Northgate Minerals Corporation

ANNUAL INFORMATION FORM

FOR THE YEAR ENDED

DECEMBER 31, 2010

NORTHGATE MINERALS CORPORATION
ANNUAL INFORMATION FORM
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PRELIMINARY NOTES

Reporting Currency, Financial and Reserve Information

All currency amounts in this 2010 Annual Information Form ("AIF") of Northgate Minerals Corporation ("Northgate" or the "Corporation") are expressed in United States dollars, unless otherwise indicated. References to "C$" are to Canadian dollars. References to "A$" are to Australian dollars. For Canadian dollars to U.S. dollars, the average exchange rate for 2010 and the exchange rate at December 31, 2010 were 1.0302 and 0.9980 Canadian dollars per one U.S. dollar, respectively. For Australian dollars to U.S. dollars, the average exchange rate for 2010 and the exchange rate at December 31, 2010 were one Australian dollar per 0.9208 and 1.0233 U.S. dollars, respectively**.**

The Corporation prepares its financial statements in accordance with the Canadian generally accepted accounting principles ("Canadian GAAP"). Accordingly, unless otherwise indicated, financial information in this Annual Information Form is presented in accordance with Canadian GAAP. The consolidated financial statements of the Corporation for the year ended December 31, 2010 (the "Annual Financial Statements") are incorporated by reference in this Annual Information Form. The Annual Financial Statements are available electronically from the Canadian System for Electronic Document Analysis and Retrieval ("SEDAR") at www.sedar.com and from the U.S. Securities and Exchange Commission's (the "SEC") Electronic Document Gathering and Retrieval System ("EDGAR") at www.sec.gov.

This AIF uses the terms "measured", "indicated" and "inferred" resources. United States investors are advised that while such terms are recognized and required by Canadian regulators, the SEC does not recognize them. Inferred resources have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred resources may not form the basis of feasibility or other economic studies. United States investors are cautioned not to assume that all or any part of measured or indicated resources will ever be converted into mineral reserves. United States investors are also cautioned not to assume that all or any part of an inferred resource exists, or is economically or legally mineable.

Cautionary Notes Regarding Forward Looking Statements

This AIF contains certain "forward-looking statements" and "forward-looking information" as defined under applicable Canadian and U.S. securities laws. Forward-looking statements generally can be identified by the use of forward-looking terminology such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe," or "continue" or the negative thereof or variations thereon or similar terminology. Forward-looking statements are necessarily based on a number of estimates and assumptions that are inherently subject to significant business, economic and competitive uncertainties and contingencies. Certain of the statements made herein by Northgate including those related to future financial and operating performance and those related to Northgate's future exploration and development activities, are forward-looking and subject to important risk factors and uncertainties, many of which are beyond the Corporation's ability to control or predict. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements. Such factors include, among others: gold price volatility; fluctuations in foreign exchange rates and interest rates; impact of any hedging activities; discrepancies between actual and estimated production, between actual and estimated reserves and resources and between actual and estimated metallurgical recoveries; costs of production, capital expenditures, costs and timing of construction and the development of new deposits; and, success of exploration activities and permitting time lines. In addition, the factors described or referred to in the section entitled "Risk Factors" in this AIF, under the heading "Risks and Uncertainties" in Northgate's 2009 Annual Report and in the Corporation's other documents filed with the Canadian securities commissions and the SEC, should be reviewed in conjunction with this document. Readers should not place undue reliance on forward-looking statements. The Corporation does not undertake any obligation to update publicly or release any revisions to forward-looking statements to reflect events or

circumstances after the date of this document or to reflect the occurrence of unanticipated events, except in each case as required by law. The Corporation may, from time to time, make oral forward-looking statements. The Corporation advises that the above paragraph and the risk factors described in this AIF and in the Corporation's other documents filed with the Canadian securities commissions and the SEC should be read for a description of certain factors that could cause the actual results of the Corporation to materially differ from those in the oral forward-looking statements. The Corporation disclaims any intention or obligation to update or revise any oral or written forward-looking statements whether as a result of new information, future events or otherwise, except as required by applicable law.

Scientific and Technical Information

The disclosure in this Annual Information Form of a scientific or technical nature is based on technical reports for these properties prepared by one or more "qualified persons" in accordance with National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* ("NI 43-101") of the Canadian Securities Administrators (each, a "Qualified Person"). The scientific and technical information has been updated with current information where applicable. A Qualified Person is defined in NI 43-101 as an individual who (i) is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these; (ii) has experience relevant to the subject matter of the mineral project and the technical report; and (iii) is a member or licensee in good standing of a professional association.

The disclosure set forth herein with respect to Kemess (defined below) is derived in part, from a technical report prepared by Gordon Skrecky P. ENG., Chief Geologist at the Kemess mine, and Craig Tomlinson P. ENG. Mine Superintendent at the Kemess mine, each of whom is a Qualified Person, dated and filed on SEDAR May 9, 2008 and amended and refiled on SEDAR on May 30, 2008, as well as a number of earlier technical reports filed on SEDAR in 2005, 2002 and 2001. The reserve and resources update as of December 31, 2009 was prepared by Gordon Skrecky. Mineral resource estimates for Kemess Underground are a subset of Kemess North Resources and are based on 2010 drilling as well as historic drilling described in a report entitled Revised Mineral Reserve and Resources, Kemess North Project, dated May 2, 2005 and filed on SEDAR on May 6, 2005 by Jim Gray of GR Technical Services Ltd., a Qualified Person and Carl Edmunds, M.Sc., P.Geo., who is Northgate's Exploration Manager and a Qualified Person. The 2010 resource for Kemess Underground was estimated by Carl Edmunds.

The disclosure set forth herein with respect to Young-Davidson (defined below) is derived, in part from a technical report dated August 27, 2009 entitled "NI 43-101 Technical Report and Preliminary Feasibility Study on the Young-Davidson Property, Matachewan, Ontario" prepared by Gary Taylor, P.Eng., Carl Edmunds, M.Sc. P.Geo., Lionel Magumbe, P. Eng., Jay C. Melnyk, P.Eng. and Sheila E. Daniel, P.Geo. who are Qualified Persons and Consulting Engineers and Geologists with AMEC Americas Limited (AMEC) with the exception of Carl Edmunds who is Northgate's Exploration Manager and a Qualified Person. Disclosure is also obtained from a technical report dated January 23, 2009 entitled "Technical Report for Underground and Open Pit Mineral Resource Estimates, Young-Davidson Property, Matachewan, Ontario" prepared by Carl Edmunds.

The disclosure set forth herein with respect to Fosterville (defined below) is derived, in part, from a technical report dated March 25, 2008 entitled "Technical Report on Fosterville Gold Mine, Victoria, Australia", prepared by Simon Hitchman, MAus IMM, District Exploration Geologist, Brad Evans, MAus IMM, consulting Mining Engineer and Ian Holland, MAus IMM, Principal Mine Geologist, each of whom is a Qualified Person. Reserve information as of December 31, 2010 for Fosterville was prepared by Ion Hann, Mine Underground Superintendent Fosterville, and a Qualified Person. CIL tailings retreatment information was prepared by Marcus Binks, Processing Manager, Fosterville, and a Qualified Person. Resource estimates as of December 31, 2010 were prepared by Paul Napier, Senior Mine Geologist, and Simon Hitchman, District Exploration Geologist.

The disclosure set forth herein with respect to Stawell (defined below) is derived, in part, from a technical report dated October 21, 2008 entitled "Revised Mineral Resource and Mineral Reserves as at June 30, 2008 Stawell Gold Mines, Victoria, Australia" prepared by Dean Fredericksen, MAus IMM, Consulting Geologist, Glen Miller MAus IMM Technical Superintendent and Tamer Dincer, MAus IMM, Principal Consultant Mining Engineer, each of whom is a Qualified Person. Reserve estimates as of December 31, 2010 were prepared by Austin Hemphill Mine Technical Superintendent who is a member of Australasian Institute of Mining and Metallurgy with 9 years of relevant engineering experience and is the Qualified Person for the Reserves. Resource estimates were prepared by Mark Haydon Geology Manager at the Stawell Gold Mine, a member of the Australasian Institute of Mining and Metallurgy and a Qualified Person.

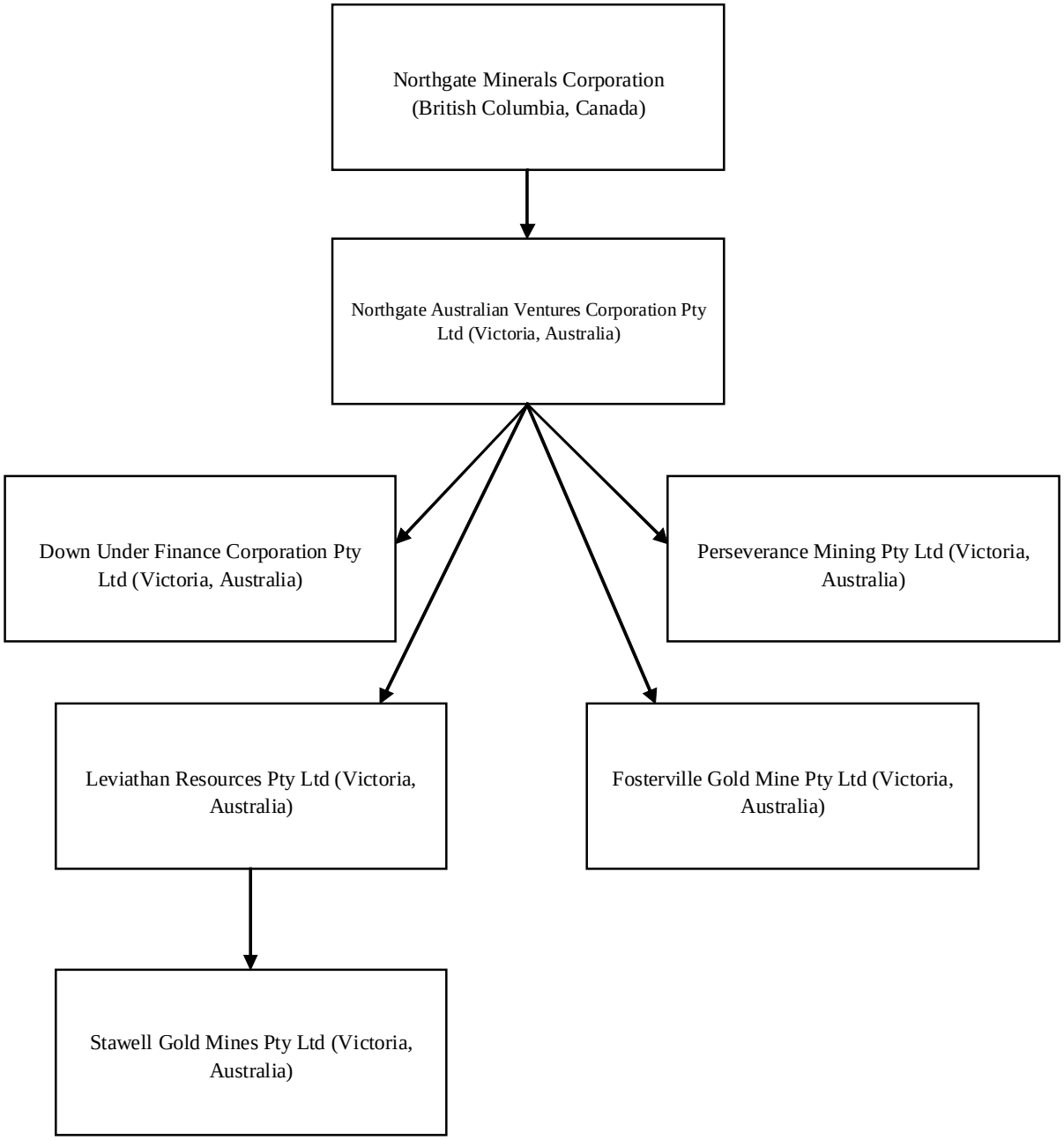
ITEM 1 CORPORATE STRUCTURE

1.1 Incorporation

Northgate was originally incorporated under the Ontario *Companies Act* by letters patent dated January 7, 1919 under the name Kirkland-Hudson Bay Gold Mines Limited. The Corporation was continued under the *Business Corporations Act* (British Columbia) effective January 31, 2003. The principal office of the Corporation is located at Suite 1601, 110 Yonge Street, Toronto, Ontario, Canada, M5C 1T4. The Corporation's registered office is located at 815 Hornby Street, Suite 406, Vancouver, British Columbia, V6Z 2E6.

1.2 Inter-Corporate Relationships

The following chart illustrates the relationship between Northgate and its principal subsidiaries, together with the jurisdiction of incorporation of each subsidiary, as of the date hereof. All subsidiaries are owned 100% by their respective parent corporation.



ITEM 2 GENERAL DEVELOPMENT OF THE BUSINESS

2.1 Three Year History

Northgate is a Canadian based gold and copper producer with operations, development projects and exploration properties in Canada, Australia and the United States. Northgate's primary assets are Young-Davidson, an advanced stage mining project located near the town of Kirkland Lake, Ontario ("Young-Davidson"); Fosterville, an underground mine in Australia that recovers gold through a bacterial oxidation, heated leach, flotation and carbon-in-leach circuit ("Fosterville"); Stawell, an open pit and underground mine in Australia that recovers gold through a carbon-in-leach circuit following sulphide flotation ("Stawell"); and the Kemess Underground project (defined below) in northern British Columbia, Canada. The Corporation's profitability is dependent on several factors including metal prices, foreign exchange rates and the achievement of low operating costs through effective mining and milling of large volumes of ore (see "Risk Factors", below).

At the outset of 2007, Northgate's assets consisted of Kemess and Young-Davidson. Significant developments in Northgate's business over the last three fiscal years include the following:

1. Perseverance Acquisition – Northgate acquired Perseverance Corporation Pty Ltd ("Perseverance"), an Australian gold producer with two fully-permitted gold mines, Stawell and Fosterville, effective February 18, 2008. (See "*Significant Acquisition – Perseverance*", below.)

2. Young-Davidson – On January 25, 2010, Northgate announced positive results from the final Feasibility Study on Young-Davidson. The Feasibility Study, completed by AMEC Americas Limited ("AMEC"), an independent and internationally-recognized engineering firm, confirms a 15-year mine-life for Young-Davidson with average annual production of 180,000 ounces of gold at a net cash cost of $351 per ounce, pre-tax operating cash flow of $646 million and an Internal Rate of Return on the project of 12.4%. An Impact and Benefits Agreement for the project was entered into during 2009 between Northgate and the Matachewan First Nation. On February 8, 2010 Northgate announced board approval to develop the Young Davidson Mine, and construction commenced in August 2010. Construction to date has consisted of underground infrastructure, a new hoist house and head frame on the MCM shaft, pilot hole and raise-boring for the new production shaft, process plant concrete foundations, Highway 566 bypass and tailings area development. Future milestones include electrical transmission line completion in October 2011, open pit development commencing in November 2011 and process plant production ramp-up in March 2012.

3. Kemess Underground – After shelving the Kemess North project in 2007, Northgate is now re-assessing the viability of mining in this area using bulk underground mining methods focusing on the high grade core of the Kemess North deposit. In 2010, Northgate completed a 30-hole infill diamond drill program and initiated preliminary engineering studies to assess the economic viability of mining the resource using this new approach, and factoring in updated long-term metal prices. The new approach also contemplates use of an existing, permitted tailings site in the Kemess South open pit. In February of 2011, Northgate announced an updated NI 43-101 compliant resource estimate for the deposit located in the former Kemess North site, now designated the "Kemess Underground" project, with an Indicated Resource of 136.5 million tonnes containing 2.6 million ounces of gold and 860.6 million pounds of copper. Northgate has engaged AMC Mining Consultants to complete technical studies, which will be incorporated into a NI 43-101 compliant Preliminary Assessment which Northgate expects to complete in 2011.

2.2 Significant Acquisition

Perseverance

On February 18, 2008, Northgate completed the acquisition of all of the issued and outstanding shares of Perseverance, a publicly-listed Australian company with a record in exploration, development and production of gold projects within Victoria. Perseverance owns and operates gold mines at Fosterville and Stawell in Victoria, Australia and has extensive exploration tenements covering of 7,700 km² along major trends within the Victorian goldfields. Gold production at Stawell and Fosterville in the year ended December 31, 2010 aggregated 171,923 ounces.

For purposes of implementing the acquisition, a wholly-owned subsidiary of Northgate acquired all of the issued and outstanding securities and existing debt of Perseverance for cash consideration (the "Merger"), pursuant to the Schemes of Arrangement contemplated by the merger implementation agreement ("MIA") entered into between Northgate and Perseverance on October 28, 2007. Each Perseverance ordinary share was acquired for A$0.20 in cash. Perseverance warrants (referred to in Australia as options) were purchased for A$0.08 per warrant and subsequently cancelled, and convertible subordinated notes of Perseverance were acquired for A$100,000 per note (the face value) plus any interest accrued thereon and subsequently cancelled. The total cash consideration paid to Perseverance security holders was $210.8 million (A$230.5 million). In addition, Northgate acquired all of Perseverance's existing debt from a major financial institution in Australia (the "Bank") amounting to $25.4 million (A$29.6 million), together with extending an additional bridging facility of up to $21.5 million (A$25.0 million). Northgate also acquired the Bank's exposure to Perseverance's gold hedges, a value of approximately $65.1 million (A$71.3 million) at the date of acquisition. Subsequent to closing of the Merger, Northgate closed out the hedge position for $45.6 million (A$49.3 million).

As a result of the transaction, Perseverance is a now a wholly-owned subsidiary of Northgate. The securities of Perseverance were de-listed from the Australian Stock Exchange in 2008. For additional information regarding the acquisition of Perseverance, please review the 51-102F4 Business Acquisition Report filed by Northgate on SEDAR.

ITEM 3 NARRATIVE DESCRIPTION OF THE BUSINESS

3.1 General Overview

Northgate is in the business of mining and exploring for gold and copper, with a focus on opportunities in politically stable regions of the world. Northgate is a proven mid-tier gold and copper producer with operations, development projects and exploration properties in Canada, Australia and the United States. The Corporation is forecasting production of approximately 195,000 to 205,000 ounces of unhedged gold in 2011 and is targeting production growth through acquisitions in stable mining jurisdictions around the world. The Corporation's principal assets are Young-Davidson, Kemess, Fosterville and Stawell, each of which is discussed in turn, below.

In 2010, the Kemess South mine produced 100,790 ounces of gold at a net cash cost of approximately $363 per ounce (net of copper by-product credits) and 40.7 million lbs of copper. Fosterville produced 100,441 ounces of gold at a total cash cost of approximately $738 per ounce and Stawell produced 71,482 ounces of gold at a total cash cost of approximately $969 per ounce.

As at December 31, 2010, Kemess, Fosterville, Stawell and Young-Davidson amounted to total proven and probable reserves of 3,555,000 ounces of gold, with a further 3,564,000 ounces of gold in measured and indicated resources and 1,449,000 ounces of gold in inferred resources. Northgate has made a substantial commitment to exploration activities focused on growing the reserves and resources at its properties, including budgeting $14.5 million for exploration expenditures in 2011. For more information about Northgate's business, including a discussion of the gold industry and key economic trends, see Northgate's Management's Discussion and Analysis for the year ended December 31, 2010, filed on SEDAR.

Mineral Reserves and Resources Information

The table below summarizes Northgate's mineral reserves and mineral resources as of December 31, 2010, estimated in accordance with the standards of the Canadian Institute of Mining, Metallurgy and Petroleum and NI 43-101. Detailed notes and price assumptions accompany each reserve and resource statement within the description of each mine or deposit.

Although Northgate has prepared and verified the mineral reserve figures set out below and elsewhere in this Annual Information Form, such figures are estimates which are, in part, based on forward-looking information. Estimated reserves may have to be recalculated based upon actual production experience. Fluctuations in the price of gold, production costs or recovery rates may render the reserves unprofitable to develop at a particular site or sites for periods of time. See "Risk Factors" and "Cautionary Notes Regarding Forward-Looking Statements".

Mineral resources are not mineral reserves and do not have demonstrated economic viability, but they do have reasonable prospects for economic extraction. Measured and indicated mineral resources are sufficiently well defined to allow geological and grade continuity to be reasonably assumed and permit the application of technical and economic parameters in assessing the economic viability of the resource. Inferred resources are estimated on limited information not sufficient to verify geological and grade continuity and to allow technical and economic parameters to be applied. Inferred resources are too speculative geologically to have economic considerations applied to them. There is no certainty that mineral resources of any category will be upgraded to mineral reserves.

Definitions

A ***mineral resource*** is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral resources are sub-divided, in order of increasing geological confidence, into inferred, indicated and measured categories.

An ***inferred mineral resource*** is that part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

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.

A ***measured mineral resource*** is that part of a mineral resource for which quantity, grade or quality, densities, shape, and 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.

A ***mineral reserve*** is the economically mineable part of a measured or indicated 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 justifies, at the time of reporting, economic extraction. A mineral reserve includes diluting materials and allowances for losses that may occur when the material is mined. Mineral reserves are sub-divided in order of increasing confidence into probable mineral reserves and proven mineral reserves.

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.

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.

2010 Year-end Reserve and Resource Summary

Mineral Reserves – Proven & Probable

At December 31, 2010	Category	Quantity (tonnes)	Grades Gold (g/t)	Grades Copper (%)	Contained Metal Gold (ounces)	Contained Metal Copper (000s lbs)
Kemess South	**Proven**	3,495,000	0.24	0.12	27,000	9,247
Fosterville	**Proven**	446,000	7.19	n/a	103,000	n/a
	Probable	2,659,000	4.35	n/a	372,000	n/a
		3,105,000	4.76		475,000	
Stawell						
(underground)	**Proven**	254,000	3.69	n/a	30,000	n/a
(open pit)	**Probable**	452,000	1.96	n/a	28,000	n/a
(underground)	**Probable**	1,342,000	4.06	n/a	175,000	n/a
		2,048,000	3.55		234,000	
Young-Davidson						
(open pit)	**Proven**	3,793,000	1.60	n/a	195,000	n/a
(open pit)	**Probable**	2,388,000	1.69	n/a	130,000	n/a
(underground)	**Proven**	3,469,000	3.22	n/a	359,000	n/a
(underground)	**Probable**	22,740,000	2.92	n/a	2,135,000	n/a
		32,390,000	2.71		2,819,000	
Total Proven & Probable Reserves		**41,038,000**			**3,555,000**	**9,247**

Mineral Resources – Measured & Indicated

At December 31, 2010	Category	Quantity (tonnes)	Grades Gold (g/t)	Grades Copper (%)	Contained Metal Gold (ounces)	Contained Metal Copper (000s lbs)
Kemess Underground	**Indicated**	136,500,000	0.56	0.29	2,610,000*	861,000
Young-Davidson						
(underground)	**Indicated**	132,000	3.08	n/a	13,100	n/a
Fosterville						
(<100m from surface)	**Measured**	2,745,000	2.21	n/a	195,000	n/a
(<100m from surface)	**Indicated**	4,760,000	1.54	n/a	236,000	n/a
(>100m from surface)	**Indicated**	1,556,000	4.67	n/a	234,000	n/a
		9,061,000	2.28		665,000	
Stawell						
(<100m from surface)	**Indicated**	2,975,000	2.19	n/a	209,000	n/a
(>100m from surface)	**Indicated**	448,000	4.62	n/a	67,000	n/a
		3,423,000	2.51		276,000	
Total Measured & Indicated Resources		149,116,000			3,564,000	

* Includes silver contribution @ 55 ounces of silver to one ounce of gold.

Mineral Resources – Inferred

At December 31, 2010	Category	Quantity (tonnes)	Grades Gold (g/t)	Grades Copper (%)	Contained Metal Gold (ounces)	Contained Metal Copper (000s lbs)
Kemess Underground	**Inferred**	6,000,000	0.42	0.22	90,000*	30,000
Young-Davidson						
(open pit)	**Inferred**	20,000	1.76	n/a	1,000	n/a
(underground)	**Inferred**	5,950,000	3.40	n/a	650,000	n/a
		5,970,000	3.40		651,000	
Fosterville						
(<100m from surface)	**Inferred**	2,379,000	1.70	n/a	130,000	n/a
(>100m from surface)	**Inferred**	3,044,000	4.77	n/a	467,000	n/a
		5,423,000	3.42		597,000	
Stawell						
(<100m from surface)	**Inferred**	25,000	2.30	n/a	2,000	n/a
(>100m from surface)	**Inferred**	680,000	4.97	n/a	109,000	n/a
		705,000	4.90		111,000	
Total Inferred Resources		18,098,000			1,449,000	

* Includes silver contribution @ 55 ounces of silver to one ounce of gold.

Notes to Mineral Reserves and Resources

1. Mineral reserves and mineral resources for Kemess South, Kemess Underground and Young-Davidson have been estimated in accordance with the definitions contained in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Standards and National Instrument 43-101 ("NI 43-101").
2. Mineral reserves and mineral resources for Fosterville and Stawell have been estimated in accordance with the AusIMM JORC Code and have been reconciled to CIM Standards as prescribed by NI 43-101.
3. All mineral resources are exclusive of mineral reserves.
4. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
5. Mineral reserves and resources are rounded to 1,000 tonnes, 0.01 g/t gold and 1,000 ounces. Minor discrepancies in summations may occur due to rounding.
6. Mineral reserves were calculated using the following parameters:
   - **Kemess South:** exchange rate Cdn$/US$1.03; gold price $1,300/oz; copper price $4.00/lb; and, silver price $15.00/oz. Operating assumptions were as follows: gold recovery 57.5%; copper recovery 77.8%; mining costs Cdn$1.20/tonne; milling costs Cdn$4.00/tonne; and, G&A costs Cdn$1.50/tonne.
   - **Young-Davidson:** Underground mineral reserves were estimated using an average long-term gold price of $725/oz (Cdn$853/oz). A 1.7 g/t gold cut-off grade was applied to the underground resource model for the sublevel cave and longhole shrinkage mining methods based on 15% dilution, mining costs of Cdn$21.74, process costs of Cdn$11.40, G&A costs of Cdn$2.75 and a gold recovery of 92.5%. A 2.3 g/t gold cut-off grade was applied to the longhole retreat mining method to account for the additional capital development and lower productivity of this mining method. The open pit gold cut-off considers ore-based operating costs of $12.11/tonne (processing and G&A), a gold recovery of 91%, a $0.68/tonne stockpile rehandle cost and royalty costs as appropriate. A 0.62 g/t cut-off was applied within royalty free claims, 0.68 g/t cut-off and 0.69 g/t cut-off applied to claims subject to royalty agreements. For open pit reserves, the following parameters were used: exchange rate Cdn$/US$1.00, gold price $1,200/oz, a 91.5% gold recovery and a Cdn$18.82/tonne open pit operating cost to estimate a breakeven cut-off of approximately 0.6 g/t gold. A minimum true thickness of approximately five metres was employed in defining the mineralized drill intercepts.
   - **Fosterville:** gold price A$1,165/oz; cut-off grade applied was variable for underground ore depending on width, mining method and ground conditions; dilution of 5%-30% and mining recovery of 70%-100% were applied depending on mining method.
   - **Stawell:** gold price A$1,165/oz; cut-off grade applied was variable for underground ore depending upon width, mining method and ground conditions. Wonga surface and Magdala surface above 130 mRL and above, a nominal 0.8 g/t gold cut-off was applied.
7. Mineral resources were calculated using the following parameters:
   - **Young-Davidson:** Mineral resources were estimated using an average long-term gold price of $750/oz (Cdn$806/oz). Underground mineralized wireframes constructed based on approximately a 1.70 g/t gold cut-off grade, a 1.3 g/t incremental cut-off grade and a minimum true thickness of three metres. Open pit mineralized wireframes constructed based on approximately a 0.60 g/t gold cut-off grade and a minimum true thickness of five metres.
   - **Kemess Underground:** Mineral resources were estimated using an average long-term exchange rate Cdn$/US$1.00, gold price of $1,100/oz, copper price of $ 2.80/lb and silver of $20.00/oz. Gold recoveries of 68% and copper recoveries of 90% were used.
   - **Fosterville:** gold price A$1,250/oz; cut-off grade applied were 0.5 g/t gold for oxide, 1.0 g/t gold for near-surface sulphide (above 5050mRL) and 3.0 g/t gold for underground sulphide (below 5050mRL).
   - **Stawell:** gold price A$1,250/oz; Wonga Surface and Magdala surface above 130 mRL and above, a nominal 0.8 g/t gold cut-off was applied.

8. Mineral reserve estimates were prepared by:
   - **Kemess South:** Gordon Skrecky, Chief Mine Geologist, Kemess mine. Mr. Skrecky is a member of the Association of Professional Engineers and Geoscientists of British Columbia and has over 24 years of experience in mineral resource estimation.
   - **Young-Davidson:** Underground mineral reserve estimates were prepared by Gary Taylor, Mining Manager, AMEC Americas Limited ("Amec"), Jay Melnyk, Principal Mining Manager, Amec, and Carl Edmunds, Exploration Manager, Northgate Minerals Corporation. Mr. Taylor is a member of the Association of Professional Engineers of Saskatchewan and the Association of Professional Engineers of the Province of Manitoba and has over 37 years of relevant geological experience. Mr. Melnyk is a member of the Association of Professional Engineers and Geoscientists of British Columbia and has over 20 years of relevant geological experience. Mr. Edmunds is a member of the Association of Professional Engineers, Geologists and Geophysicists of British Columbia and has 23 years of experience in mineral resource estimation. Open pit mineral reserve estimates were prepared by Jim Grey, GR Technical Services Ltd. Mr. Gray is a member of the Association of Professional Engineers and Geoscientists of the province of British Columbia, the Association of Professional Engineers, Geologists and Geophysicists of Alberta and the Canadian Institute of Mining and Metallurgy and has over 31 years of relevant engineering experience.
   - **Fosterville:** Ion Hann, Mining Manager, Northgate and Marcus Binks, Processing Manager, Northgate. Mr. Hann is a member of the Australasian Institute of Mining and Metallurgy and has over 20 years of relevant engineering experience. Mr. Binks is a member of the Australasian Institute of Mining and Metallurgy and has over 18 years of relevant metallurgical experience.
   - **Stawell:** Austin Hemphill, Mine Technical Superintendent, Northgate. Mr. Hemphill is a member of the Australasian Institute of Mining and Metallurgy and has over eight years of relevant engineering experience.
9. Mineral resource estimates were prepared by:
   - **Young-Davidson:** Carl Edmunds, Exploration Manager, Northgate.
   - **Kemess Underground:** Northgate's geological staff, which includes a number of individuals who are Qualified Persons as defined under NI 43-101 and under the supervision of Carl Edmunds, Exploration Manager, Northgate.
   - **Fosterville:** Simon Hitchman, District Exploration Geologist, Northgate and Paul Napier, Senior Mine Geologist, Northgate. Mr. Hitchman is a member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists and has over 24 years of relevant geological experience. Mr. Napier is a member of the Australasian Institute of Mining and Metallurgy and has 13 years of relevant geological experience.
   - **Stawell:** Mark Haydon, Geology Manager, Stawell Gold Mines. Mr. Haydon is a member of the Australasian Institute of Geoscientists and has over 16 years of relevant geological experience.

Markets and Distribution

Gold - Due to the size of the international bullion market and above ground stocks, individual gold producers or other market participants generally do not significantly influence pricing or total quantities offered and sold. Since there are a large number of available gold purchasers, Northgate is not dependent upon the sale of gold to any one customer. Gold doré produced in Australia is sold exclusively to AGR Matthey, a reputable precious metal refiner. The Corporation believes there are other buyers in the marketplace that would buy such production under similar financial terms. Concentrate produced at Kemess is sold on terms set out in Northgate's multi-year contract with Xstrata Canada Corporation ("Xstrata") (a wholly-owned subsidiary of the publicly traded international mining company Xstrata plc) for the shipment and sale of Kemess gold-copper concentrate (the "Off-take Agreement"). Under the terms of this agreement, Xstrata ships the Corporation's concentrate to various smelters and levies treatment and refining charges which are adjusted annually based on prevailing market terms (see "*Material Contracts*", below). Kemess gold-copper concentrate is of a quality that is readily saleable to a number of smelters under current market conditions. In the event that Xstrata is unable to purchase the Kemess concentrate, it could be sold to other smelters once appropriate logistical arrangements were put in place.

Copper - In 2010 copper prices traded in a range of $2.76 - $4.42 per pound, and averaged $3.42 per pound for the year. Copper prices improved significantly from the prior fiscal year with improved global demand and economic confidence. Future copper prices are expected to continue to be influenced by industrial demand and global economic conditions. Gold-copper concentrate produced at Kemess South is sold mainly to Xstrata pursuant to the Off-take Agreement. Kemess South gold-copper concentrate is of a quality that is readily saleable to a number of smelters under current market conditions. In the event that Xstrata is unable to purchase the Kemess concentrate, it could be sold to other smelters once appropriate logistical arrangements were put in place.

Forward Sales Contracts

The Corporation has entered into forward sales contracts with Mitsui Bussan Commodities Ltd. ("Mitsui") to fix the price of copper for certain future production. A total volume of 7,725 tonnes of copper were sold forward using London Metals Exchange ("LME") contracts as at December 31, 2010. These contracts mature from January 2011 through April 2011 at an average forward price of Cdn$3.37 per pound. The Corporation also entered into separate forward purchase contracts with Mitsui to repurchase in US dollars, over the same period, its forward sales position at the difference between the monthly average LME prices in the month of settlement and the forward price of Cdn$3.37. The volume of forward sales and purchases in each future contract month match the expected future pricing periods for copper in concentrate to be delivered to Xstrata under a concentrate sales agreement. The copper forward sales and purchase contracts are being recognized on a mark-to-market basis in net earnings. The fair value of these contracts at December 31, 2010 was a liability of $16,435,000, which is included in accounts payable and accrued liabilities.

At December 31, 2009, the Corporation sold forward 17,375 tonnes of copper at an average forward price of $3.31 per pound maturing between April 2010 and April 2011. The fair value of these contracts was a liability of $8,228,000 at December 31, 2009, of which $5,507,000 was included in accounts payable and accrued liabilities and $2,721,000 was included in other long-term liabilities.

Social and Environmental Policies

Northgate is committed to finding, developing and operating mines in an environmentally and socially sustainable fashion while providing economic benefits to the surrounding communities and an appropriate rate of return to Northgate's shareholders. Northgate's commitment to sustainability throughout each phase of the mining life cycle (exploration, development, metal production and site remediation) is integral to effective management of the impact of the Corporation's operations on life, health and the environment. The Corporation also consistently emphasizes to its employees the importance of safety procedures and considerations, and all levels of management are committed to conducting operations in accordance with applicable laws and best industry practices of the jurisdictions in which Northgate operates. The Corporation promotes environmental awareness with its directors, facility managers, suppliers and employees, and works cooperatively with government agencies, local communities, aboriginal groups and other concerned parties to achieve the mutual benefit of environmental protection and sustainable development. To help ensure that Northgate follows sustainable mining practices and adheres to its corporate social responsibilities, Northgate's Board of Directors has appointed a Health, Safety & Environment Committee. Part of this Committee's mandate is to assist the Board in fulfilling its oversight responsibilities by assessing the effectiveness of health, safety and environmental related programs, initiatives and policies of the Corporation, ensuring effectiveness of all related systems and programs and confirming their compliance with applicable laws. The Committee regularly visits Northgate's operations and receives reports on health and safety performance from management at each of such operations on a quarterly basis.

3.3 Risk Factors

Cash Costs of Production

The Corporation's cash operating costs to produce an ounce of gold are dependent on a number of factors including costs of supplies and services (such as fuel and power), treatment and refining charges, general inflationary pressures, ore grade metallurgy, labour costs and currency exchange rates. The price and volume of copper produced at Kemess are also key factors as the revenue from copper offsets the cost of gold production for purposes of cash cost calculation. Given the number of variables relevant to this determination, there can be no assurance that the Corporation will be able to achieve low cash cost gold production. Failure to achieve production cost estimates could have an adverse impact on the Corporation's future cash flows, earnings, results of operations and financial condition.

Sensitivity to Metal Prices

The Corporation's revenues are derived primarily from gold and copper mining, and as such revenues are largely contingent on world market price of gold and copper. If the world market price of gold or copper were to drop and the prices realized by Northgate on gold or copper sales were to decrease significantly and remain at such a level for any substantial period, Northgate's profitability and cash flow would be negatively affected. Gold and copper prices fluctuate widely and are affected by numerous factors beyond the Corporation's control, including global and regional demand, political and economic conditions, central bank sales, producer hedging activities, expectations of inflation, interest rates, the relative exchange rate of the United States dollar with other major currencies, and production costs in major gold and copper producing regions. The aggregate effect of these factors is impossible to predict with accuracy. Gold and copper prices are also affected by worldwide production levels. In addition, the prices of gold and copper have on occasion been subject to very rapid short-term changes because of speculative activities. Fluctuations in gold and copper prices may adversely affect the Corporation's financial performance or results of operations. If the Corporation's revenues from the sale of gold and copper fall below the Corporation's cost of production due to a fall in the price of gold and/or copper and prices remain at such levels for any sustained period, the Corporation may experience losses and may curtail or suspend some or all of its exploration, development and mining activities. There is no assurance that any hedging strategies by the Corporation will be successful or that fluctuations in the prices of gold or copper will not materially adversely affect the Corporation's financial performance and results of operations. In the event Northgate curtails or suspends some or all of its exploration activities, depleted reserves may not be replaced. In addition, the market value of Northgate's gold or copper inventory may be reduced and existing reserves may be reduced to the extent that ore cannot be mined and processed economically at the prevailing prices.

The volatility of gold prices is illustrated in the following table, which sets forth for the periods indicated the high, low and average fixing prices for gold on the London Bullion Market (the "London AM Fix").

	2010	2009	2008	2007	2006
High price ($ per ounce)	1,426	1,218	1,024	842	726
Low price ($ per ounce)	1,052	813	693	608	521
Average price ($ per ounce)	1,227	974	873	696	604

On December 31, 2010, the London AM Fix was $1,410 per ounce of gold.

The world market price of copper is affected by numerous factors beyond the Corporation's control, including global mine production, scrap recycling and inventory stocks, general economic conditions, industrial demand, conditions in the housing and automotive sectors, speculative trading and currency exchange fluctuations, including the relative strength of the U.S. dollar. The following table sets forth for the periods indicated the high, low and average prices on the LME for copper.

	2010	2009	2008	2007	2006
High price ($ per pound)	4.42	3.33	4.08	3.77	3.99
Low price ($ per pound)	2.76	1.38	1.26	2.37	2.06
Average price ($ per pound)	3.42	2.34	3.14	3.23	3.06

On December 31, 2010, the LME Grade A copper settlement price was $4.42 per pound.

Sensitivity to Foreign Exchange Rates

The Corporation's operating results and cash flow are significantly affected by changes in the US/Canadian dollar and US/Australian dollar exchange rates. The Corporation's revenues are denominated in US dollars while most of the Corporation's expenses are currently denominated in Canadian and Australian dollars. Therefore exchange rate movements can have a significant impact on all of the Corporation's costs. The appreciation of non-U.S. dollar currencies against the U.S. dollar can

increase the costs of production at Northgate's mines, making such mines less profitable. Based upon the Corporation's projected 2011 production and operating cost estimates, a two-cent change in the average annual US/Canadian dollar exchange rate would affect operating cash flow by approximately $0.1 million were it to be in effect for the entire year. The small sensitivity to the Canadian dollar in 2011 is a result of the projected shut down of Kemess South, therefore reducing the Corporation's exposure to Canadian dollar expenses. A similar change to the US/Australian dollar exchange rate would have a $3.5 million impact. To hedge its foreign exchange risk and minimize the impact of exchange rate movements on operating results and cash flow, the Corporation has periodically used forward foreign exchange contracts to purchase Canadian dollars. However, there can be no assurance that the Corporation's foreign exchange hedging strategies will be successful or that foreign exchange fluctuations will not materially adversely affect the Corporation's financial performance and results of operations. As of December 31, 2010, the Corporation had no outstanding foreign currency options or forward foreign exchange contracts.

The following table sets forth for the periods indicated, the high, low and average noon exchange rates of the Canadian/US dollar:

	2010	2009	2008	2007	2006
Average Rate	1.0299	1.1420	1.0659	1.0748	1.1341
High Rate	1.0778	1.3000	1.2969	1.1853	1.1726
Low Rate	0.9946	1.0292	0.9719	0.9170	1.0990

The table below shows the exchange rates of the US/Australian dollar:

	2010	2009	2008	2007	2006
Average Rate	0.9208	0.7934	0.8522	0.8390	0.7536
High Rate	1.0233	0.9369	0.9794	0.9341	0.7910
Low Rate	0.8104	0.6300	0.6013	0.7704	0.7050

On December 31, 2010, the Bank of Canada quoted noon exchange rate between the Canadian and US dollar was 0.9946 Canadian$/US$. The US$/A$ rate on the same day was 1.0233.

Sensitivity to Interest Rates

Fluctuations in interest rates can affect the Corporation's results of operations and cash flows. The Corporation's debt (if any) and cash balances are subject to variable interest rates, and its capital lease agreements are subject to fixed interest rates. Therefore, as of the date of this AIF, the Corporation has relatively low exposure to interest rate fluctuations except to the extent that interest is earned on its current cash balances. The Corporation's cash balance at December 31, 2010 was $335 million.

Sensitivity Summary Table

The table below summarizes the estimated impact of variations in commodity prices and foreign exchange rates on the Corporation's 2011 operating cash flow, based on the projected production estimates at the Kemess South, Fosterville and Stawell mines in 2011, if the change were to be in effect for the full year. These impacts include the effect of copper derivatives that Northgate had entered into as of December 31, 2010.

Factor	Change	Operating Cash Flow Impact ($ millions)
Gold Price	$10/ounce	2.0
US$/A$ Exchange rate	$0.02	3.5
US$/C$ Exchange rate	$0.02	0.1

Use of Derivatives

Northgate has effectively executed its strategy of eliminating its outstanding gold forward sales contracts. The Corporation does not currently intend to enter into forward sales arrangements to reduce the risk of exposure to volatility in gold prices. Accordingly, the Corporation's future operations are exposed to the impact of any significant decrease in gold prices. If gold prices decrease significantly, the Corporation would realize reduced revenues. While it is not the Corporation's current intention to enter into forward sales arrangements for its gold production, the Corporation is not restricted from entering into forward sales arrangements at a future date.

Northgate has entered into the Copper Forward Sales Contracts (see "*Material Contracts*", below) in respect of its Kemess South copper production in order to manage the risks associated with copper price volatility. Should Northgate deliver a portion of its production into such contracts at prices lower than prevailing market prices, Northgate would have an opportunity loss. However, if the market price falls below the price to which Northgate is committed under the Copper Forward Sales Contracts, revenues would be protected to the extent of such committed production.

Northgate continues to investigate the use of certain other derivative products to manage the risks associated with gold and copper price volatility, changes in other commodity prices, interest rates, foreign currency exchange rates and energy prices. The use of derivative instruments involves certain inherent risks including: (a) credit risk – the risk of that the creditworthiness of a counterparty may adversely affect its ability to perform its payment and other obligations under its agreement with Northgate or adversely affect the financial and other terms the counterparty is able to offer Northgate; (b) market liquidity risk – the risk that Northgate has entered into a derivative position that cannot be closed out quickly, by either liquidating such derivative instrument or by establishing an offsetting position; (c) unrealized mark-to-market risk – the risk that, in respect of certain derivative products, an adverse change in market prices for commodities, currencies or interest rates will result in Northgate incurring an unrealized mark-to-market loss in respect of such derivative products.

Dependence on Mines

The Corporation's operations at Kemess, Fosterville and Stawell accounted for all of the Corporation's metal production in 2010. Any adverse condition affecting mining or milling conditions at the any of the Corporation's mines could have a material adverse effect on the Corporation's financial performance or results of operations until such time as the condition is remedied or the Corporation's other exploration and development properties are brought into production.

Dependence on Key Personnel

The success of the Corporation is heavily dependent on its key personnel and on its ability to motivate, retain and attract highly skilled persons. The competition for qualified personnel in the mining industry is currently intense. There can be no assurance that the Corporation will successfully attract and retain additional qualified personnel to manage its current needs and anticipated growth. The failure to attract such qualified personnel to manage growth effectively could have a material adverse effect on the Corporation's business, financial condition or results of operations. The Corporation also does not currently have key person insurance for its key personnel.

Dependence on Unionized Employees

Northgate employs approximately 300 people at Kemess South and 650 at its Australian operations. The majority of the Kemess South personnel are represented by a union (the International Union of Operating Engineers Local 115) and the terms of their employment are subject to a three-year collective agreement that was ratified on April 8, 2008. On September 26, 2008, a new three-year employee collective agreement was ratified by the Employee Collective, comprised of the 155 production and maintenance employees at the Stawell Mine and on June 26, 2009 the employees of Fosterville Gold Mine signed a

three year Employee Collective Agreement. There can be no assurance that the Corporation will not experience future labour strikes or work stoppages.

Future Financing Risks

To fund its growth, the Corporation is often dependent on securing the necessary capital through debt or equity financings. The sources of external financing that the Corporation may use for these purposes include project debt, convertible notes and equity offerings. The availability of this capital is subject to general economic conditions and lender and investor interest in the Corporation and its projects. There can be no assurance that the financing alternative chosen by the Corporation will be available on acceptable terms, or at all. The failure to obtain financing could have a material adverse effect on the Corporation's growth strategy and results of operations and financial condition.

Uncertainty of Reserve and Resource Estimates

Although the Corporation has carefully prepared the reserves and resources figures included herein and believes that the methods of estimating such reserves and resources have been verified by mining experience and production history, the figures for proven and probable reserves presented herein are estimates, and no assurance can be given that the anticipated tonnages and grades will be achieved or that the indicated level of recovery will be realized. The Corporation has estimated proven reserves at the Stawell and Fosterville mines based on an A$ price of gold of $1,165 and at Kemess based on a $1,300 per ounce gold price, a copper price of $4.00per pound and Canadian/US dollar exchange rate of $1.03. Reserves at Young Davidson are based on Cdn$ 803 price of gold. The three year trailing average prices are $1.023, $2.97 and 1.079 for Au, Cu and Canadian/US dollar FX, respectively. Prolonged declines in the market price of gold and copper may render reserves containing relatively low grades of gold and copper mineralization uneconomic to exploit and could reduce materially the Corporation’s reserves. Other factors, such as the need for orderly development of ore bodies or the processing of new or different grades, may impair the profitability of a mine in any particular accounting period and could reduce materially the Corporation’s reserves. Should such reductions occur, the Corporation could be required to take a material write down of its investment in mining properties or delay or discontinue production or the development of new projects, resulting in increased net losses and reduced cash flow.

Resources estimated for properties that have not commenced production are based, in most instances, on very limited and widely-spaced drill hole information, which is not necessarily indicative of conditions between and around the drill holes. Accordingly, such estimates may require revision as more drilling information becomes available, or as actual production experience is gained.

Uncertainty of Cost and Production Estimates

Northgate prepares estimates of future production, cash costs and capital costs of production for particular operations. No assurance can be given that such estimates will be achieved. Failure to achieve production or cost estimates or material increases in costs could have an adverse impact on Northgate's future cash flows, profitability, results of operations and financial condition. Northgate's actual production and costs may vary from estimates for a variety of reasons, including: actual ore mined varying from estimates of grade, tonnage, dilution and metallurgical and other characteristics; short-term operating factors relating to the ore reserves, such as the need for sequential development of ore bodies and the processing of new or different ore grades; revisions to mine plans; risks and hazards associated with mining; natural phenomena, such as inclement weather conditions, water availability, floods, and earthquakes; and unexpected labour shortages or strikes. Costs of production may also be affected by a variety of factors, including changing waste-to-ore ratios, ore grade metallurgy, labour costs, commodity costs, general inflationary pressures and currency exchange rates.

The capital costs to operate the Corporation's projects, or to take future projects into production, may be significantly higher than anticipated. Decisions about the development of these and other mineral

properties will ultimately be based upon feasibility studies. Feasibility studies derive estimates of cash operating costs based upon, among other things:

- anticipated tonnage, grades and metallurgical characteristics of the ore to be mined and processed;
- anticipated recovery rates of gold, copper and other metals from the ore;
- cash operating costs of comparable facilities and equipment; and
- anticipated climatic conditions.

Capital and operating costs, production and economic returns, and other estimates contained in the Corporation's feasibility studies or economic assessments, if prepared, may differ significantly from those anticipated by Northgate's current studies and estimates, and there can be no assurance that the Corporation's actual capital and operating costs will not be higher than currently anticipated. In addition, operating delays may negatively impact the net present value and internal rates of return of the Corporation's mineral properties as set forth in the applicable feasibility studies.

Cost of Exploration and Development Programs

The Corporation’s profitability is significantly affected by the cost and results of its exploration and development programs. As mines have limited lives based on proven and probable reserves, the Corporation actively seeks to replace and expand its reserves, primarily through exploration and development and, from time to time, through strategic acquisitions. Exploration for minerals is highly speculative in nature, involves many risks and frequently is unsuccessful. Among the many uncertainties inherent in any gold exploration and development program are the location of economic ore bodies, the development of appropriate metallurgical processes, the receipt of necessary regulatory permits and the construction of mining and processing facilities. In addition, substantial expenditures are required to pursue such exploration and development activities. Assuming discovery of an economic ore body, depending on the type of mining operation involved, several years may elapse from the initial phases of drilling until commercial operations are commenced and during such time the economic feasibility of production may change. Accordingly, there can be no assurance that the Corporation’s current exploration and development programs will result in any new economically viable mining operations or yield new reserves to replace or expand current reserves.

Risk of Acquisitions

The Corporation is actively evaluating opportunities to acquire additional mining assets and businesses. These acquisitions may be significant in size, may change the scale of the Corporation’s business and may expose the Corporation to new geographic, political, operating, financial and geological risks. The Corporation’s success in its acquisition activities depends on its ability to identify suitable acquisition targets, acquire them on acceptable terms and integrate their operations successfully with those of the Corporation. Any acquisitions would be accompanied by risks, such as the difficulty of assimilating the operations and personnel of any acquired companies; the potential disruption of the Corporation’s ongoing business; the inability of management to maximize the financial and strategic position of the Corporation through the successful incorporation of acquired assets and businesses; additional expenses associated with amortization of acquired intangible assets; the maintenance of uniform standards, controls, procedures and policies; the impairment of relationships with employees, customers and contractors as a result of any integration of new management personnel; and the potential unknown liabilities associated with acquired assets and businesses, including environmental liabilities. In addition, the Corporation may need additional capital to finance any such acquisitions. Debt financing related to acquisition will expose the Corporation to the risk of leverage, while equity financing may cause existing shareholders to suffer dilution. There can be no assurance that the Corporation would be successful in overcoming these risks or any other problems encountered in connection with such acquisitions. Due to all of the foregoing, the Corporation’s pursuit of any future acquisition may have a materially adverse effect on its business, result of operations, financial condition, cash flows and liquidity.

Foreign Operations

Northgate's operations are conducted in two politically stable mining jurisdictions - Canada and Australia. The Corporation's operations remain exposed to various levels of political, economic and other risks and uncertainties. These risks and uncertainties include, but are not limited to, terrorism; fluctuations in currency exchange rates; inflation; changes in laws and regulatory policies; royalty and tax increases or other claims by government entities, including retroactive claims; delays in obtaining or the inability to obtain necessary governmental permits; and changing political conditions, currency controls, and governmental regulations that favour or require the awarding of contracts to local contractors or require foreign contractors to employ citizens of, or purchase supplies from, a particular jurisdiction. Changes in policies or laws affecting ownership of assets, foreign investment, taxation, rates of exchange, gold sales, environmental protection, labour relations, price controls, repatriation of income or return of capital may affect both the ability of Northgate to undertake exploration and development activities in respect of future properties in the manner currently contemplated, as well as its ability to continue to explore, develop, and operate those properties to which it has rights relating to exploration, development and operations.

Mining Risks and Insurance

The business of mining is generally subject to certain types of risks and hazards, including environmental hazards, industrial accidents, unusual or unexpected rock formations, and changes in the regulatory environment. Such occurrences could result in damage to, or destruction of, mineral properties or production facilities, personal injury or death, environmental damage, delays in mining, monetary losses and possible legal liability. The Corporation carries insurance to protect itself against certain risks of mining and processing in amounts that it considers to be adequate but which may not provide adequate coverage in certain unforeseen circumstance. The Corporation may also become subject to liability for pollution or other hazards against which it cannot insure or against which it may elect not to insure because of high premium costs or other reasons or the Corporation may become subject to liabilities, which exceed policy limits. In such cases, the Corporation may be required to incur significant costs that could have a material adverse effect upon its financial performance and results of operations.

Regulatory; Permitting

The Corporation's mining operations and exploration activities are subject to extensive Canadian and Australian federal, state, provincial, territorial and local laws and regulations governing prospecting, development, production, exports, taxes, labour standards, occupational health and safety, water disposal, toxic substances, explosives, management of natural resources, environmental protection, mine safety, dealings with native groups, historic and cultural preservation and other matters. Compliance with such laws and regulations increases the costs of planning, designing, drilling, developing, construction, operating and closing mines and other facilities. Such laws and regulations are also subject to change. Amendments to current laws and regulations governing operations and activities of mining companies or more stringent implementation or interpretation thereof could have a material adverse impact on the Corporation, cause a reduction in levels of production, an increase in the costs of production and delay or prevent the development of new mining properties. Failure to comply with applicable laws and regulations may result in civil or criminal fines or penalties or enforcement actions, including orders issued by regulatory or judicial authorities enjoining or curtailing operations or requiring corrective measures, installation of additional equipment or other remedial actions, any of which could result in the Corporation incurring significant expenditures. The Corporation may also be required to compensate persons suffering loss or damage by reason of a breach of such laws, regulations or permitting requirements.

The Corporation's current and anticipated future operations, including further exploration and development activities and expansion or commencement or continuation of production on the Corporation's properties, require certain permits and licenses from various levels of governmental authorities in both Canada and Australia. The Corporation may also be required to obtain certain property rights to access, or use, certain of its properties in order to proceed to development. There can be no assurance that all licenses, permits or property rights which the Corporation requires for the expansion and construction of mining facilities and the conduct of mining operations will be obtainable on reasonable terms or in a timely manner, or at all, that such terms will not be adversely changed, that required extensions will be granted, or that the issuance of such licenses, permits or property rights will not be challenged by third parties. Delays in obtaining or a failure to obtain such licenses, permits or property rights or extension thereto, challenges to the issuance of such licenses, permits or property rights, whether successful or unsuccessful, changes to the terms of such licenses, permits or property rights, or a failure to comply with the terms of any such licenses, permits or property rights that the Corporation has obtained, could have a material adverse effect on the Corporation by delaying or preventing or making more expensive exploration, development and/or production.

Potential Conflicts of Interest

Certain of the directors of the Corporation serve as directors, officers, and members of management of other public companies involved in natural resource exploration, development and mining operations and therefore it is possible that a conflict may arise between their duties as directors of the Corporation and their duties as directors, officers, promoters or members of management of such other companies. The directors of the Corporation are aware of the existence of laws governing accountability of directors and officers for corporate opportunity and requiring disclosures by directors of conflicts of interest and the Corporation will rely upon such laws in respect of any directors' conflicts of interest or in respect of any breaches of duty by any of its directors.

Environmental

The Corporation's exploration and production activities in Canada and Australia are subject to regulation by governmental agencies under various environmental laws. To the extent that the Corporation conducts exploration activities or undertakes new mining activities in other foreign countries, the Corporation will also be subject to environmental laws and regulations in those jurisdictions. These laws address emissions into the air, discharges into water, management of waste, management of hazardous substances, protection of natural resources, antiquities and endangered species and reclamation of lands disturbed by mining operations. Environmental legislation in many countries is evolving and the trend has been towards stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and increasing responsibility for companies and their officers, directors and employees. Compliance with environmental laws and regulations may require significant capital outlays on behalf of the Corporation and may cause material changes or delays in the Corporation's intended activities. There can be no assurance that future changes in environmental regulations will not adversely affect the Corporation's business, and it is possible that future changes in these laws or regulations could have a significant adverse impact on some portion of the Corporation's business, causing the Corporation to re-evaluate those activities at that time.

The Corporation cannot give any assurance that breaches of environmental laws (whether inadvertent or not) or environmental pollution will not materially and adversely affect its financial condition and its results from operations. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Corporation's operations. Environmental hazards may exist on the properties on which the Corporation holds interests which are unknown to the Corporation at present. Environmental hazards or liabilities may also exist that have been caused by previous or existing owners or operators of the properties and for which Northgate is not indemnified. Reclamation costs are uncertain and planned expenditures may differ from the actual expenditures required.

Regulatory efforts to control greenhouse gas emissions could materially negatively affect Northgate's business. Northgate's businesses include several operations in Canada and Australia that emit large quantities of carbon dioxide, or that produce or will produce products that emit large quantities of carbon dioxide when consumed by end users. Carbon dioxide and other greenhouse gases are the subject of increasing public concern and regulatory scrutiny.

The Kyoto Protocol is an international agreement that sets limits on greenhouse gas emissions from certain signatory countries. While the United States government has announced that it will not ratify the protocol, the Canadian Parliament voted to ratify its participation in this agreement and the Kyoto Protocol came into force in Canada on February 16, 2005. The Kyoto agreement commits Canada to limit its net greenhouse gas emissions to 6% below the levels emitted in 1990. Canada's current level of greenhouse gas emissions significantly exceeds the agreed-upon limit.

While there is no current regulatory legislation in force at the federal level that specifically limits greenhouse gas emissions, in April 2007, the Government of Canada announced a policy objective of reducing total Canadian greenhouse gas emissions to 20% below 2006 levels by 2020 and to 60% to 70% below 2006 levels by 2050. As part of this initiative, the federal Government intends to require reductions in emissions intensity levels from certain industrial facilities, including oil and gas facilities and smelting and refining facilities, by 6% per year for each year from 2007 to 2010 and 2% per year each year thereafter. Affected facilities will be permitted to meet reduction targets by emissions trading or contributions to a technology fund, in addition to emissions abatement. Additional policy measures are anticipated in coming years under this federal policy framework.

In British Columbia, the provincial government has announced a policy goal of reducing greenhouse gas emissions by at least 33% below current levels by 2020. Interim targets will be set for 2012 and 2016. The mechanisms by which these targets are to be achieved are not yet established.

In December 2007, Australia ratified its participation in the Kyoto Protocol and in March 2008 the international agreement came into force in Australia. Australia planned to implement a carbon-trading scheme to take effect in 2010 and help deliver a unilateral 5% emissions reduction on 2000 levels by 2020. However, in May 2010, this plan was delayed until 2013 and its future inception will depend largely on sufficient international progress in the reduction of greenhouse gas emissions. As a result of the delay, it is premature to predict what impact Australia's adoption of the Kyoto Protocol could have on the Corporation but it is likely that any mandated reduction in emissions will result in increased costs relating to Northgate's Australian operations.

The primary source of greenhouse gas emissions in Canada is the use of hydrocarbon energy. Northgate's operations depend significantly on hydrocarbon energy sources to conduct daily operations, and there are currently no economic substitutes for these forms of energy. The federal and provincial governments have not finalized any formal regulatory programs to control greenhouse gases and it is not yet possible to reasonably estimate the nature, extent, timing and cost of any programs proposed or contemplated, or their potential effects on operations.

Reclamation Costs

As at December 31, 2010, Northgate's undiscounted provision for site closure and reclamation costs was $57.8 million. Provisions for site closure and reclamation costs are based on known requirements. However, the exact nature of environmental control concerns, if any, that may be encountered in the future cannot be predicted with certainty, as environmental requirements currently established by government agencies may change. Should regulators determine that Northgate's properties require additional reclamation work, the Corporation may be required to fund such work, which could have a material adverse effect on the Corporation's financial position.

Title to Properties

The Corporation cannot guarantee that title to its properties will not be challenged. Title insurance is generally not available for mineral properties and the Corporation's ability to ensure that it has obtained secure claims to individual mineral properties or mining concessions may be severely constrained. The Corporation's mineral properties may be subject to prior registered or unregistered liens, agreements, transfers or claims, and title may be affected by, among other things, undetected defects. A successful challenge to the precise area and location of these claims could result in the Corporation being unable to operate on its properties as permitted or being unable to enforce its rights with respect to its properties.

Legal

The Corporation is subject to various existing and potential legal claims and complaints, including unexpected environmental remediation costs in excess of current reserves, arising out of the normal course of business. While the Corporation believes that unfavourable decisions in any pending procedures or the threat of procedures related to any future assessment, or any amount it might be required to pay, will not have a material adverse effect on the Corporation's financial condition, there is a risk that if such decisions are determined adversely to the Corporation, they could have a material adverse effect on the Corporation's profitability.

Aboriginal Land Claims

Native land claims in British Columbia remain the subject of active debate and litigation. The Kemess operation and associated mineral tenures lie within overlapping land claims of several First Nations, as is the case for much of British Columbia. Although Northgate has an agreement with local First Nations regarding land use, as it pertains to its current Kemess operations, there can be no assurance that the broader land claims will not create delays or impose additional costs.

The area surrounding the Young-Davidson project in northern Ontario near the town of Matachewan is covered by Treaty 9 and the Robinson Huron Treaty and the Corporation is required to consult with the potentially affected First Nation(s) as the project (as proposed) may impact upon the exercise of their aboriginal and treaty rights. Northgate signed an Impact and Benefits Agreement with Matachewan First Nation on July 2, 2009. The Corporation continues to pursue negotiations with other First Nations who assert rights in this area.

In general, exploration licenses in Australia are also subject to Native land and title issues when they are located on Crown land. This requires the Corporation to reach agreement with the affected peoples before the exploration license will be granted by the state of Victoria, or Western Australia. The mining leases on which the Corporation's two Australian operations, Fosterville and Stawell, are located currently have no Native title issues.

Competition and Scarcity of Mineral Lands

The mining industry is intensely competitive. Many companies and individuals are engaged in the mining business, including large, established mining companies with substantial capabilities. There is a limited supply of desirable mineral lands available for claim staking, lease or other acquisition in the areas where the Corporation contemplates conducting exploration activities. The Corporation may be at a competitive disadvantage in acquiring mining properties, as it must compete with these individuals and companies, many of which have greater financial resources and larger technical staffs than the Corporation. Accordingly, there can be no assurance that the Corporation will be able to compete successfully for new mining properties. The Corporation may also encounter increasing competition from other mining companies in its efforts to hire experienced mining professionals. Competition for exploration resources at all levels is currently very intense, particularly affecting the availability of manpower, drill rigs and helicopters. Increased competition could adversely affect the Corporation's ability to attract necessary capital funding or acquire suitable producing properties or prospects for mineral exploration in the future.

Volatility of Share Price

The price of the Common Shares may be volatile as a result of several factors, including the following, some of which are beyond the Corporation's control:

- Fluctuations in the price of gold and copper and/or the US$/C$ and US$/A$ exchange rates
- Variations in reserve grade estimates
- Variations in the Corporation's operating results
- Operating results may differ from the expectations of securities analysts and investors
- Changes in expectations as to the Corporation's future financial performance, including estimates by securities analysts and investors
- Changes in market valuations of other gold companies
- Announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by the Corporation or its competitors
- Additions or departures of key personnel
- Future issuances of Common Shares

In addition, trends in capital markets or general economic conditions can influence share prices irrespective of the operating performance of the issuer.

Sarbanes-Oxley Act

The Corporation documented and tested during its most recent fiscal year, its internal control procedures in order to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act ("SOX"). SOX requires an annual assessment by management of the effectiveness of the Corporation's internal control over financial reporting and an attestation report by the Corporation's independent auditors addressing this assessment. The Corporation may fail to achieve and maintain the adequacy of its internal control over financial reporting as such standards are modified, supplemented, or amended from time to time, and the Corporation may not be able to ensure that it can conclude on an ongoing basis that it has effective internal controls over financial reporting in accordance with Section 404 of SOX. The Corporation's failure to satisfy the requirements of Section 404 of SOX on an ongoing, timely basis could result in the loss of investor confidence in the reliability of its financial statements, which in turn could harm the Corporation's business and negatively impact the trading price of its Common Shares or market value of its other securities. In addition, any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm the Corporation's operating results or cause it to fail to meet its reporting obligations. Future acquisitions of companies may provide the Corporation with challenges in implementing the required processes, procedures and controls in its acquired operations. Acquired companies may not have disclosure controls and procedures or internal control over financial reporting that are as thorough or effective as those required by securities laws currently applicable to the Corporation.

No evaluation can provide complete assurance that the Corporation's internal control over financial reporting will detect or uncover all failures of persons within the Corporation to disclose material information required to be reported. The effectiveness of the Corporation's control and procedures could also be limited by simple errors or faulty judgments. In addition, as the Corporation continues to expand, the challenges involved in implementing appropriate internal controls over financial reporting will increase and will require that the Corporation continue to improve its internal controls over financial reporting. Although the Corporation intends to devote substantial time and incur substantial costs, as necessary, to ensure ongoing compliance, the Corporation cannot be certain that it will be successful in complying with Section 404 of SOX.

3.3 Mineral Projects

Kemess

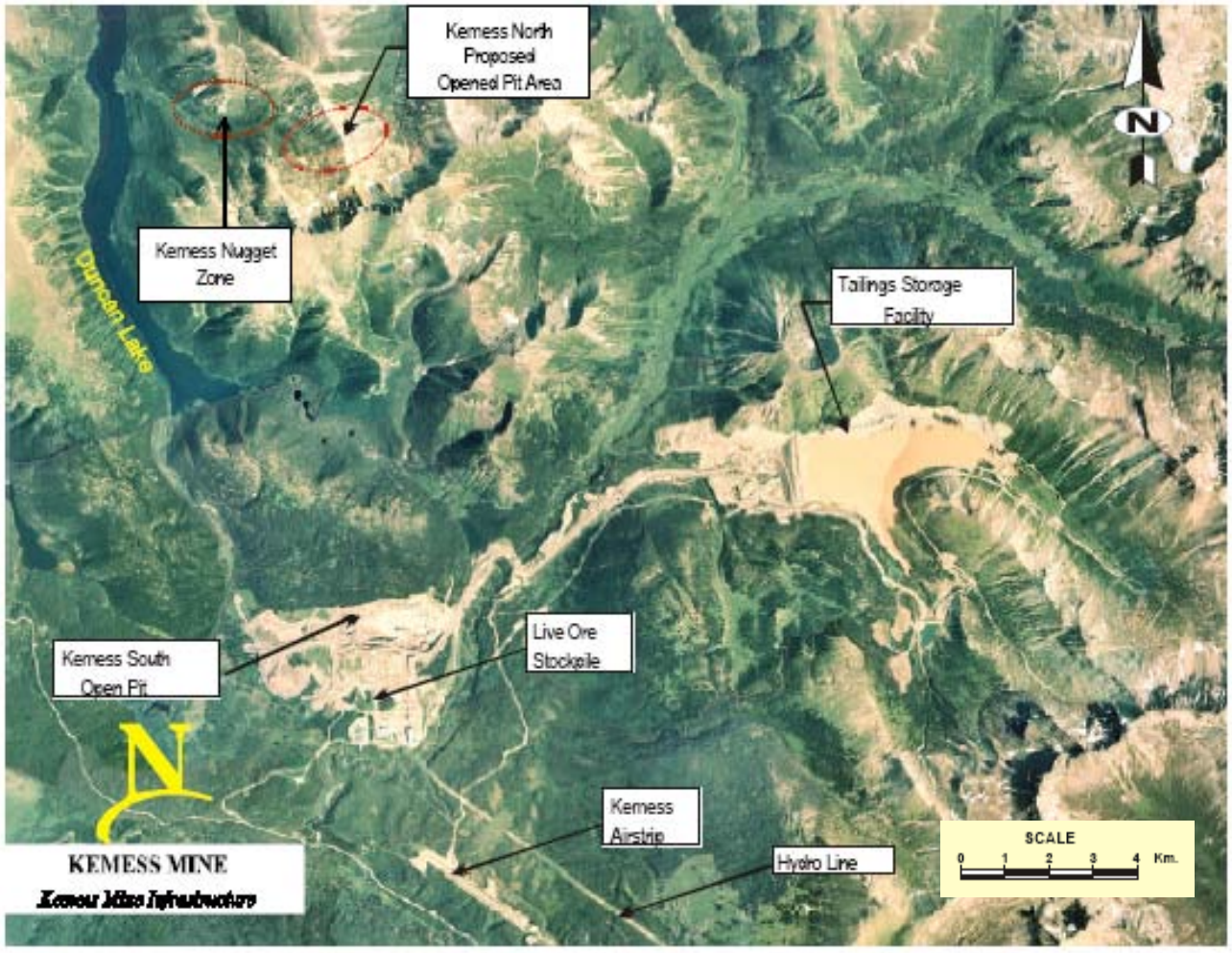
The disclosure set forth below with respect to Kemess is derived in part, from a technical report prepared by Gordon Skrecky P. ENG., Chief Geologist at the Kemess mine, and Craig Tomlinson P. ENG. Mine Superintendent at the Kemess mine, each of whom is a Qualified Person, dated and filed on SEDAR May 9, 2008 and amended and refiled on SEDAR on May 30, 2008, as well as a number of earlier technical reports filed on SEDAR in 2005, 2002 and 2001. The reserve and resources update as of December 31, 2010 was prepared by Gordon Skrecky.

Property Description and Location

The Kemess mine, owned and operated by Northgate, is situated in north-central British Columbia approximately 430 kilometers northwest of Prince George at 57°02' north latitude, 126°47' west longitude on National Topographic Map 94/E2. The Kemess property consists of four mining leases (Numbers 354991, 410732, 410741 and 524240), 57 cell and legacy mineral claims (located under the *Mineral Tenure Act* (British Columbia and regulations relating thereto) and one surface rights license, collectively covering 32,610 ha (80,580 acres). The Kemess South Mining Lease #354991 is valid until Sept 15, 2027 at which time it may be renewed for another 15 years, while the other three mining leases are valid until 2022 and 2029 and renewable at that time. Collectively these surface and mineral rights are sufficient for conducting all mining operations, processing facilities and ancillary infrastructure at Kemess, as evidenced by the history of continuous operation since 1998 and as shown in the location map of the mine infrastructure.

There are currently royalties of 1.6% of gross revenues to Trilon Bancorp Inc. on the Kemess mine. There is an additional 2% net smelter return royalty on the NOR 7 claim, in the southwest corner of the Kemess open pit, held by the DLC Syndicate I (1985) Exploration Limited Partnership, payment of which has been satisfied by advance royalty payments.

The Kemess mine is in compliance in all material respects with applicable provincial and federal environmental requirements. With respect to future site reclamation and closure costs, the Corporation regularly updates its estimates of future expenditures. As at December 31, 2010 the undiscounted provision for site closure and reclamation costs was C$40.8 million. Provisions for site closure and reclamation costs are based on known requirements. The exact nature of environmental control concerns, if any, that may be encountered in the future cannot be predicted with certainty, as current environmental regulations and requirements may change. Most of the C$40.8 million in site closure and reclamation costs are expected to be spent between 2011 and 2016. The credit-adjusted risk free rate at which the estimated future cash flows have been discounted is 5.33% and the inflation rate used to estimate future cost was 2.00%. During 2002, Northgate and the Government of British Columbia amended the reclamation permit such that Northgate agreed to provide additional security installments of C$1,000,000 on December 31st of each year from 2003 to 2008, and a final amount of C$800,000 on December 31, 2009. The final installment was made in January 2010. As of December 31, 2010, Northgate has a security bond of C$18.6 million posted in connection with its reclamation permit for the Kemess mine.



The Kemess mine operates under the M96-03 Project Approval Certificate (issued April 29, 1996). A list of the other permits is provided in the Technical Report.

Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Kemess mining and milling complex is located in the mountains of north-central British Columbia at an elevation of 1,350 metres. Personnel access the mine by plane via Prince George (approximately 430 kilometers to the southeast), Smithers, Williams Lake, Kelowna, Kamloops and Vancouver with flight service available from Monday through Thursday. Road access to the mine is from Mackenzie, BC, and this is the means by which supplies and concentrates are hauled to and from the mine. Power at the site is available directly from the BC Hydro grid, the British Columbia power authority, via a 380 km powerline owned by the Corporation. Adequate water for the mine is available from local surface and ground water.

The climate is generally moderate, although snow can occur during any month. Temperatures range from -35° to 30° and average annual precipitation amounts to 890 mm. The Kemess mine belongs to the following physiographic subdivision of British Columbia, arranged in ascending hierarchy of units: Swannell Ranges, Omineca Mountains, Central Plateau and Mountain Area, Interior System and Canadian Cordillera. Two biogeoclimatic Zones occur in the Kemess mine area, according to biogeoclimatic maps of the Toodoggone River 94E and McConnell Creek 94D map sheets. The mild, cool Spruce-Willow-Birch Zone (SWB mk) occupies the lower elevations between 1,200 metres and 1,500 metres. Most of the mine is within this Zone. The Alpine Tundra parkland (Atp) subZone occupies the higher elevations in the mine area.

History

Pacific Ridge Resources Ltd. staked the area of the Kemess deposit in 1983. Exploration programs were subsequently carried out by Pacific Ridge Resources Ltd. and Anaconda Canada Ltd. in 1984; St. Philips Resources Inc. in 1988 and the Kemess South Joint Venture between El Condor Resources Ltd. and St. Philips Resources Ltd. from 1990 to 1993. In 1991, Rio Algom Explorations Inc. acquired claims adjoining the west and south sides of the Kemess South Joint Venture claim holdings.

The initial work on the property by Pacific Ridge and Anaconda consisted of a limited diamond drilling program to test a gold-copper-molybdenum soil geochemical anomaly. This drilling identified Porphyry style gold-copper-molybdenum mineralization, but grades were considered too low and the property was dropped. St. Philips carried out IP surveys, geochemical surveys and reverse circulation ("RC") drilling, which marginally expanded the mineralized area: The Kemess South Joint Venture completed a major delineation diamond drilling program and various ancillary works, including IP and geochemical surveys. In 1992, Rio Algom drilled five holes totaling 1,745 metres to further delineate the deeply buried western extension of the Kemess deposit. In late 1993 the Kemess South Joint Venture acquired the claims held by Rio Algom. By the end of 1993 a total of 26,314 metres of diamond drilling in 156 holes had outlined a substantial gold-copper deposit that was amenable to open pit development.

In 1994 the Kemess South Joint Venture conducted a 9-hole, 1,867 metres in-filling drilling program. In 1996, Royal Oak Mines Inc. ("Royal Oak") acquired the Kemess property and drilled 22 due diligence holes totaling 3,316 metres. In 1998 Royal Oak commenced Operations from the Kemess ore body. These operations went into receivership in 1999. In 2000 Northgate Exploration bought the property out of receivership and has operated the property since that time.

Geological Setting

The Kemess mine is located in a northwest-trending geological belt, known as the Quesnel Trough, which extends over a distance of approximately 1,200 km in British Columbia. This feature contains several gold-copper and copper-molybdenum deposits, including the Similco and Brenda mines in the south and Mt. Polley and Mt. Milligan in the north.

The main rock units in the Kemess district are the Upper Triassic to Lower Jurassic Takla Group. These rocks are predominantly subaqueous volcanic strata consisting of lava flows with subordinate interbeds of tuff and volcanic breccia. Overlying the Takla Group are Lower Jurassic-Hazelton Group-Toodoggone Formation volcanic rocks dominated by flows and tuffs. Numerous stocks and dykes of Lower to Mid-Jurassic age intrude the Toodoggone and Takla strata.

On the Kemess properties, the overlying Toodoggone volcanic rocks have been removed by erosion, exposing several large monzonite intrusions with disseminated sulphide mineralization and associated Hydrothermal alteration. The resulting disseminated sulphide system measures at least 9 km north-south and 5 km east-west. It contains both the Kemess South and Kemess North deposits.

Kemess is a typical Porphyry gold-copper deposit. These deposits are generally hosted in or near intrusive rocks, usually of tonalitic or quartz monzonitic composition with associated volcanic clastics and flows, and are often large, oval and inverse shaped. Typical dimensions are in the order of 1,000 m x 1,000 m x 100 m.

The mineralization in these deposits is normally associated with stockworks, veins and disseminations of pyrite, chalcopyrite, bornite and magnetite that are intimately associated with hydrothermal alteration of the intrusive body and the volcanic country rocks. Copper porphyry deposits can display multiple zones of hydrothermal alteration and sulphide mineralization. The hydrothermal alteration is usually extensive and can consist of biotite, potassium-feldspar, sericite, anhydrite/gypsum, magnetite, hematite, actinolite, chlorite, epidote and carbonate.

Chalcopyrite, bornite, Magnetite, pyrite, gold and silver are typically the dominant sulphides and metals. The mineralization is dominantly structurally controlled, mainly through stockworks, veins, vein sets, breccias, disseminations and replacements.

Exploration

Various companies have held the Kemess property. Exploration work began in 1984 and has included geochemical surveys, geophysical surveys, and drilling. The geophysical surveys included induced polarization, VLF, resistivity and airborne EM. The drilling included core diamond drilling and limited RC drilling. Britton Brothers Diamond Drilling of Smithers, British Columbia, has drilled most of the diamonds drilling programs since 1996 with Suisse Diamond Drilling completing the 2006 program.

In 1999 and 2000 diamond drill programs were carried out to finalize the wall angles of the pit prior to pushing the wall back to final limits. AGRA Earth and Environmental of Vancouver aided by Kemess staff conducted the 1999 drill program. Knight Piesold of Vancouver and Kemess mines staff conducted the 2000 drill program. In 2000, Knight Piesold was requested by Kemess Mines Ltd. (Northgate predecessor entity) to collect and evaluate all pertinent hydrogeological and geotechnical information and provide a set of updated open pit design parameters based on bench and highwall stability analysis. The 1999 and 2000 drilling culminated in a report from Knight Piesold on the pit slope stability and design issues for ongoing mine development.

In 2002, a three hole program was carried out to increase the density in drill spacing in specific areas of the pit. One of the holes was drilled on easting 10620 and additional bond ball mill index work was completed on specific alteration intervals in the hole. The data gathered was the initial work which led to the correlation between alteration of the hypogene and mill throughput.

In 2003, an eight hole diamond drill program was carried out. Five of the drill holes were geotechnical in nature and three were to increase the density of the drill spacing in specific areas of the pit. Knight Piesold of Vancouver carried out the hydrogeological and geotechnical programs. The in-situ permeability of the rock in the vicinity of section 10250E was assessed, specific attention to the nature of the contact between the hypogene and the Takla volcanics was made. An additional two hole hydrogeological and geotechnical program assessed the nature of the Toodoggone Group. The data was used to evaluate the slope depressurization requirements of the south wall of the pit. The remaining three holes completed in 2003 were used to increase the density of the assay data in specific areas of the pit.

In 2004, forty-six diamond drill holes were completed in and around the Kemess open pit. The drill holes were completed under the supervision of Kemess staff. Four holes were drilled to assess in situ rock stress. Personnel from the Atomic Energy of Canada Limited (AECL) carried out the program. The report from AECL determined a stress field orientation for the property.

The remaining forty-two holes drilled in 2004 were for exploration and definition purposes. These holes were completed under the supervision of Kemess staff. The program was multipurpose. Three areas of the Kemess open pit were explored, namely:

- The hypogene mineralization and Takla Group volcanics in the south-west quadrant of the pit,
- Hypogene mineralization in the south-east quadrant of the pit,
- A native copper showing in the Toodoggone Formation in the northwest quadrant of the pit.

Drilling in the southwest portion of the pit intersected Takla Group volcanic rocks with an alteration assemblage similar to that at Kemess North, albeit without economically significant amounts of base or precious metal mineralization. This drilling also tested the western extension of the hypogene mineralization currently being mined. This mineralization was demonstrated to extend to the west but it is too deep to be mined under the current mine plan.

Drilling in the southeast part of the pit was designed to upgrade resource material to reserve status. This objective was not achieved as the material was of insufficient grade to become reserve material under current conditions.

Drilling in the northwest part of the pit was designed to test a native copper showing which occupied the erosional plane between the Asitka Group cherts and the overlying Toodoggone Group volcaniclastics.

The 2006 drilling program focused on:

- The east end of the east pit as the Hypogene Ore continues to the east and south. This area was previously included in the resource category. The drill density was increased to confirm the grades and collect additional material for metallurgical test work.
- Three holes were drilled west of the west pit to investigate a fault offset portion of the main ore bearing quartz monzonite.
- One geotech hole was drilled to verify the orientation and location of a major block fault just west of the main pit.

In 2007, there were only two holes drilled during this year. KS07-01 was the follow up hole to the 2006 drill program which investigated west of the west block fault (WBF) targeting fault offset portion of the main ore bearing quartz monzonite. KS07-02 was a geotechnical hole drilled north of the east pit in the Asitka volcanics to determine if it was suitable non-acid generating rip rap dam material. The procedures followed in the field and through the interpretation stage of exploration have been professional. Various crews under the supervision of professional geologists carried out the exploration work. It is considered that the reliability of the data obtained with exploration is very high.

In 2008 exploration consisted of a 6 hole (920 metre) drill program approximately one km north of the Kemess open pit. No significant copper or gold mineralization was discovered. A 24 km Induced Polarization survey was also conducted one km north of the tailings dam.

Mineralization and Metallurgy

Three ore types, a leach cap Zone, a supergene Zone and a hypogene Zone characterize the Kemess deposit. The supergene and Leach Cap Ore make up approximately 15% of the ore body and formed during a period of extensive weathering of the hypogene, which represents the 85% balance of the deposit.

Disseminated grains of chalcopyrite, bornite and chalcocite characterize the Hypogene Ore. Gold is intimately associated with the copper-bearing sulphides as free, fine grains of electrum (gold/silver) and native gold. Characteristically, the gold is very fine grained, 5 µm to 50 µm, and is readily recoverable by standard copper flotation processes.

The supergene ore is characterized by strong hematite alteration from the oxidation of the sulphide mineralogy (chalcopyrite, bornite and pyrite). The supergene ore is composed of a typical suite of supergene minerals – native copper, chalcocite, bornite, and minor accessory malachite, cuprite and azurite. Gold is found as fine native grains of gold and electrum and as copper/gold alloys (auricuprides).

Drilling

Since 1984, 55,699 metres in 334 diamond drill holes have been completed at the Kemess deposit. The drill spacing was completed on 50 metre sections with 100 metre spacing between holes on a section. The subsequent section of drill holes are offset 50 metres in a north-south direction from the previous section of drill holes. The configuration creates a five-point spacing. Britton Brothers Diamond Drilling Ltd. was the sole drill company used to complete the holes drilled between 1996 and 2004. Suisse Diamond Drilling completed the 2006 program. A summary of the type and extent of the drilling is listed below.

Summary of Drilling

Period	Hole Prefix	Purpose of Drilling	Holes	Metres	Core Size	Assayed Samples
1984	84	Exploration	6	323	NQ	137
1988	88	Exploration	11	870	NQ	254
1990	90	Exploration	22	3,856	NQ	1,808
1991	91, RIO91	Exploration	126	21,365	NQ	7,868
1992	92, RIO92	Exploration	23	5,189	NQ	536
1994	94	Exploration, Definition	9	1,868	NQ	716
1996	96	Geotechnical, Definition	22	3,316	NQ	901
1999	99	Geotechnical, Definition	14	2,194	NQ, NQIII	345
2000	2000, ABA00, HYG	Geotechnical, Definition	20	2,205	NQ, HQ	112
2002	PR-02	Definition, Metallurgical	3	653	NQ	337
2003	HS, HR, 2003	Geotechnical, Definition	8	1,786	NQ	672
2004	KS-04, KE-04, DDH-04	Exploration, Definition, Geotechnical	46	9,240	NQ	3,195
2006	KS-06, KE-06	Exploration, Definition, Geotechnical	24	2,835	NQ	1,305
2007	KS-07	Exploration, Geotechnical	2	261	NQ	128
2008	KS-08	Exploration	6	920	NQ	139

Kemess staff surveyors were used to survey in the collar of the holes prior to the rig moving off the set-up. Downhole surveys were completed with Sperry-Sun and Flex-IT survey tools. The drill holes at Kemess are of vertical to near vertical orientation.

Sampling Method and Analysis

Sample length was determined by the Geology of the deposit, sample lengths were generally 2 metres in length and respected lithologic boundaries. The previous contains a listing of drill holes and number of samples. The area covered is 1900 metres in an east west direction and 900 metres in a north south direction.

All of the samples from the drilling programs since 1999 have been analyzed off-site at commercial laboratories. The 1999 series of holes and a few of the 2006 samples were analyzed at the Kemess assay lab in 2000 and 2006. The Kemess assay lab has an industry standard quality control and assurance program. The assay values for the 1999 drilling were checked against the blast hole values in the drill hole vicinity. A good correlation was found and the 1999 series of holes have been included in the reserve resource calculation.

The programs were supervised by Kemess staff. No significant departures from the findings in the drill programs have been experienced during the mining process.

Sample Preparation, Analysis and Security

The samples processed at the assay laboratory at the Kemess mine were dried at 105°C for 3 hours and then crushed to minus 10 mesh using a Rhino jaw crusher. Crushed samples are riffled to approximately 200 g using a ¼" Jones Riffle. The remaining portions of the crushed samples are placed in clean, labelled plastic bags for storage. The riffled 200 g samples are pulverized to 90% passing minus 150 mesh to make a sample pulp. The prepared pulps are packed in 5 gallon plastic pails, the covers sealed with tape and the sealed pails then shipped by bonded air courier to an independent commercial lab in Vancouver

for gold and copper analyses. Copper and gold assays for the 2000/2006 programs were done by Assayers Canada Laboratory in Vancouver and for the 2001 program by Bondar-Clegg Laboratory in North Vancouver. All samples are assayed for gold by fire assay and atomic absorption techniques and for copper by atomic absorption.

The Kemess lab performs numerical control checks when the drill core samples are received for sample preparation and sample pulp packing. All coarse rejects are stored inside at the mine site. Drill core was logged by a small team of geologists, split using a rock saw, and then samples were passed through primary crushing. During the 2002 program, a portable sample preparation lab was leased from ALS Chemex. For the 2003 to 2006 programs, a sample-bucking facility was built near the mill area. The core samples were dried then crushed to 80% passing 10 mesh at the mine site. Each sample is riffled twice with one split being retained at the mine, and a 250 g sample sent to the lab. The remainder of the sample was discarded. The portion of sample retained at the mine site is kept in a plastic bag with a sample tag and stored in a plastic pail. The portion of the sample sent to the lab was placed in a plastic bag with a sample tag, shipped in a plastic pail with two security tags, the pail top was sealed and taped. A submission sheet was sent along with each pail of samples that included the name of the sample preparation person, the date, the sample numbers, the number of samples, and the numbers of the security tags.

The core storage site near Kemess Lake is a well-organized facility. The remaining ½ cores are still in core boxes and are available for Geology reviews as well as check assays. Work completed by employees of the Corporation included core logging, sample layout, sample splitting and preliminary sample preparation. A professional geologist oversaw all of the work from core logging to sample splitting and preliminary sample preparation, and shipping. ALS Chemex Labs is widely used by the mining and exploration industry and carries the highest certification as registered assayers, including ISO 9002, ISO 9001:2000, and they are working towards ISO 17025. Assayers Canada, another widely used lab with ISO 9001:2000 certification, completed most of the assaying for the 2006 program with a minor number of samples also processed at the mine site assay lab.

Data Verification

The diamond drill data that is dated pre-1999 has been reviewed and verified by a number of professionals, most notably MRDI (an independent engineering company) in 1999. The database includes all drill holes, Geology, sample locations and assays, including the main elements as listed below:

a) Copper assay value (CUORG) on % basis
b) Native copper assay value (CUNAT) on % basis
c) Copper oxide assay value (CUOX) on % basis
d) Gold assay value (AUORG) in grams per tonne
e) Geologic domain (DOMN) including overburden, tertiary sediments, Takla sediments, Takla volcanics, Leach Cap Ore, supergene ore and Hypogene Ore.

The database from 1999 forward is routinely reviewed with respect to consistency of data entry and verified against original assay certificates by mine Geology staff. The Geology is checked against the original drill logs and any errors are corrected. The Senior Mine Geologist has also preformed a series of independent checks of the 1999 to 2007 drill programs that included collar locations down hole surveying and assays from original documentation. The database remains in good shape.

The data set is the basis of the block model used in the reconciliation of the block model to the actual mill production. The estimation from the block model and the actual mill production were within acceptable error.

Mineral Reserves and Resources – Kemess South

The Corporation's reserves and resources at Kemess South as at December 31, 2010 are summarized in the table below. Although Northgate has carefully prepared and verified the figures presented below and elsewhere in this Annual Information Form, such figures are estimates, and no assurance can be given that the estimates will be realized.

At December 31, 2009	Category	Quantity (tonnes)	Grades Gold (g/t)	Grades Copper (%)	Contained Metals Gold (ounces)	Contained Metals Copper (000s lbs)
Reserves[1,2]						
	Proven	3,495,303	0.24	0.12	26,970	9,247
Total Proven & Probable Reserves		**3,495,303**	**0.24**	**0.12**	**26,970**	**9,247**
Resources[3]		0				

[1] Mineral reserve and resource estimates for Kemess were derived in part, from a technical report prepared by Gordon Skrecky P. ENG., Chief Geologist at the Kemess mine, and Craig Tomlinson P. ENG. Mine Superintendent at the Kemess mine, each of whom is a Qualified Person, dated and filed on SEDAR May 9, 2008 and amended and refiled on SEDAR on May 30, 2008, as well as a number of earlier technical reports filed on SEDAR in 2005, 2002 and 2001. The reserve and resources update as of December 31, 2009 was prepared by Gordon Skrecky.

[2] Mineral reserve estimates were estimated in accordance with the definitions contained in the "Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves Definitions and Guidelines" that were prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council on August 20, 2000, using classical and/or geostatistical methods plus appropriate mining parameters. Reserves for Kemess were calculated using the following economic parameters: exchange rate C$/US$1.03; gold price $1,300 per ounce; copper price $4.00 per pound; and, silver price $15.00 per ounce. Operating assumptions were as follows: Au recovery 57.5%, Cu recovery 77.8%, mining costs C$1.20/tonne; milling costs C$4.00/tonne; and, G&A C$1.50/tonne.

[3] Mineral resource estimates were calculated using the following economic parameters: exchange rate C$/US$1.03; gold price $1300 per ounce; copper price $4.00 per pound.

Mining Operations

The Kemess open pit is mined utilizing conventional open pit methods. The pit is mined on 15 metre benches. The final wall is designed with a combined single and double bench configuration. Material is loaded into Euclid R260 haul trucks using one of the two electric shovels or the hydraulic shovel. The ore is hauled to the primary crusher located at the mill. Waste rock and overburden is identified, hauled and deposited on dumps located within close proximity to the pit. All waste material identified as potentially acid generating ("PAG") or metal leaching potential is hauled and dumped in unique and controlled waste dumps within the proximity of the pit. Adequate auxiliary equipment is available to support the mining activities. The ore is hauled directly to a gyratory crusher and coarse ore stockpile area south of the pit. The crushed ore is fed to two semi-autogenous ("SAG") grinding mills, followed by two ball mills and one regrind mill. Flotation circuits are then used to produce a gold-copper-silver concentrate. Mill tailings are pumped through two 7,500 metres long, 66 cm diameter lines to the tailings facilities. Tailings dam construction is an ongoing project over the life of the mine, with monitoring and design work being performed by an independent engineering company.

The concentrate is trucked in bulk approximately 380 km via gravel road to a rail spur at Mackenzie, B.C. The concentrate is then loaded onto railcars and transported to the Horne Smelter in Quebec and more recently shipped to Asian smelters.

A summary of operations for the two years is shown in the table below:

100% production basis	**2010**	**2009**
Ore plus waste mined (tonnes)	38,045,427	30,292,285
Stripping ratio (waste/ore)	1.04	0.90
Tonnes milled (ore)	18,748,466	18,352,557
Average mill operating rate (tpd)	51,361	50,265
Gold grade (grams / tonne)	0.273	0.445
Copper grade (%)	0.126	0.161
Gold recovery (%)	61	66
Copper recovery (%)	78	81
Gold production (ounces)	100,790	173,040
Copper production (000's lbs)	40,666	52,496
Cash cost per ounce ($)[1]	363	348

[1] The Net cash cost of production per ounce of gold is calculated by subtracting the net by-product revenue derived from copper and silver from total site operating costs (including royalties) and dividing this amount by the number of ounces of gold contained in the concentrate produced.

In 2010, the Kemess mine posted gold and copper production of 100,790 ounces and 40.6 million pounds, respectively. For the fiscal year 2010, mining costs averaged C$1.13 per tonne moved compared with C$1.61 per tonne moved in 2009. For 2010, Kemess milled approximately 18.7 million tonnes of ore grading 0.273 g/t gold and 0.126% copper, and mill availability averaged 91%. For the full year, gold and copper recoveries were 61% and 78%, respectively, compared with 66% and 81% in 2009. Annual smelting and refining terms for 2011 are expected to settle at around $56 per dry metric tonne and 5.6¢ per pound of copper, with no price participation, and it is expected that Kemess concentrate will be processed on comparable terms. For the full year of 2010, the cash cost of production at Kemess averaged $363 per ounce.

The Kemess mine is forecast to produce 12,000 ounces of gold and 5.3 million pounds of copper during 2011 at a net cash cost of approximately $285 per ounce, net of copper by–product credits, calculated at a price of $4.00 per pound of copper and using an exchange rate of US$/C$ 1.00. The metal production forecast for 2011 is much lower than the 2010 metal production as the mine is shutting down in the first quarter of the year as a function of the exhaustion of reserves.

Environmental Matters, Reclamation and Closure

The Kemess mine is in compliance in all material respects with applicable provincial and federal environmental requirements. The Corporation regularly updates its estimates of future expenditures with respect to future site reclamation and closure costs.

As at December 31, 2010 the undiscounted provision for site closure and reclamation costs was C$40.8 million. Provisions for site closure and reclamation costs are based on known requirements. The exact nature of environmental control concerns, if any, that may be encountered in the future cannot be predicted with certainty, as environmental requirements currently established by government agencies may change. The expected site closure and reclamation costs are expected to be spent over a period of six years beginning in 2011. The credit-adjusted risk free rate at which the estimated future cash flows have been discounted is 5.33% and the inflation rate used to estimate future cost was 2.00%.

During 2002, Northgate and the Government of British Columbia amended the reclamation permit such that Northgate agreed to provide additional security installments of C$1,000,000 on December 31st of each year from 2003 to 2008, and a final amount of C$800,000 on December 31, 2009. The final installment was made in January 2010. As of December 31, 2010, Northgate has a security bond of C$18.6 million posted in connection with its reclamation permit for the Kemess mine.

Exploration and Development

Since Kemess South is at the end of its mine life, no capital expenditures will be made in 2011. No further exploration and development activities are contemplated.

Young-Davidson

On November 2, 2005, Northgate acquired 100% of Young-Davidson Mines Limited ("YDM"). Northgate owns 100% of the mineral rights to all of the mineral resource related claims at the Young-Davidson Mine (the "YD Mine") and the adjoining Matachewan Consolidated Mines Limited Mine (the "MCM Mine"). Northgate also holds the mineral rights to a large number of claims that are contiguous with the YD Mine and MCM Mine. The contiguous claim block that covers the YD Mine, the MCM Mine and the surrounding extensions, is hereinafter referred to as "Young-Davidson".

The disclosure set forth below with respect to Young-Davidson (defined below) is derived, in part from a technical report dated August 27, 2009 entitled "NI 43-101 Technical Report and Preliminary Feasibility Study on the Young-Davidson Property, Matachewan, Ontario" prepared by Gary Taylor, P.Eng., Carl Edmunds, M.Sc. P.Geo., Lionel Magumbe, P. Eng., Jay C. Melnyk, P.Eng. and Sheila E. Daniel, P.Geo. who are Qualified Persons and Consulting Engineers and Geologists with AMEC Americas Limited (AMEC) with the exception of Carl Edmunds who is Northgate's Exploration Manager and a Qualified Person and a technical report dated January 23, 2009 entitled "Technical Report for Underground and Open Pit Mineral Resource Estimates, Young-Davidson Property, Matachewan, Ontario" prepared by Carl Edmunds, M.Sc., P.Geo. The update for the open pit reserves was prepared by Jim Gray, P. Eng. Of GR Technical Services Ltd. Updates to the open pit reserves and resources are not the subject of a separate NI 43-101 Technical Report as the change is not of sufficient magnitude to require a new report.

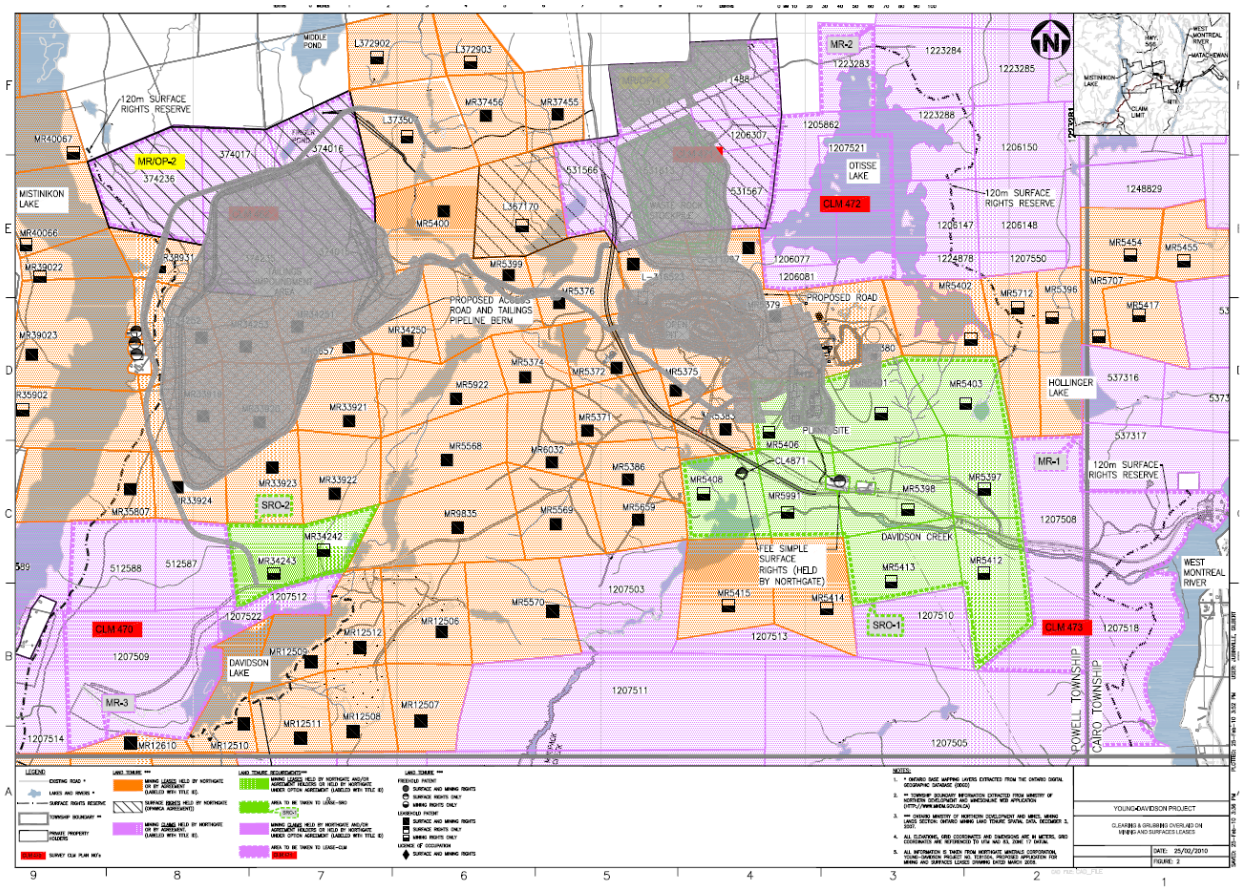
Property Description and Location

Young-Davidson is located immediately west of the village of Matachewan, Ontario, and approximately 60 miles west of the town of Kirkland Lake, Ontario. Young-Davidson is comprised of 173 tenures related to mining claims, mining leases, patents, and licenses of occupation that were acquired either through staking, application, or option agreements The project consists of 89 staked mining claims, 81 mining leases, two patented claims, and one license of occupation, covering approximately 729 ha of surface rights and 5,038 ha of mining rights. Collectively, it is subject to eight separate agreements with different obligations and royalties for each agreement. Based on the currently defined mineral reserves and resources the only royalties to apply are a sliding scale royalty held by Matachewan Consolidated Mines that relates to the eastern portion of the potential open pit and a small portion of the underground resource which together total approximately 600,000 tonnes and a per ton royalty held by the Welsh Estate that affects almost 400,000 tonnes. A more detailed description of these agreements is in section 4 of Young-Davidson Technical Report. Through these agreements and a separate agreement with Opawica Explorations Limited Northgate controls sufficient surface rights, or is in the process of applying for surface rights from the Government of Ontario, to cover the sites required for all project buildings and fixed installations, as well as the areas proposed for waste dumps and tailings disposal areas for the first eight years of the potential mine life. Northgate believes it can acquire the right to dispose of waste rock and tailings on additional areas of the property, if and when required. Northgate's land ownership and mineral tenures are registered with the Government of Ontario.

As the Young-Davidson project area was the site of two former producing gold mines there is existing surface disturbance in the form of old workings, building foundations and tailings sites. Although there is no clean up order on these sites Northgate is designing its infrastructure where possible to incorporate these sites so that they are remediated as part of the project closure plan.

Other than the statutory taxes which would be payable to the Ontario government in the event of commercial production, the Corporation is not aware of any rights, agreements or encumbrances to which the Young-Davidson property is subject, which would adversely affect the value of the property or

Northgate's ownership therein. Notwithstanding the above, the project is within the traditional territory of the Matachewan First Nation ("MFN") and the exploration and development of this property impacts the exercise of the aboriginal and treaty rights of the MFN. The Corporation entered into an Impact and Benefits Agreement with the MFN on July 2, 2009 and is negotiating with other potentially impacted First Nations.



Permits

In 2007 Northgate initiated advanced exploration activities at Young-Davidson authorized under the following approvals and authorizations:

1. Ministry of Northern Development and Mines - Mine Closure Plan with a corresponding financial assurance of $539,100.
2. Ministry of Environment – Certificate of Approval for Industrial Sewage Works for the discharge of mine effluent to the Montreal River.
3. Ministry of Environment - Permit to Take Water for dewatering MCM Mine workings.
4. Ministry of Natural Resources – Clearance letter for resumption of use of the mine dewatering pipeline in the Montreal River.
5. Department of Fisheries and Oceans – Clearance letter for installation and operation of the mine dewatering pipeline for discharge of mine effluent to the Montreal River.
6. Transport Canada – Clearance letter for installation of a mine dewatering pipeline in the Montreal River.

A more detailed description of the permits required or potentially required is incorporated in Section 4 of the Young-Davidson Technical Report.

Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Young-Davidson property is located in northern Ontario, Canada, centrally located between Timmins, Kirkland Lake, North Bay and Sudbury, each of which have businesses that service the mining industry. The property is accessed by paved Highway 566 five kilometers west of the town of Matachewan.

The daily average mean temperature in nearby Kirkland Lake, Ontario was 1.7°C. The extreme maximum recorded temperature is 38.9°C and the extreme minimum temperature -47°C. The average annual precipitation is 884 mm, comprising 590 mm as rainfall and 294 mm as snowfall. Given this climate, exploration and mining development activities can be carried out at all times of the year.

By reference to the Site Plan above and the Preliminary Assessment of the Young-Davidson Property dated April 1, 2008 filed on SEDAR, there is a sufficiency of surface rights for mining operations, availability of sources of power, water, mining personnel, potential tailings storage areas, potential waste disposal areas and potential processing plant sites. Electricity is provided from the provincial grid although the transmission line will have to be upgraded if commercial production is achieved.

The property is typical of northern Ontario with forest covered low rolling hills, small lakes and wetlands with numerous gravel roads providing access to all areas of the property. Average elevation on the property is 330 metres above sea level.

History

The initial discovery of gold in the project area was made by prospector Jake Davidson in 1916 on what became the Young-Davidson mine property. This sparked a staking rush that resulted in a second discovery by Samuel Otisse on what became the MCM Mine property. Surface prospecting, trenching and outcrop stripping continued intermittently for the next seventeen years on both properties. During this time a joint venture was established between Hollinger Corporation and YDM and underground mine production was initiated in 1934 and continued until 1957, over which time a total of 5.6 million tonnes were mined producing 585,690 ounces of gold (3.22 g/t recovered grade). Production from the MCM property over the period 1934-1954 totaled 3.2 million tonnes, 378,101 ounces of gold (3.67 g/t recovered grade). Following closure of the mines, the properties remained dormant until 1980 at which time Pamour Mines concluded option/joint venture agreements on both properties with the aim of establishing an open pit operation. Approximately 96,000 tonnes of ore were mined and trucked to the Pamour mill facility east of Timmins.

In 1995, Royal Oak Mines Inc., a successor company to Pamour initiated extensive diamond drilling to define an open pit resource, initiated shaft dewatering with a view to underground exploration, conducted shaft rehabilitation as well as engineering studies and environmental assessment studies with a view to re-opening the mines. Following the bankruptcy of Royal Oak Mines the property was dormant for several years before being acquired by a private company in 2000. This company undertook limited exploration and then in 2002 vended the asset into YDM, the same company that had discovered the property. YDM re-initiated exploration with 9,312 metres of drilling in 58 diamond drill holes

In late 2005, Northgate amalgamated with YDM through a Plan of Arrangement. Since that time, Northgate has proceeded with surface exploration, particularly diamond drilling, environmental and engineering studies and underground exploration and development.

Geological Setting

Young-Davidson is situated within the southwestern part of the Abitibi Greenstone Belt. The Abitibi Greenstone Belt consists of a complex and diverse array of volcanic, sedimentary, and plutonic rocks typically metamorphosed to greenschist facies grade, but locally attaining amphibolite facies grade. Volcanic rocks range in composition from rhyolitic to komatiitic and commonly occur as mafic to felsic

volcanic cycles. Sedimentary rocks consist of both chemical and clastic varieties and occur as both intravolcanic sequences and as uncomformably overlying sequences. A wide spectrum of mafic to felsic, pre-tectonic, syn-tectonic and post-tectonic intrusive rocks are present. All lithologies are cut by late, generally northeast-trending proterozoic diabase dikes.

The Abitibi Greenstone Belt rocks have undergone a complex sequence of deformation events ranging from early folding and faulting through later upright folding, faulting and ductile shearing resulting in the development of large, dominantly east-west trending, crustal-scale structures ("breaks") that form a lozenge-like pattern. The regional Larder Lake-Cadillac Fault Zone (LLCFZ) cuts across the Young-Davidson project area. The LLCFZ has a sub-vertical dip and generally strikes east-west. The LLCFZ is characterized by chlorite-talc-carbonate schist and the deformation Zone can be followed for over 120 miles from west of Kirkland Lake to Val d'Or.

There are three important groups of archean sedimentary rocks in the district. The oldest are Pontiac Group quartz greywacke and argillite, which occur as thick assemblages in Québec, while interbedded within the Larder Lake Group volcanic rocks are turbiditic siltstones and greywackes of the Porcupine Group. Unconformably overlying is Timiskiming Group Conglomerate, turbidite and iron formation with minor interbedded alkalic volcaniclastic units.

Archean intrusive rocks are numerous in the district but are largely manifested as small stocks, dikes and plugs of augite syenite, syenite and feldspar porphyry occurring in close temporal and spatial association with the distribution of Timiskiming Group sediments. The main syenite mass, which hosts most of the gold mineralization on Young-Davidson, measures almost 3,000 ft. east-west by 1,000 ft. north-south.

Huronian proterozoic sedimentary rocks onlap and define the southern limit of the Abitibi in Ontario. In the project area these rocks are correlative to the Gowganda Formation tillite. Post-Archean dike rocks include Matachewan diabase and younger Nipissing diabase, which respectively bracket the Huronian unconformity in the project area.

Exploration

Northgate acquired YDM in November 2005. Essentially, all of the significant exploration work completed on Young-Davidson since that time by Northgate has been surface or underground diamond drilling, and this is summarized in the next section. A complete accounting of all recent exploration work including geochemistry, geophysics, trenching and surface mapping is presented in Section 10 of the April 2008 Technical Report and Preliminary Assessment: "NI 43-101 Technical Report and Preliminary Assessment on the Young-Davidson Property, Matachewan, Canada".

Mineralization

Essentially all of the historical production at the YD Mine and approximately 60% of the production from the MCM Mine is from syenite-hosted gold mineralization (Lovell, 1967). Most of the current open pit and underground resources are also related to syenite-hosted gold. The syenite-hosted gold mineralization consists of a stockwork of quartz veinlets and narrow quartz veins, rarely greater than a few inches in thickness, situated within a broader halo of disseminated pyrite and potassic alteration. Visible gold is common in the narrower, glassy-textured quartz veinlets. In general, gold grades increase with quartz veinlet abundance, pyrite abundance, and alteration intensity. Mineralized areas are visually distinctive and are characterized by brick red to pink K-feldspar-rich syenite containing two to three percent disseminated pyrite and several orientations of quartz extension veinlets and veins. The quartz veins and veinlets commonly contain accessory carbonate, pyrite, and feldspar.

Drilling

Since the discovery of gold in the project area until October 14, 2008 (cut-off date for the resources reported in the Young-Davidson Technical Report) a total of 1,461surface and underground diamond drill holes have been completed totaling 275,985 metres. With the exception of the holes pre-dating 1980 (324 holes, 20,236 metres) all of the drill logs have been preserved. All holes have been plotted on historic records and these hole traces and assays have now been entered into the database. All holes since 1988 have been surveyed for their collar co-ordinates and it is assumed that all underground hole collars were surveyed as per industry practice at the time of production. Since 1980 all holes have been surveyed using a tropari instrument or acid test and since 2006 all Northgate holes have been surveyed using FLEXIT and/or a gyroscopic instrument in order to measure down hole deviation.

Underground drill holes were probably AQ core (27 mm diameter) as was the practice of the day, surface holes pre-dating Northgate were with one exception BQ core (36.5 mm diameter) and all holes by Northgate (and the one exception) have been NQ core (47.6 mm diameter) except where a reduction to BQ has been required to complete the hole in problematic ground conditions. Core recovery and rock quality designations (RQD) have not been noted in historic drill logs, however in all Northgate holes core recovery has been excellent and the RQD factor has been very high indicating very competent rock.

Sampling Method and Approach

Drill core is transported directly from the drill rigs to the secure core logging facility. Core is logged with geological information being recorded, including rock type, degree of alteration, estimated percentage of sulfide minerals and vein intensity. Zones of interest are marked out and assigned a sample number and assay tag stapled into the box as well as being inserted into the sample base. Most of the Northgate core has been split with a hydraulic splitter, with a small number of samples cut with a diamond bladed core saw. The majority of Northgate samples are 1.5 metres in core length and most of the historic samples are in five foot lengths. Assay procedures have not been well documented prior to 2003, but it is assumed that conventional crushing, pulverizing and classical fire assay techniques were used.

Sample Preparation, Analyses and Security

Prior to sample shipment Northgate has implemented a number of measures designed to maintain a high level of security at the core Logging facility, at the mine property and while the samples are in transit.
Upon arrival at the laboratories (either ALS Chemex or Swastika Laboratories) samples are logged into the laboratory tracking system and weighed. Each core sample is entirely crushed to better than 70% -2 mm (minus 10 mesh). A one kilogram split of each sample is then pulverized to better than 85% passing 75 micron (minus 150 mesh). A 250 gram duplicate split of crushed material is taken and pulverized. The prepared samples, certified reference material (CRM), and blanks are then sent to the analytical laboratory. Approximately 50 g aliquots are weighed for fire assay. Fire assay fusion was by lead flux with a silver collector, with an atomic absorption finish. Each sample was also submitted for a 34 element analysis, by aqua-regia acid digestion and ICP-AES. This process quantitatively dissolves base metals for the majority of geological materials. Major rock forming elements and more resistive metals are only partially dissolved. All sample batches were subjected to the laboratory's internal quality control procedures.

Quality Control and Quality Assurance

No information has been compiled that describes the quality control (QC) and quality assurance (QA) procedures for the pre-2003 drilling, however it is unlikely that blanks and CRM's were used as this did not become standard industry practice until the early 2000's. The main form of QA/QC would have been periodic re-assaying of anomalous samples with introduction of blanks in the early 1980's and 90's.

The Northgate QA/QC is documented in the technical documents filed on SEDAR for the 2006, 2007 and 2008 programs. In essence this amounted to four percent of the entire population of samples submitted for analysis, including blanks, standards, and duplicates. Additionally, about 15-20% of pulp replicates and 2.5% of reject duplicates were analyzed and incorporated into final assay grade to improve overall precision. The QA/QC data is monitored as the samples are being processed at the laboratories and where analytical problems are identified the laboratory is required to reanalyze the samples.

Based on this work Northgate has concluded that there are no contamination issues, analytical results are both accurate and precise (5% precision at the 1.7 g/t Au cut-off grade for replicate samples and 10% precision for the combined preparation and analytical processes). The data is therefore suitable for supporting resource and reserve estimation work in the opinion of the Qualified Person.

Data Verification

The project data base has been subject to verification or audit by Micon (2004), SWRPA (2006), AMEC (2008) and Northgate geologists (2006, 2007 and 2008) who have no direct involvement with the project. Collar co-ordinates, down hole survey tests and assay intervals have been verified against a variety of supporting documentation. Where errors have been identified these were corrected and procedures put in place to prevent re-occurrence and to expedite future data verification programs. In each case the third party audit has concluded that the database is valid and acceptable for supporting resource estimation work on the project.

Mineral Reserve and Resource Estimate

Northgate Qualified Person Carl Edmunds, with assistance from AMEC, prepared a resource estimate for the Young-Davidson project (Technical Report dated January 23, 2009) as follows:

Northgate built a block model, constrained by 3D mineralization and barren diabase wireframes, to estimate the resources. Northgate used a $750/oz gold price ($C806/oz), a 91.5% gold recovery, and a C$41.63/tonne underground operating cost to estimate a breakeven cut-off of approximately 1.7 g/t Au. A minimum horizontal thickness of approximately three meters and an incremental cut-off grade of approximately 1.3 g/t Au were used to define the resource mineralization intersections. The 1.3 g/t Au breakeven cut-off grade was used to constrain the resource wireframes. Some exceptions were made in order to preserve internal Zone continuity.

For Open Pit resources Northgate used a $750/oz (C$806/oz) gold price, a 91.5% gold recovery, and a C$17.90/tonne Open Pit operating cost to estimate a breakeven cut-off of approximately 0.6 g/t Au. A minimum true thickness of approximately 5 metres was employed in defining the mineralized drill intercepts.

Based on the resource block model, AMEC estimated reserves as shown in the Table below. The open pit mineral reserves have been estimated within a detailed pit design, which was based on a Lerchs-Grossman optimized pit shell generated using the cost and economic parameters shown in Footnote 1 of the Table below, a mining cost of $2.30/tonne of material mined and using inter-ramp pit slopes, which vary from 49 to 53 degrees depending on rock type and wall orientation. The cut-offs have been applied to a diluted block model and a 2% mining loss has been applied to the resulting ore tonnages.

The underground mineral reserves have been estimated within a detailed underground mine design based on the use of three bulk mining methods: 1) longhole shrinkage for 8 metre (“m”) to 40m thick ore zones at depth; 2) sublevel cave for the 20-m to 40 m wide near surface UBZ zone; and 3) sublevel longitudinal retreat for 5m to 10m wide zones. The stopes will be backfilled with unconsolidated waste rock from the open pit and development except for the longhole retreat stopes in the upper levels, which will be left open in combination with rib and sill pillars. The UBZ sublevel cave zone will be connected to the open pit and waste backfill will be added from the pit as this zone is mined.

Stope designs were developed according to the cut-off grade criteria and applicable mining methods. Internal dilution, below the cut-off grades, contained within the stope designs, is 5.1%. Mining recovery and external dilution factors were applied to the mineral resources contained within the stope shapes and varied by mining method, resource geometry and geotechnical considerations. The resulting average external dilution is 14.9%, for an overall internal and external dilution of 20%.

For open pit reserves, the following parameters were used: exchange rate Cdn$/US$1.00, gold price $1,200/oz, a 91.5% gold recovery and a Cdn$18.82/tonne open pit operating cost to estimate a breakeven cut-off of approximately 0.6 g/t gold. A minimum true thickness of approximately five metres was employed in defining the mineralized drill intercepts.

2010 MINERAL RESERVE ESTIMATE SUMMARY

Young-Davidson

Classification	Tonnage (tonnes)	Gold (g/t)	Gold (ozs)
Underground Proven[1]	3,469,000	3.22	359,000
Underground Probable	22,740,000	2.92	2,135,000
Open Pit Proven	3,793,000	1.60	195,000
Open Pit Probable[2]	2,388,000	1.69	130,000
Total	32,390,000	2.71	2,818,600

[1] Underground mineral reserves were estimated using an average long-term gold price of $725/oz (Cdn$853/oz). A 1.7 g/t gold cut-off grade was applied to the underground resource model for the sublevel cave and longhole shrinkage mining methods based on 15% dilution, mining costs of Cdn$21.74, process costs of Cdn$11.40, G&A costs of Cdn$2.75 and a gold recovery of 92.5%. A 2.3 g/t gold cut-off grade was applied to the longhole retreat mining method to account for the additional capital development and lower productivity of this mining method. The open pit gold cut-off considers ore-based operating costs of $12.11/tonne (processing and G&A), a gold recovery of 91%, a $0.68/tonne stockpile rehandle cost and royalty costs as appropriate. A 0.62 g/t cut-off was applied within royalty free claims, 0.68 g/t cut-off and 0.69 g/t cut-off applied to claims subject to royalty agreements.

[2] For open pit reserves, the following parameters were used: exchange rate Cdn$/US$1.00, gold price $1,200/oz, a 91.5% gold recovery and a Cdn$18.82/tonne open pit operating cost to estimate a breakeven cut-off of approximately 0.6 g/t gold. A minimum true thickness of approximately five metres was employed in defining the mineralized drill intercepts.

2010 MINERAL RESOURCE ESTIMATE SUMMARY

Classification	Tonnage (tonnes)	Gold (g/t)	Contained Gold (ozs)
Underground Indicated	132,000	3.08	13,100
Open Pit Inferred Resources	20,000	1.76	1,000
Underground Inferred Resources	5,950,000	3.40	650,000
Total Inferred Resources	5,970,000		651,000

Notes:

1. Assays are cut to 20 g/t gold and 20 g/t silver for all zones.
2. Mineral resources are estimated using an average long-term gold price of US $750 per ounce (C$806 per ounce).
3. Underground mineralized wireframes constructed based on approximately a 1.70 g/t Au cut-off grade, and a 1.3 g/t incremental cut-off grade and a minimum true thickness of three metres.
4. Open pit mineralized wireframes constructed based on approximately a 0.60 g/t Au cut-off grade, and a minimum true thickness five metres.
5. Resources are reported at a 2.3 internal cut-off grade.
6. Underground blocks are 15 m by 15 m by 7 m wide while open pit blocks are 5 m by 5 m by 5 m. Both block models have a percent mineralization field.
7. 3.0 m equal length composites created within the mineralized wireframes.
8. Inverse distance squared grade interpolation.
9. Standard search radii lengths and orientations employed for each mineralized lens.
10. A 2.69 specific gravity was used.
11. Maptek's Vulcan® 7.5 software was used.

Mine Development and Mine Plan

The open pit operation will have a three year life following a six month pre production period. Mining will be performed by a contractor using conventional methods on 5 m benches, using 8 m3 Front-End loaders (FEL), 55 t haul trucks, appropriately sized drills and support equipment.

A historical open stope exists at the east end of the proposed pit design. In order to remove the safety risks of working near an open stope, and to minimize dilution and mining loss, the stope will be filled with waste rock early in the mine life. The waste rock backfill will then be mined out as part of regular bench mining activities.

The open pit mining plan has been generated to feed the mill at a rate of 2.16 Mt/yr. The plan includes the use of a low grade stockpile so that the head grade is higher during the first two years of the project.

Approximately 13.5 Mt of waste rock will be generated by the open pit. Approximately 1.5 Mt of this material will be used for construction of the tailings dams and other infrastructure, with the remainder being placed in the waste dump to the north of the pit. This waste dump will be a temporary repository as the material will be required to backfill underground voids for geotechnical purposes. After the pit is exhausted, a raise will connect the underground development to the bottom of the open pit and an owner fleet will rehandle the waste rock from the ex-pit dump to the underground workings as required.

The underground deposit is located approximately 210 m to 1,500 m below surface. A new 6.5 m diameter shaft will be sunk to the east of the deposit to a depth of 1,500m and will provide for the hoisting of ore and waste and the supply of ventilation. The mine will also be accessed by a ramp, which will be extended to the bottom of the mine from the existing exploration ramp, currently at a depth of 460 m below surface. The mine design has taken into consideration the existing MCM #3 and the YD shafts and other existing openings for ventilation and early works.

The underground mine has been designed for low operating costs through the use of large modern equipment, gravity transport of ore and waste through raises, shaft hoisting, minimal ore and waste re-handling, high productivity bulk mining methods and unconsolidated waste rock backfill. The shrinkage mining method will be accessed by sublevels at 60m vertical intervals while the other methods will accessed by sublevels at 30m intervals. The mine will operate 20 mt scooptrams to load, haul and transfer stope production to the ore pass system from where it will be hoisted to the surface via 18 mt skips. Waste rock for mine backfill will be distributed underground by gravity through a waste pass system extending from surface through to the lower levels and hauled to the stopes by 20 mt scooptrams.

The underground will have a mine life of 13 years at a production rate of 2.16 Mt/yr (6,000 t/d). Production from the underground mine will be phased in during year three as the pit becomes exhausted. For the last 12 years of the projected mine life, mill feed will be provided exclusively from the underground mine.

The preproduction development requirements comprise 1,500 m of shaft, 20,670 m of lateral and 5,170 m of raises. Lateral development during operations will average approximately 7,500 m/yr including capital, operating and ore categories for the first eight years of the underground mine operation. In the last three years of the underground mine life, the development requirements drop off sharply as the mine is close to being fully developed.

The average underground personnel requirements are estimated to be 190 persons. The mine will operate seven days a week with two 11 hour shifts per day working a four days on and four days off schedule. The mine will be owner operated with only diamond drilling and raising being contracted.

Metallurgy and Processing

The metallurgical testwork programs considered for this phase were completed in 2008 and early 2009 at SGS Lakefield. Results of these tests provided the data used for the design criteria.

The tests were conducted on samples from 32 holes selected across the mineralization from which five zone composites and a master composite were prepared. Flowsheet optimization was conducted on the master composite. Once the metallurgical parameters were optimized, the five zone composite and 32 individual samples were tested used for variability testing.

The grinding characteristics of the design mineralized material, an equal mixture of UBZ, LBZ and Pit Zone material as combined material for pilot plant feed gives an average Bond Work Index (BWI) of 15.6 kWh/t at 100 mesh (106µm) of grind. The selected six zone samples work index ranged from 14.7 to 18.3 kWh/t or an average of 16.5 kWh/t. Most samples tested fell in the medium to hard range of hardness with respect to impact breakage and Bond rod mill / ball mill grindability work indices while there was one waste sample which fell in the very hard range of hardness. All samples have been classified as abrasive or very abrasive.

The gravity recoverable gold was determined to be about 25% of the gold contained in the composite sample tested when cleaning of the primary centrifugal concentrator product on a Mozley table was completed to a target 0.05% weight recovery of the initial feed material.

The metallurgical test programs support the selection of single stage autogenous grinding (AG) circuit with a gravity circuit followed by flotation. The flotation concentrate is to be further ground and leached in a conventional carbon-in-leach (CIL). The flotation tailings will also be leached in a CIL circuit. The gold will be recovered from the carbon followed by electro-winning and pouring doré bars.

A gold recovery of 92.5% is indicated for the head grade of the samples on which the test work was performed and is the basis for the pre-feasibility phase.

The combined leach tailings were used for the cyanide destruction testwork. The YD CIL tailings is amenable to the SO_2/Air cyanide destruction method.

Cost Estimates and Financial Analysis

Capital and operating costs below are in Canadian dollars unless otherwise stated. AMEC estimated the operating costs as follows:

- Mining – Open-pit: C$3.09/t mined
- Mining – Underground: C$20.74/t mill feed
- Milling: C$10.20/t mill feed
- G&A: C$2.65/t mill feed

Capital costs were estimated at C$531 M (C$344 M for pre-production capital and C$187 M for sustaining capital).

The financial analysis of the base case (USD$725/oz gold price, an exchange rate of USD$/CDN$0.85 and a discount rate of 5%), showed the pre-tax project Net Present Value (NPV) to be C$275 M and the internal rate of return (IRR) to be 13.2%, and the post-tax project NPV and IRR of C$183 M and 11.1% respectively. The cumulative post-tax undiscounted cash flow value for the project is C$475 M and the payback period is 6.4 years. The project is most sensitive to metal prices and head grade, and less sensitive to currency exchange rate, operating and capital costs.

The results of the economic analysis represent forward-looking information that are subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented here. Factors and assumptions that may change include the following:

- Ability to obtain permits and approvals.
- Sourcing equipment in a timely manner.
- Obtaining skilled labour force and contractors.
- Operating costs and capital costs estimates.

Exploration and Development

2010 exploration included 20,700 m of drilling directed at a number of target areas and a number of geophysical surveys across key parts of the geology. A key target area was the east and west flanks of the Young-Davidson deposit as currently defined. A second target area was the surface resources around the historic workings. Further drilling tested geological and geophysical targets generated through the geophysical surveys and geological interpretation.

The most significant result of this drilling was hole YD10-198, located west of the Young-Davidson orebody that intersected 3.46 grams per tonne gold over 79.5 metres with an estimated true thickness of 53.5m. This is a new gold zone west of the currently defined reserves and resources that is postulated to be the faulted offset extension of the current orebody. Hole YD10-198 is one of the highest grade-thickness intervals intersected to date on the property. This zone is open up, down dip and to the west. Subsequent to the year end assay results were received for more holes drilled in 2010 that intersected the same zone. Hole YD10-198A: located approximately 60 m west and below discovery hole YD10-198, returned 6.16 g/t uncut over 21.3 m (estimated 14.2 m true thickness).Hole YD10-234: located approximately 50 m east and slightly below hole YD10-198, returned 4.37 g/t over 17.8 m (estimated 9.5 m true thickness). A part of the zone in this hole was cut off by a post-mineral diabase dyke. These two holes have returned higher grades than the average resource grade at Young-Davidson and confirm the fault offset model relating the YD West zone to the main Young-Davidson deposit, although the zone appears to have very limited up dip extent

Fosterville

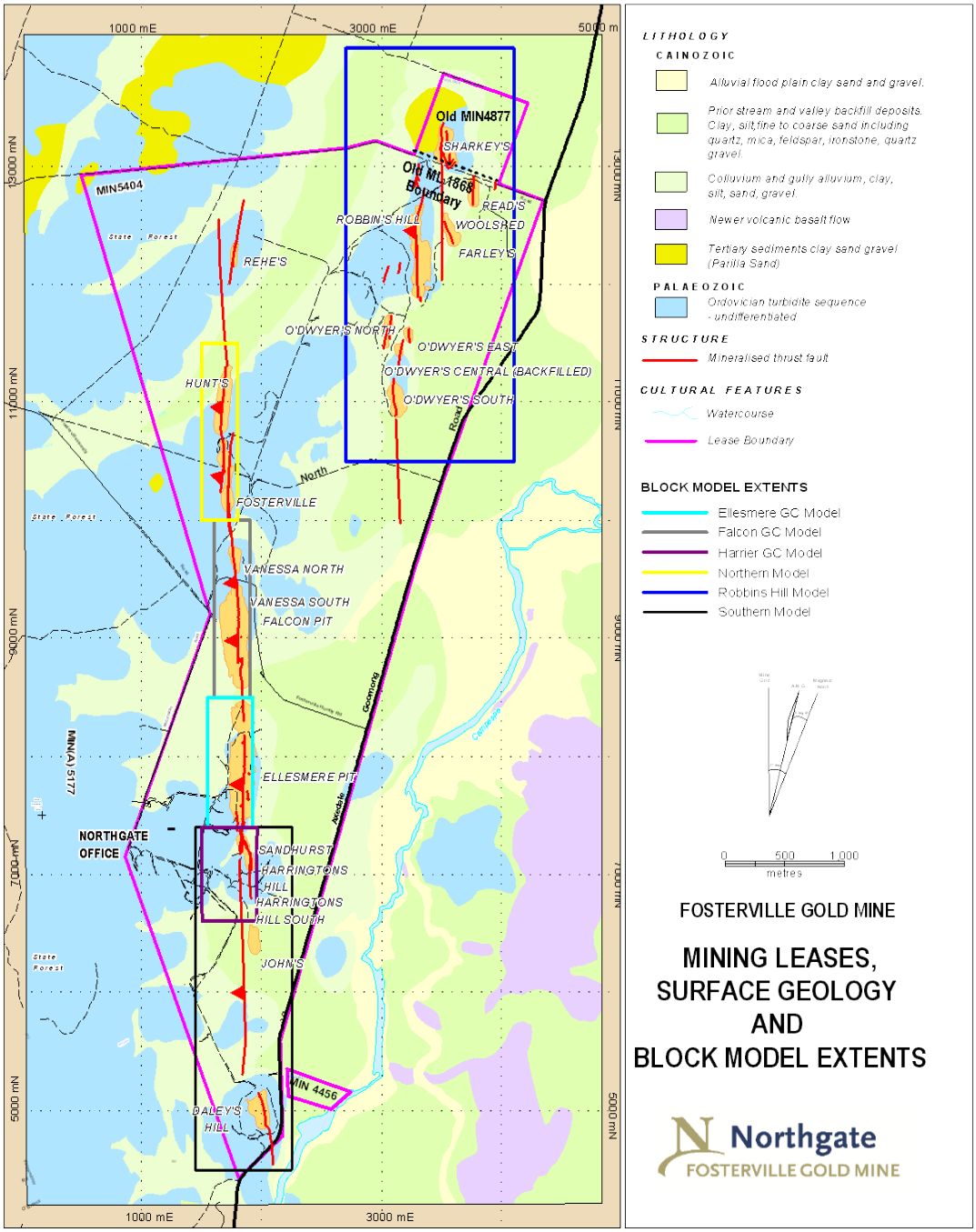
The disclosure set forth below with respect to Fosterville (defined below) is derived, in part, from a technical report dated March 25, 2008 entitled "Technical Report on Fosterville Gold Mine, Victoria, Australia", prepared by Simon Hitchman, MAus IMM, District Exploration Geologist, Brad Evans, MAus IMM, consulting Mining Engineer and Ian Holland, MAus IMM, Principal Mine Geologist, each of whom is a Qualified Person (the "Fosterville Technical Report"). Reserve information as of December 31, 2010 for Fosterville was prepared by Ion Hann, Mine Underground Superintendent Fosterville, and a Qualified Person. CIL tailings retreatment information was prepared by Marcus Binks, Processing Manager, Fosterville, and a Qualified Person. Resource estimates as of December 31, 2010 were prepared by Simon Hitchman and Paul Napier, Senior Mine Geologist.

Property Description and Location

The Fosterville Gold Mine is located approximately 20 kilometres north-east of the city of Bendigo, and 130 kilometres north of Melbourne in Victoria, Australia. Bendigo is a historic gold mining centre which is estimated to have produced 22 million ounces of gold following the first discoveries in 1851. The Fosterville Gold Mine and all associated infrastructure, including the tailings dam, are located on Mining Lease 5404 ("ML 5404"), which is 100% owned by Perseverance. MIN5404 was initially granted as ML1868 on 24th August 1990. The licence later merged with adjoining lease MIN4877, resulting in MIN5404, which has a total area 17.03 km^2, and is due to expire on 24th August 2020. There is however a right of renewal upon expiry of the lease. MIN5404 is located at centroid coordinates 276,599.72E and 5935,134.9N using Map Grid of Australia Zone 55 (GDA94) coordinate projection (or 144^o 29' 56.9" longitude and 36 ^{o} 42' 11.6" latitude). Northgate also holds title through Perseverance of six surrounding exploration licences totalling 1,437 km^2. These exploration licences encompass the entire known strike extent of the Fosterville Goldfield. In Victoria, exploration licences are renewable annually subject to adequate exploration expenditure.

Within ML 5404, there is a 2.5% gold royalty payable to New Holland Mining Ltd, now Nu Energy Capital Limited for the area outlined by MIN4877 in the north eastern portion of ML 5404. Furthermore, the royalty agreement extends north and south of ML 5404 where previously existing tenement EL3211 (New Holland Mining) overlaps with EL3539 (Perseverance). This royalty does not affect current reserves and only affects a portion of the resources on the north part of the mining lease.

Fosterville's undiscounted rehabilitation liability is A$6,408,897. The environmental bond is currently set at A$5,282,000 and is reviewed annually with the Department of Primary Industries in Victoria. Rehabilitation is undertaken progressively at the Fosterville Gold Mine but the environmental bond is only reduced on establishment of the rehabilitation which is not considered to have occurred until at least 5 years after rehabilitation has occurred.



Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Fosterville Gold Mine has ready access via two separate sealed roads and a variety of all weather un-sealed roads linking to regional highways. The regional centre of Bendigo, 20 km away, has a population of 95,000 people which provides a source of skilled labour. With a gold mining history that dates back to the 19th century the area is also well serviced by mining equipment suppliers, contractors and consultants to the mining industry. The area has a Mediterranean climate with hot, dry summers and cool winters.

Mean annual maximum temperature is 20.8°C and the mean annual minimum temperature is 7.6°C with mean annual rainfall of 482 mm.

Power is supplied to the site via a terminal station that was constructed by Perseverance in 2005. This station is connected to the 220kV transmission line that runs from Bendigo to Shepparton, which traverses the southern end of ML 5404, approximately 1.5 kilometres south of the processing plant. There is a connection agreement in place with SP Ausnet, who manage the transmission and distribution network. To improve the security of water supply, an agreement is in place for the supply of waste water from the Bendigo sewerage treatment facility. A pipeline was commissioned in April 2005, which has the capacity to provide approximately 2000 ML annually which comfortably exceeds the current plant usage of approximately 1000 ML per annum. The agreement was for an initial 10 year term with two options of a further 10 years each on written request.

The Fosterville area is flat to very gently undulating with a range of low, rolling hills about two kilometres to the west and the Campaspe River about 2 kilometres to the east. On ML 5404, natural surface elevations range from 150 to 185 metres above sea level (5150RL to 5185RL mine grid). Vegetation in the area ranges from native forest to established grazing pasture.

History

Gold was first discovered in the Fosterville area in 1894 with activity continuing until 1903 for a total of 28,000 ounces of production. Mining in this era was confined to near-surface oxide material. Aside from a minor tailings retreatment in the 1930's, the field lay dormant until the 1988 when Bendigo Gold Associates again recommenced gold production at Fosterville from the reprocessing of tailings. By 1989 this program had come to an end and exploration for oxide resources commenced. The leases were then acquired by Brunswick who continued exploration and in 1991 started heap leaching ore derived from shallow oxide open pits. After six months of production, Brunswick went into receivership as a result of the failure of another operation. Perseverance bought the operation from the receivers and continued the oxide heap leach operations. Perseverance continued to produce between 25,000 to 35,000 ounces per annum until the cessation of the oxide mining in 2001. Between 1988 and 2001, a total of 240,000 ounces of gold were poured.

In 2001, Perseverance underwent a significant recapitalisation and the focus of the company changed to developing the sulphide resource. A feasibility study investigating a combined open pit and underground mining operation feeding 0.8 million tonnes per annum ("Mtpa") of sulphide ore to a BIOX processing plant was completed in 2003. Work on the plant and open pit mining commenced in early 2004. Commercial sulphide hosted gold production commenced in April 2005 and up to the end of December 2007 had produced 263,900 ounces of gold. Underground development commenced in March 2006 with first production recorded in September 2006.

On October 28, 2007, Perseverance announced that it had entered into an agreement whereby Northgate would acquire the company via a scheme of arrangement. The arrangement was subsequently ratified by Perseverance's securityholders, and full ownership passed to Northgate in February of 2008.

Geological Setting

The Fosterville Goldfield is located in the Bendigo Zone of the Lachlan Fold Belt. The host rock lithologies in this Zone are dominated by a sequence of folded and faulted Ordovician turbidites which were subsequently deformed in the Late Ordovician (450-430 Ma) Benambran Orogeny. The sediment pile was deformed under east-west compression resulting in the formation of north-south folds. As this process continued and fold limbs steepened, a series of west-dipping reverse faults progressively developed. This generation of faults is interpreted to have a listric geometry and were likely conduits for ascending mineralized fluids.

There are two broad periods of gold mineralization indicated by radiogenic dating across the western Lachlan Fold Belt. The first of these is associated with quartz vein hosted mineralization and is concentrated from 425 - 400 Ma. This period and style of mineralization extended from Stawell in the west to Bendigo - Wattle Gully in the east.

The Bendigo Zone was intruded by two granitic suites during the early Devonian and again in the late Devonian. These events appear linked to the second phase of mineralization which occurred between 380 - 365 Ma and extended from Ballarat in the west to the Woods Point -Walhalla belt in the east. The Fosterville mineralization appears to have formed during this phase. Mineralization from this second phase can manifest in a range of styles from quartz-carbonate vein hosted free gold through to sulphide hosted refractory gold in association with arsenopyrite, pyrite and stibnite

The Fosterville Goldfield is hosted by a turbiditic sequence of interbedded sandstones, siltstones and shales interpreted as having formed through a regime of meandering submarine channels. The sequence is dominated by shale topped sands ranging from 0.2 to 1.5 metres thick, with lesser amounts of massive sandstone, shale and black shale. The sequence was metamorphosed to sub-greenschist facies and folded into a set of upright, open to closed folds. This folding resulted in the formation of an axial planar and radial cleavage, best developed in fold hinges. It also resulted in the development of bedding parallel laminated quartz veins, preferentially forming in shales at or close to the contact with sandstone units. These laminated quartz veins are visually similar to those that carry free gold at Bendigo, however at Fosterville they are effectively unmineralized. Mineralization at Fosterville is controlled by a series of late brittle faults which are often bedding parallel and follow pre-existing laminated quartz vein, however they do also crosscut bedding to link bedding parallel faults across folds. They are generally steeply west dipping reverse faults with a series of moderately dipping reverse splay faults formed in the footwall of the main fault. The splay faults are generally confined to the Zone within 100 metres east of the main fault. In the current mining areas in the Central Area, the main fault is the Fosterville Fault with the Phoenix Fault being the most important splay fault in terms of identified mineralization.

Exploration

Modern exploration commenced at Fosterville during the 1970s with two different companies holding the ground and drilling a total of six diamond drill holes. From 1987 to 1991 Bendigo Gold Associates and later Brunswick drilled 488 RC holes and 6 HQ diamond holes targeting oxide mineralization on the Fosterville Fault and the Robbins Hill area. This program resulted in the development of a Heap Leach operation which commenced in 1991. Brunswick also completed 100 metres by 20 metres soil Geochemistry grid across the project area and as far west as the Sugarloaf Range. The soil Geochemistry was very effective at defining gold mineralization except where alluvial cover exceeded about two metres. Two preliminary IP lines were completed with mixed results.

On acquiring the Fosterville mining lease in 1992, Perseverance started RC drilling for further oxide resources and reserves using a combination of cross over and face sampling hammers. In late 1994, while continuing to explore for oxide mineralization, Perseverance began to drill for sulphide mineralization on the Fosterville Fault potentially amenable to open cut mining. This drilling was almost entirely RC using a face sampling hammer with minor diamond drilling for metallurgical and geotechnical purposes and extended from 6000mN to 10700mN. Most of the drilling was completed by 1997 with minor infill drilling continuing to 1999. This drilling programme was generally restricted to within 100 metres of surface, extending to a vertical depth of 150 metres below surface in the Central North area, reflecting the perceived limits of open cut mining. The data from this drilling program formed the basis of the 1997 Sulphide Project Feasibility Study which was later updated in 2000.

Two deep diamond holes, SPD7 and SPD8 were also drilled. SPD7 was drilled beneath the Central Ellesmere pit and intersected 53.8 metres @ 1.97 g/t Au terminating in mineralization from 382.0 metres, while SPD8 was drilled to 450.0 metres below Central North intersecting only 2.0 metres @ 0.58 g/t Au on a splay fault some 60 metres to the east of the Fosterville Fault.

The current drilling program on the Fosterville Fault Zone commenced in July 2001 and is ongoing. For the majority of this period, the surface drilling activities have been conducted by Silver City Drilling Pty Ltd (drilling contractor) and the underground drilling activities have been conducted by Deepcore Pty Ltd (drilling contractor). Resource definition holes are usually drilled with RC pre-collars and NQ2 diamond tails. The sectional spacing ranges from 200 meters to 50 metres with the vertical spacing of intersections usually 50 metres.

A small number of RC only holes have been drilled where the target was shallow and exploratory. Once definitive targets were defined by this type of drilling, the drilling methods changed to the those used for resource definition drilling described above.

The change in drilling methods to largely oriented diamond core, intensive re-mapping of old oxide pits and a change in logging methods to collect detailed grain size data allowing sequence stratigraphic analysis allowed much more detailed and robust geological models. These geological models allowed a better understanding of the controls on gold mineralisation which in turn resulted in the better targeting and more efficient use of drilling.

The post-2001 exploration has resulted in the discovery and definition of the Phoenix, Wirrawilla and Farley's deep zones. In addition the Falcon, Ellesmere and Harrier zones have been extensively extended. Modest additions to resources have been made at the Daley's Hill, Sharkey's and Hunts deposits.

Two further IP surveys were completed in 2001 and 2005. The 2001 survey consisted of four lines of 50 metre nodes over the central area. This survey was designed to define gold mineralisation at depths of between 50 to 250 metres. The data was inverted to make a model in real space. Anomalies were defined along the Fosterville Fault zone, but the 50 metre node spacing meant that the survey resolution was unable to distinguish the carbonaceous shale in the hanging wall of the Fosterville Fault from mineralisation in the footwall of the Fosterville Fault. In 2005 another four IP lines were completed across the northern end of the Fosterville Goldfield, covering the Sugarloaf geochemical anomaly, the Fosterville Fault Zone and the Robbin's Hill area. This survey defined weak anomalies over the Sugarloaf geochemical anomaly and the strike projection of the Fosterville Fault Zone north of ML 5404.

The 2008 surface diamond drilling program tested the characteristics and extent of resources of the Wirrawilla (now renamed as Harrier UG) and Phoenix resource areas. Thirty six holes totalling 16,159 metres were completed with 13,864 metres in Harrier UG area and 2,295 metres in the Phoenix area.

The program resulted in the discovery of extensions to three north striking west dipping areas of gold mineralization within the Harrier UG area: the Osprey; Raptor; and, Harrier Base Fault zones. The zones are situated 1.7 km south of the current Phoenix ore body and are interpreted to be at a slightly higher stratigraphic level down plunge of the Harrier open-pit ore body, which was mined in 2007.

The 2009 exploration program consisted of an additional 24,347 metres of drilling that served as the basis for a Harrier resource estimate using a 3.0 g/t Au lower cut-off.

Indicated Resource	2.0 Mt @ 5.6 g/t (357 K oz gold)
Inferred Resource	1.8 Mt @ 5.4 g/t (320K oz gold)

The resource model was then subjected to mine design criteria and economic analysis in order to derive reserves for the project. Based on the Indicated Resources only this resulted in a reserve estimate as follows:

Probable Reserves	1.2 Mt @ 4.1 g/t (159K oz gold)

Additional exploration drilling in 2009 consisted of 6,633 metres of drilling on Phoenix Extension, 1,051 metres on other targets on the Fosterville Mining Lease as well as 1,695 metres in 10 holes on the Myrtle Creek prospect (EL3539) south of the Fosterville mine.

The 2010 exploration program consisted of 76,500 metres of drilling the large majority of which was directed towards the Harrier (45%) and Phoenix (36%) zones with exploration to extend the zones and infill drilling to upgrade the confidence of the resource prior to reserve estimation. The balance of the exploration was directed to other targets on the Mine Lease and a small amount of drilling was undertaken on the exploration tenements surrounding the Mine Lease.

Mineralization

Gold mineralization at Fosterville is relatively homogenous with only one deposit type present. There are minor variations in the host rock type and structural setting. Fosterville type deposits form a sub-group of orogenic gold deposits that are typified by gold occurring in fine grained arsenopyrite and / or pyrite disseminated in country rocks as a selvage to faults or veins. Fosterville-type deposits and classic vein-hosted deposits are effectively end members with many orogenic gold deposits displaying features of both. Primary mineralization at Fosterville is controlled by late brittle faulting. These late brittle faults are generally steeply west dipping reverse faults with a series of moderately west dipping reverse splay faults formed in the footwall of the main fault. Primary gold mineralization occurs as disseminated arsenopyrite and pyrite forming as a selvage to veins in a quartz – carbonate veinlet stockwork. The mineralization is structurally controlled with high grade zones localised by the geometric relationship between bedding and faulting. Mineralised shoots are typically 4 to 15 metres thick, 50 to 150 metres up / down dip and 300 to 1500 metres+ down plunge. These sulphide bodies are the primary target for exploration activities, especially where there is potential for grades in excess of 3 g/t Au (i.e. above likely underground cut-off grades).

Primary gold mineralization at Fosterville occurs as disseminated arsenopyrite and pyrite forming as a selvage to veins in a quartz – carbonate veinlet stockwork which is in turn controlled by the late brittle faults. The arsenopyrite occurs as fine grained (0.05 to 1 mm), acicular needles with no preferred orientation. The disseminated pyrite associated with gold mineralization occurs as crystalline pyritohedrons 0.1 to 2 mm in size. Electron microprobe analyses and metallurgical testwork indicates that the arsenopyrite contains 100 ppm Au to 1000 ppm Au and the auriferous pyrite 10 ppm Au to 100 ppm Au. Approximately 80% of the gold occurs in arsenopyrite, with the remaining 20% hosted by pyrite. Silver grades are low at Fosterville, usually about one tenth of the gold grade. Framboidal aggregates and laminations of pyrite up to 20mm are common, especially in black shale units. The framboidal pyrite is diagenetic and is not auriferous.

Antimony mineralization occurs as very coarse grained overgrowths of stibnite up to 20 centimetres across replacing late quartz - carbonate veins. The stibnite appears to contain 1 ppm Au to 10 ppm Au, however there is usually a high grade (15 g/t Au to 40 g/t Au) arsenopyrite and pyrite mineralization occurring as a selvage to the quartz - stibnite veins. Antimony mineralization appears to be restricted to splay faults.

The quartz – carbonate veinlet stockwork comprises a network of tension gash type quartz –carbonate veinlets which have formed perpendicular to the walls of the brittle faults and quartz – carbonate veinlets formed on minor slip planes parallel to the brittle faults. Further movement on the minor slip planes offsets the tension gash veinlets giving rise to a range of geometries from planar through to highly erratic. The quartz – carbonate veinlets are barren but have selvages of disseminated, fine grained arsenopyrite – pyrite. Where the stockwork is well developed, mineralization selvages merge forming a solid body of mineralization. On the margins of the stockwork the mineralization occurs as a discrete selvage about 10 times the width of the veinlet on which it is centred.

Drilling and Geological Data Collection

The current drilling programme on the Fosterville Fault Zone commenced in July 2001 and is ongoing. For the majority of this period, the surface drilling activities have been conducted by Silver City Drilling Pty Ltd (drilling contractor) and the underground drilling activities have been conducted by Deepcore Pty Ltd (drilling contractor). The SPD holes were drilled with RC pre-collars and NQ2 diamond tails. The

diamond tails commenced at least 20 metres before the hanging wall fault so that all mineralization was intersected by the diamond tail. The RC pre-collars were generally 150 metres to 200 metres deep and the diamond drilling was double tube wireline drilling. In addition, 15 wedges have been drilled from 10 parent holes. Collar locations are surveyed by a mine using a Total Station survey instrument resulting in +/- accuracy of 1 cm.

The direction of the RC pre-collars was controlled to some degree by the use of a stabilizer rod, the relative size of the bit compared to the rods and by the weight on the hammer. In general, holes shallower than 70° tended to lift, whereas holes steeper than 75° tended to drop. With experience deviation in the pre-collar was restricted to less than 1° in 100 metres. Directional navi drilling was occasionally used to keep holes on target where the RC pre-collar deviated significantly. Down hole surveys were carried out using a single shot Eastman camera at 25 metre intervals in the pre-collars (every 50 metres inside the rods as the hole was drilled and the intervening 25 metre intervals open hole after the pre-collar was completed) and at 30 metre intervals in the diamond tails. As a check on the validity of the single shot surveys six holes were surveyed at 6 metre intervals using an EMS (electronic multi-shot) tool The drill hole traces are currently calculated using the 'semi tangent' de-surveying algorithm in Minesight software. This method is suitable for deeper RC holes, which have more than 2 downhole surveys. The 'fit-spine' algorithm was previously used because it dealt well with RC holes that have only one or two surveys near the top of the hole and also because this algorithm was used historically at Fosterville.

The NQ2 diamond core has generally been drilled using 6 metre core barrels. The core was oriented using a spear about every 30 metres. Approximately 50% of the core was able to be directly oriented from the spear marks, the orientation of about another 45% of the core was inferred using a reference plane (either bedding or cleavage) whilst the remaining 5% or so was unable to be oriented. Two new core orientation devices were tested on about 30 holes during the last quarter of 2002. The systems tested were the ezimark and ballmark systems, both of which should give an orientation every run, although due to broken ground this is usually more like every third run. The ballmark system was chosen due to better repeatability between runs and has been used routinely since the beginning of 2003.

All of the RC pre-collars were sampled as four metre composites of 6.25% splits from a riffle splitter. However, mineralised portions of drill holes were later riffle split to one metre lengths to better define gold mineralization. Sampling of RC pre-collar holes after May 2004 was changed such that two metre composite samples were exclusively conducted throughout all drill programs. Sieved chips from the RC pre-collars were logged in two metre intervals for Lithology, weathering, alteration, % quartz, colour and recovery. The information was entered directly in the field into a hand held computer (IPAQ) and downloaded to the database. The downloading procedure has in built checks to prevent interval overlap, range checking etc. After downloading the entire log is printed for hand plotting and as a hard copy record.

Diamond drill core is roughly oriented at the rig by the drillers before transport to the core shed. At the core shed the core is washed, oriented, digitally photographed, recovery and RQD measured, geologically logged, marked for sampling, sampled and samples dispatched. Geotechnical Logging occurs on an as needs basis. The remaining core is stored in the core farm behind the core shed. The geological Logging involves directly entering observations on sediment grain size, Lithology, planar and linear structural observations (as alpha, beta and gamma), mineralization, alteration and quartz veining into a hand held computer. In addition, sample numbers are also recorded into the hand held computer. When Logging is complete the hand held computer is downloaded into the database with the usual automated error checking, a list of samples printed as a cutting sheet and the entire log printed for hand plotting and as a hard copy record.

Based on drilling results, interpretations are made in cross-section and level plan to interpret the true thickness of the mineralised Zones with geological solids subsequently generated from these interpretations.

Sampling and Analysis

From the acquisition of the project by Perseverance in 1992 through to the present, all RC drilling through mineralization has been collected at one metre intervals and sampled as two metre composite samples. Prior to 1995, samples were collected using 'spear' sampling. Since 1995, all RC holes have been sampled using a riffle splitter split to either 12.5% or 6.25% depending on the hole diameter. After 1996, if the sample was unable to be kept dry the hole was finished with an NQ diamond tail. In the central area, spear samples comprise16% of all mineralised samples and 28% of all mineralised RC samples. All RC holes were completely sampled.

In the diamond drill core, all visible sulphide mineralization, quartz vein stockworks and laminated quartz veins plus at least two metres of apparent waste either side was sampled. Samples were cut to geological boundaries and within a length range of 0.3 metres to 2.0 metres, with a preferred length of 1.0 metres. The core was halved along the plane of orientation using a diamond saw and the upper half of the core dispatched for analysis and the lower half returned to the core tray in its original orientation. The PQ core was sampled by cutting a sliver equivalent in volume to NQ2 core from the top of the core. recovery of diamond drill core is acceptable with >98% recorded for the drill holes incorporated into the Central Area resource models.

In underground sampling, an attempt is made to sample every round (4 metre nominal advance) in the ore drives where safe to do so. Sample intervals are chosen based on Lithology, alteration and mineralization, and are a minimum of 0.3 metres and a maximum of 1.5 metres in length. Mapping data that was collected at the same time as the samples is used to validate the sample results.

A program of duplicate sampling was undertaken on the Phoenix 5020 level in 2007, where a field duplicate was taken for every sample collected. The results for 174 pairs of samples show reasonable repeatability with an R^2 of 0.803. This study covered the underground face sampling method used throughout the mine since ore driving commenced in late 2006 and the area represented typical Geology in terms of mineralization and geometry. On this basis, it is reasonable to apply this level of confidence to all of the face sampling included in the Central Area resource models.

The elements important to the Fosterville metallurgical oxidation process are Au, S and Sb in decreasing importance. Arsenic is modelled for environmental reasons. NCC (non-carbonate carbon) is of importance in the CIL stage as graphite is preg-robbing of gold in solution.

All of the gold analyses used in the sulphide resource model in the 2000 Sulphide Feasibility Study were fire assays of a 40g charge carried out by ALS at Bendigo, a commercial laboratory (non-accredited). The other elements were analysed by a variety of techniques at a variety of laboratories. A full program of repeats, standards and inter-laboratory check sampling was conducted on the gold analyses.

For the 2001 – 2004 NQ2 SPD diamond drilling campaign, gold analyses were determined by fire assay of a 40g charge by AMDEL in Adelaide, a commercial laboratory (ISO 9001 accredited). A 30 element suite including As, S and Sb was analysed by ICP-AES from a separate 5g charge following HNO3 / HF digestion. From November 2002 to August 2003 TGC (total graphitic carbon) was analysed on a selective basis. A full program of repeats, standards and inter-laboratory check sampling was conducted on the gold analyses.

Since 2005, On Site Laboratory Services (OSL), a commercial laboratory based in Bendigo, was the primary provider of analytical services to the project. The OSL Bendigo laboratory is currently not accredited, however it is working towards ISO 9001 accreditation which is anticipated to be in place by April 2008. Following sample drying, OSL use a combined crusher and mill to pulverise the entire sample to a nominal 95% passing 75µm. A 25 g subsample is analysed for gold by fire assay with an AAS finish. A 0.5 g sub-sample of the pulp is digested in a HNO3 / HCl digest and then analysed for Ag, As, Bi, Ca, Cu, Fe, K, Sb and S by ICP-AES. A full program of repeats, standards and inter-laboratory check sampling was conducted on the gold analyses.

An audit of the OSL facility was completed for Perseverance by an external consultant during 2007. This audit found that OSL's procedures were adequate and presented no major risk to the resource estimate.

There were areas for improvement identified with the following corrective actions taken during the second half of 2007:

1. Temperature variation within the drying oven is now being measured and recorded.
2. Sizing analysis for all pulps is now being conducted and recorded.
3. Calibration of scales is now being recorded and documented.

Sample and Data Security

Samples are bagged and numbered either on site at the drill rig or at the on-site core handling facility. Samples sent to laboratories outside Bendigo were sealed in bags in lots of about 10 and sent using commercial freight companies with tracking systems. On arrival at the laboratory the samples received are matched to the "sent list". Analytical laboratories have operated in Bendigo during the periods 1992 – 2000 and 2005 to present. During these periods individual samples from the drill rig or core shed have been placed in a container within the mine security gate and collected daily by laboratory staff. Again, the laboratory staff matched the samples received to the "sent list" provided by the Corporation and confirm these by either fax or email.

Work undertaken by employees of the Corporation was limited to core logging and the mark-up, cutting and bagging of samples. All other sample preparation and analysis was conducted off-site at commercial laboratories. Data security is ensured through the use of an 'Acquire / SQL Server' database of all of the Corporation's exploration drilling information. This database includes all assays, geological and geotechnical information. As well as data interrogation, the database allows automated error checking as new data is entered. The database is backed up to tape incrementally daily and fully weekly. Access to the database is controlled by user login permissions and the Acquire software.

Mineral Resources and Reserves

Mineral resource and reserves estimates were prepared as part of the Fosterville Technical Report by Simon Hitchman, MAusIMM, Ian Holland MAusIMM and Brad Evans MAusIMM, each of whom are Qualified Persons. Messrs Hitchman and Holland are employees of the Corporation and serve as District Exploration Geologist and Principal Mine Geologist Fosterville mine, respectively. Mr Evans is a consulting Mining Engineer for Mining Plus Pty Ltd of Perth and until Jan 2008 was the Senior Mining Engineer for the Fosterville Gold Mine. Mr Evans is an independent Qualified Person. 2010 Reserve information for Fosterville was prepared by Ion Hann, Underground Superintendent Fosterville, and a Qualified Person. CIL tailings retreatment information was prepared by Marcus Binks, Processing Manager, Fosterville, and a Qualified Person. Qualified Persons for 2010 Mineral Resources are Paul Napier for the Central/Harrier zones and Simon Hitchman for the Southern/Northern/Robbins Hill zones:

Mineral Reserves - Fosterville									
Classification	Proven			Probable			Total		
	Tonnes	Grade	Insitu Gold	Tonnes	Grade	Insitu Gold	Tonnes	Grade	Insitu Gold
	(kt)	(g/t Au)	(kOz)	(kt)	(g/t Au)	(kOz)	(kt)	(g/t Au)	(kOz)
Underground									
Phoenix 4515 Rl & above	162	4.86	25	679	4.90	107	841	4.89	132
Phoenix 4515 Rl to 4395	0	0.00	0	417	4.82	65	417	4.82	65
Ellesmere	39	5.24	7	87	3.89	11	126	4.31	18
Harrier	0	0.00	0	1,376	4.10	182	1,376	4.10	182
Surface									
Harrier + Johns	0	0.00	0	101	2.48	8	101	2.48	8
Tailings									
CIL	244	9.06	71	0	0.00	0	244	9.06	71
Total	446	7.19	103	2,659	4.35	372	3,105	4.76	475

Notes

Cut-off grade applied was variable for underground ore depending on width, mining method and ground conditions.

Dilution of 5%-30% and mining recovery of 70%-100% were applied depending upon mining method. CIL tailings are stated as contained ounces - 30% recovery is expected. Recoveries are based on lab and plant test work and operating experience.

Mineral Resources - Fosterville										
Classification		Measured			Indicated			Inferred		
		Tonnes (kt)	Grade (g/t Au)	Insitu Gold (kOz)	Tonnes (kt)	Grade (g/t Au)	Insitu Gold (kOz)	Tonnes (kt)	Grade (g/t Au)	Insitu Gold (kOz)
Fosterville Fault Zone Sulphide Resources										
Central Area	Upper	1,857	2.46	147	128	1.79	7	0	0.00	0
	Lower	0	0.00	0	814	4.99	131	1,403	4.58	207
Southern Area	Upper	307	1.87	18	506	2.34	38	839	2.09	56
	Lower	0	0.00	0	0	0.00	0	496	4.90	78
Harrier Area	Upper	0	0.00	0	0	0.00	0	0	0.00	0
	Lower	0	0.00	0	689	4.37	97	1,004	5.17	167
Northern Area	Upper	157	2.47	12	85	1.60	4	7	1.27	0
	Lower	0	0.00	0	0	0.00	0	0	0.00	0
Robbin's Hill Area Sulphide Resources										
Combined	Upper	0	0.00	0	2,245	1.69	122	1,009	1.56	51
	Lower	0	0.00	0	52	3.68	6	141	3.33	15
Sulphide Upper		2,321	2.38	178	2,964	1.80	172	1,854	1.80	107
Sulphide Lower		0	0.00	0	1,556	4.67	234	3,044	4.77	467
Total Sulphide		2,321	2.38	178	4,520	2.79	405	4,898	3.64	574
Total Oxide		424	1.25	17	1,796	1.11	64	525	1.35	23
Total Oxide & Sulphide		2,745	2.21	195	6,316	2.31	469	5,423	3.42	597

Notes:

1. Mineral resources are being reported exclusive of mineral reserves.
2. The cut-off grades applied are 0.5 g/t Au for oxide, 1 g/t Au for near-surface sulphide (above 5050mRL) and 3 g/t Au for underground sulphide (below 5050mRL).
3. Mineral resources have been rounded to 1,000 tonnes, 0.01 g/t Au and 1,000 ounces. Minor discrepancies in summation may occur due to rounding.
4. Reserves have been estimated using a gold price of A$1,165/oz and resources at A$1,250/oz.

Fosterville is forecast to produce 97,000 to 102,000 ounces of gold in 2011. The previous three years production is listed below.

	2010	**2009**	**2008**
Ore mined (tonnes)	729,080	780,195	511,542
Tonnes milled (ore)	817,535	781,879	540,725
Gold grade (grams / tonne)	4.57	4.79	5.39
Gold recovery (%)	82	85	70
Gold production (ounces)	100,441	103,360	66,959
Cash cost per ounce ($)	738	576	831

Mining Operations

Since the completion of the Harrier Open Cut mine in early December 2007, the sole source of ore has been the underground operations. The underground mine commenced declining in March 2006 and with production first recorded in September 2006. Development and stoping have commenced in the Falcon and Phoenix ore bodies with development in the Ellesmere and Kink ore bodies. The Phoenix ore body is being mined using open stoping methods – longitudinal retreat in areas <10 metres in width and transverse where the width exceeds 10 metres. The Falcon ore body is being mined by a modified longitudinal sublevel caving method with oxide from surface being drawn down to support and confine

the hanging wall. The Ellesmere and Kink ore bodies are mined by longitudinal retreat open stoping. In all cases, the planned levels are 20 metres apart vertically.

Mining is conducted using a conventional fleet including jumbos, production drills, loaders, trucks and ancillary equipment.

The processing path for the ore involves conventional crushing and grinding followed by flotation, bacterial oxidation and carbon-in-leach circuits. The bacterial oxidation process uses BIOX technology, operated under licence from Goldfields. The processing capacity is approximately 1 Mtpa.

Exploration and Development

Capital expenditures at Fosterville in 2011 are forecast to total $10.8 million, including $9.0 million for new mobile equipment and $0.8 million for an underground pump station. Mine development capital and resource definition drilling costs are forecast to be $27.3 million. Approximately 75% of this amount will be allocated to the development of the decline towards the Harrier Underground and the balance primarily allocated to the ongoing development of the Phoenix orebody.

Exploration expenditures in 2011 are forecast to be $3.8 million. The entire exploration program is focused on Mine Lease. Half of the program will be directed to Resource Conversion, and a further 45% will be directed toward on mine lease exploration targets with the balance on regional exploration. The primary target areas are Phoenix Deeps, the down plunge extension of the main ore body at Fosterville, and extensions to the Harrier UG deposit to the north and south.

Stawell

The disclosure set forth below with respect to Stawell (defined below) is derived, in part, from a technical report dated October 21, 2008 entitled "Revised Mineral Resource and Mineral Reserves as at June 30, 2008 Stawell Gold Mines, Victoria, Australia" prepared by Dean Fredericksen, MAus IMM, Consulting Geologist, Glen Miller MAus IMM Technical Superintendent and Tamer Dincer, MAus IMM, Principal Consultant Mining Engineer, each of whom is a Qualified Person (the "Stawell Technical Report"). Reserve estimates as of December 31, 2010 were prepared by Austin Hemphill Mine Technical Superintendent and resource estimates were prepared by Mark Haydon, Geology Manager a member of the Australasian Institute of Mining and Metallurgy and a Qualified Person.

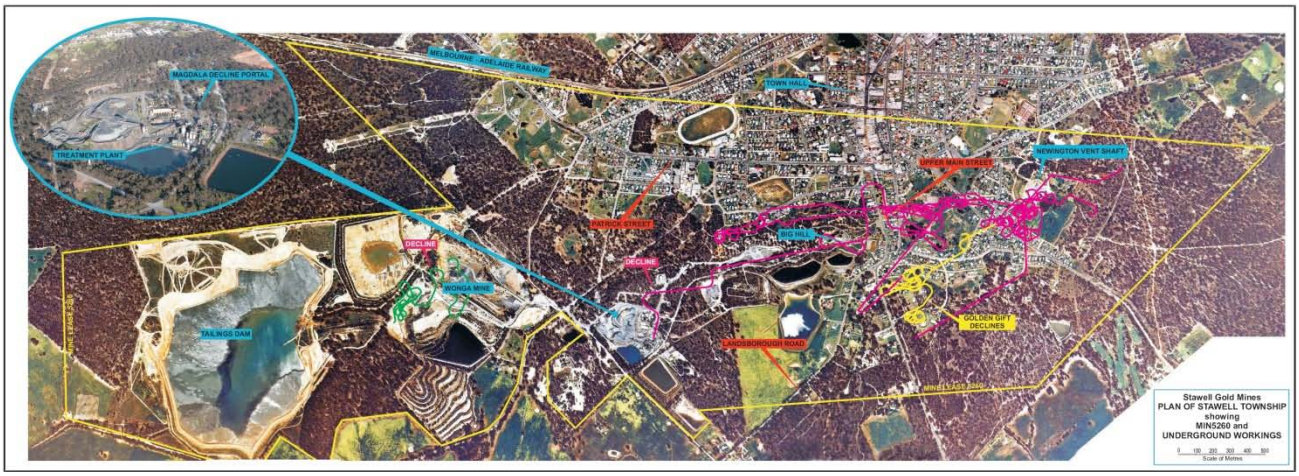
Property Description and Location

The Stawell Gold Mine is located in the State of Victoria, 250 km northwest of Melbourne and two km from the township of Stawell. Stawell is a rural township of approximately 6500 people and is within the Northern Grampians Shire.

The mine's principal approval is its Mining Lease ("ML 5260") issued by the Victorian State Government under the *Mineral Resources Sustainable Development Act* 1990. This approval was first issued on the 31st May 1985 as ML 1219 and has been amended on at least six occasions since as a result of approved Work Plan variations. The current mining licence approval is active until 2020.

ML 5260 (centroid coordinates of 142.80° E and 37.06° S, GDA94) encompasses both the Magdala and Wonga mines and is located both under and around the township of Stawell with an area of 1000.58 Ha The mining lease is comprised of private and crown land including designated crown land reserves. Designated crown land reserves require particular consideration in accordance with the *Mineral Resources Development Act* 1990 and *National Parks (Box Ironbark and Other Parks) Act* 2002.

Within ML 5260 there is an A$2.00 per Au ounce royalty payable to Mineral Ventures of Australia (MVA). This royalty agreement came into place in February of 2004 and is in place until the earlier of 15 year of production or 2.5 million ounces of gold. Furthermore this royalty agreement extends to Victorian tenements held by Leviathan Resources Ltd. (now a wholly-owned subsidiary of Northgate) which included ML 5260.



Plan showing the location of ML 5260, Stawell Gold Mines operational infrastructure.

Stawell's undiscounted rehabilitation liability is A$6,687,332. An environmental bond for the project of A$4,547,738 is lodged with the Department of Primary Industries in Victoria. Rehabilitation for the project is ongoing and the Corporation's wholly-owned subsidiary, Stawell Gold Mines Pty Ltd ("SGM"), has entered into a cooperative research project with the University of Melbourne to conduct rehabilitation trials to prepare the rehabilitation program for eventual closure of the operations. Other than the rehabilitation bond the project is not subject to any other environmental liabilities.

SGM's principal approval, ML 5260, is the applicable "right to mine" title over this land and is current to 2020. Attached to this title are a series of licence conditions that must be met and are the controlling conditions upon which an annual Work Plan and Work Plan variations are filed with the regulatory authority.

SGM management reviews applicable regulatory requirements on an ongoing basis. SGM currently holds and maintains all statutory approvals required to conduct its mining operations.

Accessibility, Climate, Local Resources, Infrastructure and Physiography

SGM is easily accessible from Melbourne as it is only 250 km away via the Western Highway. Access closer to the mine site is provided through a network of sealed bitumen government roads. Roads within the mine site are unsealed and regularly maintained. The main Melbourne to Adelaide rail line passes through the town of Stawell, which is also serviced by a local sealed airfield.

The town of Stawell is located within the southern part of the Wimmera where the climate is described as semi-arid, allowing for exploration and mining activities all year round. Since 1996, Stawell has recorded an annual daily average temperature of 20.5°C. An extreme maximum of 43.6°C was recorded on the 25th of January, 2003, and an extreme minimum of 3.7°C on the 4th of August 1997. Mean annual rainfall is 480.2 millimetres with 70 days per year on average recorded as having rain.

SGM has been in operation for over 20 years, developing a highly experienced workforce. Many contractors, also having a long association with the mine, are available in the township of Stawell and surrounding regions. Due to the mines close location to the town of Stawell many facilities are available. Within the township is a police station, hospital, schools and shops. Mains Electricity and water is also accessible.

SGM's facilities are extensive and representative of a modern gold mining operation. On the surface facilities include the gold processing plant, offices, core shed, laboratory and workshops. Larger infrastructure onsite includes a tailings dam, covering 96 Ha and receiving 100% of gold tailings from the processing plant. Three freshwater dams occur throughout the mine lease. The mine purchases electric power under a three year contract from Origin Energy Australia that expires in 2011. Water supply is from harvested rainfall runoff, dewatering, recycling of process water from the tailings facility and by way of a 60ML/month water right entitlement from Lake Bellfield located in the Grampians Mountains. The capacity of the site water storages is approximately 690 ML. The Lake Bellfield water is potable and is preferentially used in the processing operations as it improves gold recovery.

The area surrounding Stawell is made up of flat to gently undulating farmland with the Grampians Mountain range and National Park 20 km to the southwest. Close to the centre of Stawell is Big Hill, the town's highest point at a height of 303.6 metres above mean sea level. Stawell Gold mine is situated on the southern slope of Big Hill. Parts of the area adjacent to the mine are covered by Iron bark forest.

History

Stawell is a historic goldfield that produced 2.7M ounces of gold between 1853 and 1926 from both alluvial and hard rock sources. There was little mining activity in the Stawell area from 1926 to 11th March 1976 when Western Mining Company (WMC) Resources Ltd was granted an exploration licence over the Stawell Goldfield. In 1981 Stawell Gold Mine was reopened by the WMC/Central Norseman Gold joint venture with commencement of the Magdala decline. By 1984 the operation had expanded with the construction of a processing facility and subsequent commencement of an open cut operation at the Wonga mine (2 km south of Magdala). A number of historical tailing dumps were retreated during this period. Towards the end of mining of the Wonga open cut (1987) the Davis open cut operation was commenced. The Davis open cut exploited the oxide material on up dip projection of the Magdala deposit. The Wonga Open Cut operated from 1984 to 1987 and produced 778,847 tonnes recovering 69,159 ounces of gold. The Davis Open Cut operated from 1987 to 1989 and produced 154,525 tonnes for 8,992 recovered ounces of gold.

In December 1992 the operation was acquired in a 50/50 joint venture by Mining Project Investors ("MPI") Pty Ltd and Pittson Mineral Ventures ("Pittson"). At this stage the Magdala decline was approximately at 410mRL, while the Wonga decline was at 180-200mRL. With the acquisition there was a clear direction to increase expenditure on resource definition drilling and near mine exploration. The joint venture continued until 2004 during which time there was a record of continued exploration success with discovery of additional mineralized deposits that were subsequently mined.

In February 2004 MPI acquired Pittson's 50% share of the project. Exploration continued in the Golden Gift area during 2004 with the commencement of the Golden Gift South surface exploration program. In November 2004 a de-merger of the MPI gold business came into effect, and Leviathan Resources Ltd. was floated in December 2004. The resource drilling into the Golden Gift initially identified seven area of mineralization offset from each other due to late faulting. Conversion of these areas of mineralization into ore blocks wasn't universal but was successful in a majority of cases. The further drilling of the fault blocks also identified other mineralised surfaces previously unknown due to the faulted nature of the Golden Gift. From the increased geological understanding of the Golden Gift deposit, it was clear in the mine planning process that two declines were required, the GG5 and GG3 declines, to access the ore zones for continuity of supply.

In January 2007 Perseverance acquired Leviathan Resources Ltd. Perseverance was acquired by Northgate on the 18th of February, 2008.

Geological Setting

The Stawell Goldfield is located in the western Stawell Zone of the Lachlan Fold Belt. The Stawell Zone is a belt of predominantly deformed meta-sedimentary rocks representing the lower parts of the Cambro Ordovician Lachlan Fold Belt stratigraphy bound to the west by the Moyston Fault and to the east by the Coongee Break. Interpretations from the Victorian Geological Survey present a thin skinned tectonics model where the Moyston Fault is an east dipping basal detachment which has juxtaposed higher metamorphic grade rocks of the Stawell Zone against lower grade Cambrian rocks of the Delamarian Glenelg Zone. The west dipping Stawell Fault, Coongee Break and other parallel west dipping faults represent back thrusts from the Moyston Fault. These back thrusts have progressively emplaced deeper stratigraphy against shallower stratigraphy with a generally west over east sense. An apparent anomaly in this sequence is the presence of deeper magnetic stratigraphy in the Stawell Wildwood corridor leading to the interpretation that the Pleasant Creek Fault, to the west of the Stawell Fault, actually dips east and has an east over west sense similar to the Moyston Fault. The Stawell Wildwood corridor therefore represents a significant structural high in an up thrown block of deeper stratigraphy between the Coongee Break and Pleasant Creek Fault.

There are three separate ore bodies defined at Stawell; the Magdala, Golden Gift and Wonga. All have differing characteristics but the same local Geology is relevant to the genesis of them all. The stratigraphy at Stawell is divided into three principal units the Magdala Basalt and two sedimentary units, the lower finer grained clastic sediment unit named the Albion Formation and the overlying coarser grained sandier Leviathan Formation. Intruded into this sequence are the Stawell Granite and a number of felsic and mafic intrusions. The Leviathan and Albion Formations are not segregated by the mine or exploration geologists at Stawell Gold Mine and are referred to by the local name of 'mineschist'.

Exploration

Significant exploration progress and successes that has been made over the life of the Stawell project including the discovery of the current mineral resources and mineral reserves. Current exploration initiatives apart from ongoing resource definition and grade control diamond drilling adjacent to the known mineralization in Golden Gift and Magdala has focused on testing the extent of the Golden Gift mineralization resulting in the discovery of the Golden Gift 6 (GG6) in 2008. The location of the GG6 targets are essentially the projection of the Basalt surface south of GG5, GG5 Lower and GG6 as currently defined from current diamond drilling. Exploration in 2011 will focus on three principal targets, the Northgate Gift, the Wonga Gift and GG6L that are described more fully under the Exploration and Development section

Mineralization

There are three different ore bodies at Stawell, being Magdala, Golden Gift and Wonga. Each of the differing ore and mineralization types are summarized below. Both the Magdala and Golden Gift ore types are hosted within the Magdala volcanogenic. Within the Magdala deposit there are three main ore types; Central Lode, Basalt Contact Lodes, and Magdala Stockwork Lodes. Central lode mineralization was a significant production source from Magdala early in the mine history. It is a quartz rich shear lode ranging from 0.5 to 10 metres in width and generally dips 55 - 65° to the west with a total strike length of four km and a down dip extend of one km. The overall structure is mineralised economic shoots vary from 20 – 30 metres in strike up to 200 – 350 metres in strike. Free gold in the quartz is associated with pyrite, arsenopyrite and recrystallised pyrrhotite. Average mined grade for Central Lode is 4-7 g/t Au.

Basalt contact lodes are located parallel to the Magdala Basalt and in 'waterloo' or reentrant positions. They are typically 2 metres wide and are represented by arrays of quartz sulphide tension veins immediately adjacent to the volcanogenic Basalt contacts. Sulphides include pyrrhotite, arsenopyrite and

pyrite and occur as alteration selvages on tension vein margins. The main alteration mineral is stilpnomalane, resulting in its dark colour. The mineralization is isolated to the Magdala Volcanogenic package with none present in the adjacent Magdala Basalt. Ore shoot lengths range between 50 and 450 metres. The average mined grade for Basalt Contact Lodes is 4 – 9 g/t Au.

The Magdala stockwork lodes are situated above major basalt noses and can be described as a hybrid between central and basalt contact lodes. They consist of large quartz tension vein arrays with arsenopyrite and pyrrhotite dominant sulphide mineralization. The strike extent is limited to 40 – 50 metres and limited vertically 30 – 50 metres. Average mined grade for Magdala Stockwork Lodes is 4 – 7 g/t Au.

Unlike the Magdala deposit there is only one identifiable ore type in the Golden Gift and this is termed the Golden Gift Stockworks. Though there is only one discernable ore type in the Golden Gift, the Golden Gift Stockworks contain a spectrum of all Magdala styles. Typical widths range from 8-12 metres up to 30 metres and the strike extents of shoots range between 150 and 400 metres. Areas of highest grades and largest widths are situated above major basalt noses which are present in most ore bodies. Quartz content is generally below 25%. Mineralization includes abundant recystallised pyrrhotite and coarse grained arsenopyrite, pyrite and visible gold. Average mined grade is 4 – 10 g/t Au.

The Wonga deposit is hosted within the locally termed Wonga Schist that is part of the Leviathan Formation along two main fault systems. The Wonga Schist has undergone contact metamorphism during the emplacement of the Stawell Granite and undergone three ductile deformation events similar to other areas of the Stawell region. The two fault systems controlling the mineralization are the hanging wall structure which, strikes towards 350° and dips between 25° and 50° towards the east, and the Link structures which generally trend toward 240° and dip between 40° and 70° to the southeast. The mineralization is represented by arsenopyrite disseminations to quartz veins within these structures. The main ore minerals present are anhedral fine grained pyrrhotite and arsenopyrite. The higher grade ore Zones often show andalusite sericite alteration with rutile and ilmenite associations Production grades from 4 – 6 g/t Au were common for Wonga ore.

Drilling

As expected for a mine that has been in continuous operation as long as Stawell Gold Mine there have been a number of drilling methods employed the details of which are in the Stawell Technical Report. The data base of drilling information consists of over 848 kilometres of drilling 74% of which is based on underground drilling, 22% of which is surface diamond drilling and 4% of which is surface RC drilling.

Geological information is captured in a systematic manner that is well defined and documented and has undergone a process of continuous improvement over the years and is at or above industry standard. The diamond drill contract personnel provide a daily record of drilling activities for all drill rigs. Data from the daily record sheet is entered daily to a site database for tracking of drilling production and to enable tracking of drilling progress and interrogation of the database at a later date.

Geological personnel track the drill hole path and maintain in control of the daily activities of all drill rigs including which drillers were responsible for various sections of the hole should there be issues with core presentation or down hole depths that require clarification. A regime of regular rig audits and inspections are also used to assist with maintaining the high level of core presentation and sample quality. These drill records are kept indefinitely enabling review of drill hole information many years after completion of drilling.

All survey control for the underground drill programs is established by the mine's survey personnel. Survey control points are maintained in the underground decline by survey personnel and these locations provide the control for all mark out and pick up surveying that is conducted in the underground environment. On conclusion of drilling and hole grouting diamond drilling personnel will insert wooden wedge labelled with the drill hole ID into the collar of the hole. This provides permanent identification of

the drill hole collar to ensure matching of surveying information to the correct drill hole collars. The collar survey information is entered in the database by data managers.

Down hole survey control is managed by utilising down hole cameras to survey the drill hole path. Electronic single shot instruments (REFLEX® and RANGER® tools) have progressively been used in preference to the Eastman® mechanical cameras since 2002 at Stawell and the vast majority of the down hole surveys of diamond drill holes that are utilised in the estimation of the Mineral Resource estimate have been made with Electronic single shot cameras. Some of the deeper surface diamond drill holes have been surveyed using a North Seeking Gyro instrument. Down hole survey instruments routinely measure azimuth relative to magnetic north and declination (dip) relative to the horizontal. A correction is applied to convert Magnetic North to Grid North. Several quality control and quality assurance processes are in place to ensure that appropriate survey (down hole and collar) information is stored to the database. Apart from the Database Managers checklist a review sheet for the down hole survey information is provided to the responsible geologists such that this information can be validated and where required adjustments made to the survey information. For longer drill hole traces the survey information is plotted to provide a graphical review of the information method is utilised where adjustments to the survey information can be made using the overall trend of the drill hole trace.

Sampling and Analysis

All diamond drill core is delivered to the Stawell Gold mines core processing facility by the diamond drill contractor. Diamond drill core is washed to remove grease and individual core trays photographed in a light controlled installation prior to laying out on benches ready for Logging by the site geologists. As part of the standard geological procedures all core collected from diamond drill holes are photographed and a complete record of digital core photographs is available to assist in the geological interpretation

All diamond drill core is logged by the site geological teams using a standardised Logging legend. The data is captured electronically at the point of collection using a barcode Logging "Datcol" software system. This system was developed on site in the mid 1990's and has remained the standard process since that time with the key tables for Lithology, alteration, and structure and geotechnical information are populated during the Logging process. During the Logging process any lost core is estimated and logged as lost core with a specific start and end interval. During the Logging process the geologist will mark up the intervals of core for sampling. Not all diamond core is sampled. Historical sampling has identified the key lithological and structural units that will host mineralization and the selection of units for sampling follows specific protocols for each Lithology and structural setting with the median sample size being one metre in length. For exploration drill holes all samples are cut in half with a core saw with the un-sampled portion retained in storage on site. For resource definition drilling one in five drill holes are sampled with a core saw, all other holes are sampled as whole core.

During the life of the Stawell Gold Mines a number of commercial laboratories have been utilised for routine assaying of diamond drill core and RC samples. A sample preparation flowsheet was developed in 1995 and has been in operation for all Stawell Gold Mines diamond core and RC samples since that time. During the period 1995 to 2004 all sample preparation was conducted by the various commercial assay laboratory facilities. In 2004 it was decided by site personnel to complete this task on site at the Stawell Gold Mines laboratory facility. The sample preparation follows the same process utilising modern sample preparation equipment.

- Primary Crushing to 75% passing 2.0 mm using a Boyd Crusher
- Splitting using a vibrating feed cone splitter
- Pulverising to 95% passing 75um using Labtechnics LM5 pulverising mills

By retaining responsibility for this work through the existing site based facility, Stawell Gold Mine has flexibility in sending the pulps only to a variety of assaying laboratories and also retain the coarse rejects on site for ongoing metallurgical test work programs.

All assaying for gold that is utilised in the Mineral Resource estimates have been completed by Fire Assay method (30 – 50g charge weights) with AAS finish. The onsite facility has in place a range of checks and resulting actions are in place to monitor the data set as set out in the QA/QC flowsheet. The analysis of the QA/QC data indicates that there is an overall negative bias of 3% for the year 2007. In the opinion of the Qualified Person the quality control procedures in place at Stawell Gold Mines including check assays, insertion of Standard reference materials and the results of corrective actions for the data sets utilised to estimate mineral resources are to a standard that provides quality assays for the estimation of mineral resources. All the mine's drilling data is stored within the "acQuire" Database Management System. The database operates in an SQL Server framework and data security is established by having various levels of user access rights. Stawell Gold Mine maintains a security access system where loading and manipulation of data is only conducted by one of two data managers. All geological personnel have access to the database for read only purposes. Appropriate systems are also in place validate the data on an ongoing basis.

Security of Samples

Security of drill core and samples is managed by maintaining records throughout the complete process from drilling, core processing, Logging, sampling, sample preparation and assaying through to return of results. Key record keeping utilised in managing sample and data security are:

- Daily drilling records are entered to the database which provide records of drill core produced.
- Core is photographed within 24 hours of being delivered to the core processing facility.
- The Stawell Gold Mines sample processing facility is located on the Mine Lease within a security fenced area. All core stored here is only able to be accessed by Stawell Gold Mine's personnel.
- At the conclusion of Logging a sample requisition sheet is generated listing sample umbers, assay standard insertion and assay requirements. This is loaded directly to the acQuire database enabling tracking of samples after this process.
- Personnel are trained in appropriate procedures for Logging and sampling of the diamond drill core and generate an Analytical Request sheet outlining sample ID and assay requirements.
- The production of carefully labelled sample pulps for dispatch by registered postal service.

The pulps are sent from the prep laboratory to the assay laboratories using registered post. Consignments travelling by registered post are required to be signed off by each leg of the postage route on arrival and can be tracked online. The assay laboratories are also required to send a statement informing Stawell Gold Mine that the pulps have arrived and that the samples as detailed on the analytical request sheet can be accounted for.

Mineral Resources and Mining Reserves

Mineral resources and mineral reserves are classified in accordance with NI 43-101 disclosure rules. The practice adopted at Stawell uses general guidelines for classification that utilise the following information.

- Drilling Density
- Stage of development – Ore Development and final data gathering in place
- Demonstrated geological continuity of structure and mineralised domains
- Slope of regression of the estimate (calculated value during the Kriging Process)

The classification as applied to the mineral resources disclosed in this document have been reviewed in detail on an area by area basis and are considered to be appropriate and within the guidelines as per the CIM Definition Standards on mineral resources and mineral reserves.

Mineral resources and mineral reserves for the Stawell ore bodies are combined together into a single detailed database containing all relevant information for individual mineral resource and mineral reserve areas.

Stawell Gold Mines Reserve and Resource Statement, as at end December 2010

		Mineral Resources exclusive of Mineral Reserve					
		Indicated			Inferred		
		tonnes (000's)	grade g Au/t	ounces (,000's)	tonnes (000's)	grade g Au/t	ounces (,000's)
Underground							
Magdala	above 1250mRL	448	4.61	66	339	4.14	45
Golden Gift	above 1650mRL	1	8.50	0	220	5.22	37
Wonga	above 1000mRL				121	6.80	26
Sub-total U/G		448	4.62	67	680	4.97	109
Surface							
Magdala		2660	2.15	184			
Wonga		315	2.50	25	25	2.30	2
				0			
Sub-total Surface		2975	2.19	209	25	2.30	2
TOTAL		3423	2.51	276	705	4.87	110

		Mineral Reserves								
		Proved			Probable			Total		
		tonnes (000's)	grade g Au/t	ounces (,000's)	tonnes (000's)	grade g Au/t	ounces (,000's)	tonnes (000's)	grade g Au/t	In situ Au oz (000's)
Underground										
Magdala	above 1250mRL	221	3.74	27	739	3.33	79	960	3.42	106
Golden Gift	above 1650mRL	32	3.30	3	603	4.96	96	635	4.87	100
Wonga	above 1000mRL									
Surface Stockpiles										
Sub-total U/G		254	3.69	30	1342	4.06	175	1595	4.00	205
Surface										
Davis Extension	above 130mRL				325	2.12	22	325	2.12	22
Wonga					83	1.94	5	83	1.94	5
LG Stockpiles					45	0.80	1	45	0.80	1
Sub-total Surface					452	1.96	28	452	1.96	28
TOTAL		254	3.69	30	1794	3.53	204	2048	3.55	234

Notes:

1. All Mineral Resources and Mineral Reserves have been estimated in accordance with the JORC Code and have been reconciled to CIM Standards as prescribed by National Instrument 43-101.
2. Mineral Resources are exclusive of Mineral Reserves.
3. Mineral Reserves were estimated using the following economic parameters:
   a. Gold price of AUD$1165/oz

b. Cut-off Grade applied was variable for underground depending upon width, mining method and ground conditions.

c. Wonga surface and Magdala surface above 130mRL and above a nominal 0.8g/t Au cutoff

4. Mineral Resources were estimated using the following parameters:
   a. Gold price of AUD$1250/oz
   b. Wonga surface and Magdala surface above 130mRL and above a nominal 0.8g/t Au cutoff
5. Mineral Reserve estimates were prepared by Austin Hemphill, Mine Technical Superintendent, Northgate Minerals Corporation. Mr. Hemphill is a member of the Australasian Institute of Mining and Metallurgy and has over 8 years of relevant engineering experience and is the Qualified Person for Reserves.
6. Mineral Resource estimates were prepared by Mark Haydon. Mr. Haydon is a member of the Australasian Institute of Geoscientists and has over 16 years of relevant geological experience and is the Qualified Person for Resources.
7. Mineral Resources and Mineral Reserves are rounded to 1,000 tonnes, 0.01 g/t Au and 1,000 ounces. Minor discrepancies in summations may occur due to rounding.

Stawell is forecast to produce 86,000 to 91,000 ounces of gold in 2011. The previous three years production is listed below.

	2010	**2009**	**2008**
Ore mined (tonnes)	772,850	707,283	629,665
Tonnes milled (ore)	826,454	759,819	698.396
Gold grade (grams / tonne)	3.23	4.07	5.25
Gold recovery (%)	83	87	87
Gold production (ounces)	71,482	85,998	102,679
Cash cost per ounce (S$)	969	616	555

Mining Operations

Underground Mining Method

The mine is accessed by a decline from a portal located adjacent to the mill. The mine access development and services are located mainly within basalt. Ground conditions are good and there is no history of major seismic activity. Development follows the Magdala lode system down plunge and between 470 RL and 786 RL the decline splits into a north and a south decline to access the Golden Gift ore bodies. To facilitate ore access, extraction levels are developed at approximately 20 metres to 25 metres vertical intervals. The mining areas currently extend over approximately 3 km of strike to more than 1,300 metres below surface, measured from the top of Big Hill. The mining method used in the Magdala was bench stoping with cemented rock fill pillars in primary stopes, and rock filled secondary stopes. The mining method used in the Golden gift and narrow Magdala ore Zones is retreat open stoping with either cemented rock fill (CRF) if full extraction, or ½ CRF/½ rockfill or all rockfill stope with pillars. In the Magdala ore body, stope sizes typically range from 2,000 to 10,000 tonnes. In the Golden Gift area where the width and tenor of the reserves have so far been of higher quality, generally larger stopes up to 15,000 tonnes are expected. Stope ore is recovered using loaders under direct or remote control of an operator, with haulage by 50 tonne trucks.

The access decline is used as an intake airway, and a chilled water plant delivers conditioned air via an intake shaft. Local spot refrigeration plants are also used for decline advance. Exhaust air is drawn through the workings by a series of ventilation rises and drives by two primary ventilation fan installations located at the northern and southern ends of the mine. The mine is relatively dry. Water pumped from the workings is recycled for use in the mine or the treatment process.

Open Pit Mining Method

Open pit mining will utilize conventional benching techniques of drill and blast. Loose overburden will be removed with either a combination of Ripping and Scrapers or conventional truck and shovel / front end loader. The discrete nature of open pits will necessitate the use of small scale equipment. Ramp widths are kept to a minimum of one lane at 12 metres as the mining fleet will consist of few trucks. Ore

delivery from satellite pits will be through the use on road registered truck and trailer combinations. These will transport ore to the mill during ordinary work hours. Ramp gradient of 1 in 9 (with a final ramp section at 1:8) will be used and a berm interval of 20 metres vertical. Batter slope angles are typically 50 deg in weathered material and reach 60deg in fresh rock. Batter slope angles are determined on a site by site basis using geotechnical advice from diamond drill and rock sampling data. Whittle modelling of the resource is used to determine the economic pit shape, with recovery factors of 95% and dilution factor of 10% typically used. Work shifts will be typically Monday to Friday during day light hours to minimize environmental impacts to the surrounding community. Open Pit operations are designed to be backfilled at the end of Mine life to further minimize community impact.

Mineral Processing

The gold processing facilities utilised at Stawell comprise a standard Carbon In Leach (CIL) gold recovery circuit following crushing and grinding and sulphide flotation. The treatment plant consists of five unit processes. These are size reduction (crushing and milling), gravity gold recovery, flotation/ultra fine grinding, leach adsorption, and gold recovery.

Geographically the plant can be split up into five main areas. These are the primary crushing circuit, the milling circuit, the flotation/ultra fine grinding circuit, the leach adsorption circuit, and the elution/electrowinning circuit.

Coarse gold (up to 30% of the gold in mill feed) is recovered from the milling circuit in self cleaning centrifugal gravity concentrators. Approximately 75% of the ore requires further liberation of the gold from sulphides and this is achieved in a two stage flotation circuit where gold bearing sulphides (pyrite, arsenopyrite and some pyrrhotite) are concentrated. The sulphide is ground to approximately 0.01mm in an ultra fine grinding mill to liberate enclosed gold (up to 20% of the gold in mill feed). The ground sulphides and flotation tail are recombined and sent to the CIL circuit.

Stawell ore exhibits various degrees of preg-robbing of gold. Preg-robbing occurs when naturally occurring carbon species (graphite) in the ore rob gold from the pregnant liquor in the leach circuit, thus reducing the gold recovery. To combat this, Kerosene is added to foul the naturally occurring carbon before it enters the leach circuit and a simple Preg rob index developed at Stawell indicates the rate of addition needed for the kerosene to be most effective.

An ongoing program of metallurgical test work is conducted at Stawell Gold Mines. The program utilises diamond drill core to determine the expected plant recovery for all ore blocks at a stope scale within the immediate and long term mine plan. Samples of the ore and estimated dilution are tested to determine the expected preg rob index and expected gold recovery through the Stawell Gold processing circuit. The results of the test work program provide an expected plant recovery on a campaign basis. Metallurgists are able to plot the actual versus predicted plant recoveries using the test work results so as to show the relationship between actual plant recovery and expected plant recoveries for all float ore treated project to date. This validates the robustness of the metallurgical test work programs utilised by Stawell Gold Mine and as such the robustness of the forecast metallurgical assumptions used in developing project schedules and financial forecasts.

Exploration and Development

Capital expenditures at Stawell in 2011 are forecast to total $12.7 million, including $10.7 million for new mobile equipment and $2.0 million for processing plant improvement. Mine development capital and resource definition drilling costs are forecast to be $26.2 million.

Exploration for 2010 focussed on a number of target areas, the most significant of which were the Northgate Gift, the Wonga Gift and GG6 Lower with additional work on North Magdala area and above the Scotchsman's Fault. Regional targets were also evaluated in areas where there has been historic alluvial mining.

The most encouraging results were obtained on Northgate Gift, Wonga and Golden Gift 6 Lower ("GG6L").

Northgate Gift drilling (Aug 31, 2010 press release) intersected a new zone of gold mineralization that is the fault offset extension of the Magdala/Golden Gift orebodies which have combined to produce over two million ounces of gold on the property over the past 26 years. Discovery hole MD5696A intersected gold-bearing intervals of 4.53 grams per tonne (g/t) gold over 1.8 metres (m) and 3.83 g/t gold over 3.6 m.

Wonga Gift (Nov 10, 2010 press release) drilling intersected high grade gold mineralization approximately 1.6 kilometres south of the existing mine workings. Hole SD649A intersected multiple gold bearing intervals which include 13.7 grams per tonne ("g/t") gold over 5.45 metres ("m"), including 25.0 g/t gold over 2.2 m; and 15.4 g/t gold over 2.5 m.

Drilling on the GG6L target area intersected several high-grade zones of mineralization, including

Basalt Contact:

- Hole MD-5338 returned 13.2 g/t over 4 m.
- Hole MD-5281 contained several excellent intervals: 4.9 g/t over 16.4 m, including 7.1 g/t over 7.6 m and 15.9 g/t over 5.1 m.
- Hole MD-5790 also contained several excellent intervals: 5.7 g/t over 5.2 m, including 13.0 g/t over 1.5 m; a second interval returned 5.8 g/t over 9.7 m, including 8.0 g/t over 3.0 m and 13.2 g/t over 1.5 m.

Waterloo:

- Hole MD-5281 returned 24.0 g/t over 10.6 m.
- Hole MD-5481 returned 21.0 g/t gold over 3.1 m.

Exploration work in 2011 is budgeted at $7.7 million and will be primarily directed toward further delineation of the size of the Northgate Gift, the Wonga Gift and the GG6L zones.

Other Exploration

Nevada Awakening Project

On June 7, 2010 Northgate and Nevada Exploration Inc. ("NGE") (TSX-V:NGE) announced the completion and execution of the definitive Exploration and Option to Enter Joint Venture Agreement ("Agreement") on NGE's Awakening Gold Project ("Property"), in Humboldt County, Nevada. The Agreement grants Northgate the option to earn an initial 51% interest in the Property by spending $4,100,000 in exploration and making additional payments totaling $436,000 over five years. Northgate's exploration commitment in the first year is $500,000. If Northgate completes the initial 51% earn-in, it may then earn an additional 14%, for a total of 65%, by completing a feasibility report on the Property.
The Awakening Gold Project consists of 420 claims (approximately 34km2) and is located 50km NNW of Winnemucca, Nevada, on the NW flank of the Slumbering Hills. The Property covers the NW portion of the historic Awakening mining district and adjoins the north end of the former producing Sleeper Gold Mine, which produced 1.7 million ounces of gold and 2.3 million ounces of silver.

The Property is largely covered by a thin veneer of alluvium, and as a result, has seen little historic exploration activity. In 2005, NGE's regional groundwater chemistry reconnaissance program identified anomalous levels of gold and other trace metals in the groundwater north of the Sleeper Mine. In 2008 and 2009, NGE completed detailed gravity geophysics, air magnetic geophysics, and soil geochemistry across the Property. The combined exploration dataset has identified several high priority targets analogous to the geologic units controlling the mineralization at the Sleeper Gold Mine. In 2010 Northgate carried out an induced polarization survey as well as additional soil and water geochemical sampling to further define drill targets.

Kemess Underground Project

In 2010 Northgate evaluated the potential for low cost bulk underground mining from a higher grade zone within the Kemess North deposit located approximately five kilometres north of the existing Kemess South Mine in north-central British Columbia. The 2010 infill diamond drill program was designed and executed to increase confidence in the grade distribution, location and geotechnical characteristics of a target area containing approximately 70 Mt of mineralization that had been identified as potentially mineable using low-cost bulk underground mining methods. The target area is situated in the eastern portion of the Kemess North deposit approximately 300 and 600 metres ("m") below surface. The target zone of 70 Mt was initially estimated to contain approximately 1.4 million ounces of gold and 500 million pounds of copper using a resource model based upon an internal revision of the 2005 NI 43-101 resource estimate for Kemess North and an engineered outline at a $15 Net Smelter Return ("NSR") cut-off for vertical columns of blocks. The target zone was a potentially mineable subset of a larger Indicated Resource of 121.1 Mt containing 2.3 million ounces of gold and 819 million pounds of copper.

The results of this drilling were released on September 15, 2010 and November 30, 2010. A press release on February 15, 2011 summarized these results as follows: Using a $15 block NSR cut-off, the new 2011 Indicated Resource estimate for Kemess Underground is now 136.5 Mt containing 2.6 million ounces of gold, 860.6 million pounds of copper and 9.2 million ounces of silver.

4. DIVIDEND POLICY

The Corporation does not currently pay a dividend. The decision to continue this policy will be made by the Board of Directors of Northgate from time to time based upon, among other things, cash flow, the results of operations and the financial condition of Northgate and its subsidiaries, the need for funds to finance ongoing operations, compliance with credit agreements and other instruments, and such other considerations as the Board of Directors of Northgate considers relevant.

5. DESCRIPTION OF CAPITAL STRUCTURE

The authorized capital of the Corporation is 100,000,000,000,000 shares of each of the following classes: Common Shares, Class A and Class B preferred shares, all without par value. As at December 31, 2010, 291,856,984 Common Shares, and no Class A or Class B preferred shares, were issued and outstanding.

Common Shares

Holders of Common Shares are entitled to receive on a *pro rata* basis dividends if, as and when declared by the Board of Directors of the Corporation, subject to the prior rights of the holders of any shares ranking senior to the Common Shares in the payment of dividends. In the event of the dissolution, liquidation or winding-up of the Corporation, the holders of the Common Shares, subject to the prior rights of the holders of any shares ranking senior to the Common Shares with respect to priority in the distribution of the property and assets of the Corporation upon dissolution, liquidation or winding-up, will be entitled to receive on a pro rata basis the remaining property and assets of the Corporation. Holders of Common Shares are entitled to receive notice of, attend and vote at any meeting of the Corporation's shareholders, except meetings where only the holders of another class or series of shares are entitled to vote separately as a class or series. The Common Shares carry one vote per share.

Class A Preferred Shares and Class B Preferred Shares

The Class A preferred shares and Class B preferred shares of the Corporation are issuable in series. Each series may consist of such number of shares and have such designation, rights, privileges restrictions and conditions attached thereto as may be determined by the board of directors, subject to the provisions attached to the Class A preferred shares as a class or the Class B preferred shares as a class. The Class A preferred shares rank ahead of the Class B preferred shares and the Common Shares and the Class B preferred shares rank ahead of the Common Shares with respect to the distribution of assets of the Corporation upon liquidation, dissolution or winding-up.

Shareholder Rights Plan

On March 8, 2010, the Board of Directors adopted the Northgate Shareholder Rights Plan (the "Rights Plan") to replace the shareholder rights plan that it initially adopted on March 11, 2004 (the "Original Rights Plan"), which was confirmed by shareholders at the annual general and special meetings of the Corporation held on May 14, 2004 and May 4, 2007. The Original Rights Plan expired on March 11, 2010. The successor Rights Plan became effective on March 8, 2010 and will continue in effect only if it is confirmed by the shareholders of the Corporation at the Annual and Special Meeting of shareholders of the Corporation on May 11, 2010. The Rights Plan is designed to ensure the fair treatment of the Corporation's shareholders in the event of a take-over bid for the Common Shares and to provide the Board of Directors and the Corporation's shareholders with more time to evaluate any unsolicited take-over bid and, if appropriate, to seek out other alternatives to maximize shareholder value. Under the terms of the Rights Plan, one right is issued and attached to each Common Share.

The Rights Plan is similar to shareholder rights plans adopted by a number of other Canadian companies. The Plan is not intended to block take-over bids. The Rights Plan includes "Permitted Bid" provisions which do not invoke the dilutive effects of the Rights Plan if a take-over bid is made by way of a take-

over bid circular that remains open for a minimum of 60 days and is accepted by not less than 50 per cent of the Common Shares held by independent shareholders. The Rights Plan will be invoked by an acquisition bid, other than pursuant to a Permitted Bid, of 20% or more of the outstanding Common Shares or the commencement of a take-over bid that is not a Permitted Bid.

6. MARKET FOR SECURITIES

The Common Shares are listed for trading on the Toronto Stock Exchange ("TSX") under the symbol NGX. The Common Shares of the Corporation are also listed for trading on the New York Stock Exchange Amex ("NYSE Amex") in the United States under the symbol NXG.

A summary of the trading volumes and price range for the Common Shares is presented below. (Dollars used here are Canadian dollars for the TSX and American dollars for the NYSE Amex):

NYSE Amex Trading Data (2010)			
	Monthly Volume	**High**	**Low**
January	54.76 MM	$3.59	$2.48
February	52.01 MM	$2.86	$2.30
March	61.91 MM	$3.23	$2.75
April	43.64 MM	$3.35	$2.96
May	54.38 MM	$3.44	$2.66
June	45.39 MM	$3.24	$2.83
July	22.43 MM	$3.08	$2.76
August	28.03 MM	$3.12	$2.79
September	70.85 MM	$3.54	$2.92
October	77.29 MM	$3.09	$2.68
November	84.17 MM	$3.18	$2.74
December	56.94 MM	$3.27	$2.96
Total	651.79 MM		
Average Daily Volume			2,586,452

TSX Trading Data (2010)			
	Monthly Volume	**High**	**Low**
January	8.21 MM	$3.70	$2.66
February	11.83 MM	$3.01	$2.47
March	35.14 MM	$3.26	$2.88
April	9.43 MM	$3.39	$2.98
May	14.68 MM	$3.49	$2.85
June	12.00 MM	$3.35	$2.94
July	5.62 MM	$3.22	$2.93
August	9.42 MM	$3.24	$2.94
September	16.99 MM	$3.62	$3.04
October	12.04 MM	$3.18	$2.76
November	15.26 MM	$3.20	$2.77
December	10.58 MM	$3.25	$3.00
Total	161.19 MM		
Average Daily Volume			642,206

7. DIRECTORS AND OFFICERS

The names and municipalities of residence of the directors and officers of the Corporation, positions held by them with the Corporation, their principal occupations for the last five years and shareholdings in the Corporation as at December 31, 2010 are set out below.

Name, Municipality of Residence and Office Held	Year of Appointment as Director/Officer	Expiry of Office	Number of Common Shares Held	Principal Occupation or Employment [1]
Mark Daniel [3][4] Toronto, Ontario Director	2009	May 10, 2011	20,000	Corporate Director and Retired Executive
Patrick D. Downey C.A., ICD.D [2][5] Whitby, Ontario Director	1993	May 10, 2011	17,578	Corporate Director and Retired Executive
Douglas P. Hayhurst FCA, ICD.D [2][5] Vancouver, British Columbia Director	2006	May 10, 2011	19,000	Corporate Director and retired IBM Canada Business Consulting Services and PriceWaterhouseCoopers Executive
Richard J. Hall [4][5] Centennial, Colorado Director	2008	May 10, 2011	14,500	Corporate Director and Mining Company Executive
Paul J. Dowd [3][4][5] Burnside, SA, Australia Director	2008	May 10, 2011	0	Corporate Director and Mining Company Executive
Terrence A. Lyons Vancouver, British Columbia Chairman of the Board	1993	May 10, 2011	170,100	Chairman of the Board
Conrad A. Pinette [2][4] Vancouver, BC Director	2005	May 10, 2011	20,000	Corporate Director and Retired Executive
Kenneth G. Stowe Oakville, Ontario President & Chief Executive Officer, Director	2001/1999	May 10, 2011	289,379	President and Chief Executive Officer of the Corporation
Jon A. Douglas Toronto, Ontario Senior Vice-President & Chief Financial Officer	2001	-	54,105	Senior Vice-President & Chief Financial Officer of the Corporation
Peter MacPhail Oakville, Ontario Chief Operating Officer	2004	-	36,489	Chief Operating Officer of the Corporation
Christopher Rockingham Toronto, Ontario Vice President Business Development and Exploration	2003	-	53,812	Vice President Business Development and Exploration of the Corporation
Matthew J. Howorth, LLB Toronto, Ontario Vice President, General Counsel & Corporate Secretary	2008	-	12,829	Vice President, General Counsel and Corporate Secretary of the Corporation
Eugene Lee Toronto, Ontario Vice President, Finance	2006	-	21,257	Vice President, Finance of the Corporation

(1) The information as to principal occupation and Common Shares beneficially owned or controlled is not within the knowledge of management of the Corporation and has been furnished by the respective directors and officers.
(2) Member of the Audit Committee.
(3) Member of the Corporate Governance and Compensation Committee
(4) Member of the Health, Safety and Environment Committee
(5) Member of the Finance Committee.

As at December 31, 2010 the directors and executive officers as a group owned or exercised control over a total of 729,049 common shares, which is equal to less than 1% of the total outstanding common equity of the Corporation on that date.

Cease Trade Orders, Bankruptcies, Penalties or Sanctions

Other than as set out in this section in respect of Terrence A. Lyons, none of the directors or officers of the Corporation is, or has been within the ten years before the date of this AIF, a director or officer of any other company that, which such person was acting in that capacity, was the subject of a cease trade or similar order, or an order that denied the company access to any statutory exemptions under the Canadian securities legislation, for a period of more than 30 consecutive days, or was declared bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangements or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold the assets of that company.

Terrence A. Lyons was a director and executive officer of FT Capital Ltd. ("FT"), which was subject to cease trade orders in each of the provinces of British Columbia, Alberta, Manitoba and Ontario due to the failure of FT to file financial statements since the financial year ended December 31, 2001. On June 30, 2009, FT was liquidated and the company dissolved. Mr. Lyons is also a director of Royal Oak Ventures Inc. ("Royal Oak"), which is currently subject to cease trade orders in each of the provinces of British Columbia, Alberta, Ontario and Quebec due to the failure of Royal Oak to file financial statements since the financial year ended December 31, 2003. Mr. Lyons was a director of International Utility Structures Inc. ("IUSI") which, on October 17, 2003, was granted creditor protection by the Court of Queen's Branch of Alberta under the Companies' Creditors Arrangement Act (Canada) ("CCAA"). On March 31, 2005 an order was granted approving the final IUSI restructuring plan under the CCAA, at which time Mr. Lyons resigned as a director. Mr. Lyons was elected to the boards of directors of each of Royal Oak, FT and IUSI largely because of his valuable experience and expertise in financial restructurings in the insolvency context.

8. LEGAL PROCEEDINGS

On July 3, 2008, Northgate filed a Statement of Claim with the Financial Industry Regulatory Authority ("FINRA") in New York, a self-regulatory organization with jurisdiction over customer-broker disputes, regarding alleged mishandling of the Corporation's investment account (including the unauthorized purchase of auction rate securities) by Lehman Brothers Inc. ("Lehman"). The Corporation has alleged that Lehman's inappropriate conduct constituted, among other things, breach of contract, breach of fiduciary duty, fraudulent misrepresentation and abuse of discretionary authority. Lehman filed for bankruptcy in September of 2008. In order to preserve its right to claim against the Lehman estate at the appropriate stage of the bankruptcy administrative process, the Corporation has filed the necessary bankruptcy proofs of claim with the appropriate authorities in the US. The Corporation continues to work with its US legal counsel to collect and analyze additional information regarding the Lehman estate so as to be able to make an informed determination regarding a prudent course of action going forward.

9. INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

A former significant shareholder of Northgate, Brookfield Properties, unconditionally guaranteed a loan facility in favour of Northgate that was fully repaid by the Corporation on February 15, 2006. In consideration of its providing such guarantee in support of Northgate, Brookfield received a 1% guarantee fee based on the outstanding balance of the loan, and continues to hold a 1.62% royalty on payable metals from the Kemess mine.

10. TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar of the Corporation is Computershare Investor Services Inc. at its principal offices in Toronto, Ontario and Vancouver, British Columbia.

11. MATERIAL CONTRACTS

Northgate has entered into the Off-take Agreement with Xstrata, a 15-month agreement for the shipment and sale of Kemess gold-copper concentrate. Under the terms of this agreement, treatment and refining charges are adjusted annually based on prevailing market terms, which have been settled at $46.5/4.65 with no price participation fee for 2010.

The Corporation has entered into forward sales contracts with Mitsui to fix the price of copper for certain future production. A total volume of 17,375 tonnes of copper were sold forward using LME contracts as at December 31, 2010. These contracts mature from April 2010 through April 2011 at an average forward price of Cdn$3.31 per pound. The Corporation also entered into separate forward purchase contracts with Mitsui to repurchase in US dollars, over the same period, its forward sales position at the difference between the monthly average LME prices in the month of settlement and the forward price of Cdn$3.31. The volume of forward sales and purchases in each future contract month match the expected future pricing periods for copper in concentrate to be delivered to Xstrata under a concentrate sales agreement.

12. INTEREST OF EXPERTS

The Corporation has been advised that each of the professionals contributing the technical or scientific information contained in this document beneficially own, directly or indirectly, less than 1% of the outstanding Common Shares. The Corporation has been advised that none of the non-employee Qualified Persons held any securities of the Corporation or of any associate or affiliate of the Corporation when they prepared the reports referred to above or following the preparation of such reports, nor did they receive any direct or indirect interest in any securities of the Corporation or of any associate or affiliate of the Corporation in connection with the preparation of such reports.

The Corporation's auditors, KPMG LLP, Chartered Accountants, have advised that they are independent of the Corporation within the meaning of the Rules of Professional Conduct / Code of Ethics of the Institute of Chartered Accountants of British Columbia and under all relevant professional and regulatory requirements in the United States.

Except as noted above, none of the aforementioned persons, nor any director, officer, employee or partner, as applicable, of the aforementioned persons is currently expected to be elected, appointed or employed as a director, officer or employee of the Corporation or of any associate or affiliate of the Corporation. None of the aforementioned persons, and the directors, officers, employees and partners, as applicable, of each of the aforementioned persons received or has received a direct or indirect interest in a property of the Corporation or any associate or affiliate of the Corporation.

13. ADDITIONAL INFORMATION

Additional information about Northgate may be found on SEDAR at www.sedar.com.

Further additional information, including directors' and officers' remuneration and indebtedness, principal holders of Northgate's securities and securities authorized for issuance under equity compensation plans is contained in Northgate's most recent management information circular which is filed on SEDAR at www.sedar.com.

Additional financial information can be found in Northgate's financial statements and Management's Discussion and Analysis for the year ended December 31, 2010, which are filed on SEDAR at www.sedar.com.

AUDIT COMMITTEE INFORMATION

1. Audit Committee Charter

The Audit Committee's Charter, as approved by the Corporation's board of directors, is included in Schedule "A" of this Annual Information Form.

2. Composition of the Audit Committee

The Audit Committee is composed of three members, Patrick D. Downey, Douglas P. Hayhurst and Conrad A. Pinette. Each member of the Audit Committee is independent and none receives, directly or indirectly, any compensation from Northgate other than for services as a member of the board of directors of Northgate and its committees. All members of the Audit Committee are financially literate as defined under Multilateral Instrument 52-110 Audit Committees ("MI 52-110"). In considering the criteria for determining financial literacy, the board of directors of Northgate looks at the ability of a director to read and understand a balance sheet, an income statement and a cash flow statement.

3. Relevant Education and Experience

This section describes the education and experience of the Corporation's Audit Committee members that is relevant to the performance of their responsibilities in that role.

PATRICK D. DOWNEY, B. Comm., C.A., ICD.D

Mr. Downey is a corporate director who has been involved in the gold and copper mining industry throughout most of his career. He joined Northgate in 1980 and served as Chief Financial Officer from 1988 until 1992. Mr. Downey is a member of the Canadian Institute of Chartered Accountants, the Ontario Institute of Chartered Accountants and the Ontario Chapter of the Institute of Corporate Directors. Mr. Downey is Chairman of the Northgate Finance Committee. He holds a Commerce degree (Honours) from Laurentian University.

DOUGLAS P. HAYHURST, B.A, FCA, ICD.D

Mr. Hayhurst is currently an independent corporate director whose business career includes international leadership roles with IBM Business Consulting Services and Pricewaterhouse Coopers Management Consulting, and senior management roles with Price Waterhouse including National Deputy Managing Partner (Toronto) and British Columbia Managing Partner (Vancouver). Mr. Hayhurst is also a Director of Canexus Income Fund (Audit Committee and member of Corporate Governance and Compensation Committee), Catalyst Paper Inc. (member of Audit and Environment, Health and Safety Committees) and Accend Corporation (member of Audit Committee) and serves on the Advisory Board of Layfield Group Limited. He is current Chair of the British Columbia Region of the Nature Conservancy of Canada and immediate past Chair of the British Columbia Chapter of the Institute of Corporate Directors. He also serves on the Risk Oversight and Governance Board of the Canadian Institute of Chartered Accountants. He holds an Honours Degree in Business Administration from the Richard Ivey School of Business at the University of Western Ontario, is a Fellow of the Institute of Chartered Accountants of British Columbia (FCA) and an Institute of Corporate Directors Certified Director (ICD.D). Mr. Hayhurst is also a member of the Corporation's Finance Committee.

CONRAD A. PINETTE

Mr. Pinette is a retired executive having recently completed his business career in British Columbia's forest industry. He completed four years of a five year program in Business Administration and Forestry at the University of British Columbia. Mr. Pinette has acted in

several executive positions including Executive Vice-President, Tolko Industries Ltd. (2005); Executive Vice-President, Riverside Forest Products Limited (2004); and President and COO, Lignum Limited (1990-2004) (Lignum was acquired by Riverside Forest Products Limited in early 2004 and Riverside was subsequently acquired by Tolko Industries Ltd. in late 2004). Mr. Pinette has been a director of a number of private and public forest products and mining companies during his business career and is currently a director of several public companies, a principal and director of family corporations and is active in not-for-profit organizations. Currently, he is a director of A&W Revenue Royalties Income Fund, Canfor Corporation and the Corporation. Mr. Pinette is an active participant in fundraising for the Cariboo Foundation based in Williams Lake, The United Way of the Lower Mainland and is a director of the Prostate Centre at Vancouver General Hospital in British Columbia. Mr. Pinette is also a member of the Corporation's Health, Safety and Environment Committee.

4. Reliance on Certain Exemptions

Since the commencement of 2010, Northgate's most recently completed financial year, Northgate has not relied on:

a. The exemption in section 2.4 of MI 52-110 (De Minimis Non-audit Services)
b. The exemption in section 3.2 of MI 52-110 (Initial Public Offerings)
c. The exemption in section 3.4 of MI 52-110 (Events Outside Control of Member)
d. The exemption in section 3.5 of MI 52-110 (Death, Disability or Resignation of Audit Committee Member) or
e. An exemption from MI 52-110, in whole or in part, granted from Part 8 (Exemptions)

5. Reliance on the Exemption in Subsection 3.3(2) or Section 3.6

Since the commencement of 2010, Northgate's most recently completed financial year, Northgate has not relied on the exemption in subsection 3.3(2) of MI 52-110 (Controlled Companies) or section 3.6 of MI 52-110 (Temporary Exemption for Limited and Exceptional Circumstances).

6. Reliance on Section 3.8

Since the commencement of 2010, Northgate's most recently completed financial year, Northgate has no need to rely on the exemption in section 3.8 of MI 52-110 (Acquisition of Financial Literacy) as all members of the Audit Committee are financially literate.

7. Audit Committee Oversight

At no time since the commencement of 2010, Northgate's most recently completed financial year, has a recommendation of the Audit Committee to nominate or compensate an external auditor, not been adopted by the board of directors of Northgate.

8. Pre-Approval Policies and Procedures

The Audit Committee has the sole authority to review in advance and grant any appropriate approvals of all auditing services to be provided by the external auditors of Northgate and any non-audit services to be provided by the external auditors of Northgate as permitted by applicable securities laws and the Toronto Stock Exchange.

The audit committee has adopted the following policies and procedures for the engagement of non-audit services by the Corporation's external auditors.

Each year management presents a forecast to the Audit Committee of those services that it anticipates will be required for the coming year. These services fall into three broad categories, namely:

Audit

- Audit of consolidated financial statements
- Consultation with respect to implementation of new accounting and reporting guidance
- Other consultation with respect to accounting and reporting issues
- Quarterly reviews of interim consolidated financial statements
- Audit of subsidiary financial statements
- Services associated with registrations statements, prospectuses, periodic reports and other documents filed with securities regulatory bodies or other documents issued in connection with securities offerings (e.g. comfort letters, consents)

Audit related services

- Guidance with respect to documentation and testing of internal controls pursuant to SOX 404
- Consultations by the Corporation's management as to the accounting or disclosure treatment of transactions or events and/or the actual or potential impact of final or proposed rules, standards or interpretations on proposed transactions that are not reflected in the financial statements

Tax

- Canadian tax compliance
- Canadian and international tax planning and advisory services

Each quarter the forecast of required services is reviewed by the Audit Committee and appropriate changes are either approved or not.

9. External Auditor Service Fees (By Category)

Audit Fees

During the financial year ended December 31, 2010, KPMG LLP, the Corporation's external auditor (the "External Auditor") billed the Corporation $738,001 for audit services. During the financial year ended December 31, 2009, the External Auditor billed the Corporation $693,715 for audit services.

Audit-Related Fees

During the financial year ended December 31, 2010, the External Auditor billed the Corporation $42,078 for other professional services performed in connection with other services. During the financial year ended December 31, 2009, the External Auditor did not bill the Corporation for any other professional services performed in connection with other services performed during 2009.

Tax Fees

During the financial year ended December 31, 2010, the External Auditor billed the Corporation $81,367 for tax return preparation and advice related to tax compliance, tax advice and tax planning ("Tax Services"). During the financial year ended December 31, 2009, the External Auditor billed the Corporation $259,316 for Tax Services.

All Other Fees

During the financial years ended December 31, 2010 and 2009, the External Auditor did not bill the Corporation for any other professional services performed in connection with other services.

SCHEDULE "A"
NORTHGATE MINERALS CORPORATION
AUDIT COMMITTEE CHARTER

A. Overview and Purpose

The Audit Committee of Northgate Minerals Corporation ("Northgate") has been formed to enable the Board of Directors of Northgate to perform its obligations with respect to compliance with applicable securities laws and the rules of the Toronto Stock Exchange ("TSX") and the New York Stock Exchange ("NYSE") where the Corporation's common shares are traded.

The Audit Committee is responsible to the Board of Directors of Northgate. The primary objective of the Audit Committee is to assist the Board of Directors in fulfilling its responsibilities with respect to:

(a) disclosure of financial and related information;
(b) the relationship with and expectations of the external auditors of Northgate, including the establishment of the independence of the external auditors;
(c) its relationship with and expectations of the internal auditors (as applicable); and
(d) the oversight of internal controls.

The Audit Committee will approve, monitor, evaluate, advise or make recommendations in accordance with this Charter, with respect to the matters set out above.

B. Organization

1. Size and Membership Criteria

The Audit Committee will consist of three Directors of Northgate.

Each member of the Audit Committee must not be an officer or employee of Northgate and must be free from any interest, business or other relationship (other than interests and relationships arising from holding shares of Northgate or other securities which are exchangeable into shares of Northgate) which could, or could reasonably be perceived to, materially interfere with the director's ability to act in the best interests of Northgate.

All members of the Audit Committee should be financially literate and able to read and understand financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by Northgate's financial statements.

2. Appointment and Vacancies

The members of the Audit Committee are appointed or reappointed by the Board of Directors following each annual meeting of the shareholders of Northgate. Each member of the Audit Committee will continue to be a member of the Audit Committee until his or her successor is appointed unless he or she resigns or is removed by the Board of Directors of Northgate or ceases to be a Director of Northgate. Where a vacancy occurs at any time in the membership of the Audit Committee it may be filled by the Board of Directors and will be filled by the Board of Directors if the membership of the Audit Committee is less than three Directors as a result of any such vacancy.

C. Meetings

1. Frequency

The Audit Committee will meet at least four times per year on a quarterly basis, or more frequently as circumstances require. In addition, the Audit Committee will also meet at least quarterly with management, the internal auditors (as applicable) and the external auditors of Northgate in separate "In Camera" sessions to discuss any matters that the Audit Committee or each of these groups believes should be discussed privately.

2. Chair

The members of the Audit Committee will appoint a Chairman from among their number. If the Chairman of the Audit Committee is not present at any meeting of the Audit Committee, the Chairman of the meeting will be chosen by the Audit Committee from among the members present.

The Audit Committee will also appoint a secretary at each meeting who need not be a Director of Northgate.

3. Time and Place of Meetings

The time and place of meetings of the Audit Committee and the procedure at such meetings will be determined from time to time by the members of the Audit Committee, provided that:

(a) a quorum for meetings of the Audit Committee will be two members present in person or by telephone or other telecommunication device that permits all persons participating in the meeting to speak and hear each other; and

(b) notice of the time and place of every meeting will be given in writing, facsimile or electronic means to each member of the Audit Committee, the internal auditors (as applicable), the external auditors and the corporate secretary of Northgate at least 24 hours prior to the time fixed for such meeting.

Any person entitled to notice of a meeting of the Audit Committee may waive such notice (an attendance at a meeting is a waiver of notice of the meeting, except where a member attends a meeting for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully called).

The external auditors will be given reasonable notice of and the right to attend and be heard at all meetings of the Audit Committee at which quarterly or annual financial statements of the Corporation are discussed and approved. Prior to each such meeting, the Chairman of the Audit Committee and the Chief Financial Officer shall liaise with the audit partner to determine whether the auditors shall attend each meeting in person or by telephone and in the event the auditors attend in person, they shall do so at the expense of Northgate.

A meeting of the Audit Committee may be called by the corporate secretary of Northgate on the direction of the Chairman, Chief Executive Officer or Chief Financial Officer of Northgate, by any member of the Audit Committee, the external auditors or the internal auditors (as applicable). Notwithstanding the foregoing, the Audit Committee will at all times have the right to determine who will and will not be present at any part of any meeting of the Audit Committee.

4. Agenda

The Chairman will ensure that the agenda for each upcoming meeting of the Audit Committee is circulated to each member of the Audit Committee as well as each of the external auditors, internal

auditors (as applicable) and corporate secretary of Northgate in advance of the meeting of the Audit Committee not later than five business days prior to each meeting.

5. Resources

The Audit Committee will have the authority to retain independent legal, accounting and other consultants to advise the Audit Committee. The Audit Committee may request any officer or employee of Northgate or its subsidiaries or the legal counsel to Northgate or the external auditors of Northgate to attend any meeting of the Audit Committee or to meet with any members of, or consultants to, the Audit Committee. The Audit Committee shall have the authority to set and pay the compensation for any advisors employed by the audit committee.

D. Duties and Responsibilities

The Board of Directors of Northgate has delegated the following duties and responsibilities to the Audit Committee, and the Audit Committee will have the sole authority and responsibility to carry out these duties and responsibilities.

1. Financial Statements and Related Information

The Audit Committee will review and discuss with management, the internal auditors (as applicable) and the external auditors of Northgate the following financial statements and related information:

(a) annual audited financial statements of Northgate, including notes;
(b) interim financial statements of Northgate;
(c) management discussion and analysis relating to each of the annual audited financial statements and the interim financial statements of Northgate;
(d) news releases and material change reports announcing annual or interim financial results or otherwise disclosing the financial performance of Northgate, including the use of non-GAAP earnings measures;
(e) all financial-related disclosure to be included in or incorporated by reference into any prospectus that may be prepared by Northgate;
(f) annual report, annual information form and management information or proxy circular: and
(g) 40-F filing including the required US-GAAP reconciliation note.

As part of this review process, the Audit Committee should meet with the external auditors without management present to receive input from the external auditors with respect to the acceptability and quality of the financial disclosure and related documents.

Following the review by the Audit Committee of the documents set out above, the Audit Committee will recommend to the Board of Directors of Northgate, if appropriate, that such documents be approved by the Board of Directors and filed with all applicable securities regulatory bodies and/or be sent to shareholders. If Northgate lists its securities on a stock exchange in a jurisdiction other than Canada or the United States of America, the Audit Committee should review the equivalent applicable documentation and procedures.

2. Appointment and Compensation of External Auditors

The Audit Committee shall recommend to the Board of Directors of Northgate:

(a) the external auditor to be nominated for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for Northgate; and
(b) the compensation of the external auditor.

The Audit Committee is directly responsible for carrying out oversight of the work of the external auditors of Northgate (including resolution of disagreements between management and the external auditors regarding financial reporting) for the purpose of preparing its audit report or related work. The external auditors shall report directly to the Audit Committee, and the Audit Committee shall have the authority to communicate directly with internal and external auditors.

The Audit Committee has the sole authority to review in advance and grant any appropriate approvals of all auditing services to be provided by the external auditors of Northgate and any non-audit services to be provided by the external auditors of Northgate as permitted by applicable securities laws and the Toronto Stock Exchange.

On an annual basis, the Audit Committee will conduct a formal review of the external auditor's performance and provide the external auditor with the Audit Committee's expectations for the upcoming year.

The Audit Committee will discuss with the external auditors any disclosed relationships or services that the external auditors propose to provide to Northgate or any of its subsidiaries that may impact the objectivity and independence of the external auditors in order to satisfy itself of the independence of the external auditors.

The Audit Committee will review and approve employment policy regarding the hiring of any person who is a partner or employee of the Corporation's current or former external auditor.

On an annual basis the Audit Committee will obtain and review an annual report from the external auditors describing the external auditors' internal quality control procedures and any material issues raised by the most recent internal quality control review or peer review of the external auditors, or by any inquiry or investigation by governmental or professional authorities within the preceding five years respecting one or more independent audits carried out by the external auditors and any steps taken to deal with any such issues. In addition, the Audit Committee will review on an annual basis the scope and plan of the work to be done by the external auditors of Northgate for the coming financial year.

3. Oversight of Financial Reporting and Risk Management Practices

The Audit Committee is responsible for reviewing with management of Northgate the following:

(a) plans regarding any changes in accounting practices or policies and the financial impact thereof;
(b) areas of management judgment and estimates that have a significant effect on the financial statements of Northgate and its subsidiaries;
(c) any off-balance sheet transactions, arrangements, obligations (including contingent obligations) and other relationships of Northgate and its subsidiaries which would have a material current or future effect on the financial condition of Northgate;
(d) major risk exposures facing Northgate including the risk of fraud, and the steps that management has taken to monitor, control and manage such exposures, including Northgate's risk assessment and risk management guidelines and policies;
(e) any litigation, claim or other contingency, including tax assessments that could have a material effect upon the financial position or operating results of Northgate and its

subsidiaries and the manner in which these matters have been disclosed in the financial statements;

(f) annual sign-off by senior management of compliance certificates with the code of conduct and ethics;

(g) review corporate accounting and finance policies on an annual basis.

4. Internal Controls

In consultation with the external auditors, the Audit Committee is responsible for reviewing the adequacy of Northgate's internal control structures and procedures designed to ensure compliance with applicable laws and regulations. To this end, the Audit Committee will review:

(a) the internal control report prepared by management, including management's assessment of the effectiveness of Northgate's internal control structure and procedures for financial reporting (collectively Internal Controls over Financial Reporting - ICFR);

(b) the attestation and report by the external auditors of Northgate on the assessment made by management of the effectiveness of the Corporation's ICFR; and

(c) the Corporation's Disclosure Controls and Procedures (DC&P)

5. **Other Responsibilities**

(a) Annually assess the effectiveness of the Committee against its Charter and report the results of the assessment to the Board.

(b) Perform any other activities consistent with this Charter, Northgate's constating documents, and governing laws, as the Committee or the Board deems necessary or appropriate.

(c) Maintain minutes of meetings and periodically report to the Board on significant results of the foregoing Committee activities.

6. **Whistleblower Policy**

The Audit Committee has adopted a Whistleblower Policy to facilitate the reporting by Northgate directors, officers or employees of any "Accounting Irregularities", as such term is defined in the Whistleblower Policy.

SCHEDULE "B"
GLOSSARY OF TECHNICAL AND SCIENTIFIC TERMS

The following is a glossary of certain scientific and technical terms used in this Annual Information Form:

alteration	Chemical changes in minerals occurring after a mineral is formed; typical of the reaction between mineralizing fluids and host rocks, and the surface weathering of rocks. Common types (and their characteristic minerals) include albitization (sodium feldspar), argillization (clays), chloritization (chlorite), potassic alteration (potassium feldspar and biotite), propylitization (epidote), sericitization (white mica), and silicification (quartz).
archean	An age of the earth, in the context of this report about 2.5 billion years old
asitka	Permian Age rocks
assay	A chemical test performed on a sample of ores or minerals to determine the amount of valuable metals contained.
Au	Gold
chalcopyrite	A sulphide mineral of copper and iron; the most common ore mineral of copper.
concentrate	Product containing the valuable metals or minerals from which most of the waste rock has been separated. This is the raw material for smelting.
conglomerate	A sedimentary rock composed of large fragments (>64mm) derived from the erosion of pre-existing rocks, that is a subset of clastic rocks.
core	A cylindrical sample of rock, brought to surface by diamond drilling. core size is characterized by its diameter, AQ (27 mm), BQ (36.5 mm) NQ (47.6 mm) HQ (63.5 mm).
Cu	Copper
cut-off grade	Grade of contained mineral at which recovery from an ore body is deemed economic. The cut-off grade is determined by the following formula parameters: estimates over the relevant period of mining costs, ore treatment costs, general and administrative costs, refining costs, royalty expenses, process and refining recovery rates and mineral prices.
deposit	A body of rock containing valuable minerals; usage generally restricted to Zones of mineralization whose size has been wholly or partly determined through sampling.
diabase	A mafic igneous dyke, Matachewan being the type locale for a series of dykes in this part of Ontario and Quebec.
fault	A break in the Earth's crust caused by tectonic forces which have moved the rock on one side with respect to the other.
feasibility study	An economic study assessing whether a mineral deposit can be mined profitably, by estimating the capital and operating costs of a mine and the potential revenues from production.

flotation	The method of mineral separation in which a froth, created in water by a variety of reagents, causes some finely crushed minerals to float, whereas the other minerals sink to the bottom.
fold	Any bending or wrinkling of rock strata.
G&A	General and Administrative
g/t	grams per tonne
geochemistry	The study of the chemical properties of rocks.
geology	The science concerned with the study of rocks which compose the Earth.
geophysics	The study of the physical properties of rocks and minerals.
geostatistical	Statistics as applied to ore deposits and the problem of producing the best estimate of a mineral grade at a location within an ore deposit or the overall grade of the deposit, also known as “kriging”.
granite	A coarse grained igneous rock containing quartz (more than seventy percent (70%) SiO2) and feldspar minerals.
greenstone belt	An area underlain by metamorphosed volcanic and sedimentary rocks, usually in a continental shield.
greywacke	Fine grained (< 2mm) clastic rock.
heap leaching	A process whereby valuable metals, usually gold and silver, are leached from a heap, or pad, of crushed ore by leaching solutions percolating down through the heap and collected from a sloping, impermeable liner below the pad.
HQ	63.5 mm diameter core
hydrothermal	Relating to hot fluids circulating in the Earth’s crust.
hypogene ore	Hypogene ore contains unaltered primary sulphide mineralization characterized by disseminated grains of chalcopyrite and pyrite. Gold is intimately associated with the copper bearing sulphides as free and as fine grains of electrum (gold/silver) and gold.
igneous rocks	Rocks formed by the solidification of molten material from far below the Earth’s surface.
induced polarization / IP	A method of ground geophysical surveying employing an electrical current to determine indications of mineralization.
intrusive	Igneous rocks that have forced themselves into pre-existing rocks
jurassic	Period of time from 195 to 135 million years ago
lb	Pound
leach cap ore	Leach cap ore is located on the upper boundary of the Kemess deposit. The original Hypogene Ore has been oxidized by exposure to the elements and has undergone natural leaching of the sulphide minerals into the underlying ore layer (supergene) below the water table. Leach cap ore is strongly depleted in copper but contains slightly more gold than hypogene ore.
lithology	Loosely defined term referring to rock types, usually based on their appearance in hand specimen or in outcrop.

logging	The process of recording geological observations of drill core either on paper or on computer disk.
m	Meter
mafic	A general term used to describe iron and magnesium rich rocks.
magnetite	An important iron ore mineral
metamorphism	A change brought about in rocks within the rocks crust by heat and pressure. Greenschist and amphibolite facies or grade metamorphism are characterized by chlorite and amphibole minerals respectively.
mineral	A structurally homogenous of definite chemical composition formed by inorganic processes of nature having definite physical properties.
monzonite	A coarse grained igneous intrusive rock with approximately equal amounts of calcium and potassium feldspar
outcrop	An exposure of rock or mineral deposit that can be seen on surface that is not covered by soil or water.
oz	ounce
porphyry	As a rock type this refers to a body of intrusive rock containing relatively large crystals in a fine-grained groundmass. As applied to mineral deposits this refers to large tonnage copper (± gold, ± molybdenum) deposits associated with this rock type which may be amenable to open pit mining.
QA/QC	Quality Assurance/Quality Control
recovery	The percentage of the valuable metal in the ore that is recovered by metallurgical treatment.
refractory ore	Ore that resists the action of chemical reagents in the normal treatment processes and which may require pressure leaching or other means to maximize recovery.
rhyolite	A volcanic rock compositionally similar to Granite this is important in the genetic model for certain deposits, in this case, the Eskay Creek deposit.
royalty	An amount of money paid at regular intervals by the lessee or operator of a mining property to a lender or the owner of the ground. Generally based on a certain amount per tonne or a percentage of the total production or profits. Also, the fee paid for the right to use a patented process.
schist	A metamorphed rock characterized by parallel arrangement of the bulk of its constituent minerals.
silicification	A type of alteration with abundant fine-grained silica.
stock	(As applied to rocks) An intrusive rock usually circular or elliptical in cross section, perhaps derived from a larger intrusive body of similar composition.
stockwork alteration	Alteration along a network of fractures.

supergene ore	Supergene ore has been enriched in native copper and secondary sulphide minerals such as chalcocite and covellite due to the deposition of copper from the overlying layer of ore (leach cap). The copper grade of supergene ore is approximately forty percent (40%) higher than primary hypogene ore.
syenite	A coarse grained igneous rock characterized by the presence of sodium and potassium feldspar. With increasing quartz content this would grade into granite.
takla	Triassic Age rocks.
toodoggone	Jurassic Age rocks.
ultramafic	General term referring to high iron and magnesium rocks to the virtual exclusion of quartz.
vein	A fissure, fault or crack in a rock filled by minerals.
zone	An area of distinct mineralization.