249	238	240	2	1.230	0.567
54678	CCD-249	240	242	2	1.740	0.675
54679	CCD-249	242	244	2	1.667	1.014
54681	CCD-249	244	246	2	1.423	0.781
54682	CCD-249	246	248	2	0.897	0.433
54683	CCD-249	248	250	2	0.973	0.412
54684	CCD-249	250	252	2	1.910	0.948
54685	CCD-249	252	254	2	1.017	0.468
54686	CCD-249	254	256	2	1.013	0.593
54687	CCD-249	256	258	2	0.628	0.338
54688	CCD-249	258	260	2	1.143	0.584
54689	CCD-249	260	262	2	0.673	0.372
54690	CCD-249	262	264	2	0.707	0.300
54691	CCD-249	264	266	2	1.400	0.515
54692	CCD-249	266	268	2	1.007	0.300
54693	CCD-249	268	270	2	0.673	0.253

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54694	CCD-249	270	272	2	1.070	0.346
54695	CCD-249	272	274	2	1.000	0.276
54696	CCD-249	274	276	2	1.200	0.402
54697	CCD-249	276	278	2	1.007	0.373
54698	CCD-249	278	280	2	0.643	0.245
54699	CCD-249	280	282	2	0.482	0.192
54701	CCD-249	282	284	2	0.903	0.361
54702	CCD-249	284	286	2	1.243	0.461
54703	CCD-249	286	288	2	0.897	0.333
54704	CCD-249	288	290	2	0.900	0.362
54705	CCD-249	290	292	2	1.113	0.421
54706	CCD-249	292	294	2	0.757	0.327
54707	CCD-249	294	296	2	0.657	0.257
54708	CCD-249	296	298	2	1.003	0.461
54709	CCD-249	298	300	2	1.067	0.478
54751	CCD-250	80	82	2	1.103	0.445
54752	CCD-250	82	84	2	1.693	0.753
54753	CCD-250	84	86	2	1.847	0.736
54754	CCD-250	86	88	2	1.970	0.609
54755	CCD-250	88	90	2	1.830	0.694
54756	CCD-250	90	92	2	1.300	0.572
54757	CCD-250	92	94	2	2.170	0.586
54758	CCD-250	94	96	2	1.953	0.572
54759	CCD-250	96	98	2	1.643	0.522
54760	CCD-250	98	100	2	1.803	0.466
54762	CCD-250	100	102	2	1.523	0.442
54763	CCD-250	102	104	2	1.770	0.419
54764	CCD-250	104	106	2	6.700	0.424
54765	CCD-250	106	108	2	2.890	0.445
54766	CCD-250	108	110	2	1.923	0.532
54767	CCD-250	110	112	2	2.800	0.645
54768	CCD-250	112	114	2	2.250	0.478
54769	CCD-250	114	116	2	1.667	0.496
54770	CCD-250	116	118	2	1.730	0.428
54771	CCD-250	118	120	2	0.273	0.087
54772	CCD-250	120	122	2	1.597	0.447
54773	CCD-250	122	124	2	1.770	0.400
54774	CCD-250	124	126	2	1.070	0.400
54775	CCD-250	126	128	2	1.530	0.405
54776	CCD-250	128	130	2	1.660	0.407
54777	CCD-250	130	132	2	1.800	0.522
54778	CCD-250	132	134	2	0.920	0.280
54779	CCD-250	134	136	2	1.040	0.337
54780	CCD-250	136	138	2	1.117	0.400
54781	CCD-250	138	140	2	0.870	0.290
54783	CCD-250	140	142	2	0.770	0.324
54784	CCD-250	142	144	2	0.867	0.298
54785	CCD-250	144	146	2	0.525	0.185
54786	CCD-250	146	148	2	0.533	0.125
54787	CCD-250	148	150	2	0.603	0.133
54788	CCD-250	150	152	2	0.617	0.196
54789	CCD-250	152	154	2	0.568	0.157
54790	CCD-250	154	156	2	0.770	0.210
54791	CCD-250	156	158	2	0.800	0.240
54792	CCD-250	158	160	2	0.400	0.144

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
54793	CCD-250	160	162	2	0.170	0.055
54794	CCD-250	162	164	2	0.133	0.108
54795	CCD-250	164	166	2	0.502	0.142
54797	CCD-250	166	168	2	0.418	0.050
54798	CCD-250	168	170	2	0.327	0.073
54799	CCD-250	170	172	2	0.327	0.075
54800	CCD-250	172	174	2	0.323	0.091
54801	CCD-250	174	176	2	0.400	0.107
54802	CCD-250	176	178	2	0.362	0.095
54803	CCD-250	178	180	2	0.443	0.113
54804	CCD-250	180	182	2	0.248	0.077
54805	CCD-250	182	184	2	0.268	0.080
54806	CCD-250	184	186	2	0.670	0.185
54807	CCD-250	186	188	2	0.352	0.154
54808	CCD-250	188	190	2	1.563	0.475
54809	CCD-250	190	192	2	0.317	0.096
54810	CCD-250	192	194	2	0.247	0.083
54811	CCD-250	194	196	2	0.388	0.125
54812	CCD-250	196	198	2	0.283	0.127
54813	CCD-250	198	200	2	0.205	0.096
54814	CCD-250	200	202	2	0.283	0.119
54816	CCD-250	202	204	2	0.723	0.107
54817	CCD-250	204	206	2	0.327	0.118
54818	CCD-250	206	208	2	0.322	0.130
54819	CCD-250	208	210	2	0.167	0.077
54820	CCD-250	210	212	2	0.238	0.099
54821	CCD-250	212	214	2	0.197	0.094
54822	CCD-250	214	216	2	0.195	0.066
54823	CCD-250	216	218	2	0.267	0.121
54824	CCD-250	218	220	2	0.242	0.104
54825	CCD-250	220	222	2	0.235	0.120
54826	CCD-250	222	224	2	0.215	0.097
54827	CCD-250	224	226	2	0.105	0.069
54828	CCD-250	226	228	2	0.145	0.088
54829	CCD-250	228	230	2	0.142	0.074
54830	CCD-250	230	232	2	2.150	0.540
54832	CCD-250	232	234	2	0.133	0.063
54833	CCD-250	234	236	2	0.175	0.086
54834	CCD-250	236	238	2	0.160	0.073
54835	CCD-250	238	240	2	0.092	0.050
56501	CCD-251	0	2	2	0.140	0.030
56502	CCD-251	2	4	2	0.080	0.080
56503	CCD-251	4	6	2	0.080	0.070
56504	CCD-251	6	8	2	0.060	0.050
56505	CCD-251	8	10	2	0.040	0.110
56506	CCD-251	10	12	2	0.060	0.080
56507	CCD-251	12	14	2	0.060	0.060
56508	CCD-251	14	16	2	0.050	0.080
56510	CCD-251	16	18	2	0.090	0.310
56511	CCD-251	18	20	2	0.130	0.120
56512	CCD-251	20	22	2	0.110	0.140
56513	CCD-251	22	24	2	0.090	0.190
56514	CCD-251	24	26	2	0.170	0.150
56515	CCD-251	26	28	2	0.120	0.150
56516	CCD-251	28	30	2	0.050	0.050

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
56517	CCD-251	30	32	2	0.120	0.150
56518	CCD-251	32	34	2	0.400	1.000
56519	CCD-251	34	36	2	0.200	0.170
56520	CCD-251	36	38	2	0.960	0.090
56521	CCD-251	38	40	2	0.190	0.190
56522	CCD-251	40	42	2	0.160	0.230
56523	CCD-251	42	44	2	0.380	0.300
56524	CCD-251	44	46	2	0.590	0.450
56526	CCD-251	46	48	2	2.220	0.390
56527	CCD-251	48	50	2	3.040	0.440
56528	CCD-251	50	52	2	1.980	0.440
56529	CCD-251	52	54	2	2.590	0.410
56530	CCD-251	54	56	2	0.920	0.280
56531	CCD-251	56	58	2	0.890	0.170
56532	CCD-251	58	60	2	0.540	0.130
56533	CCD-251	60	62	2	0.080	0.040
56534	CCD-251	62	64	2	0.100	0.110
56535	CCD-251	64	66	2	0.060	0.060
56536	CCD-251	66	68	2	0.050	0.020
56537	CCD-251	68	70	2	0.010	0.020
56538	CCD-251	70	72	2	0.010	0.030
56539	CCD-251	72	74	2	0.010	0.010
56540	CCD-251	74	76	2	0.010	0.005
56541	CCD-251	76	78	2	0.010	0.010
56542	CCD-251	78	80	2	0.060	0.030
56543	CCD-251	80	82	2	0.270	0.080
56544	CCD-251	82	84	2	0.280	0.100
56545	CCD-251	84	86	2	0.180	0.100
56546	CCD-251	86	88	2	0.010	0.040
56547	CCD-251	88	90	2	0.060	0.060
56549	CCD-251	90	92	2	0.050	0.050
56550	CCD-251	92	94	2	0.060	0.010
56551	CCD-251	94	96	2	0.170	0.100
56552	CCD-251	96	98	2	0.150	0.080
56553	CCD-251	98	100	2	0.060	0.140
56554	CCD-251	100	102	2	0.140	0.050
56555	CCD-251	102	104	2	0.050	0.090
56557	CCD-251	104	106	2	0.020	0.040
56558	CCD-251	106	108	2	0.040	0.050
56559	CCD-251	108	110	2	0.110	0.070
56560	CCD-251	110	112	2	0.090	0.070
56561	CCD-251	112	114	2	0.490	0.030
56562	CCD-251	114	116	2	0.300	0.020
56563	CCD-251	116	118	2	0.070	0.010
56564	CCD-251	118	120	2	0.010	0.010
56565	CCD-251	120	122	2	0.020	0.010
56566	CCD-251	122	124	2	0.030	0.005
56567	CCD-251	124	126	2	0.010	0.010
56568	CCD-251	126	128	2	0.010	0.005
56569	CCD-251	128	130	2	0.020	0.020
56570	CCD-251	130	132	2	0.010	0.010
56571	CCD-251	132	134	2	0.010	0.005
56572	CCD-251	134	136	2	0.010	0.005
56573	CCD-251	136	138	2	0.010	0.005
56574	CCD-251	138	140	2	0.010	0.030

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
56575	CCD-251	140	142	2	0.010	0.020
56576	CCD-251	142	144	2	0.010	0.020
56578	CCD-251	144	146	2	0.010	0.030
56579	CCD-251	146	148	2	0.010	0.020
56580	CCD-251	148	150	2	0.010	0.005
56581	CCD-251	150	152	2	0.010	0.010
56582	CCD-251	152	154	2	0.010	0.005
56583	CCD-251	154	156	2	0.010	0.005
56584	CCD-251	156	158	2	0.040	0.020
56585	CCD-251	158	160	2	0.050	0.020
56586	CCD-251	160	162	2	0.070	0.010
56587	CCD-251	162	164	2	0.090	0.005
56588	CCD-251	164	166	2	0.010	0.005
56589	CCD-251	166	168	2	0.010	0.005
56590	CCD-251	168	170	2	0.010	0.005
56591	CCD-251	170	172	2	0.010	0.005
56592	CCD-251	172	174	2	0.010	0.010
56593	CCD-251	174	176	2	0.010	0.005
56594	CCD-251	176	178	2	0.010	0.005
56595	CCD-251	178	180	2	0.040	0.010
56597	CCD-251	180	182	2	0.030	0.005
56598	CCD-251	182	184	2	0.050	0.005
56599	CCD-251	184	186	2	0.010	0.005
56600	CCD-251	186	188	2	0.010	0.005
56601	CCD-251	188	190	2	0.010	0.005
56602	CCD-251	190	192	2	0.010	0.005
56603	CCD-251	192	194	2	0.030	0.005
56604	CCD-251	194	196	2	0.010	0.005
56605	CCD-251	196	198	2	0.010	0.005
56606	CCD-251	198	200	2	0.010	0.005
56608	CCD-251	200	202	2	0.010	0.005
56609	CCD-251	202	204	2	0.010	0.010
56610	CCD-251	204	206	2	0.010	0.005
56611	CCD-251	206	208	2	0.010	0.005
56612	CCD-251	208	210	2	0.010	0.005
56613	CCD-251	210	212	2	0.010	0.005
56614	CCD-251	212	214	2	0.010	0.005
56615	CCD-251	214	216	2	0.010	0.005
56616	CCD-251	216	218	2	0.010	0.005
56617	CCD-251	218	220	2	0.010	0.005
56618	CCD-251	220	222	2	0.010	0.005
56619	CCD-251	222	224	2	0.010	0.005
56620	CCD-251	224	226	2	0.010	0.005
56621	CCD-251	226	228	2	0.010	0.005
56622	CCD-251	228	230	2	0.010	0.020
56623	CCD-251	230	232	2	0.010	0.005
56624	CCD-251	232	234	2	0.010	0.005
56625	CCD-251	234	236	2	0.010	0.150
56626	CCD-251	236	238	2	0.010	0.010
56627	CCD-251	238	240	2	0.010	0.005
56628	CCD-251	240	242	2	0.010	0.005
56630	CCD-251	242	244	2	0.010	0.005
56631	CCD-251	244	246	2	0.010	0.005
56632	CCD-251	246	248	2	0.010	0.005
56633	CCD-251	248	250	2	0.010	0.005

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
56634	CCD-251	250	252	2	0.010	0.020
56635	CCD-251	252	254	2	0.010	0.005
56636	CCD-251	254	256	2	0.010	0.005
56637	CCD-251	256	258	2	0.010	0.005
56638	CCD-251	258	260	2	0.010	0.005
56639	CCD-251	260	262	2	0.010	0.005
56640	CCD-251	262	264	2	0.010	0.005
56641	CCD-251	264	266	2	0.010	0.005
56643	CCD-251	266	268	2	0.010	0.005
56644	CCD-251	268	270	2	0.010	0.005
56645	CCD-251	270	272	2	0.010	0.005
56646	CCD-251	272	274	2	0.010	0.005
56647	CCD-251	274	276	2	0.010	0.005
56648	CCD-251	276	278	2	0.010	0.005
56649	CCD-251	278	280	2	0.010	0.005
56650	CCD-251	280	282	2	0.010	0.005
56451	CCD-251	282	284	2	0.010	0.005
56452	CCD-251	284	286	2	0.010	0.020
56453	CCD-251	286	288	2	0.010	0.005
56454	CCD-251	288	290	2	0.010	0.005
56455	CCD-251	290	292	2	0.010	0.005
56456	CCD-251	292	294	2	0.010	0.005
56457	CCD-251	294	296	2	0.010	0.005
56458	CCD-251	296	298	2	0.010	0.005
56459	CCD-251	298	300	2	0.010	0.005
56460	CCD-251	300	302	2	0.010	0.010
56461	CCD-251	302	304	2	0.030	0.010
56463	CCD-251	304	306	2	0.030	0.005
56464	CCD-251	306	308	2	0.010	0.005
56465	CCD-251	308	310	2	0.010	0.005
56466	CCD-251	310	312	2	0.010	0.005
56467	CCD-251	312	314	2	0.040	0.005
56468	CCD-251	314	316	2	0.110	0.090
56469	CCD-251	316	318	2	0.510	0.250
56470	CCD-251	318	320	2	0.600	0.320
56471	CCD-251	320	322	2	0.170	0.110
56472	CCD-251	322	324	2	0.010	0.005
56473	CCD-251	324	326	2	0.010	0.005
56474	CCD-251	326	328	2	0.030	0.005
56475	CCD-251	328	330	2	0.010	0.005
56476	CCD-251	330	332	2	0.010	0.005
56477	CCD-251	332	334	2	0.010	0.005
56478	CCD-251	334	336	2	0.010	0.005
56480	CCD-251	336	338	2	0.010	0.005
56481	CCD-251	338	340	2	0.010	0.005
56482	CCD-251	340	342	2	0.010	0.005
56483	CCD-251	342	344	2	0.010	0.005
56484	CCD-251	344	346	2	0.010	0.005
56485	CCD-251	346	348	2	0.010	0.005
	CCD-251	348	349.6	1.6		
	CCD-252	0	2	2		
	CCD-252	2	4	2		
56753	CCD-252	4	6	2	0.050	0.030
56754	CCD-252	6	8	2	0.010	0.010
56755	CCD-252	8	10	2	0.010	0.010

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
56756	CCD-252	10	12	2	0.010	0.010
56757	CCD-252	12	14	2	0.010	0.020
56758	CCD-252	14	16	2	0.010	0.030
56760	CCD-252	16	18	2	0.010	0.030
56761	CCD-252	18	20	2	0.010	0.005
56762	CCD-252	20	22	2	0.010	0.020
56763	CCD-252	22	24	2	0.010	0.010
56764	CCD-252	24	26	2	0.010	0.020
56765	CCD-252	26	28	2	0.010	0.030
56766	CCD-252	28	30	2	0.030	0.120
56767	CCD-252	30	32	2	0.030	0.040
56768	CCD-252	32	34	2	0.010	0.040
56769	CCD-252	34	36	2	0.010	0.020
56770	CCD-252	36	38	2	0.010	0.010
56771	CCD-252	38	40	2	0.090	0.020
56772	CCD-252	40	42	2	0.040	0.030
56773	CCD-252	42	44	2	0.040	0.040
56774	CCD-252	44	46	2	0.010	0.030
56775	CCD-252	46	48	2	0.010	0.030
56776	CCD-252	48	50	2	0.010	0.010
56777	CCD-252	50	52	2	0.010	0.020
56778	CCD-252	52	54	2	0.010	0.020
56780	CCD-252	54	56	2	0.010	0.020
56781	CCD-252	56	58	2	0.010	0.010
56782	CCD-252	58	60	2	0.010	0.020
56783	CCD-252	60	62	2	0.010	0.020
56784	CCD-252	62	64	2	0.010	0.030
56785	CCD-252	64	66	2	0.010	0.030
56786	CCD-252	66	68	2	0.010	0.030
56787	CCD-252	68	70	2	0.050	0.020
56788	CCD-252	70	72	2	0.010	0.005
56789	CCD-252	72	74	2	0.020	0.020
56791	CCD-252	74	76	2	0.040	0.030
56792	CCD-252	76	78	2	0.010	0.030
56793	CCD-252	78	80	2	0.110	0.120
56794	CCD-252	80	82	2	0.040	0.090
56795	CCD-252	82	84	2	0.110	0.090
56796	CCD-252	84	86	2	0.040	0.040
56797	CCD-252	86	88	2	0.050	0.040
56798	CCD-252	88	90	2	0.030	0.040
56799	CCD-252	90	92	2	0.010	0.020
56800	CCD-252	92	94	2	0.010	0.020
56801	CCD-252	94	96	2	0.010	0.020
56802	CCD-252	96	98	2	0.030	0.050
56803	CCD-252	98	100	2	0.080	0.060
56804	CCD-252	100	102	2	0.050	0.050
56805	CCD-252	102	104	2	0.010	0.010
56806	CCD-252	104	106	2	0.010	0.010
56807	CCD-252	106	108	2	0.010	0.010
56808	CCD-252	108	110	2	0.040	0.020
56809	CCD-252	110	112	2	0.040	0.020
56810	CCD-252	112	114	2	0.040	0.020
56811	CCD-252	114	116	2	0.040	0.005
56812	CCD-252	116	118	2	0.010	0.010
56813	CCD-252	118	120	2	0.010	0.005

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
56814	CCD-252	120	122	2	0.040	0.010
56815	CCD-252	122	124	2	0.070	0.080
56817	CCD-252	124	126	2	0.040	0.030
56818	CCD-252	126	128	2	0.030	0.050
56819	CCD-252	128	130	2	0.010	0.030
56820	CCD-252	130	132	2	0.040	0.050
56821	CCD-252	132	134	2	0.060	0.090
56822	CCD-252	134	136	2	0.010	0.050
56823	CCD-252	136	138	2	0.020	0.060
56824	CCD-252	138	140	2	0.040	0.080
56825	CCD-252	140	142	2	0.020	0.090
56826	CCD-252	142	144	2	0.010	0.040
56827	CCD-252	144	146	2	0.010	0.070
56828	CCD-252	146	148	2	0.050	0.070
56829	CCD-252	148	150	2	0.010	0.040
56830	CCD-252	150	152	2	0.010	0.030
56831	CCD-252	152	154	2	0.030	0.060
56833	CCD-252	154	156	2	0.050	0.110
56834	CCD-252	156	158	2	0.040	0.110
56835	CCD-252	158	160	2	0.100	0.090
56836	CCD-252	160	162	2	0.030	0.020
56837	CCD-252	162	164	2	0.010	0.020
56838	CCD-252	164	166	2	0.010	0.020
56839	CCD-252	166	168	2	0.050	0.070
56840	CCD-252	168	170	2	0.080	0.060
56841	CCD-252	170	172	2	0.030	0.060
56842	CCD-252	172	174	2	0.050	0.040
56843	CCD-252	174	176	2	0.070	0.100
56844	CCD-252	176	178	2	0.080	0.160
56845	CCD-252	178	180	2	0.010	0.005
56846	CCD-252	180	182	2	0.030	0.010
56848	CCD-252	182	184	2	0.010	0.020
56849	CCD-252	184	186	2	0.040	0.050
56850	CCD-252	186	188	2	0.010	0.020
56851	CCD-252	188	190	2	0.100	0.140
56852	CCD-252	190	192	2	0.010	0.010
56853	CCD-252	192	194	2	0.070	0.050
56854	CCD-252	194	196	2	0.030	0.050
56855	CCD-252	196	198	2	0.050	0.020
56856	CCD-252	198	200	2	0.040	0.050
56857	CCD-252	200	202	2	0.030	0.020
56858	CCD-252	202	204	2	0.030	0.030
56860	CCD-252	204	206	2	0.040	0.040
56861	CCD-252	206	208	2	0.140	0.020
56862	CCD-252	208	210	2	0.090	0.070
56863	CCD-252	210	212	2	0.080	0.110
56864	CCD-252	212	214	2	0.100	0.140
56865	CCD-252	214	216	2	0.050	0.040
56866	CCD-252	216	218	2	0.170	0.140
56867	CCD-252	218	220	2	0.330	0.280
56868	CCD-252	220	222	2	0.110	0.150
56869	CCD-252	222	224	2	0.110	0.110
56870	CCD-252	224	226	2	0.140	0.140
56871	CCD-252	226	228	2	0.160	0.180
56872	CCD-252	228	230	2	0.260	0.170

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
56873	CCD-252	230	232	2	0.150	0.130
56874	CCD-252	232	234	2	0.160	0.160
56875	CCD-252	234	236	2	0.130	0.140
56876	CCD-252	236	238	2	0.080	0.110
56877	CCD-252	238	240	2	0.100	0.120
56878	CCD-252	240	242	2	0.160	0.160
56879	CCD-252	242	244	2	0.090	0.090
56881	CCD-252	244	246	2	0.130	0.210
56882	CCD-252	246	248	2	0.250	0.220
56883	CCD-252	248	250	2	0.210	0.210
56884	CCD-252	250	252	2	0.270	0.210
56885	CCD-252	252	254	2	0.180	0.390
56886	CCD-252	254	256	2	0.340	0.420
56887	CCD-252	256	258	2	0.200	0.160
56888	CCD-252	258	260	2	0.120	0.130
56889	CCD-252	260	262	2	0.220	0.220
56890	CCD-252	262	264	2	0.310	0.330
56891	CCD-252	264	266	2	0.320	0.280
56892	CCD-252	266	268	2	0.550	0.300
56893	CCD-252	268	270	2	0.360	0.210
56894	CCD-252	270	272	2	0.190	0.120
56895	CCD-252	272	274	2	0.250	0.150
56897	CCD-252	274	276	2	0.300	0.210
	CCD-252	276	276.4	0.4		
56901	CCD-253	0	2	2	0.030	0.030
56902	CCD-253	2	4	2	0.010	0.005
56903	CCD-253	4	6	2	0.010	0.020
56904	CCD-253	6	8	2	0.010	0.005
56905	CCD-253	8	10	2	0.010	0.005
56906	CCD-253	10	12	2	0.010	0.005
56907	CCD-253	12	14	2	0.010	0.005
56909	CCD-253	14	16	2	0.010	0.005
56910	CCD-253	16	18	2	0.010	0.005
56911	CCD-253	18	20	2	0.010	0.005
56912	CCD-253	20	22	2	0.010	0.010
56913	CCD-253	22	24	2	0.050	0.010
56914	CCD-253	24	26	2	0.030	0.005
56915	CCD-253	26	28	2	0.040	0.005
56916	CCD-253	28	30	2	0.010	0.005
56917	CCD-253	30	32	2	0.040	0.005
56918	CCD-253	32	34	2	0.040	0.005
56919	CCD-253	34	36	2	0.010	0.005
56920	CCD-253	36	38	2	0.010	0.005
56921	CCD-253	38	40	2	0.010	0.010
56922	CCD-253	40	42	2	0.010	0.005
56923	CCD-253	42	44	2	0.010	0.010
56925	CCD-253	44	46	2	0.010	0.010
56926	CCD-253	46	48	2	0.010	0.005
56927	CCD-253	48	50	2	0.010	0.005
56928	CCD-253	50	52	2	0.010	0.005
56929	CCD-253	52	54	2	0.010	0.030
56930	CCD-253	54	56	2	0.020	0.010
56931	CCD-253	56	58	2	0.010	0.020
56932	CCD-253	58	60	2	0.010	0.030
56933	CCD-253	60	62	2	0.010	0.010

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
56934	CCD-253	62	64	2	0.010	0.005
56935	CCD-253	64	66	2	0.010	0.005
56936	CCD-253	66	68	2	0.010	0.005
56937	CCD-253	68	70	2	0.020	0.010
56938	CCD-253	70	72	2	0.010	0.010
56939	CCD-253	72	74	2	0.010	0.020
56941	CCD-253	74	76	2	0.030	0.010
56942	CCD-253	76	78	2	0.010	0.005
56943	CCD-253	78	80	2	0.010	0.005
56944	CCD-253	80	82	2	0.010	0.005
56945	CCD-253	82	84	2	0.030	0.020
56946	CCD-253	84	86	2	0.010	0.005
56947	CCD-253	86	88	2	0.040	0.020
56948	CCD-253	88	90	2	0.090	0.080
56949	CCD-253	90	92	2	0.030	0.030
56950	CCD-253	92	94	2	0.110	0.040
56951	CCD-253	94	96	2	0.110	0.060
56952	CCD-253	96	98	2	0.020	0.020
56953	CCD-253	98	100	2	0.010	0.020
56954	CCD-253	100	102	2	0.020	0.020
56955	CCD-253	102	104	2	0.010	0.020
56956	CCD-253	104	106	2	0.040	0.040
56957	CCD-253	106	108	2	0.010	0.005
56958	CCD-253	108	110	2	0.010	0.005
56959	CCD-253	110	112	2	0.010	0.030
56960	CCD-253	112	114	2	0.010	0.005
56961	CCD-253	114	116	2	0.010	0.005
56963	CCD-253	116	118	2	0.010	0.020
56964	CCD-253	118	120	2	0.010	0.010
56965	CCD-253	120	122	2	0.030	0.040
56966	CCD-253	122	124	2	0.010	0.020
56967	CCD-253	124	126	2	0.010	0.020
56968	CCD-253	126	128	2	0.010	0.010
56969	CCD-253	128	130	2	0.010	0.020
56970	CCD-253	130	132	2	0.010	0.010
56971	CCD-253	132	134	2	0.010	0.020
56972	CCD-253	134	136	2	0.010	0.040
56973	CCD-253	136	138	2	0.010	0.040
56974	CCD-253	138	140	2	0.030	0.060
56975	CCD-253	140	142	2	0.030	0.040
56976	CCD-253	142	144	2	0.030	0.020
56977	CCD-253	144	146	2	0.070	0.090
56978	CCD-253	146	148	2	0.190	0.120
56979	CCD-253	148	150	2	0.110	0.050
56981	CCD-253	150	152	2	0.360	0.060
56982	CCD-253	152	154	2	0.050	0.080
56983	CCD-253	154	156	2	0.050	0.100
56984	CCD-253	156	158	2	0.080	0.200
56985	CCD-253	158	160	2	0.050	0.100
56986	CCD-253	160	162	2	0.070	0.130
56987	CCD-253	162	164	2	0.090	0.120
56988	CCD-253	164	166	2	0.140	0.120
56989	CCD-253	166	168	2	0.030	0.030
56990	CCD-253	168	170	2	0.040	0.060
56991	CCD-253	170	172	2	0.060	0.160

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
56992	CCD-253	172	174	2	0.030	0.040
56993	CCD-253	174	176	2	0.120	0.160
56994	CCD-253	176	178	2	0.260	0.060
56995	CCD-253	178	180	2	0.060	0.070
56996	CCD-253	180	182	2	0.090	0.100
56997	CCD-253	182	184	2	0.130	0.120
56999	CCD-253	184	186	2	0.120	0.120
57201	CCD-254	0	2	2	0.100	0.040
57202	CCD-254	2	4	2	0.010	0.030
57203	CCD-254	4	6	2	0.010	0.040
57204	CCD-254	6	8	2	0.010	0.020
57205	CCD-254	8	10	2	0.050	0.020
57206	CCD-254	10	12	2	0.020	0.020
57207	CCD-254	12	14	2	0.020	0.110
57208	CCD-254	14	16	2	0.030	0.160
57209	CCD-254	16	18	2	0.030	0.130
57210	CCD-254	18	20	2	0.040	0.130
57211	CCD-254	20	22	2	0.050	0.070
57212	CCD-254	22	24	2	0.090	0.110
57213	CCD-254	24	26	2	0.190	0.150
57215	CCD-254	26	28	2	0.040	0.150
57216	CCD-254	28	30	2	0.040	0.130
57217	CCD-254	30	32	2	0.060	0.100
57218	CCD-254	32	34	2	0.120	0.040
57219	CCD-254	34	36	2	0.060	0.130
57220	CCD-254	36	38	2	0.060	0.110
57221	CCD-254	38	40	2	0.050	0.100
57222	CCD-254	40	42	2	0.060	0.090
57223	CCD-254	42	44	2	0.020	0.060
57224	CCD-254	44	46	2	0.030	0.070
57225	CCD-254	46	48	2	0.040	0.060
57226	CCD-254	48	50	2	0.170	0.460
57227	CCD-254	50	52	2	0.060	0.080
57228	CCD-254	52	54	2	0.150	0.250
57229	CCD-254	54	56	2	0.120	0.180
57231	CCD-254	56	58	2	0.160	0.200
57232	CCD-254	58	60	2	0.210	0.290
57233	CCD-254	60	62	2	0.170	0.270
57234	CCD-254	62	64	2	0.190	0.260
57235	CCD-254	64	66	2	0.150	0.130
57236	CCD-254	66	68	2	0.180	0.310
57237	CCD-254	68	70	2	0.490	0.630
57238	CCD-254	70	72	2	0.300	0.350
57239	CCD-254	72	74	2	0.200	0.250
57240	CCD-254	74	76	2	0.180	0.250
57241	CCD-254	76	78	2	0.160	0.230
57242	CCD-254	78	80	2	0.210	0.260
57243	CCD-254	80	82	2	0.200	0.290
57245	CCD-254	82	84	2	0.210	0.240
57246	CCD-254	84	86	2	0.240	0.370
57247	CCD-254	86	88	2	0.170	0.220
57248	CCD-254	88	90	2	0.380	0.520
57249	CCD-254	90	92	2	0.280	0.270
57250	CCD-254	92	94	2	0.210	0.220
57251	CCD-254	94	96	2	0.260	0.320

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
57252	CCD-254	96	98	2	0.140	0.110
57253	CCD-254	98	100	2	0.190	0.090
57254	CCD-254	100	102	2	0.140	0.100
57255	CCD-254	102	104	2	0.350	0.240
57256	CCD-254	104	106	2	0.270	0.180
57257	CCD-254	106	108	2	0.320	0.230
57258	CCD-254	108	110	2	0.320	0.350
57259	CCD-254	110	112	2	0.300	0.140
57260	CCD-254	112	114	2	0.350	0.290
57261	CCD-254	114	116	2	0.730	0.370
57262	CCD-254	116	118	2	0.450	0.090
57263	CCD-254	118	120	2	0.150	0.080
57265	CCD-254	120	122	2	0.320	0.280
57266	CCD-254	122	124	2	0.330	0.230
57267	CCD-254	124	126	2	0.770	0.520
57268	CCD-254	126	128	2	0.420	0.370
57269	CCD-254	128	130	2	0.340	0.210
57270	CCD-254	130	132	2	0.360	0.190
57271	CCD-254	132	134	2	0.250	0.150
57272	CCD-254	134	136	2	0.380	0.280
57273	CCD-254	136	138	2	0.720	0.370
57274	CCD-254	138	140	2	0.970	0.770
57275	CCD-254	140	142	2	0.620	0.480
57276	CCD-254	142	144	2	1.250	1.090
57277	CCD-254	144	146	2	0.630	0.340
57278	CCD-254	146	148	2	0.270	0.160
57279	CCD-254	148	150	2	0.270	0.260
57280	CCD-254	150	152	2	0.230	0.240
57282	CCD-254	152	154	2	0.440	0.560
57283	CCD-254	154	156	2	0.460	0.260
57284	CCD-254	156	158	2	0.510	0.430
57285	CCD-254	158	160	2	0.650	0.730
57286	CCD-254	160	162	2	0.820	0.540
57287	CCD-254	162	164	2	0.870	0.730
57288	CCD-254	164	166	2	0.880	0.480
57289	CCD-254	166	168	2	0.580	0.370
57290	CCD-254	168	170	2	0.260	0.210
57292	CCD-254	170	172	2	0.480	0.270
57293	CCD-254	172	174	2	1.540	0.380
57294	CCD-254	174	176	2	2.430	1.570
57295	CCD-254	176	178	2	0.140	0.350
57296	CCD-254	178	180	2	0.150	0.300
57297	CCD-254	180	182	2	0.160	0.480
57298	CCD-254	182	184	2	1.180	0.860
57299	CCD-254	184	186	2	0.970	0.380
57300	CCD-254	186	188	2	0.880	0.370
57301	CCD-254	188	190	2	0.320	0.230
57302	CCD-254	190	192	2	0.810	0.480
57303	CCD-254	192	194	2	0.600	0.360
57304	CCD-254	194	196	2	0.260	0.150
57305	CCD-254	196	198	2	0.320	0.220
57306	CCD-254	198	200	2	0.730	0.640
57307	CCD-254	200	202	2	0.370	0.340
57308	CCD-254	202	204	2	1.200	0.790
57309	CCD-254	204	206	2	0.930	0.460

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
57310	CCD-254	206	208	2	0.710	0.340
57311	CCD-254	208	210	2	1.250	0.570
57312	CCD-254	210	212	2	1.730	1.330
57313	CCD-254	212	214	2	1.690	1.040
57315	CCD-254	214	216	2	1.810	1.720
57316	CCD-254	216	218	2	1.300	0.790
57317	CCD-254	218	220	2	0.410	0.260
57318	CCD-254	220	222	2	1.210	0.570
57319	CCD-254	222	224	2	0.730	0.420
57320	CCD-254	224	226	2	0.520	0.370
57321	CCD-254	226	228	2	0.340	0.230
57322	CCD-254	228	230	2	0.410	0.230
57323	CCD-254	230	232	2	0.680	0.290
57324	CCD-254	232	234	2	1.560	0.760
57325	CCD-254	234	236	2	1.130	0.720
57326	CCD-254	236	238	2	1.040	0.840
57327	CCD-254	238	240	2	0.320	0.190
57328	CCD-254	240	242	2	0.410	0.310
57329	CCD-254	242	244	2	0.470	0.550
57330	CCD-254	244	246	2	1.570	0.720
57331	CCD-254	246	248	2	0.650	0.490
57332	CCD-254	248	250	2	0.780	0.530
57333	CCD-254	250	252	2	0.630	0.410
57335	CCD-254	252	254	2	0.760	0.680
57336	CCD-254	254	256	2	0.790	0.470
57337	CCD-254	256	258	2	0.830	0.500
57338	CCD-254	258	260	2	1.260	0.530
57339	CCD-254	260	262	2	0.960	0.490
57340	CCD-254	262	264	2	0.740	0.370
57341	CCD-254	264	266	2	0.500	0.240
57342	CCD-254	266	268	2	0.160	0.250
57343	CCD-254	268	270	2	0.480	0.250
57344	CCD-254	270	272	2	0.710	0.510
57345	CCD-254	272	274	2	0.990	0.570
57346	CCD-254	274	276	2	0.910	0.460
57348	CCD-254	276	278	2	1.250	0.530
57349	CCD-254	278	280	2	0.920	0.460
57401	CCD-255	0	2	2	0.020	0.000
57402	CCD-255	2	4	2	0.010	0.000
57403	CCD-255	4	6	2	0.010	0.010
57404	CCD-255	6	8	2	0.010	0.010
57405	CCD-255	8	10	2	0.010	0.010
57406	CCD-255	10	12	2	0.010	0.000
57408	CCD-255	12	14	2	0.010	0.010
57409	CCD-255	14	16	2	0.010	0.010
57410	CCD-255	16	18	2	0.010	0.010
57411	CCD-255	18	20	2	0.010	0.010
57412	CCD-255	20	22	2	0.010	0.000
57413	CCD-255	22	24	2	0.010	0.000
57414	CCD-255	24	26	2	0.010	0.010
57415	CCD-255	26	28	2	0.010	0.000
57416	CCD-255	28	30	2	0.030	0.040
57417	CCD-255	30	32	2	0.010	0.010
57418	CCD-255	32	34	2	0.010	0.010
57419	CCD-255	34	36	2	0.030	0.070

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
57420	CCD-255	36	38	2	0.010	0.010
57421	CCD-255	38	40	2	0.010	0.020
57422	CCD-255	40	42	2	0.010	0.010
57423	CCD-255	42	44	2	0.040	0.000
57424	CCD-255	44	46	2	0.020	0.030
57425	CCD-255	46	48	2	0.010	0.000
57426	CCD-255	48	50	2	0.020	0.030
57427	CCD-255	50	52	2	0.010	0.020
57428	CCD-255	52	54	2	0.010	0.000
57429	CCD-255	54	56	2	0.010	0.000
57431	CCD-255	56	58	2	0.010	0.010
57432	CCD-255	58	60	2	0.010	0.020
57433	CCD-255	60	62	2	0.100	0.010
57434	CCD-255	62	64	2	0.110	0.010
57435	CCD-255	64	66	2	0.200	0.010
57436	CCD-255	66	68	2	0.160	0.020
57437	CCD-255	68	70	2	0.020	0.010
57438	CCD-255	70	72	2	0.140	0.030
57439	CCD-255	72	74	2	0.190	0.060
57440	CCD-255	74	76	2	0.010	0.000
57441	CCD-255	76	78	2	0.010	0.020
57443	CCD-255	78	80	2	0.010	0.010
57444	CCD-255	80	82	2	0.010	0.010
57445	CCD-255	82	84	2	0.010	0.010
57446	CCD-255	84	86	2	0.010	0.010
57447	CCD-255	86	88	2	0.010	0.000
57448	CCD-255	88	90	2	0.010	0.000
57449	CCD-255	90	92	2	0.030	0.020
57450	CCD-255	92	94	2	0.030	0.010
57451	CCD-255	94	96	2	0.050	0.040
57452	CCD-255	96	98	2	0.010	0.020
57453	CCD-255	98	100	2	0.020	0.030
57454	CCD-255	100	102	2	0.050	0.090
57455	CCD-255	102	104	2	0.060	0.070
57456	CCD-255	104	106	2	0.050	0.030
57457	CCD-255	106	108	2	0.030	0.040
57459	CCD-255	108	110	2	0.010	0.030
57460	CCD-255	110	112	2	0.010	0.030
57461	CCD-255	112	114	2	0.010	0.040
57462	CCD-255	114	116	2	0.010	0.040
57463	CCD-255	116	118	2	0.080	0.100
57464	CCD-255	118	120	2	0.030	0.090
57465	CCD-255	120	122	2	0.010	0.070
57466	CCD-255	122	124	2	0.010	0.030
57467	CCD-255	124	126	2	0.070	0.060
57468	CCD-255	126	128	2	0.030	0.060
57469	CCD-255	128	130	2	0.030	0.060
57470	CCD-255	130	132	2	0.070	0.110
57471	CCD-255	132	134	2	0.040	0.130
57472	CCD-255	134	136	2	0.030	0.040
57473	CCD-255	136	138	2	0.030	0.110
57475	CCD-255	138	140	2	0.030	0.050
57476	CCD-255	140	142	2	0.010	0.010
57477	CCD-255	142	144	2	0.040	0.040
57478	CCD-255	144	146	2	0.030	0.050

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
57479	CCD-255	146	148	2	0.010	0.050
57480	CCD-255	148	150	2	0.010	0.040
57481	CCD-255	150	152	2	0.050	0.070
57482	CCD-255	152	154	2	0.090	0.100
57483	CCD-255	154	156	2	0.040	0.050
57484	CCD-255	156	158	2	0.030	0.050
57485	CCD-255	158	160	2	0.030	0.060
57486	CCD-255	160	162	2	0.020	0.040
57487	CCD-255	162	164	2	0.010	0.010
57488	CCD-255	164	166	2	0.010	0.020
57489	CCD-255	166	168	2	0.010	0.005
57490	CCD-255	168	170	2	0.030	0.060
57491	CCD-255	170	172	2	0.040	0.090
57492	CCD-255	172	174	2	0.010	0.060
57494	CCD-255	174	176	2	0.020	0.050
57495	CCD-255	176	178	2	0.030	0.060
57496	CCD-255	178	180	2	0.040	0.050
57497	CCD-255	180	182	2	0.010	0.040
57498	CCD-255	182	184	2	0.010	0.030
57499	CCD-255	184	186	2	0.040	0.100
57500	CCD-255	186	188	2	0.080	0.110
57501	CCD-255	188	190	2	0.040	0.050
57502	CCD-255	190	192	2	0.030	0.060
57503	CCD-255	192	194	2	0.030	0.060
57504	CCD-255	194	196	2	0.070	0.090
57505	CCD-255	196	198	2	0.090	0.080
57506	CCD-255	198	200	2	0.070	0.090
57507	CCD-255	200	202	2	0.070	0.070
57508	CCD-255	202	204	2	0.060	0.060
57509	CCD-255	204	206	2	0.050	0.050
57510	CCD-255	206	208	2	0.010	0.020
57511	CCD-255	208	210	2	0.050	0.040
57512	CCD-255	210	212	2	0.050	0.070
57514	CCD-255	212	214	2	0.060	0.070
57515	CCD-255	214	216	2	0.020	0.030
57516	CCD-255	216	218	2	0.030	0.040
57517	CCD-255	218	220	2	0.010	0.030
57518	CCD-255	220	222	2	0.010	0.020
57519	CCD-255	222	224	2	0.010	0.060
57520	CCD-255	224	226	2	0.010	0.040
57521	CCD-255	226	228	2	0.010	0.040
57522	CCD-255	228	230	2	0.050	0.090
57523	CCD-255	230	232	2	0.040	0.040
57524	CCD-255	232	234	2	0.050	0.060
57525	CCD-255	234	236	2	0.070	0.060
57526	CCD-255	236	238	2	0.090	0.090
57527	CCD-255	238	240	2	0.090	0.130
57528	CCD-255	240	242	2	0.120	0.170
57529	CCD-255	242	244	2	0.150	0.390
57530	CCD-255	244	246	2	0.230	0.550
57532	CCD-255	246	248	2	0.760	0.830
57533	CCD-255	248	250	2	0.640	0.580
57534	CCD-255	250	252	2	0.420	0.040
57535	CCD-255	252	254	2	0.460	0.130
57536	CCD-255	254	256	2	0.380	0.200

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
57537	CCD-255	256	258	2	0.190	0.060
57538	CCD-255	258	260	2	0.080	0.140
57539	CCD-255	260	262	2	0.110	0.080
57540	CCD-255	262	264	2	0.210	0.180
57541	CCD-255	264	266	2	0.130	0.070
57542	CCD-255	266	268	2	0.170	0.100
57543	CCD-255	268	270	2	0.190	0.080
57544	CCD-255	270	272	2	0.120	0.050
57545	CCD-255	272	274	2	0.350	0.270
57546	CCD-255	274	276	2	0.160	0.140
57548	CCD-255	276	278	2	0.220	0.150
57549	CCD-255	278	280	2	0.300	0.230
57550	CCD-255	280	282	2	0.550	0.490
57551	CCD-255	282	284	2	0.570	0.480
57552	CCD-255	284	286	2	0.590	0.640
57553	CCD-255	286	288	2	0.840	0.450
57554	CCD-255	288	290	2	0.680	0.310
57555	CCD-255	290	292	2	0.790	0.460
57556	CCD-255	292	294	2	0.820	0.400
57557	CCD-255	294	296	2	1.210	0.550
57558	CCD-255	296	298	2	0.820	0.440
57559	CCD-255	298	300	2	1.520	0.690
57560	CCD-255	300	302	2	1.000	0.660
57561	CCD-255	302	304	2	0.770	0.410
57562	CCD-255	304	306	2	0.490	0.330
57563	CCD-255	306	308	2	0.440	0.260
57564	CCD-255	308	310	2	0.620	0.550
57565	CCD-255	310	312	2	0.340	0.280
57567	CCD-255	312	314	2	0.490	0.300
57568	CCD-255	314	316	2	0.320	0.370
57569	CCD-255	316	318	2	0.530	0.290
57570	CCD-255	318	320	2	0.340	0.200
57571	CCD-255	320	322	2	0.510	0.220
57572	CCD-255	322	324	2	0.270	0.190
57573	CCD-255	324	326	2	0.240	0.400
57574	CCD-255	326	328	2	0.250	0.470
57575	CCD-255	328	330	2	0.340	0.290
57576	CCD-255	330	332	2	0.180	0.190
57577	CCD-255	332	334	2	0.240	0.240
57578	CCD-255	334	336	2	0.260	0.250
57579	CCD-255	336	338	2	0.300	0.350
57580	CCD-255	338	340	2	0.290	0.250
57582	CCD-255	340	342	2	0.420	0.380
57583	CCD-255	342	344	2	0.500	0.440
57584	CCD-255	344	346	2	0.380	0.280
57585	CCD-255	346	348	2	0.280	0.240
57586	CCD-255	348	350	2	0.190	0.180
57587	CCD-255	350	352	2	0.150	0.160
57588	CCD-255	352	354	2	0.200	0.190
57589	CCD-255	354	356	2	0.110	0.100
57590	CCD-255	356	358	2	0.230	0.120
57591	CCD-255	358	360	2	0.370	0.270
57592	CCD-255	360	362	2	0.160	0.270
57593	CCD-255	362	364	2	0.160	0.140
57594	CCD-255	364	366	2	0.210	0.130

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
57595	CCD-255	366	368	2	0.200	0.130
57596	CCD-255	368	370	2	0.280	0.180
57598	CCD-255	370	372	2	0.300	0.230
57599	CCD-255	372	374	2	0.240	0.160
57600	CCD-255	374	376	2	0.080	0.070
57601	CCD-256	0	2	2	0.010	0.001
57602	CCD-256	2	4	2	0.010	0.001
57603	CCD-256	4	6	2	0.010	0.000
57604	CCD-256	6	8	2	0.010	0.000
57605	CCD-256	8	10	2	0.010	0.000
57607	CCD-256	10	12	2	0.010	0.090
57608	CCD-256	12	14	2	0.010	0.000
57609	CCD-256	14	16	2	0.010	0.000
57610	CCD-256	16	18	2	0.010	0.000
57611	CCD-256	18	20	2	0.010	0.000
57612	CCD-256	20	22	2	0.010	0.000
57613	CCD-256	22	24	2	0.010	0.000
57614	CCD-256	24	26	2	0.010	0.000
57615	CCD-256	26	28	2	0.010	0.010
57616	CCD-256	28	30	2	0.010	0.010
57617	CCD-256	30	32	2	0.010	0.000
57618	CCD-256	32	34	2	0.010	0.010
57619	CCD-256	34	36	2	0.010	0.010
57620	CCD-256	36	38	2	0.010	0.000
57621	CCD-256	38	40	2	0.010	0.000
57623	CCD-256	40	42	2	0.010	0.000
57624	CCD-256	42	44	2	0.010	0.010
57625	CCD-256	44	46	2	0.010	0.020
57626	CCD-256	46	48	2	0.010	0.010
57627	CCD-256	48	50	2	0.010	0.010
57628	CCD-256	50	52	2	0.010	0.020
57629	CCD-256	52	54	2	0.010	0.010
57630	CCD-256	54	56	2	0.010	0.010
57631	CCD-256	56	58	2	0.010	0.010
57632	CCD-256	58	60	2	0.010	0.010
57633	CCD-256	60	62	2	0.010	0.010
57634	CCD-256	62	64	2	0.010	0.010
57635	CCD-256	64	66	2	0.010	0.010
57636	CCD-256	66	68	2	0.010	0.010
57637	CCD-256	68	70	2	0.120	0.005
57639	CCD-256	70	72	2	0.010	0.005
57640	CCD-256	72	74	2	0.000	0.030
57641	CCD-256	74	76	2	0.230	0.020
57642	CCD-256	76	78	2	0.940	0.020
57643	CCD-256	78	80	2	0.010	0.010
57644	CCD-256	80	82	2	0.000	0.030
57645	CCD-256	82	84	2	0.000	0.005
57646	CCD-256	84	86	2	0.000	0.005
57647	CCD-256	86	88	2	0.030	0.005
57648	CCD-256	88	90	2	0.010	0.005
57649	CCD-256	90	92	2	0.010	0.005
57650	CCD-256	92	94	2	0.010	0.010
57651	CCD-256	94	96	2	1.270	0.005
57652	CCD-256	96	98	2	0.010	0.010
57653	CCD-256	98	100	2	0.000	0.005

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
57654	CCD-256	100	102	2	0.010	0.010
57655	CCD-256	102	104	2	0.010	0.020
57656	CCD-256	104	106	2	0.010	0.010
57657	CCD-256	106	108	2	0.010	0.020
57659	CCD-256	108	110	2	0.010	0.010
57660	CCD-256	110	112	2	0.010	0.020
57661	CCD-256	112	114	2	0.020	0.020
57662	CCD-256	114	116	2	0.020	0.020
57663	CCD-256	116	118	2	0.030	0.020
57664	CCD-256	118	120	2	0.010	0.020
57665	CCD-256	120	122	2	0.010	0.005
57666	CCD-256	122	124	2	0.020	0.030
57667	CCD-256	124	126	2	0.020	0.030
57668	CCD-256	126	128	2	0.010	0.050
57669	CCD-256	128	130	2	0.010	0.020
57670	CCD-256	130	132	2	0.050	0.080
57671	CCD-256	132	134	2	0.050	0.070
57672	CCD-256	134	136	2	0.040	0.040
57673	CCD-256	136	138	2	0.030	0.040
57674	CCD-256	138	140	2	0.020	0.020
57675	CCD-256	140	142	2	0.030	0.030
57676	CCD-256	142	144	2	0.060	0.060
57678	CCD-256	144	146	2	0.070	0.080
57679	CCD-256	146	148	2	0.080	0.070
57680	CCD-256	148	150	2	0.110	0.090
57681	CCD-256	150	152	2	0.010	0.060
57682	CCD-256	152	154	2	0.050	0.040
57683	CCD-256	154	156	2	0.130	0.110
57684	CCD-256	156	158	2	0.090	0.100
57685	CCD-256	158	160	2	0.080	0.060
57686	CCD-256	160	162	2	0.160	0.080
57687	CCD-256	162	164	2	0.140	0.080
57688	CCD-256	164	166	2	0.200	0.170
57689	CCD-256	166	168	2	0.140	0.080
57690	CCD-256	168	170	2	0.360	0.210
57691	CCD-256	170	172	2	0.220	0.080
57692	CCD-256	172	174	2	0.210	0.210
57693	CCD-256	174	176	2	0.390	0.370
57694	CCD-256	176	178	2	0.370	0.730
57696	CCD-256	178	180	2	0.430	0.570
57697	CCD-256	180	182	2	0.420	0.430
57698	CCD-256	182	184	2	0.450	0.450
57699	CCD-256	184	186	2	0.540	0.210
57700	CCD-256	186	188	2	0.690	0.390
57701	CCD-256	188	190	2	0.590	0.450
57702	CCD-256	190	192	2	0.250	0.160
57703	CCD-256	192	194	2	0.370	0.250
57704	CCD-256	194	196	2	1.210	0.780
57705	CCD-256	196	198	2	0.700	0.410
57706	CCD-256	198	200	2	0.850	0.440
57707	CCD-256	200	202	2	0.740	0.470
57708	CCD-256	202	204	2	0.630	0.290
57709	CCD-256	204	206	2	0.510	0.410
57710	CCD-256	206	208	2	0.680	0.430
57711	CCD-256	208	210	2	0.640	0.270

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
57712	CCD-256	210	212	2	1.000	0.650
57713	CCD-256	212	214	2	0.770	0.490
57715	CCD-256	214	216	2	0.970	0.720
57716	CCD-256	216	218	2	0.890	0.650
57717	CCD-256	218	220	2	0.880	0.480
57718	CCD-256	220	222	2	0.980	0.500
57719	CCD-256	222	224	2	0.790	0.860
57720	CCD-256	224	226	2	0.910	0.460
57721	CCD-256	226	228	2	0.840	0.560
57722	CCD-256	228	230	2	0.800	0.680
57723	CCD-256	230	232	2	0.690	0.320
57724	CCD-256	232	234	2	0.740	0.430
57725	CCD-256	234	236	2	0.750	0.420
57726	CCD-256	236	238	2	1.590	0.850
57727	CCD-256	238	240	2	0.990	0.560
57728	CCD-256	240	242	2	1.020	0.760
57729	CCD-256	242	244	2	0.700	0.470
57730	CCD-256	244	246	2	0.810	0.450
57731	CCD-256	246	248	2	0.510	0.290
57732	CCD-256	248	250	2	0.410	0.180
163601	CCR-001	0.00	1.52	1.52	1.900	0.096
163602	CCR-001	1.52	3.05	1.52	1.300	0.081
163603	CCR-001	3.05	4.57	1.52	1.340	0.040
163604	CCR-001	4.57	6.10	1.52	1.940	0.068
163605	CCR-001	6.10	7.62	1.52	1.380	0.066
163606	CCR-001	7.62	9.14	1.52	1.520	0.041
163607	CCR-001	9.14	10.67	1.52	1.740	0.048
163608	CCR-001	10.67	12.19	1.52	1.960	0.097
163609	CCR-001	12.19	13.72	1.52	1.840	0.077
163610	CCR-001	13.72	15.24	1.52	2.270	0.124
163611	CCR-001	15.24	16.76	1.52	2.460	0.116
163612	CCR-001	16.76	18.29	1.52	3.020	0.100
163613	CCR-001	18.29	19.81	1.52	1.800	0.065
163614	CCR-001	19.81	21.34	1.52	2.000	0.054
163616	CCR-001	21.34	22.86	1.52	3.000	0.061
163617	CCR-001	22.86	24.38	1.52	2.040	0.053
163618	CCR-001	24.38	25.91	1.52	1.680	0.290
163619	CCR-001	25.91	27.43	1.52	1.450	0.628
163620	CCR-001	27.43	28.96	1.52	1.520	0.809
163621	CCR-001	28.96	30.48	1.52	1.400	1.203
163622	CCR-001	30.48	32.00	1.52	1.570	1.403
163623	CCR-001	32.00	33.53	1.52	1.530	1.528
163624	CCR-001	33.53	35.05	1.52	1.100	1.266
163625	CCR-002	0.00	1.52	1.52	1.440	0.093
163626	CCR-002	1.52	3.05	1.52	1.910	0.073
163627	CCR-002	3.05	4.57	1.52	2.650	0.055
163628	CCR-002	4.57	6.10	1.52	1.870	0.060
163629	CCR-002	6.10	7.62	1.52	2.430	0.096
163630	CCR-002	7.62	9.14	1.52	1.980	0.071
163631	CCR-002	9.14	10.67	1.52	2.370	0.087
163632	CCR-002	10.67	12.19	1.52	2.170	0.072
163633	CCR-002	12.19	13.72	1.52	1.960	0.045
163634	CCR-002	13.72	15.24	1.52	1.570	0.058
163635	CCR-002	15.24	16.76	1.52	1.270	0.071
163636	CCR-002	16.76	18.29	1.52	1.470	0.289

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
163637	CCR-002	18.29	19.81	1.52	2.070	0.164
163638	CCR-002	19.81	21.34	1.52	2.040	0.094
163640	CCR-002	21.34	22.86	1.52	2.700	0.101
163641	CCR-002	22.86	24.38	1.52	2.360	0.079
163642	CCR-002	24.38	25.91	1.52	2.820	0.101
163643	CCR-002	25.91	27.43	1.52	2.800	0.093
163644	CCR-002	27.43	28.96	1.52	2.260	0.072
163645	CCR-002	28.96	30.48	1.52	2.200	0.059
163646	CCR-002	30.48	32.00	1.52	1.820	0.051
163647	CCR-002	32.00	33.53	1.52	2.060	0.427
163648	CCR-002	33.53	35.05	1.52	1.320	1.131
163649	CCR-002	35.05	36.58	1.52	0.860	1.544
163650	CCR-002	36.58	38.10	1.52	0.910	1.328
163651	CCR-002	38.10	39.62	1.52	0.820	1.935
163652	CCR-002	39.62	41.15	1.52	1.460	1.506
163653	CCR-002	41.15	42.67	1.52	1.400	1.353
163655	CCR-003	0.00	1.52	1.52	1.500	0.123
163656	CCR-003	1.52	3.05	1.52	1.440	0.090
163657	CCR-003	3.05	4.57	1.52	1.190	0.061
163658	CCR-003	4.57	6.10	1.52	1.000	0.068
163659	CCR-003	6.10	7.62	1.52	1.100	0.064
163660	CCR-003	7.62	9.14	1.52	0.660	0.088
163661	CCR-003	9.14	10.67	1.52	0.980	0.070
163662	CCR-003	10.67	12.19	1.52	0.820	0.091
163663	CCR-003	12.19	13.72	1.52	0.530	0.063
163664	CCR-003	13.72	15.24	1.52	2.640	0.059
163665	CCR-003	15.24	16.76	1.52	2.120	0.069
163666	CCR-003	16.76	18.29	1.52	1.260	0.076
163667	CCR-003	18.29	19.81	1.52	2.000	0.069
163668	CCR-003	19.81	21.34	1.52	1.540	0.005
163670	CCR-003	21.34	22.86	1.52	2.470	0.090
163671	CCR-003	22.86	24.38	1.52	3.520	0.074
163672	CCR-003	24.38	25.91	1.52	4.240	0.029
163673	CCR-003	25.91	27.43	1.52	3.800	0.036
163674	CCR-003	27.43	28.96	1.52	0.040	0.020
163675	CCR-003	28.96	30.48	1.52	1.340	0.022
163676	CCR-003	30.48	32.00	1.52	1.560	0.082
163677	CCR-003	32.00	33.53	1.52	1.520	0.712
163678	CCR-003	33.53	35.05	1.52	1.440	0.809
163679	CCR-003	35.05	36.58	1.52	1.060	0.788
163680	CCR-003	36.58	38.10	1.52	1.390	1.223
163681	CCR-003	38.10	39.62	1.52	0.700	0.969
163682	CCR-003	39.62	41.15	1.52	0.960	1.695
163683	CCR-003	41.15	42.67	1.52	1.380	1.356
163684	CCR-007	0.00	1.52	1.52		
163685	CCR-007	1.52	3.05	1.52	0.200	0.619
163686	CCR-007	3.05	4.57	1.52	0.280	1.049
163687	CCR-007	4.57	6.10	1.52	0.180	0.685
163688	CCR-007	6.10	7.62	1.52	0.520	0.588
163689	CCR-007	7.62	9.14	1.52	0.450	0.552
163690	CCR-007	9.14	10.67	1.52	0.720	0.370
163691	CCR-007	10.67	12.19	1.52	0.220	0.706
163692	CCR-007	12.19	13.72	1.52	0.100	0.551
163693	CCR-007	13.72	15.24	1.52	0.060	0.456
163694	CCR-007	15.24	16.76	1.52	0.050	0.319

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
163695	CCR-007	16.76	18.29	1.52	0.060	0.445
163696	CCR-008	0.00	1.52	1.52	1.380	0.059
163697	CCR-008	1.52	3.05	1.52	1.260	0.062
163699	CCR-008	3.05	4.57	1.52	2.000	0.061
163701	CCR-008	4.57	6.10	1.52	1.050	0.048
163702	CCR-008	6.10	7.62	1.52	0.960	0.045
163703	CCR-008	7.62	9.14	1.52	0.760	0.112
163704	CCR-008	9.14	10.67	1.52	0.560	0.057
163705	CCR-008	10.67	12.19	1.52	0.880	0.249
163706	CCR-008	12.19	13.72	1.52	0.560	0.913
163707	CCR-008	13.72	15.24	1.52	0.730	2.128
163708	CCR-008	15.24	16.76	1.52	0.530	1.744
163751	CCR-008	16.76	18.29	1.52	0.600	2.432
163752	CCR-008	18.29	19.81	1.52	0.920	1.488
163753	CCR-008	19.81	21.34	1.52	0.630	0.855
163755	CCR-008	21.34	22.86	1.52	0.400	0.680
163756	CCR-008	22.86	24.38	1.52	0.300	1.320
163757	CCR-008	24.38	25.91	1.52	0.630	2.528
163758	CCR-008	25.91	27.43	1.52	0.330	0.899
163759	CCR-008	27.43	28.96	1.52	0.490	0.468
163760	CCR-008	28.96	30.48	1.52	0.400	0.689
163761	CCR-008	30.48	32.00	1.52	1.090	4.600
163762	CCR-008	32.00	33.53	1.52	0.360	1.129
163763	CCR-008	33.53	35.05	1.52	0.900	2.528
163764	CCR-008	35.05	36.58	1.52	0.580	1.162
163765	CCR-008	36.58	38.10	1.52	0.630	0.694
163766	CCR-008	38.10	39.62	1.52	0.670	0.574
163767	CCR-009	0.00	1.52	1.52	0.380	0.069
163768	CCR-009	1.52	3.05	1.52	0.220	0.025
163769	CCR-009	3.05	4.57	1.52	0.260	0.018
163770	CCR-009	4.57	6.10	1.52	0.210	0.021
163771	CCR-009	6.10	7.62	1.52	0.440	0.164
163772	CCR-009	7.62	9.14	1.52	0.200	0.235
163773	CCR-009	9.14	10.67	1.52	0.140	0.171
163774	CCR-009	10.67	12.19	1.52	0.120	0.087
163775	CCR-009	12.19	13.72	1.52	0.220	0.148
163776	CCR-009	13.72	15.24	1.52	0.180	0.125
163777	CCR-009	15.24	16.76	1.52	0.180	0.775
163778	CCR-009	16.76	18.29	1.52	0.160	0.125
163779	CCR-009	18.29	19.81	1.52	0.160	0.102
163780	CCR-009	19.81	21.34	1.52	0.120	0.083
163782	CCR-009	21.34	22.86	1.52	0.220	0.122
163783	CCR-009	22.86	24.38	1.52	0.130	0.087
163784	CCR-009	24.38	25.91	1.52	0.300	0.223
163785	CCR-009	25.91	27.43	1.52	0.230	0.125
163786	CCR-009	27.43	28.96	1.52	0.130	0.065
163787	CCR-009	28.96	30.48	1.52	0.130	0.063
163788	CCR-009	30.48	32.00	1.52	0.120	0.053
163789	CCR-009	32.00	33.53	1.52	0.220	0.082
163790	CCR-009	33.53	35.05	1.52	0.200	0.165
163791	CCR-009	35.05	36.58	1.52	1.130	0.706
163792	CCR-009	36.58	38.10	1.52	0.870	0.546
163793	CCR-009	38.10	39.62	1.52	0.570	0.255
163794	CCR-010	0.00	1.52	1.52	0.300	0.061
163795	CCR-010	1.52	3.05	1.52	0.180	0.032

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
163796	CCR-010	3.05	4.57	1.52	0.340	0.040
163797	CCR-010	4.57	6.10	1.52	0.160	0.051
163798	CCR-010	6.10	7.62	1.52	0.420	0.039
163799	CCR-010	7.62	9.14	1.52	0.340	0.087
163800	CCR-010	9.14	10.67	1.52	0.140	0.068
165351	CCR-010	10.67	12.19	1.52	0.180	0.054
165352	CCR-010	12.19	13.72	1.52	0.340	0.184
165353	CCR-010	13.72	15.24	1.52	0.460	0.374
165354	CCR-010	15.24	16.76	1.52	0.180	0.146
165355	CCR-010	16.76	18.29	1.52	0.520	0.323
165356	CCR-010	18.29	19.81	1.52	0.280	0.124
165357	CCR-010	19.81	21.34	1.52	0.570	0.256
165359	CCR-010	21.34	22.86	1.52	0.820	0.616
165360	CCR-010	22.86	24.38	1.52	0.360	0.235
165361	CCR-010	24.38	25.91	1.52	0.310	0.232
165362	CCR-010	25.91	27.43	1.52	0.420	0.239
165363	CCR-011	0.00	1.52	1.52	0.140	0.224
165364	CCR-011	1.52	3.05	1.52	0.120	0.194
165365	CCR-011	3.05	4.57	1.52	0.180	0.100
165366	CCR-011	4.57	6.10	1.52	0.140	0.116
165367	CCR-011	6.10	7.62	1.52	0.110	0.111
165368	CCR-011	7.62	9.14	1.52	0.180	0.189
165369	CCR-011	9.14	10.67	1.52	0.180	0.388
165370	CCR-011	10.67	12.19	1.52	0.180	0.227
165371	CCR-011	12.19	13.72	1.52	0.100	0.112
165372	CCR-011	13.72	15.24	1.52	0.200	0.326
165373	CCR-011	15.24	16.76	1.52	0.100	0.090
165374	CCR-011	16.76	18.29	1.52	0.100	0.105
165375	CCR-011	18.29	19.81	1.52	0.140	0.073
165376	CCR-011	19.81	21.34	1.52	0.250	0.275
165378	CCR-011	21.34	22.86	1.52	0.220	0.222
165379	CCR-011	22.86	24.38	1.52	0.100	0.083
165380	CCR-011	24.38	25.91	1.52	0.160	0.188
165381	CCR-011	25.91	27.43	1.52	0.180	0.195
165382	CCR-011	27.43	28.96	1.52	0.180	0.176
165383	CCR-011	28.96	30.48	1.52	0.180	0.242
165384	CCR-011	30.48	32.00	1.52	0.080	0.095
165385	CCR-011	32.00	33.53	1.52	0.100	0.080
165386	CCR-011	33.53	35.05	1.52	0.060	0.074
165387	CCR-011	35.05	36.58	1.52	0.340	0.380
165388	CCR-011	36.58	38.10	1.52	0.320	0.318
165389	CCR-011	38.10	39.62	1.52	0.100	0.311
165390	CCR-011	39.62	41.15	1.52	0.080	0.085
165391	CCR-011	41.15	42.67	1.52	0.080	0.049
164102	CCR-012	0.00	1.52	1.52	0.280	0.063
164103	CCR-012	1.52	3.05	1.52	0.260	0.026
164104	CCR-012	3.05	4.57	1.52	0.580	0.029
164105	CCR-012	4.57	6.10	1.52	0.480	0.041
164106	CCR-012	6.10	7.62	1.52	0.480	0.435
164107	CCR-012	7.62	9.14	1.52	0.290	0.532
164108	CCR-012	9.14	10.67	1.52	0.360	0.885
164109	CCR-012	10.67	12.19	1.52	0.270	0.887
164110	CCR-012	12.19	13.72	1.52	0.280	0.691
164111	CCR-012	13.72	15.24	1.52	0.330	0.628
164112	CCR-012	15.24	16.76	1.52	0.270	0.400

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
164113	CCR-012	16.76	18.29	1.52	0.570	1.504
164114	CCR-012	18.29	19.81	1.52	0.530	0.468
164115	CCR-012	19.81	21.34	1.52	0.270	0.190
164117	CCR-012	21.34	22.86	1.52	0.200	0.076
164118	CCR-012	22.86	24.38	1.52	0.230	0.270
164119	CCR-012	24.38	25.91	1.52		
164120	CCR-012	25.91	27.43	1.52	0.320	0.157
164121	CCR-012	27.43	28.96	1.52	0.130	0.051
164122	CCR-012	28.96	30.48	1.52	0.060	0.116
164123	CCR-012	30.48	32.00	1.52	0.270	0.267
164124	CCR-012	32.00	33.53	1.52	0.370	0.241
164125	CCR-012	33.53	35.05	1.52	0.630	0.210
164126	CCR-012	35.05	36.58	1.52	0.570	0.216
164132	CCR-013	0.00	1.52	1.52	0.360	0.863
164133	CCR-013	1.52	3.05	1.52	0.080	0.081
164134	CCR-013	3.05	4.57	1.52	0.140	0.101
164135	CCR-013	4.57	6.10	1.52	0.400	0.411
164136	CCR-013	6.10	7.62	1.52	0.750	0.689
164137	CCR-013	7.62	9.14	1.52	1.020	0.762
164138	CCR-013	9.14	10.67	1.52	0.200	0.119
164139	CCR-013	10.67	12.19	1.52	0.400	0.322
164140	CCR-013	12.19	13.72	1.52	0.480	0.361
164141	CCR-013	13.72	15.24	1.52	0.470	0.385
164201	CCR-014	0.00	1.52	1.52	0.540	0.065
164202	CCR-014	1.52	3.05	1.52	0.400	0.041
164203	CCR-014	3.05	4.57	1.52	0.830	0.048
164204	CCR-014	4.57	6.10	1.52	0.360	0.032
164205	CCR-014	6.10	7.62	1.52	0.940	0.079
164206	CCR-014	7.62	9.14	1.52	1.300	0.068
164207	CCR-014	9.14	10.67	1.52	2.080	0.058
164208	CCR-014	10.67	12.19	1.52	1.600	0.080
164209	CCR-014	12.19	13.72	1.52	0.590	0.116
164210	CCR-014	13.72	15.24	1.52	2.180	1.800
164211	CCR-014	15.24	16.76	1.52	2.070	2.560
164212	CCR-014	16.76	18.29	1.52	1.830	4.320
164213	CCR-014	18.29	19.81	1.52	1.900	4.560
164214	CCR-014	19.81	21.34	1.52	2.200	3.936
164216	CCR-014	21.34	22.86	1.52	1.500	2.104
164217	CCR-014	22.86	24.38	1.52	1.720	1.756
164218	CCR-014	24.38	25.91	1.52	3.430	4.480
164219	CCR-014	25.91	27.43	1.52	3.200	5.360
164220	CCR-014	27.43	28.96	1.52	3.540	3.920
164221	CCR-014	28.96	30.48	1.52	2.670	2.640
164222	CCR-014	30.48	32.00	1.52	1.600	3.936
164223	CCR-014	32.00	33.53	1.52	1.990	2.896
164224	CCR-014	33.53	35.05	1.52	2.000	3.904
164225	CCR-014	35.05	36.58	1.52	5.300	0.609
164226	CCR-014	36.58	38.10	1.52	2.680	4.304
164227	CCR-014	38.10	39.62	1.52	1.370	1.920
164228	CCR-014	39.62	41.15	1.52	1.100	2.736
164229	CCR-014	41.15	42.67	1.52	1.720	1.115
164230	CCR-014	42.67	44.20	1.52	3.300	1.760
164231	CCR-014	44.20	45.72	1.52	3.800	1.208
164232	CCR-014	45.72	47.24	1.52	2.170	1.392
164233	CCR-014	47.24	48.77	1.52	1.700	0.932

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
164234	CCR-014	48.77	50.29	1.52	2.170	1.024
164235	CCR-014	50.29	51.82	1.52	1.010	0.501
164236	CCR-014	51.82	53.34	1.52	0.800	0.603
164237	CCR-014	53.34	54.86	1.52	0.700	0.470
164238	CCR-014	54.86	56.39	1.52	0.980	0.659
164239	CCR-014	56.39	57.91	1.52	2.390	0.569
164240	CCR-014	57.91	59.44	1.52	1.700	0.628
164241	CCR-014	59.44	60.96	1.52	0.870	0.491
164243	CCR-015	0.00	1.52	1.52	0.630	0.017
164244	CCR-015	1.52	3.05	1.52	0.700	0.037
164245	CCR-015	3.05	4.57	1.52	0.830	0.449
164246	CCR-015	4.57	6.10	1.52	0.600	0.584
164247	CCR-015	6.10	7.62	1.52	0.480	0.748
164248	CCR-015	7.62	9.14	1.52	0.500	1.144
164249	CCR-015	9.14	10.67	1.52	0.550	0.741
164250	CCR-015	10.67	12.19	1.52	0.370	0.331
164251	CCR-015	12.19	13.72	1.52	0.330	0.287
164252	CCR-015	13.72	15.24	1.52	0.300	0.448
164253	CCR-015	15.24	16.76	1.52	0.700	0.594
164254	CCR-015	16.76	18.29	1.52	0.330	0.220
164255	CCR-015	18.29	19.81	1.52	0.230	0.147
164256	CCR-015	19.81	21.34	1.52	0.400	0.305
164258	CCR-015	21.34	22.86	1.52	0.300	0.257
164259	CCR-015	22.86	24.38	1.52	0.200	0.194
164260	CCR-015	24.38	25.91	1.52	0.270	0.246
164261	CCR-015	25.91	27.43	1.52	0.530	0.390
164262	CCR-015	27.43	28.96	1.52	0.530	0.346
164263	CCR-015	28.96	30.48	1.52	0.200	0.233
164264	CCR-015	30.48	32.00	1.52	0.470	0.476
164265	CCR-015	32.00	33.53	1.52	0.930	0.762
164266	CCR-015	33.53	35.05	1.52	0.400	0.641
164267	CCR-015	35.05	36.58	1.52	0.450	0.516
164268	CCR-016	0.00	1.52	1.52	0.400	0.063
164269	CCR-016	1.52	3.05	1.52	0.340	0.037
164270	CCR-016	3.05	4.57	1.52	0.140	0.022
164271	CCR-016	4.57	6.10	1.52	0.260	0.019
164272	CCR-016	6.10	7.62	1.52	0.180	0.023
164273	CCR-016	7.62	9.14	1.52	0.220	0.018
164274	CCR-016	9.14	10.67	1.52	0.300	0.032
164275	CCR-016	10.67	12.19	1.52	0.280	0.029
164276	CCR-016	12.19	13.72	1.52	0.200	0.032
164277	CCR-016	13.72	15.24	1.52	0.280	0.022
164278	CCR-016	15.24	16.76	1.52	0.280	0.027
164279	CCR-016	16.76	18.29	1.52	0.520	0.022
164280	CCR-016	18.29	19.81	1.52	0.460	0.024
164281	CCR-016	19.81	21.34	1.52	0.220	0.016
164283	CCR-016	21.34	22.86	1.52	0.460	0.018
164284	CCR-016	22.86	24.38	1.52	0.260	0.099
164285	CCR-016	24.38	25.91	1.52	0.280	0.082
164286	CCR-016	25.91	27.43	1.52	0.120	0.241
164287	CCR-016	27.43	28.96	1.52	0.320	1.069
164288	CCR-016	28.96	30.48	1.52	0.480	2.112
164289	CCR-016	30.48	32.00	1.52	0.360	1.391
164290	CCR-016	32.00	33.53	1.52	0.340	0.734
164291	CCR-016	33.53	35.05	1.52		

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
164293	CCR-016	35.05	36.58	1.52	0.270	0.625
164294	CCR-016	36.58	38.10	1.52	0.400	0.816
164295	CCR-016	38.10	39.62	1.52	0.330	0.631
164296	CCR-016	39.62	41.15	1.52	0.330	0.619
164297	CCR-016	41.15	42.67	1.52	0.470	0.809
164299	CCR-016	44.20	45.72	1.52	0.470	0.669
164300	CCR-016	45.72	47.24	1.52	0.500	0.466
164301	CCR-016	47.24	48.77	1.52	0.330	0.528
164302	CCR-016	48.77	50.29	1.52	0.330	1.034
164303	CCR-016	50.29	51.82	1.52	0.200	0.523
164304	CCR-016	51.82	53.34	1.52	0.300	0.575
164305	CCR-016	53.34	54.86	1.52	0.270	0.700
164306	CCR-016	54.86	56.39	1.52	0.230	0.472
164307	CCR-016	56.39	57.91	1.52	0.230	0.769
164308	CCR-016	57.91	59.44	1.52	0.270	0.436
164309	CCR-016	59.44	60.96	1.52	0.300	0.403
164311	CCR-017	0.00	1.52	1.52	4.400	0.104
164312	CCR-017	1.52	3.05	1.52	1.920	0.074
164313	CCR-017	3.05	4.57	1.52	1.380	0.090
164314	CCR-017	4.57	6.10	1.52	1.520	0.074
164315	CCR-017	6.10	7.62	1.52	1.040	0.060
164316	CCR-017	7.62	9.14	1.52	0.920	0.055
164317	CCR-017	9.14	10.67	1.52	0.900	0.098
164318	CCR-017	10.67	12.19	1.52	1.960	0.078
164319	CCR-017	12.19	13.72	1.52	1.620	0.052
164320	CCR-017	13.72	15.24	1.52	2.580	0.117
164321	CCR-017	15.24	16.76	1.52	3.030	0.111
164322	CCR-017	16.76	18.29	1.52	2.060	0.057
164323	CCR-017	18.29	19.81	1.52	2.120	0.447
164324	CCR-017	19.81	21.34	1.52	1.920	1.912
164326	CCR-017	21.34	22.86	1.52	2.060	2.688
164327	CCR-017	22.86	24.38	1.52	1.560	1.480
164328	CCR-017	24.38	25.91	1.52	1.760	1.416
164329	CCR-017	25.91	27.43	1.52	1.900	1.744
164330	CCR-017	27.43	28.96	1.52	1.950	1.708
164331	CCR-017	28.96	30.48	1.52	2.100	1.248
164332	CCR-017	30.48	32.00	1.52	2.030	2.400
164333	CCR-017	32.00	33.53	1.52	0.100	3.456
164334	CCR-017	33.53	35.05	1.52	3.070	2.592
164335	CCR-017	35.05	36.58	1.52	3.420	0.150
164336	CCR-017	36.58	38.10	1.52	0.330	1.336
164337	CCR-018	0.00	1.52	1.52	0.900	0.111
164338	CCR-018	1.52	3.05	1.52	0.660	0.061
164339	CCR-018	3.05	4.57	1.52	2.060	0.069
164340	CCR-018	4.57	6.10	1.52	2.040	0.081
164341	CCR-018	6.10	7.62	1.52	1.560	0.105
164342	CCR-018	7.62	9.14	1.52	1.480	0.149
164343	CCR-018	9.14	10.67	1.52	0.920	0.105
164344	CCR-018	10.67	12.19	1.52	1.660	0.092
164345	CCR-018	12.19	13.72	1.52	1.790	0.066
164346	CCR-018	13.72	15.24	1.52	2.360	0.097
164347	CCR-018	15.24	16.76	1.52	2.240	0.075
164348	CCR-018	16.76	18.29	1.52	2.040	0.318
164349	CCR-018	18.29	19.81	1.52	1.840	0.939
164350	CCR-018	19.81	21.34	1.52	1.710	0.805

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
164352	CCR-018	21.34	22.86	1.52	1.880	1.320
164353	CCR-018	22.86	24.38	1.52	1.680	0.139
164354	CCR-018	24.38	25.91	1.52	2.130	1.728
164355	CCR-018	25.91	27.43	1.52	2.600	1.936
164356	CCR-018	27.43	28.96	1.52	1.830	1.776
164357	CCR-018	28.96	30.48	1.52	2.530	1.424
164358	CCR-018	30.48	32.00	1.52	2.900	1.728
164359	CCR-018	32.00	33.53	1.52	2.230	0.976
164360	CCR-018	33.53	35.05	1.52	3.250	1.568
164361	CCR-018	35.05	36.58	1.52	2.970	3.064
164362	CCR-018	36.58	38.10	1.52	1.280	1.376
164363	CCR-018	38.10	39.62	1.52	0.990	0.113
164364	CCR-018	39.62	41.15	1.52	0.760	0.094
164365	CCR-018	41.15	42.67	1.52	1.570	1.244
164367	CCR-018	42.67	44.20	1.52	2.000	1.984
164368	CCR-018	44.20	45.72	1.52		
164372	CCR-019	0.00	1.52	1.52	1.260	0.113
164373	CCR-019	1.52	3.05	1.52	0.960	0.140
164374	CCR-019	3.05	4.57	1.52	0.280	0.043
164375	CCR-019	4.57	6.10	1.52	0.360	0.047
164376	CCR-019	6.10	7.62	1.52	0.460	0.031
164377	CCR-019	7.62	9.14	1.52	0.300	0.041
164378	CCR-019	9.14	10.67	1.52	0.220	0.194
164379	CCR-019	10.67	12.19	1.52	0.240	0.094
164380	CCR-019	12.19	13.72	1.52	0.340	0.029
164381	CCR-019	13.72	15.24	1.52	0.680	0.048
164382	CCR-019	15.24	16.76	1.52	0.420	0.052
164383	CCR-019	16.76	18.29	1.52	0.280	0.097
164384	CCR-019	18.29	19.81	1.52	0.340	0.229
164385	CCR-019	19.81	21.34	1.52	0.300	0.226
164387	CCR-019	21.34	22.86	1.52	0.340	0.174
164388	CCR-019	22.86	24.38	1.52	0.280	0.251
164389	CCR-019	24.38	25.91	1.52	0.500	0.255
164390	CCR-019	25.91	27.43	1.52	0.320	0.172
164391	CCR-019	27.43	28.96	1.52	0.380	0.229
164392	CCR-019	28.96	30.48	1.52	0.300	0.134
164393	CCR-020	0.00	1.52	1.52	0.200	0.041
164394	CCR-020	1.52	3.05	1.52	0.400	0.071
164395	CCR-020	3.05	4.57	1.52	0.200	0.065
164396	CCR-020	4.57	6.10	1.52	0.300	0.051
164397	CCR-020	6.10	7.62	1.52	0.260	0.058
164398	CCR-020	7.62	9.14	1.52	0.610	0.075
164399	CCR-020	9.14	10.67	1.52	0.760	0.136
164400	CCR-020	10.67	12.19	1.52	0.440	0.433
164401	CCR-020	12.19	13.72	1.52	0.500	0.400
164402	CCR-020	13.72	15.24	1.52	0.460	0.318
164403	CCR-020	15.24	16.76	1.52	0.380	0.284
164404	CCR-020	16.76	18.29	1.52	0.620	0.371
164405	CCR-020	18.29	19.81	1.52	0.480	0.321
164406	CCR-020	19.81	21.34	1.52	0.360	0.194
164407	CCR-020	21.34	22.86	1.52	0.340	0.169
164408	CCR-020	22.86	24.38	1.52	0.220	0.112
164410	CCR-021	0.00	1.52	1.52	1.220	0.124
164411	CCR-021	1.52	3.05	1.52	0.740	0.105
164412	CCR-021	3.05	4.57	1.52	0.740	0.105

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
164413	CCR-021	4.57	6.10	1.52	1.430	0.185
164414	CCR-021	6.10	7.62	1.52	0.940	0.116
164415	CCR-021	7.62	9.14	1.52	2.880	0.119
164416	CCR-021	9.14	10.67	1.52	0.920	0.105
164417	CCR-021	10.67	12.19	1.52	0.660	0.113
164418	CCR-021	12.19	13.72	1.52	0.750	0.099
164419	CCR-021	13.72	15.24	1.52	0.900	0.145
164420	CCR-021	15.24	16.76	1.52	1.080	0.083
164421	CCR-021	16.76	18.29	1.52	0.600	0.083
164422	CCR-021	18.29	19.81	1.52	0.640	0.088
164423	CCR-021	19.81	21.34	1.52	0.750	0.065
164425	CCR-021	21.34	22.86	1.52	0.940	0.067
164426	CCR-021	22.86	24.38	1.52	1.480	0.100
164427	CCR-021	24.38	25.91	1.52	1.240	0.071
164428	CCR-021	25.91	27.43	1.52	1.900	0.090
164429	CCR-021	27.43	28.96	1.52	1.380	0.135
164430	CCR-021	28.96	30.48	1.52	1.180	0.155
164431	CCR-021	30.48	32.00	1.52	1.160	0.468
164432	CCR-021	32.00	33.53	1.52	1.600	1.616
164433	CCR-021	33.53	35.05	1.52	0.940	0.633
164434	CCR-021	35.05	36.58	1.52	0.770	1.540
164435	CCR-021	36.58	38.10	1.52	0.670	1.584
164436	CCR-021	38.10	39.62	1.52	0.670	1.432
164437	CCR-021	39.62	41.15	1.52	0.770	1.280
164438	CCR-021	41.15	42.67	1.52	0.470	0.560
164440	CCR-021	42.67	44.20	1.52	0.670	0.402
164441	CCR-021	44.20	45.72	1.52	0.970	0.503
164442	CCR-022	0.00	1.52	1.52	1.650	0.052
164443	CCR-022	1.52	3.05	1.52	1.070	0.031
164444	CCR-022	3.05	4.57	1.52	1.570	0.028
164445	CCR-022	4.57	6.10	1.52	1.490	0.031
164446	CCR-022	6.10	7.62	1.52	1.800	0.043
164447	CCR-022	7.62	9.14	1.52	2.530	0.050
164448	CCR-022	9.14	10.67	1.52	2.730	0.028
164449	CCR-022	10.67	12.19	1.52	2.130	0.026
164450	CCR-022	12.19	13.72	1.52	1.230	0.024
164451	CCR-022	13.72	15.24	1.52	0.820	0.022
164452	CCR-022	15.24	16.76	1.52	0.600	0.020
164453	CCR-022	16.76	18.29	1.52	0.250	0.018
164454	CCR-022	18.29	19.81	1.52	0.400	0.023
164455	CCR-022	19.81	21.34	1.52	0.470	0.023
164457	CCR-022	21.34	22.86	1.52	0.520	0.054
164458	CCR-022	22.86	24.38	1.52	0.420	0.190
164459	CCR-022	24.38	25.91	1.52	0.640	0.058
164460	CCR-022	25.91	27.43	1.52	0.600	0.024
164461	CCR-022	27.43	28.96	1.52	0.810	0.040
164462	CCR-022	28.96	30.48	1.52	0.700	0.021
164463	CCR-022	30.48	32.00	1.52	0.600	0.046
164464	CCR-022	32.00	33.53	1.52	0.360	0.034
164465	CCR-022	33.53	35.05	1.52	0.500	0.098
164466	CCR-022	35.05	36.58	1.52	0.450	0.120
164467	CCR-022	36.58	38.10	1.52	0.620	0.094
164468	CCR-022	38.10	39.62	1.52	0.500	0.275
164469	CCR-022	39.62	41.15	1.52	0.780	0.298
164470	CCR-022	41.15	42.67	1.52	0.880	0.266

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
164472	CCR-022	42.67	44.20	1.52	1.020	0.400
164473	CCR-022	44.20	45.72	1.52	0.940	0.743
164474	CCR-022	45.72	47.24	1.52	2.040	0.492
164475	CCR-022	47.24	48.77	1.52	0.900	0.290
164476	CCR-022	48.77	50.29	1.52	1.300	0.421
164477	CCR-022	50.29	51.82	1.52	1.060	0.433
164478	CCR-023	0.00	1.52	1.52	1.240	0.036
164479	CCR-023	1.52	3.05	1.52	1.940	0.055
164480	CCR-023	3.05	4.57	1.52	1.460	0.029
164481	CCR-023	4.57	6.10	1.52	2.560	0.026
164482	CCR-023	6.10	7.62	1.52	2.240	0.031
164483	CCR-023	7.62	9.14	1.52	2.480	0.040
164484	CCR-023	9.14	10.67	1.52	1.600	0.042
164485	CCR-023	10.67	12.19	1.52	0.660	0.054
164486	CCR-023	12.19	13.72	1.52	1.060	0.024
164487	CCR-023	13.72	15.24	1.52	1.080	0.036
164488	CCR-023	15.24	16.76	1.52	1.120	0.033
164489	CCR-023	16.76	18.29	1.52	0.700	0.036
164490	CCR-023	18.29	19.81	1.52	0.720	0.034
164491	CCR-023	19.81	21.34	1.52	0.850	0.029
164493	CCR-023	21.34	22.86	1.52	2.740	0.056
164494	CCR-023	22.86	24.38	1.52	0.680	0.085
164495	CCR-023	24.38	25.91	1.52	0.720	0.018
164496	CCR-023	25.91	27.43	1.52	0.600	0.019
164497	CCR-023	27.43	28.96	1.52	0.500	0.027
164498	CCR-023	28.96	30.48	1.52	0.920	0.079
164499	CCR-023	30.48	32.00	1.52	0.560	0.025
164500	CCR-023	32.00	33.53	1.52	0.480	0.019
164501	CCR-023	33.53	35.05	1.52	0.500	0.025
164502	CCR-023	35.05	36.58	1.52	0.900	0.023
164503	CCR-023	36.58	38.10	1.52	0.820	0.184
164504	CCR-023	38.10	39.62	1.52	0.600	0.094
164505	CCR-023	39.62	41.15	1.52	1.200	0.075
164506	CCR-023	41.15	42.67	1.52	0.550	0.326
164508	CCR-023	42.67	44.20	1.52	0.400	0.300
164509	CCR-023	44.20	45.72	1.52	0.230	0.095
164510	CCR-024	0.00	1.52	1.52	0.900	0.031
164511	CCR-024	1.52	3.05	1.52	0.770	0.025
164512	CCR-024	3.05	4.57	1.52	0.570	0.016
164513	CCR-024	4.57	6.10	1.52	0.390	0.015
164514	CCR-024	6.10	7.62	1.52	0.600	0.018
164515	CCR-024	7.62	9.14	1.52	0.530	0.029
164516	CCR-024	9.14	10.67	1.52	2.100	0.019
164517	CCR-024	10.67	12.19	1.52	0.870	0.026
164518	CCR-024	12.19	13.72	1.52	0.730	0.022
164519	CCR-024	13.72	15.24	1.52	0.600	0.019
164520	CCR-024	15.24	16.76	1.52	0.730	0.022
164521	CCR-024	16.76	18.29	1.52	0.500	0.033
164522	CCR-024	18.29	19.81	1.52	0.770	0.075
164523	CCR-024	19.81	21.34	1.52	0.730	0.069
164525	CCR-024	21.34	22.86	1.52	0.970	0.051
164526	CCR-024	22.86	24.38	1.52	1.500	0.066
164527	CCR-024	24.38	25.91	1.52	0.930	0.045
164528	CCR-024	25.91	27.43	1.52	0.930	0.030
164529	CCR-024	27.43	28.96	1.52	0.700	0.094

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
164530	CCR-024	28.96	30.48	1.52	0.530	0.151
164531	CCR-024	30.48	32.00	1.52	0.530	0.291
164532	CCR-024	32.00	33.53	1.52	0.570	1.296
164533	CCR-024	33.53	35.05	1.52	0.650	1.920
164534	CCR-024	35.05	36.58	1.52	0.920	2.024
164535	CCR-024	36.58	38.10	1.52	1.070	1.992
164536	CCR-024	38.10	39.62	1.52	1.500	2.344
164537	CCR-024	39.62	41.15	1.52	0.700	0.758
164538	CCR-024	41.15	42.67	1.52	1.070	0.647
164540	CCR-024	42.67	44.20	1.52	1.370	1.769
164541	CCR-024	44.20	45.72	1.52	1.290	1.288
164542	CCR-025	0.00	1.52	1.52	0.600	0.038
164543	CCR-025	1.52	3.05	1.52	0.840	0.056
164544	CCR-025	3.05	4.57	1.52	0.680	0.075
164545	CCR-025	4.57	6.10	1.52	0.620	0.122
164546	CCR-025	6.10	7.62	1.52	0.570	0.285
164547	CCR-025	7.62	9.14	1.52	0.720	0.216
164548	CCR-025	9.14	10.67	1.52	0.860	0.106
164549	CCR-025	10.67	12.19	1.52	0.920	0.120
164550	CCR-025	12.19	13.72	1.52	0.640	0.043
164551	CCR-025	13.72	15.24	1.52	1.370	0.093
164552	CCR-025	15.24	16.76	1.52	1.140	0.079
164553	CCR-025	16.76	18.29	1.52	0.360	0.069
164554	CCR-025	18.29	19.81	1.52	0.440	0.466
164555	CCR-025	19.81	21.34	1.52	0.820	0.200
164557	CCR-025	21.34	22.86	1.52	0.900	0.175
164558	CCR-025	22.86	24.38	1.52	1.000	0.445
164559	CCR-025	24.38	25.91	1.52	1.180	0.506
164560	CCR-025	25.91	27.43	1.52	0.940	0.617
164561	CCR-025	27.43	28.96	1.52	1.040	0.679
164562	CCR-025	28.96	30.48	1.52	1.140	0.934
164563	CCR-025	30.48	32.00	1.52	1.000	0.918
164564	CCR-025	32.00	33.53	1.52	1.180	0.979
164565	CCR-026	0.00	1.52	1.52	0.730	0.031
164566	CCR-026	1.52	3.05	1.52	0.870	0.036
164567	CCR-026	3.05	4.57	1.52	0.730	0.043
164568	CCR-026	4.57	6.10	1.52	0.500	0.043
164569	CCR-026	6.10	7.62	1.52	0.370	0.035
164570	CCR-026	7.62	9.14	1.52	0.270	0.063
164571	CCR-026	9.14	10.67	1.52	0.400	0.043
164572	CCR-026	10.67	12.19	1.52	0.570	0.045
164573	CCR-026	12.19	13.72	1.52	0.530	0.503
164574	CCR-026	13.72	15.24	1.52	0.600	0.159
164575	CCR-026	15.24	16.76	1.52	0.570	0.125
164576	CCR-026	16.76	18.29	1.52	0.570	0.066
164577	CCR-026	18.29	19.81	1.52	0.630	0.062
164578	CCR-026	19.81	21.34	1.52	0.670	0.102
164580	CCR-026	21.34	22.86	1.52	0.820	0.081
164581	CCR-026	22.86	24.38	1.52	0.900	0.084
164582	CCR-026	24.38	25.91	1.52	0.540	0.082
164583	CCR-026	25.91	27.43	1.52	2.120	0.113
164584	CCR-026	27.43	28.96	1.52	1.090	0.160
164585	CCR-026	28.96	30.48	1.52	1.000	0.603
164586	CCR-026	30.48	32.00	1.52	0.920	0.353
164587	CCR-026	32.00	33.53	1.52	1.040	0.681

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
164588	CCR-026	33.53	35.05	1.52	0.820	0.750
164589	CCR-026	35.05	36.58	1.52	0.590	0.653
164590	CCR-026	36.58	38.10	1.52	0.860	0.449
164591	CCR-026	38.10	39.62	1.52	0.800	0.376
165101	CCR-027	0.00	1.52	1.52	1.320	0.038
165102	CCR-027	1.52	3.05	1.52	1.380	0.034
165103	CCR-027	3.05	4.57	1.52	2.130	0.046
165104	CCR-027	4.57	6.10	1.52	1.600	0.043
165105	CCR-027	6.10	7.62	1.52	1.100	0.037
165106	CCR-027	7.62	9.14	1.52	1.220	0.034
165107	CCR-027	9.14	10.67	1.52	0.780	0.032
165108	CCR-027	10.67	12.19	1.52	1.030	0.018
165109	CCR-027	12.19	13.72	1.52	0.940	0.103
165110	CCR-027	13.72	15.24	1.52	0.600	0.122
165111	CCR-027	15.24	16.76	1.52	0.540	0.060
165112	CCR-027	16.76	18.29	1.52	0.620	0.156
165113	CCR-027	18.29	19.81	1.52	0.590	0.341
165114	CCR-027	19.81	21.34	1.52	0.840	0.188
165116	CCR-027	21.34	22.86	1.52	1.430	0.164
165117	CCR-027	22.86	24.38	1.52	0.970	0.082
165118	CCR-027	24.38	25.91	1.52	0.600	0.088
165119	CCR-027	25.91	27.43	1.52	1.000	0.086
165120	CCR-027	27.43	28.96	1.52	1.400	0.052
165121	CCR-027	28.96	30.48	1.52	1.370	0.068
165122	CCR-027	30.48	32.00	1.52	0.800	0.064
165123	CCR-027	32.00	33.53	1.52	0.430	0.078
165124	CCR-027	33.53	35.05	1.52	0.360	0.161
165125	CCR-027	35.05	36.58	1.52	0.660	0.157
165126	CCR-027	36.58	38.10	1.52	0.560	0.064
165127	CCR-027	38.10	39.62	1.52	1.430	0.060
165128	CCR-027	39.62	41.15	1.52	2.700	0.081
165129	CCR-027	41.15	42.67	1.52	1.300	0.053
165131	CCR-027	42.67	44.20	1.52	1.440	0.056
165132	CCR-027	44.20	45.72	1.52	1.480	0.094
165133	CCR-027	45.72	47.24	1.52	1.610	0.052
165134	CCR-027	47.24	48.77	1.52	1.260	0.055
165135	CCR-027	48.77	50.29	1.52	1.440	0.049
165136	CCR-027	50.29	51.82	1.52	0.660	0.064
165137	CCR-027	51.82	53.34	1.52	1.300	0.074
165138	CCR-027	53.34	54.86	1.52	1.030	0.067
165139	CCR-027	54.86	56.39	1.52	1.300	0.219
165140	CCR-027	56.39	57.91	1.52	1.660	0.382
165141	CCR-027	57.91	59.44	1.52	1.580	0.180
165142	CCR-027	59.44	60.96	1.52	1.500	0.144
165144	CCR-027	60.96	62.48	1.52	1.280	0.146
165145	CCR-027	62.48	64.01	1.52	0.940	0.100
165146	CCR-027	64.01	65.53	1.52	0.840	0.157
165147	CCR-027	65.53	67.06	1.52	1.160	0.068
165148	CCR-027	67.06	68.58	1.52	1.280	1.489
165149	CCR-027	68.58	70.10	1.52	2.070	1.987
165150	CCR-027	70.10	71.63	1.52	2.070	2.656
165151	CCR-027	71.63	73.15	1.52	1.200	1.938
165152	CCR-027	73.15	74.68	1.52	1.070	1.688
165153	CCR-027	74.68	76.20	1.52	0.930	1.328
165154	CCR-028	0.00	1.52	1.52	1.240	0.170

SAMPLE NO.	DRILL HOLE	FROM (m)	TO (m)	DRILL WIDTH (m)	Au (g/t)	Cu (Total) %
165155	CCR-028	1.52	3.05	1.52	1.300	0.097
165156	CCR-028	3.05	4.57	1.52	1.920	0.105
165157	CCR-028	4.57	6.10	1.52	1.740	0.150
165158	CCR-028	6.10	7.62	1.52	1.320	0.296
165159	CCR-028	7.62	9.14	1.52	0.780	0.566
165160	CCR-028	9.14	10.67	1.52	1.220	0.519
165161	CCR-028	10.67	12.19	1.52	1.270	1.038
165162	CCR-028	12.19	13.72	1.52	0.830	3.008
165163	CCR-028	13.72	15.24	1.52	0.470	4.188
165164	CCR-028	15.24	16.76	1.52	1.270	3.016
165165	CCR-028	16.76	18.29	1.52	0.530	1.487
165166	CCR-028	18.29	19.81	1.52	0.530	1.112
165167	CCR-028	19.81	21.34	1.52	0.700	1.438
165169	CCR-028	21.34	22.86	1.52	0.730	1.019
165170	CCR-028	22.86	24.38	1.52	0.930	0.753
165171	CCR-028	24.38	25.91	1.52	0.770	0.831
165172	CCR-028	25.91	27.43	1.52	0.970	0.669
165173	CCR-028	27.43	28.96	1.52	0.570	1.225
165174	CCR-028	28.96	30.48	1.52	1.700	2.464
165175	CCR-028	30.48	32.00	1.52	1.270	2.080
165176	CCR-028	32.00	33.53	1.52	1.000	1.369
165177	CCR-028	33.53	35.05	1.52	0.500	1.760
165178	CCR-028	35.05	36.58			



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CONSENT of QUALIFIED PERSON

TO: Alberta Securities Commission
British Columbia Securities Commission
The Manitoba Securities Commission
New Brunswick Securities Commission
Securities Commission of Newfoundland and Labrador
Registrar of Securities - Department of Justice/Government of the Northwest Territories
Nova Scotia Securities Commission
Registrar of Securities – Nunavut Legal Registries
Ontario Securities Commission
Prince Edward Island Securities Office
Autorité des marchés financiers
Saskatchewan Financial Services Commission - Securities Division
Registrar of Securities - Corporate Affairs/Community Services Government of Yukon
Toronto Stock Exchange
IAMGold Corporation and the directors thereof

I, Rick Skelton, do hereby consent to the filing of the written disclosure of the technical report titled 'An Independent Technical Report on the Tarkwa Gold Mine, Ghana' and dated July 1, 2004 (the "Technical Report") and any extracts from or a summary of the Technical Report in the management information circular dated November 4, 2004 (the "Circular") of IAMGold Corporation and to the filing of the Technical Report with the securities regulatory authorities referred to above.

I also certify that I have read the written disclosure being filed and I do not have any reason to believe that there are any misrepresentations in the information derived from the Technical Report or that the written disclosure in the Circular contains any misrepresentation of the information contained in the Technical Report.

Dated this 4th day of November, 2004.

/s/ Rick Skelton

Signature of Qualified Person (sealed)

R I Skelton

Print name of Qualified Person

Steffen, Robertson and Kirsten (UK) Ltd.

Registered in England and Wales

Reg. No. 1575403

Registered Address:

21 Gold Tops,
Newport,
Gwent.
NP9 4PG

Offices in:

Australia
North America
Southern Africa
South America
United Kingdom

Exhibit 99.8



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CONSENT of QUALIFIED PERSON

TO: **Alberta Securities Commission**
 British Columbia Securities Commission
 The Manitoba Securities Commission
 New Brunswick Securities Commission
 Securities Commission of Newfoundland and Labrador
 Registrar of Securities - Department of Justice/Government of the Northwest Territories
 Nova Scotia Securities Commission
 Registrar of Securities – Nunavut Legal Registries
 Ontario Securities Commission
 Prince Edward Island Securities Office
 Autorité des marchés financiers
 Saskatchewan Financial Services Commission - Securities Division
 Registrar of Securities - Corporate Affairs/Community Services Government of Yukon
 Toronto Stock Exchange
 IAMGold Corporation and the directors thereof

I, Rick Skelton, do hereby consent to the filing of the written disclosure of the technical report titled 'An Independent Technical Report on the Damang Gold Mine, Ghana' and dated July 1, 2004 (the "Technical Report") and any extracts from or a summary of the Technical Report in the management information circular dated November 4, 2004 (the "Circular") of IAMGold Corporation and to the filing of the Technical Report with the securities regulatory authorities referred to above.

I also certify that I have read the written disclosure being filed and I do not have any reason to believe that there are any misrepresentations in the information derived from the Technical Report or that the written disclosure in the Circular contains any misrepresentation of the information contained in the Technical Report.

Dated this 4th day of November, 2004.

/s/ Rick Skelton

Signature of Qualified Person (sealed)

R I SKELTON

Print name of Qualified Person

Steffen, Robertson and Kirsten (UK) Ltd.

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North America

Southern Africa

South America

United Kingdom

Exhibit 99.9



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Our Ref: St Ives.QP Consent.doc

November 2004

CONSENT of QUALIFIED PERSON

**TO: Alberta Securities Commission
British Columbia Securities Commission
The Manitoba Securities Commission
New Brunswick Securities Commission
Securities Commission of Newfoundland and Labrador
Registrar of Securities - Department of Justice/Government of the Northwest Territories
Nova Scotia Securities Commission
Registrar of Securities – Nunavut Legal Registries
Ontario Securities Commission
Prince Edward Island Securities Office
Autorité des marchés financiers
Saskatchewan Financial Services Commission - Securities Division
Registrar of Securities - Corporate Affairs/Community Services Government of Yukon
Toronto Stock Exchange
IAMGold Corporation and the directors thereof .**

I, Mike Warren, do hereby consent to the filing of the written disclosure of the technical report titled “An Independent Technical Report on St Ives Gold Mine, Western Australia” dated 1 July, 2004 (the “Technical Report”) and any extracts from or a summary of the Technical Report in the management information circular dated November 4, 2004 (the “Circular”) of IAMGold Corporation and to the filing of the Technical Report with the securities regulatory authorities referred to above.

I also certify that I have read the written disclosure being filed and I do not have any reason to believe that there are any misrepresentations in the information derived from the Technical Report or that the written disclosure in the Circular contains any misrepresentation of the information contained in the Technical Report.

Dated this 4th day of November, 2004

/s/ Michael Warren

Signature of Qualified Person (sealed)

Mr Michael Warren

Print name of Qualified Person

St Ives.QP Consent



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Our Ref: Agnew.QP Consent.doc

November 2004

CONSENT of QUALIFIED PERSON

**TO: Alberta Securities Commission
British Columbia Securities Commission
The Manitoba Securities Commission
New Brunswick Securities Commission
Securities Commission of Newfoundland and Labrador
Registrar of Securities - Department of Justice/Government of the Northwest Territories
Nova Scotia Securities Commission
Registrar of Securities – Nunavut Legal Registries
Ontario Securities Commission
Prince Edward Island Securities Office
Autorité des marchés financiers
Saskatchewan Financial Services Commission - Securities Division
Registrar of Securities - Corporate Affairs/Community Services Government of Yukon
Toronto Stock Exchange
IAMGold Corporation and the directors thereof.**

I, Mike Warren, do hereby consent to the filing of the written disclosure of the technical report titled “An Independent Technical Report on Agnew Gold Mine, Western Australia” dated 1 July, 2004 (the “Technical Report”) and any extracts from or a summary of the Technical Report in the management information circular dated November 4, 2004 (the “Circular”) of IAMGold Corporation and to the filing of the Technical Report with the securities regulatory authorities referred to above.

I also certify that I have read the written disclosure being filed and I do not have any reason to believe that there are any misrepresentations in the information derived from the Technical Report or that the written disclosure in the Circular contains any misrepresentation of the information contained in the Technical Report.

Dated this 4th day of November, 2004

/s/ Michael Warren

Signature of Qualified Person (sealed)

Mr Michael Warren

Print name of Qualified Person

Justin Paul Osborne
Gold Fields Arctic Platinum Oy
Ahjotie 7, 96320, Rovaniemi, Finland

Telephone: +358 20 7511 200
Fax: +358 20 7511 201
Email: justin.osborne@arctic-platinum.com

CONSENT of QUALIFIED PERSON

TO: Alberta Securities Commission
British Columbia Securities Commission
The Manitoba Securities Commission
New Brunswick Securities Commission
Securities Commission of Newfoundland and Labrador
Registrar of Securities - Department of Justice/Government of the Northwest Territories
Nova Scotia Securities Commission
Registrar of Securities – Nunavut Legal Registries
Ontario Securities Commission
Prince Edward Island Securities Office
Autorité des marchés financiers
Saskatchewan Financial Services Commission - Securities Division
Registrar of Securities - Corporate Affairs/Community Services (Yukon)
Toronto Stock Exchange
IAMGold Corporation and the directors thereof

I, Justin Paul Osborne, do hereby consent to the filing of the written disclosure of the technical report titled “*The Konttijarvi, Ahmavaara and SK Deposits, Finland*”, and dated October 2004 (the “Technical Report”) and any extracts from or a summary of the Technical Report in the management information circular dated November 4, 2004 (the “Circular”) of IAMGold Corporation and to the filing of the Technical Report with the securities regulatory authorities referred to above.

I also certify that I have read the written disclosure being filed and I do not have any reason to believe that there are any misrepresentations in the information derived from the Technical Report or that the written disclosure in the Circular contains any misrepresentation of the information contained in the Technical Report.

Dated the 4th Day of November, 2004.

/s/ Justin Osborne

Sealed

JUSTIN PAUL OSBORNE



87 Colin Street West Perth WA 6005
PO Box 77 West Perth WA 6872
Telephone (+61 8) 9481 6690
Facsimile (+61 8) 9322 2576
E-mail: snowden@snowden.com.au

CONSENT of QUALIFIED PERSON

TO: **Alberta Securities Commission**
 British Columbia Securities Commission
 The Manitoba Securities Commission
 New Brunswick Securities Commission
 Securities Commission of Newfoundland and Labrador
 Registrar of Securities - Department of Justice/Government of the Northwest Territories
 Nova Scotia Securities Commission
 Registrar of Securities – Nunavut Legal Registries
 Ontario Securities Commission
 Prince Edward Island Securities Office
 Autorité des marchés financiers
 Saskatchewan Financial Services Commission - Securities Division
 Registrar of Securities - Corporate Affairs/Community Services (Government of Yukon)
 Toronto Stock Exchange
 IAMGold Corporation and the directors thereof

I, Ian Glacken, do hereby consent to the filing of the written disclosure of the technical report titled *The Konttijarvi, Ahmavaara, and SK deposits, Finland* and dated October 2004 (the “Technical Report”) and any extracts from or a summary of the Technical Report in the management information circular dated November 4, 2004 (the “Circular”) of IAMGold Corporation and to the filing of the Technical Report with the securities regulatory authorities referred to above.

I also certify that I have read the written disclosure being filed and I do not have any reason to believe that there are any misrepresentations in the information derived from the Technical Report or that the written disclosure in the Circular contains any misrepresentation of the information contained in the Technical Report.

Dated this fourth day of November, 2004.

/s/ Ian Martin Glacken

(Sealed)

Ian Martin Glacken, FAusIMM (CP), CEng



Exhibit 99.13



S UITE 400, 205 – 9TH AVE SE
C ALGARY, ALBERTA CANADA T2G OR3
T EL (403) 237-7763
F AX (403) 263-4086

CONSENT of QUALIFIED PERSON

TO: **Alberta Securities Commission**
 British Columbia Securities Commission
 The Manitoba Securities Commission
 New Brunswick Securities Commission
 Securities Commission of Newfoundland and Labrador
 Registrar of Securities - Department of Justice/Government of the Northwest Territories
 Nova Scotia Securities Commission
 Registrar of Securities – Nunavut Legal Registries
 Ontario Securities Commission
 Prince Edward Island Securities Office
 Autorité des marchés financiers
 Saskatchewan Financial Services Commission - Securities Division
 Registrar of Securities - Corporate Affairs/Community Services/Government of Yukon
 Toronto Stock Exchange
 IAMGold Corporation and the directors thereof

I, Bruce Davis, do hereby consent to the filing of the written disclosure of the technical report titled Technical Report, Cerro Corona Project, Department of Cajamarca, Peru and dated October 7, 2004 (the “Technical Report”) and any extracts from or a summary of the Technical Report in the management information circular dated November 4, 2004 (the “Circular”) of IAMGold Corporation and to the filing of the Technical Report with the securities regulatory authorities referred to above.

I also certify that I have read the written disclosure being filed and I do not have any reason to believe that there are any misrepresentations in the information derived from the Technical Report or that the written disclosure in the Circular contains any misrepresentation of the information contained in the Technical Report.

Dated this 4th Day of November, 2004.

/s/ Bruce M. Davis (sealed)

Signature of Qualified Person

Bruce Davis

Print name of Qualified Person

Exhibit 99.14



Nathan H. Brewer
Gold Fields Exploration Inc.
6400 S. Fiddlers Green Circle, Suite 1620
Englewood, Colorado, USA 80111

Telephone: (303) 796-8683
Fax: (303) 796-8293
Email: nbrewer@gfexpl.com

CONSENT of QUALIFIED PERSON

**TO: Alberta Securities Commission
British Columbia Securities Commission
The Manitoba Securities Commission
New Brunswick Securities Commission
Securities Commission of Newfoundland and Labrador
Registrar of Securities - Department of Justice/Government of the Northwest Territories
Nova Scotia Securities Commission
Registrar of Securities – Nunavut Legal Registries
Ontario Securities Commission
Prince Edward Island Securities Office
Autorité des marchés financiers
Saskatchewan Financial Services Commission - Securities Division
Registrar of Securities - Corporate Affairs/Community Services/ Government of Yukon
Toronto Stock Exchange
IAMGold Corporation and the directors thereof**

I, Nathan H. Brewer, do hereby consent to the filing of the written disclosure of the technical report titled Technical Report, Cerro Corona Project, Department of Cajamarca, Peru and dated October 7, 2004 (the "Technical Report") and any extracts from or a summary of the Technical Report in the management information circular dated November 4, 2004 (the "Circular") of IAMGold Corporation and to the filing of the Technical Report with the securities regulatory authorities referred to above.

I also certify that I have read the written disclosure being filed and I do not have any reason to believe that there are any misrepresentations in the information derived from the Technical Report or that the written disclosure in the Circular contains and misrepresentation of the information contained in the Technical Report.

Dated this 4th day of November, 2004.

/s/ Nathan H. Brewer
Signature of Qualified Person (sealed)

Nathan H. Brewer
Print name of Qualified Person

Exhibit 99.15



Surpac Minex (Development) Pty Ltd

ABN 85 075 768 811

3 Albert St, Mittagong NSW 2575
PO Box 129, Mittagong NSW Australia 2575

Telephone: +61 2 4871 3711
Facsimile: +61 2 4871 3811

CONSENT of QUALIFIED PERSON

TO: Alberta Securities Commission

British Columbia Securities Commission
The Manitoba Securities Commission
New Brunswick Securities Commission
Securities Commission of Newfoundland and Labrador
Registrar of Securities - Department of Justice/Government of the Northwest Territories
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Registrar of Securities – Nunavut Legal Registries
Ontario Securities Commission
Prince Edward Island Securities Office
Autorité des marchés financiers
Saskatchewan Financial Services Commission - Securities Division
Registrar of Securities - Corporate Affairs/Community Services/Government of Yukon
Toronto Stock Exchange
IAMGold Corporation and the directors thereof

I, John Duke, do hereby consent to the filing of the written disclosure of the technical report titled Technical Report, Cerro Corona Project, Department of Cajamarca, Peru and dated October 7 2004 (the “Technical Report”) and any extracts from or a summary of the Technical Report in the management information circular dated November 4, 2004 (the “Circular”) of IAMGold Corporation and to the filing of the Technical Report with the securities regulatory authorities referred to above.

I also certify that I have read the written disclosure being filed and I do not have any reason to believe that there are any misrepresentations in the information derived from the Technical Report or that the written disclosure in the Circular contains any misrepresentation of the information contained in the Technical Report.

Dated this 4th Day of November, 2004.

/s/ John H. Duke
Signature of Qualified Person

John Duke
Print name of Qualified Person



End of Filing

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