AMC Mining Consultants (Canada) Ltd

BC0767129

1330-200 Granville Street Vancouver BC V6C 1S4 Canada

T +1 604 669 0044

F +1 604 669 1120

E amccanada@amcconsultants.ca



BLIZZARD URANIUM PROJECT

BRITISH COLUMBIA, CANADA

VALUATION REPORT

for

BRITISH COLUMBIA PROVINCIAL GOVERNMENT

Prepared by P R Stephenson of AMC Mining Consultants (Canada) Ltd

In accordance (with one qualification) with the requirements of "Standards and Guidelines for Valuation of Mineral Properties", February 2003, (CIMVal Standards and Guidelines) published by the Canadian Institute of Mining, Metallurgy and Petroleum

Qualified Valuator:

P R Stephenson, PGeo, BSc (Hons) FAusIMM (CP), MCIM, FAIG

AMC 710004

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ADELAIDE +61 8 8201 1800 BRISBANE +61 7 3839 0099 MELBOURNE +61 3 8601 3300

PERTH +61 8 6330 1100 UNITED KINGDOM +44 1628 778 256 VANCOUVER +1 604 669 0044

www.amcconsultants.ca

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EXECUTIVE SUMMARY

Scope of Work

P R Stephenson (the author) of AMC Mining Consultants (Canada) Ltd (AMC) was requested by Mr J E Gouge QC, representing the Ministry of Attorney General of the British Columbia Provincial Government (BCPG), to provide a valuation of the Blizzard Uranium Project in British Columbia for use in litigation with Boss Power Corp and Blizzard Uranium Corp (collectively "Boss"). The claims that are the subject of the litigation are held outright or under option by Boss. Boss is in dispute with the Province of British Columbia regarding its right to explore and potentially mine from its Blizzard Uranium Project.

The author was requested to assemble a team of technical experts and specialists and to prepare a report (the Report) that offers an opinion on the value of Boss's Blizzard mineral claims as of 24 April 2008 and 12 March 2009. The former is the date on which the Chief Gold Commissioner established a Mineral Reserve by regulation and the latter is the date on which an order in Council directed the Chief Inspector under the Mines Act not to issue an exploration permit for uranium and thorium. The claims required to be valued comprised Blizzard 1, Hydraulic Lake, Fuki B List, Haynes Lake B List and Hydraulic Lake B List, totalling approximately 4,798 hectares.

The author was not requested to carry out an independent review of the status of the Blizzard mineral claims and was instructed by BCPG to assume that they were, at all relevant times, in good standing.

Two site visits to the Blizzard property were undertaken by most members of the AMC Team in June and July 2010.

The Report has been prepared in conformance with the BC "Supreme Court Civil Rules" and, with one qualification, with the "Standards and Guidelines for Valuation of Mineral Properties", February 2003, (CIMVal Standards and Guidelines) published by the Canadian Institute of Mining, Metallurgy and Petroleum. This report is dated and effective as at 9 November 2010.

Project Description

The Blizzard Project is located 49 air kilometres southeast of Kelowna in British Columbia. The uranium deposit is located near the apex of a hill, at approximately 1,400m elevation, on a drainage divide separating the West Kettle River basin from the Kettle River basin. Big White Mountain, about 15 km north of the Blizzard deposit, has an elevation of about 2,320m.

The area is covered by interior forest with the Blizzard claim area logged just prior to staking of the area in 1976. The area was planted and trees are now 5m to 10m in height. A network of old logging roads covers the property. The land around the Blizzard deposit is mainly Crown-owned with forest rights under lease. Beaverdell is the nearest community.

The uranium deposit is flat-lying, generally less than 100m below surface, and comprised of loosely consolidated sandstones and mudstones lying beneath a capping of basalt. The uranium is concentrated in a series of horizontal lenses having a general trend from northwest to southeast. The deposit is underlain with granitic rocks of unknown thickness.

The main uranium minerals at Blizzard are autunite (calcium uranyl phosphate), ningyoite (hydrated uranium-calcium-cesium phosphate) and saleeite (magnesium uranyl phosphate). The Blizzard deposit is not known for any other metals of economic significance. Studies have indicated that there are only trace amounts of thorium, vanadium and molybdenum.

Ownership

The Blizzard Property was initially staked in February 1976. The property was not placed in production due to a moratorium on exploration and development for uranium resources imposed by the British Columbia government in 1980. The moratorium ended seven years later during a period of low uranium prices and the Blizzard property and most of the uranium claims in British Columbia were allowed to lapse.

In the 2000s, prospects with previous indications of uranium mineralization were staked by various individuals and consolidated by companies represented by Mr Beruschi. However, the claims over the Blizzard deposit were the subject of disputed ownership. In 2005 and 2006, negotiations took place between a number of interested parties, the net result of which was that Boss acquired ownership of the main Blizzard claims (referred to as Schedule A Claims) and an option to obtain a 51% interest in claims covering other uranium prospects in the Blizzard area (referred to as Schedule B claims).

Exploration

Prospecting by Lacana Mining Corporation in 1975 led to the staking of a favourable geologic target in February 1976. Lacana completed 15 percussion drill holes in 1976 that discovered the Blizzard deposit. The property was optioned to Norcen Energy Resources Limited (Norcen) in 1977 which operated a joint venture on behalf of several companies. Norcen completed 479 diamond, percussion and rotary holes totalling 20,946m between 1977 and 1979. It also undertook a number of studies into the development of the Blizzard project.

Norcen's exploration and development work culminated in the production of an engineering feasibility study by Kilborn Engineering (BC) Limited (Kilborn) in 1979. Kilborn's engineering feasibility study document is relatively brief. The study scope of work was to "select a design concept considered most desirable and practical for the development of the Blizzard Uranium Project". It was not a full feasibility study and appears not to have included a financial evaluation.

Due to the moratorium imposed on uranium mining in 1980 and the subsequent protracted period of low uranium prices, the exploration and development work undertaken in the 1970s was the last work carried out on Blizzard. Boss states on its web site that its intention

had been to update the Kilborn feasibility study to current mineral resource standards, involving additional drilling and further engineering studies, and an evaluation of uranium processing options.

There are several other uranium prospects in the general Blizzard area that were also explored in the 1970s. Boss mineral claims cover three of these, Fuki, Hydraulic Lake and Haynes Lake (although it appears that Haynes Lake and Fuki are subject to an option agreement), while a fourth, Cup Lake, is held by another company. The uranium grades of these other deposits are substantially lower than that of the Blizzard deposit.

Resource Estimates

Kilborn completed tonnage / grade estimates on Blizzard as part of its engineering feasibility study. They were classified as "Drill Indicated Reserves" and "Inferred Reserves", neither category of which is recognized under modern resource / reserve reporting standards (as encapsulated in National Instrument 43-101¹). In a Technical Report prepared on behalf of Boss in 2007, Christopher (2007) re-classified the Kilborn estimates to conform with NI 43-101 guidelines by renaming "Drill Indicated Reserves" as Indicated Resources² and "Inferred Reserves" as Inferred Resources³.

Historic Blizzard Resource Estimates (0.025% U₃O₈ cut-off)

Company	Resource Category	Tonnes (Mt)	U ₃ O ₈ (%)	U₃O₅ (M Pounds)	
Kilborn (1979) (reclassified	Indicated	1.92	0.25	10.43	
by Christopher (2007)	Inferred	0.005	0.16	0.02	

Tonnes and grade rounded

The AMC Team's uranium geology expert, Mr Sweeney, concluded that the Kilborn estimates have an accuracy of around +/- 30% and are appropriate as global estimates of tonnes and grades for the purposes of the AMC valuation exercise. However, he also

¹ National Instrument 43-101 is an instrument enforced by securities regulators in Canada and enacted in 2001 that establishes standards for disclosure of scientific and technical information regarding mineral projects and requires that the disclosure be based on a technical report or other information prepared by or under the supervision of a "Qualified Person". The Instrument incorporates by reference the definitions and categories of mineral resources and mineral reserves set out in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "Definition Standards on Mineral Resources and Mineral Reserves"

² Defined in CIM Definition Standards "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".

³ Defined in CIM Definition Standards as "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".

concluded that the resource estimates should be downgraded to 100% Inferred Resources for a number of reasons related to the concerns as to the quality of the exploration data and the resource estimation method used by Kilborn.

For the nearby Fuki, Hydraulic Lake and Haynes Lake uranium properties, Christopher (2007) reported historic tonnage / grade estimates undertaken in the 1970s, which he again re-classified as Inferred Resources, as shown below

Historic Resource Estimates, Other Boss Uranium Properties

Deposit	Reference	Resource Category	Tonnes (Mt)	U ₃ O ₈ (%)	U₃O₅ (MPounds)
Hydraulic Lake	Christopher (2007)	Inferred Resources	3.06	0.03	2.16
Haynes Lake	Christopher (2007)	Inferred Resources	>2.0	0.02	>0.9
Fuki	Christopher (2007)	Inferred Resources	>0.5	0.03	>0.3

Tonnes and grade rounded

There is little information available on these historic resource estimates, but the author doubts whether they would qualify as Inferred Resources under modern standards.

AMC Approach to Valuation of Blizzard

The author is of the view that the definition of "Fair Market Value" used in the CIMVal Standards and Guidelines is applicable to the Blizzard valuation and has used it for the purpose of the Report: "the highest price, expressed in terms of money or money's worth, obtainable in an open and unrestricted market between knowledgeable, informed and prudent parties, acting at arm's length, neither party being under any compulsion to transact".

The three generally accepted valuation approaches in the mining industry are:

- Income Approach based on the income or cash flow generation potential of the mineral property
- Market Approach comparison with the transaction value of similar mineral properties, transacted in an open market
- Cost Approach usually analysing past exploration expenditures for their contribution to the exploration potential of the mineral property.

The valuation approach depends on the stage of exploration or development of the property. For a property like Blizzard which has been explored in some detail and subject to a technical / economic study, albeit now 30 years old, all three approaches may be applied.

Within the valuation approaches, there are various valuation methods that may be applied. The CIMVal Standards and Guidelines state (and AMC practice is) that more than one valuation method should be used and the results reported as ranges of values to reflect the uncertainty and subjective nature of the valuation process.

The author decided that the following valuation methods should be applied to Blizzard:

Valuation Approach	Valuation Method	Method Ranking	Comments
Income	Discounted Cash Flow (DCF)	Primary	The availability of relatively advanced technical information from Kilborn's 1979 engineering feasibility study makes this method applicable
	Comparable Transactions	Primary	Sufficient transactions with elements reasonably comparable to Blizzard are available to allow use of this method
Market	Actual Transactions, a sub-category of Comparable Transactions	Secondary	The deals and agreements in 2005 / 06 that resulted in resolution of the Blizzard tenure situation may provide some indication of value at the time
	Market Capitalization	Secondary	Since Boss is essentially a one-project junior company, this method may be applicable as a guide to project value

Valuation Methods Applied to Blizzard Project

The author decided that none of the common cost methods could be reasonably applied to Blizzard mainly because of a lack of complete and recent exploration expenditure information.

Discounted Cash Flow / Net Present Value Method

The discounted cash flow / net present value (DCF / NPV) method is generally recognized as the most appropriate method when the project has advanced to the stage where reasonable estimates can be made of likely operating parameters, costs (capital and operating), revenue and yearly cash flow. In the author's view, this would be one of the prime methods likely to be used by a prospective purchaser of Blizzard in 2008 or 2009.

Each AMC Team member reviewed the available information and related studies, assessed how technical parameters should be updated to present-day standards, identified the key risks and opportunities and estimated capital and operating costs for the scenarios examined. This information was passed to Mr Bowie of KPMG who carried out the valuations. In most cases, the capital and operating costs have an accuracy of ±20-30%.

Two main development scenarios were examined; (1) open pit mining / "conventional" processing and (2) in-situ leach, with sub-scenarios of (2a) acid in-situ leach and (2b) alkali in-situ leach.

The first option involves mining the ore by open pit methods, and treating the product onsite in a custom-built mill to extract the uranium and produce "yellow cake" for transporting to the point of sale. This was the option selected by Kilborn as being the most appropriate to Blizzard. The AMC Team briefly examined an alternative of underground mining because it would create a less visible impact, but concluded that it would not be technically or economically viable, a conclusion also reached by Kilborn. In-situ leach extraction involves leaving the orebody where it is in the ground and pumping acid or alkali leaching solutions through it via drill holes to recover the uranium from the ore. The uranium-bearing solution is then treated in an on-site mill to recover the uranium, the mill being less complex and therefore less expensive than for "conventional" processing.

Although rejected by Kilborn in 1979 because of concerns regarding orebody permeability to the leaching solutions and potential contamination of surrounding groundwater, the AMC Team decided that the method should be examined because (a) early in the AMC study, it appeared as though open pit mining / conventional processing may not be economically viable and (b) in-situ leach creates a smaller footprint and reduced visible impact compared with open pit mining / conventional processing, is a closed system with no waste / tailings removal and storage requirements, and has a lower capital cost than conventional processing.

Both acid leach and alkali leach were examined, primarily because the AMC Team recognized that acid leach, although a more efficient process than alkali leach and technically more applicable to Blizzard, would be likely to face considerable environmental, governmental and community opposition (as would alkali leach, but potentially to a lesser degree). There are currently no in-situ leach uranium operations in Canada; there are four in the USA (with several at the exploration and development stages), all of which use alkali leach, and there are several in other countries.

Comparable Transaction Method

Mineral projects that, at the present time, are not technically and / or economically viable can have a positive value in the marketplace. This is evidenced by transactions amongst mining and exploration companies in the trade market as well as by implicit share market values assigned to mineral assets owned by listed companies. This situation can arise because of perceived possibilities of future increases in metal price, or enhancement of the resource by further exploration, or future technology changes, or changes in governmental / regulatory positions etc. One means of assessing such "option" value is by comparable transactions.

For the comparable transactions method, an AMC database of world-wide exploration property transactions was examined to select those with similarities to Blizzard, taking into account geology, potential mining and processing methods, tonnage and grade of mineral resources, status of exploration / development, likely permitting delays / opposition and country or regional location. The details of the relevant transactions, which may include conditional payments / commitments over time, were analyzed to assess the effective purchase price per pound of uranium in resources. The results were then reviewed in terms of what they may mean for the value per pound of uranium in the Blizzard mineral resources on the dates in question.

Other Valuation Methods

The Actual Transactions valuation method is similar to the comparable transaction method, but uses actual transactions for the property in question. The negotiations and agreements entered into during 2005 and 2006 in order to resolve the ownership of the Blizzard claims were reviewed to assess whether a reasonable indication of project value in April 2008 and March 2009 could be derived.

Since Boss's only material mineral property asset is the Blizzard property, Boss's Market Capitalization at the valuation dates in question was also considered as a guide to project value.

Valuation Results

The results of the valuation exercises are summarized in the following table.

Valuation	Valuation	Development Seenerie	Valuation	Range (C\$M)
Date	Method	Development Scenario	Low	High
		Open pit / conventional processing	(52.1)	(68.2)
	DCF	Acid in-situ leach	(3.34)	(1.02)
		Alkali in-situ leach	(3.97)	(2.94)
24 April	Comparable Transactions	Either scenario	4.2	6.3
2008	Actual Transactions	Either scenario	N/A	N/A
	Market Capitalization	Either scenario	N/A	N/A
	Other Boss Explo	ration Properties	0.2	0.4
		Open pit / conventional processing	(36.4)	(46.9)
	DCF	Acid in-situ leach	(2.78)	0.66
		Alkali in-situ leach	(3.24)	(0.73)
12 March	Comparable Transactions	Either scenario	2.1	4.2
2009	Actual Transactions	Either scenario	N/A	N/A
	Market Capitalization	Either scenario	N/A	N/A
	Other Boss Exploration Properties		0.2	0.4

Summary of Blizzard Valuation Results

Brackets = negative N/A = not applicable

Of the four valuation methods applied to Blizzard, two (actual transactions and market capitalization) turned out to be subject to significant uncertainty such that the author does not believe that they contribute materially to an assessment of value.

The DCF / NPV approach to an open pit mining / conventional processing project resulted in substantially negative values at both valuation dates, with no reasonably likely combination of variations to project parameters making the values positive. The main reasons for the

negative NPVs are an estimated capital cost for the processing plant and associated surface facilities of approximately C\$180-190M, and a judgement that project approval would be likely to take between four and eight years with some risk of never being granted.

The DCF / NPV approach to an in-situ leach extraction resulted in slightly negative values at both valuation dates except for a small positive value for acid in-situ leach at 12 March 2009, with optimistic variations to project parameters resulting in slightly to reasonably positive values. However, there are substantial technical uncertainties with respect to this method, including permeability of the uranium deposit and potential contamination of groundwater with acid or alkali solutions. Moreover, the AMC Team believes that there is only a very low likelihood that an in-situ leach project, using either acid or alkali solutions, would receive regulatory approval.

Although the DCF / NPV approaches yielded predominantly negative project values, the author believes that the project would have had some value in 2008 or 2009 because a purchaser may have been prepared to make an offer for the property as an option against future uranium price increases or favourable changes in government / community attitudes toward uranium mining in British Columbia etc. He has therefore given prime weight to the comparable transactions valuation method in concluding a value for the project.

Valuation Conclusion

The author concludes that:

- 1. the Blizzard project had a negative value in April 2008 and March 2009 on the basis of a DCF / NPV assessments of the most likely development scenarios,
- 2. sub-economic projects may have a positive "option" value insofar as a prospective purchaser may be prepared to make a judgement on possible future changes in project parameters / characteristics that would result in the project becoming economic,
- 3. the comparable transactions valuation method is a reasonable basis for assessing that option value and the data available makes it possible to apply the method to Blizzard,
- 4. using the results of the comparable transactions assessment described above and including a value of C\$0.2M (low) to C\$0.4M (high) for other Boss exploration properties, reasonable valuations for the Blizzard uranium property are:

24 April 2008: C\$4.4M to C\$6.7M, with a preferred (mid-point) value of C\$5.6M

12 March 2009: C\$2.3M to C\$4.6M, with a preferred (mid-point) value of C\$3.5M

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- N Carter, Ux Consulting
- M Bowie, KPMG

1 INTRODUCTION TO INDEPENDENT EXPERT'S REPORT, P R STEPHENSON

I, Patrick Roger Stephenson PGeo, of 2595 West 8th Avenue, Vancouver, British Columbia state:

I obtained a Bachelor of Science degree (with Honours) in Geology from the University of Aberdeen, Scotland, in 1971.

I am a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia, a Member of the Canadian Institute of Mining, Metallurgy and Petroleum, a Fellow of The Australasian Institute of Mining and Metallurgy (with Chartered Professional status) and a Fellow of the Australian Institute of Geoscientists.

I am currently employed full time by AMC Mining Consultants (Canada) Limited as Director, Regional Manager and Principal Geologist.

I am independent of the parties in the litigation for which my report has been prepared.

I have been involved in the valuation of exploration and mining properties since 1994, between 1994 and 2001 as a sole consulting practitioner and, since 2001, as an employee of AMC or its associated company AMC Consultants Pty Ltd. In that time, I have taken part in twenty mineral valuation assignments, five as the valuer.

A copy of my curriculum vitae is attached as Appendix 1 to my Independent Expert's Report and includes a list of valuation assignments.

2 OVERVIEW AND TERMS OF REFERENCE

2.1 Background

P R Stephenson (the author) of AMC Mining Consultants (Canada) Ltd (AMC) was requested by Mr J E Gouge QC, representing the Ministry of Attorney General of the British Columbia Provincial Government (BCPG), via a series of e-mails and exchanged documents in May 2010, to provide a valuation of the Blizzard Uranium Project in British Columbia for use by the BCPG in the litigation described below.

The claims that are the subject of the litigation are held outright or under option by Boss Power Corp and Blizzard Uranium Corp (collectively "Boss"). Boss is in dispute with the Province of British Columbia regarding its right to explore and potentially mine from its Blizzard Uranium Project. According to a statement on Boss's web site dated 16 October 2008, Boss alleges that: *"the Province of British Columbia in imposing an Uranium and Thorium Reserve under the Mineral Tenure Act on April 24th, 2008 has prevented the company from exploring for or producing uranium or thorium from the Blizzard Uranium Property and that the Province has expropriated the Company's interest in the Property".*

The trial is set to open on 31 January 2011. This report is dated and effective as at 9 November 2010.

2.2 Overview of Blizzard Property

The Blizzard Project is located 49 air kilometres southeast of Kelowna in British Columbia (Figure 2.1). The deposit has been explored since the 1970s and was the subject of a 1979 engineering feasibility study by Kilborn Engineering Ltd (Kilborn) on behalf of a joint venture comprised of Norcen Energy Resources, Lacana Mining Corporation, Campbell Chibougamau Mines, E & B Explorations and Ontario Hydro. A total of 21,184 metres of drilling in 478 reverse circulation and diamond drill holes were completed on the deposit in the 1970s. Kilborn estimated total "Indicated and Inferred In Place Reserves" (not compliant with National Instrument 43-101⁴) of 2.2 million tonnes averaging 0.21% U₃O₈ above a cut-off grade of 0.025% U₃O₈ containing 10.4 million pounds of U₃O₈.

A NI 43-101 compliant Technical Report was prepared by Christopher & Associates on behalf of Boss in November 2006 (updated in May 2007). Christopher converted the historical "reserves" to NI 43-101 compliant mineral resources and reported Indicated Resources⁵ of 1,915,000 tonnes averaging 0.25% U_3O_8 containing 10.4 million pounds of U_3O_8 . (with a very minor amount of Inferred Resources⁶).

⁴ National Instrument 43-101 is an instrument enforced by securities regulators in Canada and enacted in 2001 that establishes standards for disclosure of scientific and technical information regarding mineral projects and requires that the disclosure be based on a technical report or other information prepared by or under the supervision of a "Qualified Person". The Instrument incorporates by reference the definitions and categories of mineral resources and mineral reserves set out in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "Definition Standards on Mineral Resources and Mineral Reserves"

⁵ Defined in CIM Definition Standards "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

Boss states on its website that its intention had been to update the Kilborn feasibility study to current mineral resource standards, involving additional drilling and further engineering studies, and an evaluation of uranium processing options.





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".

^o Defined in CIM Definition Standards as "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".

Figure 2-2 Photograph of Proposed Blizzard Open Pit Site, Looking North towards Big White Mountain



2.3 Scope of Work

The author was requested to assemble a team (the AMC Team) of technical experts and specialists and to prepare a report (the Report) that offers an opinion on the value of Boss's Blizzard mineral claims as of 24 April 2008 and 12 March 2009. The former is the date on which the Chief Gold Commissioner established a Mineral Reserve by regulation and the latter is the date on which an order in Council directed the Chief Inspector under the Mines Act not to issue an exploration permit for uranium and thorium. The claims required to be valued comprised Blizzard 1, Hydraulic Lake, Fuki B List, Haynes Lake B List and Hydraulic Lake B List, totalling approximately 4,798 hectares.

2.4 AMC Team

The AMC Team is listed in Table 2-1.

Table 2-1	AMC Team
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Consultant	Employer	Position	Qualifications	Experience	Report Responsibility
P R (Pat) Stephenson	AMC Mining Consultants (Canada) Ltd	Director, Regional Manager, Principal Geologist	PGeo (BC) BSc (Hons) (Geology) FAusIMM (CP) FAIG MCIM	39 years experience including 21 years in consulting. Primary areas of expertise mineral resource / reserve auditing and review, due diligence reviews, prospect evaluation, expert witness activities, valuation of mineral properties and preparation of Independent Consulting Geologists reports.	Project Manager Qualified Valuator Report compiler
M (Mark) Sweeney	AMC Consultants Ltd	Principal Resource Geologist	MSc Applied Mining Geostatistics, BSc Applied Geology (Hon) Diploma Statistics & Geostatistics MAusIMM	24 years experience including 14 years in consulting. Five years spent at the Rossing uranium mine in Namibia. Areas of expertise include geological modelling, resource estimation and advanced geostatistics.	Review of mineral resource estimate, preparation of geological sections of Report
H A (Bert) Smith	AMC Mining Consultants (Canada) Ltd	Group Manager Mining, Principal Mining Engineer	MSc, BSc (Mining Engineering) PEng (BC) PEng (Ontario) PEng (Alberta) MCIM	Over 30 years experience. Primary expertise in mine design and planning, mining economic and viability assessment, feasibility studies, and mechanical excavation of hard rock.	Overview of mining and infrastructure components of Report, undertaking high level review of underground mining potential
M (Mo) Molavi	AMC Mining Consultants (Canada) Ltd	Principal Mining Engineer	MEng (Mining) BEng (Mining) PEng (Sask) MCIM	Over 30 years experience, ranging from Shaft General Foreman and Mine Captain to Feasibility Study Manager and Manager of Technical Services. He also managed a feasibility study and technical services at the Diavik diamond mine.	Infrastructure components of Report, assistance with assessment of underground mining potential
G (Greg) Hollett	AMC Mining Consultants (Canada) Ltd	Senior Mining Engineer	BEng (Mining Engineering) APESMA	Over 8 years experience in both operational and technical areas of open pit mining, including mine planning and design, mine production, scheduling and budgeting, life of mine planning, pit optimization, and contract management.	Open pit mining component of Report
G R (Bob) Appleyard	AMC Consultants Pty Ltd	Principal Geologist	BSc (Hons), BA FAusIMM (CP) CIM (Life)	45 years experience covering exploration, mining investment, business development and general management of exploration and mining companies. Particular expertise in valuation and due diligence for mining and exploration projects and companies	Comparable Transactions and Actual Transactions components of Report
B (Bruce) Fielder	Melis Engineering	Principal Process Engineer	BSc (Metallurgical Engineering) PEng (Sask)	29 years experience, primarily in uranium processing. Responsibilities have included preparation of metallurgical test programs, detailed plant process engineering and material balances, preparation of mill operating manuals, and the preparation of environmental impact statements.	Processing component of Report (excluding in-situ leach)
A (Alan) Riles	Riles Integrated Resource Manageme nt Pty Ltd	Principal	BSc Metallurgy (Honours Class 1) Grad Dip Professional Management	Over 30 years experience in operations and project management covering multiple commodities, open-pit and underground operations, variety of metallurgical	In-situ leach component of Report

Consultant	Employer	Position	Qualifications	Experience	Report Responsibility
R (Richard) Pope	Dillon Consulting Limited	Partner	BSc (Hons) Marine Biology MSc Environmental Biology RPBio	processes including ISL. 24 years experience. Particular expertise includes environmental impact assessments, environmental due diligence reviews, environmental monitoring and program design etc.	Review of environmental aspects, including permitting requirements
M (Mike) Bowie	KPMG	Partner, Advisory Services	CA FCBV HBA	Corporate Finance, financing, divestiture, acquisitions, valuations, business valuation, pricing analysis, goodwill impairment, fairness opinions.	DCF valuations based on technical input from rest of team and. Also valuation based on market capitalisation
N (Nick) Carter	Ux Consulting	Vice- President Uranium	BEc	Over 17 years of nuclear industry experience. Responsible for managing and coordinating all uranium consulting projects and products. Specializes in economic analysis and forecasting of the uranium market, specifically in the areas of worldwide U ₃ O ₈ production capability, production costs, and price projections.	Advice on uranium pricing and marketing

All team members are independent of the parties to the litigation.

2.5 Governing Standards

2.5.1 BC Supreme Court Civil Rules

The Report has been prepared in conformance with the BC *Supreme Court Civil Rules* that came into effect on July 1, 2010. The following is a summary of the application of these Rules to the AMC report provided by Mr Gouge:

The expert must certify that he is aware that he has a duty to assist the court and is not to be an advocate for any party, that he has prepared his report in conformity with that duty, and that he will give oral evidence, if asked, in conformity with that duty.

The report must state the expert's name, address and area of expertise. The AMC work will involve a number of contributors, each of whom is an expert in his area, with the prime author and Valuator bringing together their advice and inputs in order to form his opinion as to value. For trial purposes, BCPG will need a separate report from each team member, identifying the task which he was given, the facts (assumed or proven) which were necessary to the formulation of his opinion, the conclusion(s) which he reached, and the reasons for those conclusions.

The report must state the instructions given to the Valuator and to each of the project team members.

The report must state the nature of the opinion being sought and the issue in the proceeding to which the opinion relates.

The report must state the expert's opinion on the question(s) put to him and the reasons for that opinion. The reasons for the opinion must identify all facts (proven or assumed) on which the expert relies, a description of any research undertaken by the expert in forming the opinion, and any documents relied on by the expert in forming the opinion.

2.5.2 CIMVal Standards and Guidelines

Subject to the qualification noted below, the Report has been prepared in accordance with the "Standards and Guidelines for Valuation of Mineral Properties" (CIMVal Standards and Guidelines), drawn up by the Special Committee of the Canadian Institute of Mining, Metallurgy and Petroleum on Valuation of Mineral Properties (CIMVal) and published in February 2003. A copy is attached as Appendix 2. The CIMVal Standards and Guidelines include the following obligations on the part of the Commissioning Entity (BCPG):

"S6.1 A Commissioning Entity must reasonably establish that the Qualified Valuator is sufficiently Competent and Independent to carry out the Valuation of the subject Mineral Property or Properties.

S6.2 The Commissioning Entity and the Qualified Valuator must agree, in an engagement letter or written contract, on the terms of reference of the Valuation assignment, which terms must be summarized and disclosed in the Valuation Report.

S6.3 The Commissioning Entity must represent in writing to the Qualified Valuator that complete, accurate and true disclosure is made to the Qualified Valuator of all Material data and information relevant to the Valuation and that the Qualified Valuator has reasonable access to the Commissioning Entity's records and personnel to enable a proper Valuation to be made.

S6.4 The Commissioning Entity must inform the Qualified Valuator which, if any, of the data and information supplied is confidential and the extent to which it should or should not be disclosed to the public."

BCPG has advised that, due to the litigious nature of this case, it is not able to comply with Clause S6.3. It has, instead, invoked the court process to compel Boss to provide AMC with the information it requires.

Although the Report is structured somewhat differently to the structure of a valuation report recommended by the CIMVal Standards and Guidelines, all requirements of the CIMVal Standards and Guidelines have been addressed.

2.6 Definition of "Value"

When valuing mineral properties, the term "Value" is usually taken as "Fair Market Value", which is defined in the CIMVal Standards as "the highest price, expressed in terms of money or money's worth, obtainable in an open and unrestricted market between knowledgeable, informed and prudent parties, acting at arm's length, neither party being under any compulsion to transact". Guideline G2.1, Point 4 of the CIMVAL Standards and Guidelines, states: "If rights additional to mineral rights or mining rights are attached to the

Mineral Property, the principle of "highest and best use" should be considered". BCPG advised the author that Boss does not hold any non-mining rights in relation to the Blizzard property.

If the case was one of expropriation, as claimed by Boss, then the definition of "Value" in the BC Mining Rights Compensation Regulation (January 1999, amended July 2006), section 5 (1) would apply: "the value that would have been paid to the holder of the expropriated mineral title if the title had been sold on the date of expropriation, in an open and unrestricted market between informed and prudent parties acting at arm's length". However, BCPG advised AMC not to assume that this section of the BC mining regulations applies in this case and that AMC should form its own view as to an appropriate definition of value.

Having regard to the above, the author has applied the CIMVal definition of Fair Market Value in this case.

2.7 Approach to Valuation

Given the availability of Kilborn's 1979 engineering feasibility study, the author decided that one of the prime valuation methods should be a Discounted Cash Flow / Net Present Value (DCF/NPV) approach. It is likely that a prospective purchaser would use this method in assessing a value for the project. The other prime valuation method was by Comparable Transactions and checks were undertaken using Actual Transactions and Market Capitalization.

Kilborn's 1979 engineering feasibility study document is relatively brief. The study scope of work was to "select a design concept considered most desirable and practical for the development of the Blizzard Uranium Project". It was not a full feasibility study and appears not to have included a financial evaluation. Given these limitations and its age (30 years), the AMC Team undertook a moderate amount of technical work, similar to that likely to be undertaken by a prudent buyer, in order to identify the key risks and opportunities with the project, build a production profile and make a reasonable estimate of capital and operating costs.

For the comparable transactions method, an AMC database of world-wide exploration property transactions was examined to select those with similarities to Blizzard, taking into account geology, potential mining and processing methods, tonnage and grade of mineral resources, status of exploration / development, likely permitting delays / opposition and country or regional location. The details of the relevant transactions, which may include conditional payments / commitments over time, were analyzed to assess the effective purchase price per pound of uranium in resources. The results were then reviewed in terms of what they may mean for the value per pound of uranium in the Blizzard mineral resources on the dates in question.

The author also valued the exploration holdings outside the main project.

2.8 Structure of Report

In this Report, the individual reports provided by the experts listed in Table 2.1 are attached as Appendices and are referenced as necessary in the main body of the Report.

2.9 Abbreviations

g	gram
cm	centimetre
kg	kilogram
km	kilometre
km ²	square kilometre
kW	Kilowatt
Μ	million
m	metre
m ²	square metre
mm	millimetre
Mt	million tonnes
Mtpa	million tonnes per annum
ра	per annum
t	tonne
tpa	tonnes per annum
tpd	tonnes per day
t/m ³	tonnes per cubic metre
0	degrees
U_3O_8	tri-uranium octoxide

3 OVERVIEW OF URANIUM INDUSTRY

(Much of the factual and descriptive items of this overview are adapted from the web site of Cameco Corporation, Canada's largest uranium producer).

Uranium is an element found in nature. Its only significant commercial use is to fuel nuclear power plants for the generation of electricity. There are 436 commercial nuclear power reactors operating in 30 countries and a total of 110 new reactors that are under construction or planned for completion within the next 10 years (as of March 2010).

In its pure form, uranium is a silvery white metal of very high density, more dense even than lead. Uranium can take many chemical forms, but in nature it is generally found as an oxide (i.e., in combination with oxygen). Tri-uranium octoxide (U_3O_8) is the most stable form of uranium oxide and is the form most commonly found in nature.

Uranium is one of the most abundant elements found in the Earth's crust. It can be found almost everywhere in soil and rock, in rivers and oceans. However, concentrated uranium deposits from which extraction is economically viable are found in just a few places, usually in hard rock or sandstone. The decision to mine is a function of many factors including extraction method, market prices and social and environmental considerations.

Uranium deposits are found all over the world. The largest deposits of uranium are found in Australia, Kazakhstan and Canada. The only known high-grade deposits are found in Canada. Figure 3-1 shows known conventional resources of uranium.

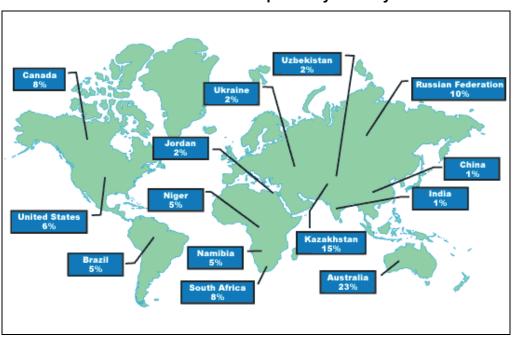


Figure 3-1 Known Uranium Resources Deposits by Country

Distribution of Identified Uranium Resources Worldwide (< 130 US\$/kg U): 5.47 Mt (Source: OECD NEA & IAEA, Uranium 2007: Resources, Production and Demand, (Red Book 2007)).

Today's exploration activities are much more complex than in the past since the deposits that were close to the surface were found first because they were easier to discover. With the highest-grade deposits buried in deep rock formations, advanced technologies like satellite imagery, geophysical surveys, multi-element geochemical analysis and computer processing are required to locate and confirm the deposits.

Once geologists locate a prospective deposit, detailed geological and economic evaluation of the grade and characteristics of the orebody must be completed. Then mining engineers develop a mining plan to extract the ore. If the project looks promising, environmental impact assessments and the public consultation process begin so that applications can be made for regulatory approvals of project development. When permits and licences are in place, mine development and construction of surface facilities can begin. The timeline from discovery of an orebody to electricity production can span decades. Cameco's McArthur River mine was fast-tracked and still took 12 years to bring to commercial production.

Uranium ore is removed from the ground in one of three ways, depending on the characteristics of the deposit. Uranium deposits close to the surface can be recovered using the open pit mining method, and underground mining methods are used for deep deposits. In some circumstances the ore may be mined by in-situ leaching, a process that dissolves the uranium while still underground and then pumps a uranium-bearing solution to the surface.

Uranium ore is a mixture of valuable minerals and waste. The first step after mining the ore is to crush and grind it to roughly 0.2 mm (unless it is in a solution already) and leach it with acid and an oxidant to dissolve the uranium. The leached rock is then separated from the liquid that contains the dissolved uranium. Because the leaching process also dissolved many other metals, the solution is purified so that only the uranium remains. The uranium-rich solution is then precipitated (condensed) out of the solution. Finally, the uranium is dried. The resulting powder is uranium oxide concentrate, U_3O_8 , commonly referred to as yellowcake because it is often bright yellow.

The yellowcake is packaged into special steel drums similar in size to oil barrels. The drums are transported to uranium refineries, the next stage in the nuclear fuel cycle.

Before uranium is ready for use as nuclear fuel in reactors, it must undergo a number of intermediary processing steps which are identified as the front end of the nuclear fuel cycle:

- Mining and milling to produce yellowcake (described above)
- Refining and conversion to produce other uranium compounds
- Enrichment to produce low-enriched uranium
- Fuel fabrication to produce fuel assemblies or bundles

Nuclear utilities, the ultimate users of nuclear fuel, purchase uranium in all of these intermediate forms. Typically, a fuel buyer from power utilities will contract separately with suppliers at each step of the process. Sometimes, the fuel buyer may purchase enriched uranium product, the end product of the first three stages, and contract separately for fabrication, the fourth step.

In addition to being sold in different forms, uranium markets are differentiated by geography. The global trading of uranium has evolved into two distinct marketplaces shaped by historical and political forces. The first, the western world marketplace comprises the Americas, Western Europe and the Far East. A separate marketplace comprises countries within the former Soviet Union, or the Commonwealth of Independent States ("CIS"), Eastern Europe and China. Most of the fuel requirements for nuclear power plants in the CIS are supplied from the CIS's own stockpiles. Often producers within the CIS also supply uranium and fuel products to the western world, increasing competition.

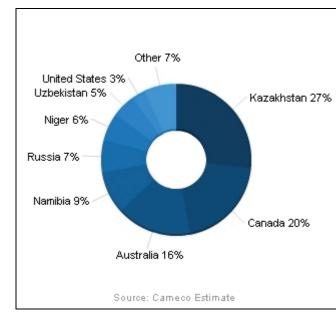




Figure 3-3, reproduced with the kind permission of Ux Consulting, shows uranium prices since 1988.

The uranium price "bubble" of 2007 was a period of nearly exponential growth, starting in 2005 and peaking at roughly US\$135/lb in mid-2007. This coincided with significant rises of stock price of uranium mining and exploration companies. After mid-2007, the price began to fall again and is currently relatively stable at around US\$45-50/lb. A possible direct cause for the bubble was the flooding of the Cigar Lake in Saskatchewan, which has the largest undeveloped high-grade uranium ore deposits in the world. This created uncertainty about short term future of the uranium supply.

The impact of the bubble on nuclear power generation was small, as most power plants have long term uranium delivery contracts, and the price of natural uranium makes up only a small fraction of their operating cost. However, the sharp fall in prices after mid-2007 caused a lot of new companies focused on uranium exploration and mining to lose their viability and go out of business.

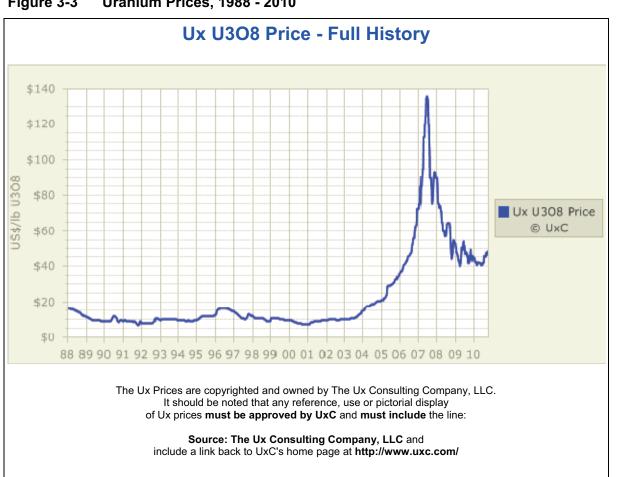


Figure 3-3 Uranium Prices, 1988 - 2010

4 SCOPE OF VALUATION

4.1 Scope of Work

See Section 2.3.

4.2 Information Reviewed or Relied Upon

See Section 14.

4.3 Data Verification and Reliability of Information Relied Upon

All relevant information available to the AMC Team was reviewed for reasonableness and applicability and, in many cases, more up to date information was substituted for the purpose of the valuation. See each relevant Section and Appendix of the Report for more detailed discussions.

4.4 Site Visits

Two site visits were undertaken, the first by the author and Mr Riles on 26 June 2010, and the second by the author, Mr Pope, Mr Smith, Mr Fielder and Mr Hollett on 21-22 July 2010.

During the first site visit, the author and Mr Riles drove from Kelowna to the Blizzard core burial site⁷ at the south end of the property. Several drillhole sites were located and parts of grid line 2,100N and the grid baseline were traversed.

During the second site visit, the team again drove to the core burial site. The author, Mr Smith and Mr Hollett walked the length of the Blizzard grid baseline from south to north (approximately the centre of the planned Kilborn open pit), identifying a number of drillhole sites, while Mr Pope and Mr Fielder visited the planned Kilborn tailings dam area and the site of the old core shed.

4.5 Disclaimers

In preparing the Report, the author and the AMC Team have relied on information sourced and provided by BCPG and they have no reason to believe that information is materially misleading or contains any material errors. The AMC Team has not audited the information provided to it, but has aimed to satisfy itself that all of the information has been prepared in accordance with proper industry standards and is based on data that the AMC Team considers to be of acceptable quality and reliability. Where the AMC Team has not been satisfied, it has included comments in the Report.

The use in the Report of the terms mineral resources and mineral reserves is in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves, published

⁷ As part of the deactivation of the Blizzard exploration project following the moratorium on uranium mining imposed by the BC government, diamond drill cores, percussion and rotary drill chips, assay pulps and core sample rejects were removed from the company's core building at Lassie Lake in June 1980 and buried in a pit at the south end of the Blizzard deposit.

in 2005 by the Canadian Institute of Mining, Metallurgy and Petroleum (Appendix 3). The relevant AMC Team members have not performed, nor do they accept the responsibilities of, Qualified Persons as defined by the CIM Definition Standards or National Instrument 43-101, with respect to mineral resources and mineral reserves estimates presented in the Report.

5 PROPERTY LOCATION, ACCESS AND INFRASTRUCTURE

The Blizzard Project, consisting of the Blizzard 1 claim and surrounding Blizzard claims (see Table 6-1 and Table 6-2) is situated in the Greenwood Mining Division of British Columbia, Canada. The Blizzard deposit is centred near coordinates 49⁰37'27" N latitude and 118⁰55'14" W longitude in 1:50,000 map sheet NTS 82E/10W and on Mineral Title Map 82E.066 (Figure 5-1). The Blizzard Project area contains Schedule A, purchased claims and Schedule B, optioned claims.

The area can be reached from Vancouver via the Trans-Canada Highway to Hope and then either Highway 5 to Kelowna or Highway 3 to Princeton, Osoyoos and Rock Creek. From Rock Creek, paved Highway 33 follows the Kettle River and West Kettle River to Beaverdell and local gravel resource roads from Beaverdell provide property access via the Beaver Creek, Cup Lake and Lassie Lake forestry roads. From Kelowna access is via Highway 33 to the Trapping Creek-Lassie Lake forestry roads.

The Blizzard Deposit is situated at the divide between the Kettle and West Kettle River drainages with local runoff entering Beaverdell Creek, Trapping Creek and Copperkettle Creek and eventually into the Kettle River system.

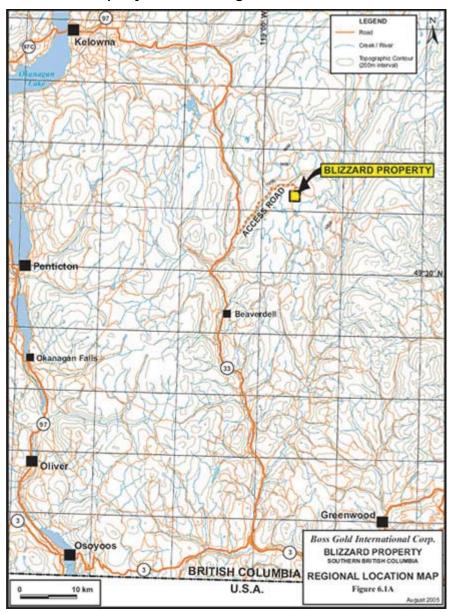
The area is covered by interior forest with the Blizzard claim area logged just prior to Lacana's staking of the area in 1976. The area was planted and trees are now 5m to 10m in height. A network of old logging roads covers the property.

Elevations, in the area, range from under 760m in the Kettle and West Kettle Rivers to about 1,400 m at the northerly end of the Blizzard basalt cap. Big White Mountain, about 15 km north of the Blizzard deposit, has an elevation of about 2,320m.

The climate in the region is that of a dry, elevated plateau area. The extreme summer temperatures of the Okanagan are restricted to a week or two in July or August and evenings are cool and air conditioning is seldom necessary. Wet seasons, which occur in April, May, October and November, account for most of the 40 to 50 cm of annual precipitation and winter conditions last from late November to late March. Snow on roads may be a problem until the end of April. The climate and topography result in a number of lake and marsh areas which present a water supply for mining operations.

The land around the Blizzard deposit is mainly Crown-owned with forest rights under lease. Beaverdell is the nearest community. The Okanagan Valley contains a number of attractive residential areas.

Power is available from local B.C. Hydro grids and water supply is available from local streams and the Kettle River system.





Source: Boss Power web site

6 **PROPERTY OWNERSHIP, STATUS AND AGREEMENTS**

6.1 Introduction

The author has not carried out an independent review of the status of the Blizzard tenements and has been instructed by BCPG to assume that they were, at all relevant times, in good standing.

According to Christopher 2007, the status of Blizzard tenements as at May 2007 was as shown in Table 6-1 and Table 6-2, see also Figure 6-1.

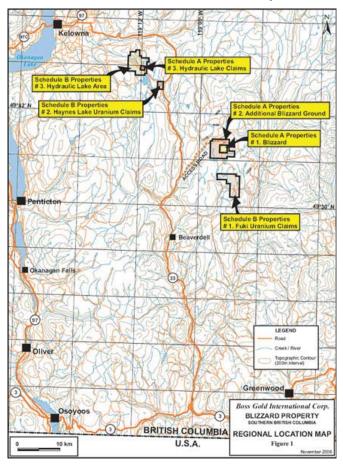
Tenure #	Claim Name	Record Holder	Due Date	Hectares			
Main Blizzard 1 Tenement (Greenwood Mining Division)							
512410	Blizzard 1	Cazador Resources Ltd.	May 11,2007	334.837			
Additional Blizzard Tenements (Greenwood Mining Division)							
531754	Tony 3	Richard John Billingsley	April 11, 2007	376.579			
512166	-	Renee Brickner	Aug. 30, 2007	62.779			
531750	Tony 1	Richard John Billingsley	April 11,2007	167.452			
514145	Squared	Renee Brickner	July 30, 2007	83.731			
516063	-	Dwayne Edward Kress	Sept. 30,2007	83.731			
512167	-	Renee Brickner	Aug. 30, 2007	20.935			
516867	Blizz Hole	Renee Brickner	July 30, 2007	20.935			
513224	-	Renee Brickner	Sept. 30, 2007	83.737			
531755	Tony 4	Richard John Billingsley	April 11, 2007	209.281			
516835	-	Renee Brickner	March 31, 2007	669.735			
513226	-	Renee Brickner	Sept. 30, 2007	83.687			
513234	-	Renee Brickner	Sept. 30,2007	41.838			
415836	Donen 13	Dwayne Edward Kress	Sept. 30, 2007	25.000			
415504	Storm 18	Dwayne Edward Kress	Sept. 30,2007	25.000			
415509	Storm 23	Dwayne Edward Kress	Sept. 30,2007	25.000			
Hydraulic Lake Claims (Osoyoos Mining Division)							
414415	Tyee 1	David Augustin Heyman	Sept. 1, 2007	25.000			
414416	Tyee 2	David Augustin Heyman	Sept. 1, 2007	25.000			
414466	Tyee 3	David Augustin Heyman	Sept. 1, 2007	25.000			
414467	Tyee 4	David Augustin Heyman	Sept. 1, 2007	25.000			

 Table 6-1
 Blizzard Project Tenements – Schedule A Properties

Tenure #	Claim Name	Record Holder	Due Date	Hectares			
Fuji Uranium Claims (Greenwood Mining Division)							
531759	Tony 7	Richard John Billingsley	April 11, 2007	502.898			
515979	-	Dwayne Edward Kress	Sept. 30,2007	125.714			
516882	-	Dwayne Edward Kress	Sept. 30, 2007	20.955			
514144	Pacman	Renee Brickner	July 30, 2007	188.613			
531760	Tony 8	Richard John Billingsley	April 11, 2007	209.567			
514148	S2	Renee Brickner	July 30, 2007	20.959			
514938	-	David Augustin Heyman	Sept. 01, 2007	209.624			
514146	LL	Renee Brickner	July 30, 2007	251.591			
531762	-	Richard John Billingsley	Sept. 01,2007	209.700			
		Haynes Lake Uranium C	Claims				
508805	Moon Group	David Augustin Heyman	March 11, 2007	296.203			
503121	-	David Augustin Heyman	March 11, 2007	521.320			
502074	PB Hydraulic	David Augustin Heyman	March 11, 2007	336.180			
531779	Н	Dwayne Edward Kress	April 11, 2007	521.286			
531780	H2H	Dwayne Edward Kress	April 11, 2007	417.200			

Table 6-2 Schedule B Properties (Updated November 2, 2006 by Boss)

Figure 6-1 Location of Blizzard Schedule A and B Properties



Source: Boss Power web site

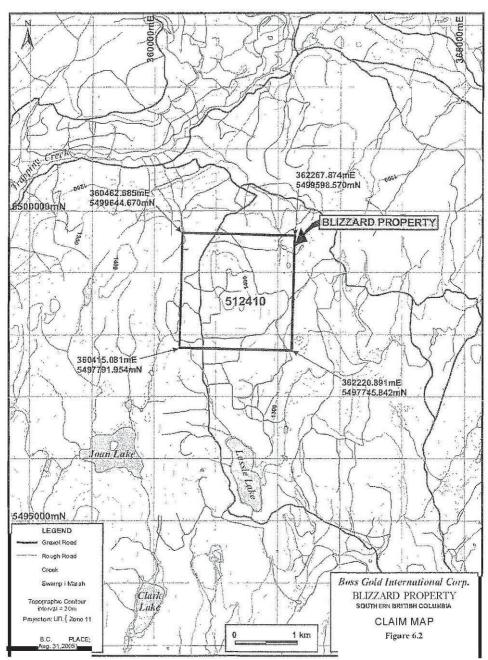


Figure 6-2 Location of Blizzard 1 Claim

Source: Christopher (2007)

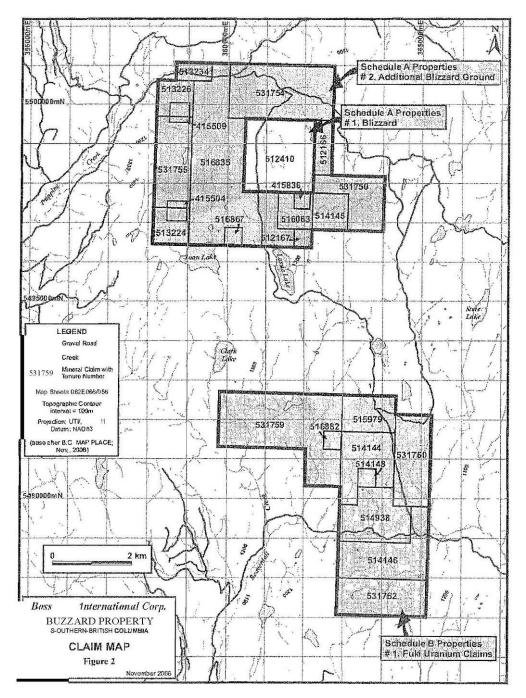


Figure 6-3 Location of Blizzard Schedule A and Fuki Schedule B Claims

Source: Christopher (2007)

6.2 Ownership of Blizzard Tenements

The Blizzard Property was initially staked by Mr D Johnson for Lacana Mining Corporation (Lacana) in February 1976. The property was not placed in production due to a (now expired) moratorium on exploration and development for uranium resources imposed by the British Columbia government in 1980. The moratorium ended seven years later during a period of low uranium prices (see Figure 3-3) and the Blizzard property and most of the uranium claims in British Columbia were allowed to lapse. Areas with previous indications of uranium mineralization were staked by various individuals and consolidated by companies represented by Mr Beruschi.

Claims were acquired over the Blizzard deposit but were dropped by the previous owner on 5 May, 2005 and acquired by Mr A Travis on 11 May 2005. Mr. Travis had staked the claim using the Mineral Title OnLine system after Mr. Beruschi's agent failed to successfully convert the former Blizzard legacy claims utilizing the new on-line system, thereby leaving the claim open. A notice was filed with the Gold Commissioner, under the Mineral Titles Act, by the Beruschi interests claiming "superior right, title and interest" to the claims.

Between June 2005 and July 2006, the Blizzard tenements were the subject of negotiations and deals between a number of parties, as detailed in the following excerpts from Press Releases.

Excerpts from Press Release by Santoy Resources Ltd dated 13 June 2005:

"Santoy Resources Ltd. (TSX.V: SAN) ("Santoy") and Sparton Resources Inc. (TSX.V: SRI) ("Sparton") ("the Companies") are pleased to announce that they have jointly entered into an agreement ("the Agreement"), with an independent prospector ("the Vendor"), to acquire the core claims covering the Blizzard uranium deposit, situated in the Greenwood Mining Division of BC. Under the terms of the agreement, Santoy and Sparton will form a 50:50, joint venture ("the Joint Venture"), to earn a 100% interest in the Blizzard claims over a 4 year period by making \$450,000 of cash option payments (\$50,000 upon signing of the Agreement), issuing shares in their respective companies (250,000 shares of Santoy and 1,000,000 shares of Sparton in year one, and 250,000 work program (\$500,000 in the first two years), making advanced royalty payments of \$50,000 per year after the 5th anniversary, and paying a royalty on sales. A summary of the terms of the Agreement and further details will be available on the Companies' websites and in their respective SEDAR filings".

"Notice has been filed with the Gold Commissioner, under the Mineral Title Act, by a prior property owner of the property area, claiming "superior right, title and interest" to the claims. Based on the Companies' review of the facts, the Property was properly filed for and recorded by the Vendor under the new on-line staking provisions of the Act. Based on the information in hand the Companies have agreed to support the Vendor with respect to any title disputes and to provide certain indemnities in respect thereof".

Excerpt from Press Release by Santoy Resources Ltd dated 9 August 2005:

"Santoy Resources Ltd. ("Santoy" TSX-V - SAN) and Sparton Resources Inc. ("Sparton" TSX-V - SRI) announced today a consolidation of their joint venture holdings in the Blizzard uranium deposit situated in the Greenwood Mining Division of British Columbia. Under the terms of this agreement, Santoy will acquire the right to earn a 100% interest in the Blizzard Property in return for issuing to Sparton 1 million shares of Santoy, 1 million share purchase warrants exercisable at \$0.75 per share for a two year period, \$50,000 cash, the assumption of all of Sparton's obligations under the previously announced Option Agreement with the underlying vendor (see news release dated June 13, 2005), and a production royalty of \$0.50 per pound of uranium. The agreement is subject to regulatory approvals and certain conditions precedent".

Excerpt from Press Release by Santoy Resources Ltd dated 28 September 2005:

"Santoy Resources Ltd. ("Santoy" or the "Company") is pleased to announce that it has received TSX Venture Exchange (the "Exchange") acceptance of the Company's proposed acquisition of the Blizzard Uranium Deposit in the Greenwood Mining Division of southeast British Columbia.

The initial agreement defined the terms of the acquisition of the property from an arm's length, independent geologist by a 50:50 joint venture comprised of Santoy and Sparton Resources Inc ("Sparton") (news release June 13, 2005). The terms consisted of \$25,000 cash payable by each party (paid), the issuance of 250,000 shares of Santoy and 1 million shares of Sparton on Exchange acceptance, with a second tranche of 250,000 shares of Santoy and another 1 million shares of Sparton on the 1st anniversary, and escalating cash payments totaling \$400,000 over 4 years. Joint Venture work commitments are \$500,000 prior to the 2nd anniversary, and an additional \$1 million before the 4th anniversary. Additionally, a \$1.00 per pound of uranium royalty will be reserved for the vendor with advance royalty payments of \$50,000 commencing on the 5th anniversary.

Notice has been filed with the Gold Commissioner, under the Mineral Title Act, by a prior property owner, claiming "superior right, title and interest" to the Blizzard claims. Negotiations toward a business settlement of this title dispute are continuing.

In a news release dated August 8, 2005 the Company announced a consolidation of 100% of the interest in the Blizzard property into Santoy, subject to all necessary approvals, including Exchange acceptance (which has now been obtained) and to a satisfactory resolution of the title dispute, by the payment to Sparton of \$50,000, the issuance of 1 million shares of Santoy and 1 million share purchase warrants (exercisable at \$0.75 per share for a period of 2 years), the reservation of a \$0.50/lb. royalty for Sparton, and the assumption by Santoy of the underlying obligations to the vendor as set out above".

Excerpt from Press Release by Santoy Resources Ltd dated 27 January 2006:

"On June 13, 2005, Santoy announced that it had acquired its initial interest in the Blizzard Uranium deposit in conjunction with Sparton Resources Inc. ("Sparton") in an option agreement with Travis.

As stated in a news release August 9, 2005, this option agreement was amended and Santoy acquired all of Sparton's interest in the Blizzard Uranium deposit in return for issuing to Sparton 1 million common shares and 1 million share purchase warrants (exercisable at \$0.75) of Santoy, \$50,000 cash, the assumption of all of Sparton's obligations under the option agreement and a production royalty of \$0.30 per pound of uranium. Sparton's senior management were closely involved with the discovery and development of the Blizzard Uranium deposit and, going forward, will continue to provide advisory services to Boss.

As indicated in a news release dated September 28, 2005, notice was filed with the Gold Commissioner, under the Mineral Title Act by a previous property owner, being Beruschi, claiming superior right, title and interest to the Blizzard Uranium deposit.

Settlement Agreement with Beruschi:

Under the terms of the settlement, Santoy and Beruschi have agreed to the immediate resolution of title issues relating to the Blizzard Uranium deposit and to cooperate and work together to provide for the Blizzard Uranium deposit's acquisition by Boss, the financing of Boss and the permitting and development of the Blizzard Uranium deposit.

The primary asset of Boss will be the Blizzard Uranium deposit. As part of the settlement, Boss intends to change its name to "Blizzard Uranium Corp." In addition, Santoy and Beruschi have agreed to vend a 100% interest in the Blizzard Uranium deposit and certain rights to the surrounding claims for Boss shares, cash and other considerations, resulting in Santoy receiving 26,250,000 common shares at a deemed issue price of \$2.00 per common share or approximately 45% of Boss's issued shares. Additionally, Santoy will be entitled to earn a 5% working interest in the property to be earned through the funding of \$1 million in exploration. Boss and Santoy both have the right to exchange Santoy's 5% working interest for a royalty of \$1.00/lb of uranium. It is expected that Boss's interest in the Blizzard deposit may be subject to a maximum royalty of \$3.00/lb of uranium.

Santoy and Beruschi will each appoint two directors to a new Boss Board of Directors and will vote their Boss common shares for each other's nominees for a period of 2 years. These four directors will then appoint up to two additional directors and a President.

As additional consideration for agreeing to the settlement, Santoy will receive 1,000,000 existing warrants of Boss from third parties exercisable at \$0.27 per share until on or about November 9, 2006, 250,000 of such warrants Santoy proposes to transfer to Travis as outlined below under the heading "Settlement Agreement with Travis".

As additional consideration for his rights and an option on certain other properties, Beruschi will receive from Boss \$1,200,000 on closing of the initial private placement in Boss; the right, subject to all applicable regulatory approvals, to a \$1,000,000 private placement in Santoy at \$0.40 per unit with each unit comprised of one common share of Santoy and one half of one common share purchase warrant with each whole warrant exercisable for one Santoy common share for 1 year from closing at an exercise price of \$0.50 per share; and the right to dispose of up to 2,000,000 common shares of Boss commencing six months after the closing of the transactions contemplated by this settlement agreement until 2 years thereafter.

Beruschi has also agreed, for a period of 2 years from December 31, 2005, that he will cause the owners of certain additional uranium claims (located in the vicinity of the Blizzard Uranium deposit) to not sell their interest therein other than to Boss or with Boss's written consent. Boss has the exclusive right to earn a 51% interest in these uranium claims for two years.

The parties have agreed to use their reasonable commercial efforts to assist in the financing of Boss to be completed at or before the completion of the reverse takeover. The terms of any such proposed financing greater than \$8 million, and any financing completed at a price of less than \$1.60 per share, must be acceptable to Santoy and Beruschi.

Settlement Agreement with Travis:

Santoy is also pleased to announce that it has entered into an agreement with Sparton and Travis which amends and supersedes the terms of the original option agreement between Santoy and Travis. Santoy and Travis have agreed to transfer their respective interests in and to the Blizzard Uranium deposit to Boss. Santoy has agreed to accelerate a \$200,000 cash payment to Travis upon the completion of formal documentation and all necessary regulatory approvals for completion of the settlement and transfer of the claims to the Blizzard Uranium deposit to Boss and a further \$200,000 cash payment prior to December 31, 2006. In addition, Santoy has agreed to deliver to Travis 500,000 common shares of Santoy (of which half have been delivered), 1,500,000 common shares of Sparton (of which 1 million have been delivered), and, from Santoy's own holdings, 750,000 common shares of Boss and 250,000 common shares of Boss at a price of \$0.27 until on or about November 9, 2006.

As additional consideration, Travis is to receive a gross over-riding royalty interest (the "Royalty Interest") of \$0.50 per pound of uranium oxide produced from the Blizzard Uranium deposit. The Royalty Interest is payable to Travis during commercial production, provided that Boss is obligated to make advance royalty payments of \$25,000 per annum commencing on the 5th anniversary of the settlement agreement until commencement of commercial production on the property comprising the Blizzard Uranium deposit. The total amount of all such advance royalty payments paid to Travis under the settlement agreement shall be deducted from royalties payable following commencement of commercial production. Santoy shall have the option to purchase 50% of the Travis Royalty Interest for a period of three years from the signing of a formal agreement with respect to the subject matter in the settlement agreement by the payment of \$500,000 to Travis.

Santoy also agreed to use its reasonable commercial efforts to allow Travis to participate in any future flow-through financings of Santoy and Boss".

Excerpt from Press Release by Santoy Resources Ltd dated 27 July 2006:

"Santoy Resources Ltd. ("Santoy") (TSX Venture Exchange -- SAN) is pleased to report that further to its news releases dated June 13, 2005, August 9, 2005, September 28, 2005 and January 27, 2006, it has entered into an agreement (the "Agreement") dated July 27, 2006 with each of Mr. Anthony Beruschi, representing his companies and trustees, ("Beruschi"), Adam Travis and his private company ("Travis") and Boss International Gold Corp. ("Boss") that upon completion, Mr. Beruschi and Santoy will sell all of their actual, or purported interest, in and to the Blizzard uranium claim (the "Blizzard Claim"), located in the Greenwood Mining Division in south-central British Columbia, and certain surrounding mineral claims (collectively, the "Properties") to Boss. The purchase price will be payable by the issuance of a total of 52,500,000 common shares by Boss at a deemed price of \$2.00 per share. 26,250,000 common shares will be issued by Boss to Santoy and 26,250,000 common shares will be issued by Boss to Mr. Beruschi and / or other parties that hold interests in the Properties. Pursuant to the Agreement, Santoy has agreed to spend \$1,000,000 in exploration expenditures on the Properties and will receive in return a 5% working interest in the Properties. Boss will have the right to purchase Santoy's 5% working interest in exchange for a \$1.00 per lb uranium royalty. In addition, Santoy has obligations to make certain payments, issue shares and transfer warrants to Travis as previously disclosed. Travis is also entitled to receive a \$0.50 per lb royalty on the Blizzard Claim of which Santoy may purchase one-half for \$500,000".

The net result of the agreements was that Boss acquired ownership of the Blizzard Schedule A Claims, which cover the Blizzard and Hydraulic Lake deposits, and an option to acquire a 51% interest in Schedule B claims, which cover the Haynes Lake and Fuki deposits and extensions to the Hydraulic Lake deposit. According to Christopher (2007), the Schedule B option agreement covered three years from 31 December 2005 and was subject to the following terms:

- Boss is responsible for minimum exploration and development expenditure of \$200,000 over the 3 year period.
- Boss will pay to Beruschi or his nominee \$1,000,000 in cash or shares before the end of the 3 year period.
- The B claims will be subject to a \$2 per pound of uranium royalty in favour of Beruschi or his nominee.
- Any B Claims returned to Beruschi will be in good standing for a minimum period of 6 months from the date of the return of the claim or claims.
- For a period commencing January 1 2008 to June 1 2009 Boss shall have the first right of refusal to acquire an interest in any or all of the B Claims.

The status of the option agreement is not clear to the author. For the purpose of this Report, it has been assumed that the option agreement is still current.

6.3 Environmental, Permitting and First Nations Issues

See Appendix 10.

7 HISTORY OF EXPLORATION AND PRODUCTION

7.1 Exploration of Blizzard and Nearby Uranium Properties

Details of exploration of Blizzard and nearby uranium properties, including sampling, assaying and radiometric logging, is contained in Mr Sweeney's report in Appendix 4, and only an overview is presented here.

In 1967, PNC Exploration (Canada) Co. Ltd (PNC), a subsidiary of the Japanese company Power Reactor and Nuclear Fuel Development Corporation conducted a scintillometer survey over rocks considered to be prospective for uranium. The Fuki outcrop, the discovery uranium outcrop in British Columbia, was located during the 1968 prospecting program. A strong radioactive response was found adjacent to Dear Creek, about 32 air km south-east of Kelowna. Follow-up geological, radiometric, geochemical and drilling programs by PNC located other mineralized zones near Lassie Lake and Hydraulic Lake.

Prospecting by Lacana geologists started in 1975 led to the staking of a favourable geologic target north-west of Lassie Lake in February 1976. Lacana completed 15 holes totalling 954m of percussion drilling in 1976 that discovered the Blizzard deposit.

The Blizzard property was optioned to Norcen Energy Resources Limited (Norcen) in 1977 which operated a joint venture on behalf Norcen, Campbell Chibougamou Mines Ltd, E & B Explorations Ltd and Ontario Hydro. Norcen completed 479 diamond, percussion and rotary holes totalling 20,946m between 1977 and 1979 as detailed in Mr Sweeney's report.

These were the last significant exploration programmes undertaken on Blizzard and the results formed the basis for Kilborn's 1979 engineering feasibility study. Boss has not undertaken any exploration on the Blizzard property or on the Fuki, Hydraulic Lake or Haynes Lake uranium deposits which it also holds (Haynes Lake and Fuki are apparently subject to an option agreement), or on the nearby Cup Lake uranium deposit, now held by another company. These were explored in the late 1960s and 1970s by other companies.

In Mr Sweeney's report, he notes several problems with the Norcen exploration programmes at Blizzard that impact materially on the reliability of the Kilborn mineral resource estimates (Kilborn noted similar problems):

• Core recovery (the amount of core recovered from the hole compared with the theoretical amount that should have been recovered) was often very poor, ranging from less than 50% to 100%, and there were occasionally narrow intervals where no core was recovered. This is because the host rock to the uranium mineralization is largely a loosely consolidated sedimentary rock; also most of the uranium occurs in two uranium phosphate minerals, autunite and saleeite which are friable and are readily washed away by drilling fluids. The average core recovery of the significant uranium mineralized intersections in Table 3.2 of Mr Sweeney's report is 85%. In the mining industry, core recovery of less than 90-95% is generally regarded with concern as the material not recovered may result in the measured grade of the mineralized intersection. This means that there are some doubts as to the reliability of the Blizzard uranium assays.

- In uranium exploration, it is common practice to run radiometric probes down drill holes to provide radiometric logs that can provide a measure of the radioactive content of the rocks. In the case where poor core recovery is encountered, the logs, when properly calibrated against mineralization of known uranium grade, can provide alternative measurements of uranium content (referred to as "uranium equivalent" or "Ue"). Such probes were used by Norcen at Blizzard, but there are two issues:
 - The gamma radiometric probes used at Blizzard actually measure radioactive "daughter" isotopes resulting from the decay of uranium⁸. The amount of daughter product present is not necessarily a true reflection of the amount of uranium present (a situation where the uranium and its daughter products are said to be in "disequilibrium"). Kilborn noted that the Blizzard uranium mineralization appeared to be in disequilibrium with its daughter products.
 - For radiometric results to be useful for grade estimation purposes, they must be calibrated against mineralization in holes for which drill core (or percussion samples) has been assayed to produce a known uranium grade. The Blizzard radiometric results could not be calibrated against core assays from the Blizzard deposit because of the uncertainty arising from core losses. Calibration was therefore undertaken on a hole from the Hydraulic Lake deposit for which core recovery was 100%. However the Hydraulic Lake mineralization is different to the Blizzard mineralization, thus making the calibration of doubtful value. Calibration was then attempted against Blizzard drill holes for which core recovery was estimated to be not less than 85%, but the results were considered to be unreliable.
- Accordingly, Norcen and Kilborn decided not to use radiometric results and to rely on chemical assays of core samples for mineral resource estimation, accepting the uncertainty arising from core recovery being less than 100%. For a few holes drilled in 1977 for which core losses were high, the radiometric probe analyses were used.

Mr Sweeney has expressed a view that it may be necessary to substantially re-drill the deposit to obtain reliable assays and that such a drilling programme may cost in the order of C\$2M.

The Blizzard uranium deposit was advanced through a positive engineering feasibility study (refer to Section 10 of the Report) with a decision on development pending the outcome of a British Columbia Royal Commission of Inquiry into Uranium Mining started in January 1979. In February 1980, the Minister of Mines announced a seven-year moratorium on the recording of mineral claims for the purpose of uranium exploration and the development of uranium deposits on existing claims, which resulted in termination of the Blizzard project.

7.2 Historic Mineral Resource and Mineral Reserve Estimates

The two main historic (non 43-101-compliant) resource estimates prepared on the Blizzard uranium project were by Norcen and Kilborn, both in 1979. The Kilborn estimates were

⁸ Although gamma radiometric logging is still used today, the alternative "prompt fission neutron" (PFN) logging provides a direct measure of uranium and PFN measurements are therefore not affected by natural disequilibrium

classified as "Drill Indicated Reserves" and "Inferred Reserves" (neither category being recognized under today's standards) and an additional tonnage of 15% at zero grade was added to account for mining dilution. Christopher (2007) re-classified the Kilborn estimates to conform with NI 43-101 guidelines by renaming "Drill Indicated Reserves" as Indicated Resources and "Inferred Reserves" as Inferred Resources and removing the 15% dilution.

Company	Resource Category	Tonnes (Mt)	U ₃ O ₈ (%)	U ₃ O ₈ (M Pounds)
Norcen (1979)	"Measured + Indicated Reserves"	2.41	0.19	8.55
Kilborn (1979) (reclassified	Indicated	1.92	0.25	10.43
by Christopher (2007)	Inferred	0.005	0.16	0.02

Tonnes and grade rounded

Mr Sweeney has concluded that the Kilborn estimates have an accuracy of around +/- 30% and are appropriate as global estimates of tonnes and grades for the purposes of the AMC valuation exercise, but that 100% of the resource estimate should be classified as Inferred Resources for the following reasons:

- Only limited quality assurance / quality control (QA/QC) data on the sampling and assaying undertaken by Norcen is available (a reference in part to the chemical assaying and radiometric logging issues discussed above).
- There are insufficient bulk density data⁹ for confident estimates of waste and ore tonnage and metal calculations.
- As discussed above, recovery of drill samples was less than desirable with the potential for loss of uranium minerals during the sampling process.
- The polygonal estimation method used by Kilborn may introduce grade biases above the mining cut-off grade.

7.3 Adjacent Properties

Boss has not conducted exploration on the Fuki, Hydraulic Lake or Haynes Lake uranium properties which it also holds (Fuki and Haynes Lake apparently under option), or on the nearby Cup Lake uranium deposit, now held by another company. These were explored in the late 1960s and 1970s by other companies. The historic (non 43-101 compliant) resource estimates for these deposits are listed in Table 7-2 and Table 7-3.

Mr Sweeney's review of the historic resources for other Blizzard project area deposits is presented in Appendix 4 of the Report.

⁹ Bulk density measurements of ore and waste rocks are used to convert volume estimates to tonnage estimates

Deposit	Reference	Cut-off (%U ₃ O ₈)	Resource Category	Tonnes (Mt)	U₃O8 (%)	U₃O₅ (MPounds)
Hydraulic	Placer (1979)	0.03	"Geologic Reserves"	0.57	0.08	1.06
Lake	Placer (1979)	0.01	"Mineable Ore Reserves"	1.71	0.04	1.39
	Christopher (2007)	?	Inferred Resources	3.06	0.03	2.16
Haynes Lake	Christopher (2007)	?	Inferred Resources	>2.0	0.02	
Fuki	Christopher (2007)	?	Inferred Resources	>0.5	0.03	

Table 7-2 Historic Resource Estimates, Other Boss Uranium Properties

Tonnes and grade rounded

All estimates are prior to, and do not comply with, NI 43-101

Christopher (2007) reclassified estimates to be compatible with NI 43-101 terminology

Christopher reported grades as U; these were converted by AMC to U₃O₈ by multiplying by 1.1792

Table 7-3 Historic Resources for Cup Lake Deposit (Non-Boss).

Deposit	Reference	Cut-off (%U₃Oଃ)	Resource Category	Tonnes (Mt)	U ₃ O ₈ (%)	U₃O ₈ (MPounds
Cup Lake	Christopher (2007)	?	Inferred Resources	2.25	0.04	2.16

Tonnes and grade rounded

The estimate is prior to, and does not comply with, NI 43-101

Christopher (2007) reclassified the estimate to be compatible with NI 43-101 terminology

Christopher reported the grade as U; this was converted by AMC to U₃O₈ by multiplying by 1.1792

There is little information available on these historic resource estimates, but the author doubts whether they would qualify as Inferred Resources under modern standards.

8 GEOLOGY AND MINERALIZATION

8.1 Overview of Geology and Mineralization

Only an overview of the geology and mineralization is presented here. More detail is contained in Mr Sweeney's report in Appendix 4.

The general Blizzard area is underlain by granite and similar igneous intrusive rocks. Metamorphosed sediments outcrop several kilometres to the southwest. These rocks were affected by folding and faulting. Sedimentary deposits, comprising sandstones, siltstones, carbonaceous mudstones and conglomerates, were deposited by rivers or streams in what are now referred to as "paleo-channels". These sediments, which are largely loose and unconsolidated, are host to uranium deposits such as Blizzard. Subsequently, lava (basalt) was extruded onto the ground surface and, in some cases (Blizzard being one) protected the paleo-channel sediments and the contained uranium mineralization from erosion by later glaciers

Kilborn described the Blizzard uranium deposit as follows (see Figure 8-1):

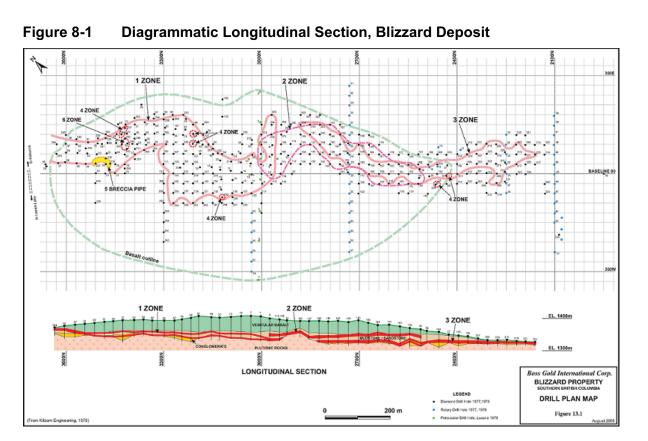
"The concentration of ore grade uranium in sedimentary rocks appears to be continuous from 70 m northwest of the basalt capping (3,680N) to at least 265 m southeast of the basalt, a minimum distance of 1,520 m. The ore varies from 40 m to 275 m in width, and from 0.6 m to 16.6 m in thickness. The ore body is sinusoidal and trends south-easterly. At approximately section 3,300N the ore formation suddenly spreads southerly from a width of 75 m on 3,300 N to a width of 275 m on 3,270N. It gradually narrows to a width of 60 m at 2,870 N and continues on a course less than 100 m wide to its south-eastern end at section 2,160N."

Kilborn identified mineralized zones I through VI with most of the estimated mineral resource contained in Zones I through III. Zone I contains higher grade, approximately 0.5% U_3O_8 , from the northwest end to basement highs at 3,300N. The southern part of Zone I and all of Zone II grade approximately 0.1% U_3O_8 . Zone III, situated mainly in conglomerate, averages 0.3% U_3O_8 .

It would appear from the drilling completed (Figure 8.1) that the mineralization has been well defined and that there is no potential to add materially to mineral resources.

The main uranium minerals at Blizzard are autunite (calcium uranyl phosphate), ningyoite (hydrated uranium-calcium-cesium phosphate) and saleeite (magnesium uranyl phosphate).

The Blizzard deposit is not known for any other metals of economic significance. Studies have indicated that there are only trace amounts of thorium, vanadium and molybdenum. Very minor fine grained pyrite has been observed.



Source: Boss Power web site

9 MINERAL RESOURCES ESTIMATES

The only resource estimates undertaken to date on the Blizzard property are the historic estimates described in Section 7 of the Report.

10 BLIZZARD DEVELOPMENT STUDIES, LATE 1970s

The development studies undertaken in the late 1970s culminated in the production of an engineering feasibility study report by Kilborn in 1979 (Kilborn 1979). The following excerpts from the report outline the scope of work and Kilborn's main conclusions and recommendations.

Introduction

This Engineering Feasibility Report concerns the development of the Blizzard uranium deposit located near Beaverdell, British Columbia. The Blizzard Project is a Joint Venture conducted on lands optioned from Lacana Mining Corporation. Group participants are Norcen Energy Resources Limited, E & B Explorations Limited, Campbell Chibougamau Mines Ltd., Ontario Hydro and Lacana.

Norcen is manager-operator for the Joint Venture.

This report incorporates the findings of a number of earlier reports and studies issued since July 5th, 1978 and supersedes the Preliminary Engineering Report issued in November 1978.

The Blizzard ore deposit is situated 82 kilometres southeast of Kelowna and 37 kilometres north of Beaverdell at approximately 119° 55.6' W., 49° 38.7' N. The deposit is located near the apex of a hill, at approximately 1400 metres elevation, on a drainage divide separating the West Kettle River basin from the Kettle River basin.

The ore zone is a flat-lying deposit of loosely consolidated sandstones and mudstones occurring beneath an inverted bowl shaped capping of basalt. The uranium is concentrated in a series of horizontal lenses having a general strike from northwest to southeast. The ore zone is underlain with granitic rocks of unknown thickness.

In-situ ore reserves at the Blizzard site are estimated at 1,920,000 tonnes containing 4,736,000 kilograms of U308. Using a dilution factor of 15 percent, mineable reserves are 2,208,000 tonnes at 0.2145 percent U308. This estimate is based on Norcen data obtained from 327 diamond drill and 19 rotary drill holes. The orebody lies near the surface and may therefore, be mined by open pit methods,

The annual mine production is rated at 219,000 tonnes per year of ore. The approximate waste to ore ratio is 10.8 to 1, by volume. The orebody has a distinct high grade zone near the north end and a lower average grade to the south. The mining plan is designed to control average mill feed grade at 0.320 percent U308 for the first 39 months of operation and at 0.164 percent 0308 for the remainder of the operating life.

The process plant, designed to treat an average of 600 tonnes of ore per day, will recover 97 percent of the U308 as yellow cake. The ore is readily amenable to sulphuric acid leaching. Production of yellow cake is proposed by a combination of ion exchange and magnesia precipitation termed the LAMIX process.

The proposed site for the process plant and waste management facilities is immediately west of the open pit. This area is best suited to the development of an environmentally acceptable, cost effective operation. The proposed process plant is designed to treat higher grade ores during the early operating years. In later years, excess capacity is available in the ion exchange precipitation and drying. circuits to accept other ores. Some incremental capital will be required to achieve this.

Scope of Study

The objective of this engineering feasibility study is to select a design concept considered most desirable and practical for the development of the Blizzard Uranium Project. Various options have been examined for each portion of the project facilities.

Major options are discussed to some degree in the report; minor or unlikely options are reported elsewhere in a series of project sub-reports.

Terms Of Reference

On July 5th, 1978, Kilborn Engineering (B.C.) Limited was authorized by Norcen Energy Resources Limited to assist in a phased development program for the Blizzard project. Phase 1 consisted of geological and metallurgical consulting services during the 1978 exploration season. Phase 11 involved preliminary mining and metallurgical studies leading to a conceptual design for the overall project. The results were reported in November 1978, in a report entitled, Blizzard Uranium Project, Preliminary Engineering Report.

This current report represents the completion of a third phase.

While various options are discussed, a single design concept is presented as Kilborn's preferred case.

Engineering has been developed to a degree that the average accuracy of the cost estimates is considered to be plus or minus ten percent. Unit costs have been updated to June 1979 rates.

This report addresses all project activities including engineering, procurement, preproduction mining, construction, operations, and decommissioning.

Conclusions and Recommendations

No aspect was uncovered during the study which would jeopardize the technical feasibility of the project. In fact, the project offers fewer obstacles to development than is common for most Canadian uranium projects.

It is recommended that the Blizzard Project be developed as an open pit mine. The designed process incorporates conventional sulphuric acid leach followed by LAMIX uranium recovery.

The design proposed in certain instances goes beyond meeting existing health and effluent standards, the objective being to attain the lowest achievable environmental impact.

Certain additional studies are recommended prior to undertaking detailed engineering.

• completion of topographic and hydro-geological investigations in the till under and adjacent to the tailings management area.

 completion of metallurgical research with respect to semi-autogenous grinding, leaching, ion exchange and LAMIX precipitation. Further consideration should be given to the lower cost alternate uranium recovery circuits with a view to minimizing their environmental impact.

Under "Mining Method", Kilborn concluded:

Among the more common uranium mining methods used in North America are underground mining, open pit mining and in-situ leaching, each method being completely site specific.

The deposit is in a category normally extracted by open pit methods. The waste to ore stripping ratio (by volume) has been calculated at 10.8 to 1, typical for North American uranium open pits.

Open pit mining is considered to be the only practical approach to mining the Blizzard deposit for reasons of minimal environmental impact and worker safety and cost effectiveness.

Underground mining of the Blizzard deposit is impractical due to the incompetent nature of the orebody.

In-situ leaching is considered unsuitable due to the low apparent porosity of the mudstone within the ore horizon, which would inhibit penetration of the mineralization by the leach solution. In addition, there could exist a potential for pollution of existing groundwaters.

11 KEY ASSUMPTIONS, RISKS AND LIMITATIONS

The CIMVal Standards and Guidelines suggest a separate heading for a discussion of key assumptions, risks and limitations. The author considers that these areas are sufficiently covered in other parts of the Report.

12 VALUATION APPROACHES AND METHODS

12.1 Overview of Valuation Approaches in the Mining Industry

This overview is taken largely from the CIMVal Standards and Guidelines 2005.

The three generally accepted valuation approaches in the mining industry are:

- Income Approach
- Market Approach
- Cost Approach

The Income Approach is based on the principle of anticipation of benefits and includes all methods that are based on the income or cash flow generation potential of the mineral property.

The Market Approach is based primarily on the principle of substitution and is also called the Sales Comparison Approach. The mineral property being valued is compared with the transaction value of similar mineral properties, transacted in an open market. Methods include comparable transactions and option or farm-in agreement terms analysis.

The Cost Approach is based on the principle of contribution to value. The appraised value method, is one commonly used method where exploration expenditures are analyzed for their contribution to the exploration potential of the Mineral Property.

As applied to mineral properties, the valuation approach depends on the stage of exploration or development of the property. For convenience, mineral properties can be categorized as four types. It should be noted that there are no clear-cut boundaries between these types, and it may be difficult to classify some mineral properties as to one specific category.

Exploration Property, which means a mineral property that has been acquired, or is being explored, for mineral deposits but for which economic viability has not been demonstrated.

Mineral Resource Property, which means a mineral property which contains a mineral resource that has not been demonstrated to be economically viable by a feasibility study or pre-feasibility study. Mineral Resource Properties may include past producing mines, mines temporarily closed or on care-and-maintenance status, advanced exploration properties, projects with pre-feasibility or feasibility studies in progress, and properties with mineral resources which need improved circumstances to be economically viable.

Development Property, which means a mineral property that is being prepared for mineral production and for which economic viability has been demonstrated by a feasibility study or prefeasibility study and includes a mineral property which has a current positive feasibility study or pre-feasibility study but which is not yet financed or under construction.

Production Property, which means a mineral property with an operating mine, with or without processing plant, which has been fully commissioned and is in production.

Table 12-1 shows which valuation approaches, according to the CIMVal Standards and Guidelines, are generally considered appropriate to apply to each type of mineral property.

Valuation Approach	Exploration Properties	Mineral Resource Properties	Development Properties	Production Properties
Income	No	In some cases	Yes	Yes
Market	Yes	Yes	Yes	Yes
Cost	Yes	In some cases	No	No

Table 12-1	Valuation Approaches	for Different Ty	ypes of Mineral Properties
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Source: CIMVal Standards and Guidelines

Valuation methods are, in general, subsets of valuation approaches. For example the Income Approach includes several methods. Certain valuation methods are more widely used and may be more generally acceptable as industry practice than others, although this could change over time. Some methods can be considered to be primary methods for valuation while others are secondary methods or rules of thumb considered suitable only to check valuations by primary methods.

Table 12-2 from the CIMVal Standards and Guidelines lists a number of valuation methods for mineral properties, classifies them as to approach, specifies whether it is ranked as a primary or secondary valuation method, and provides comments. Methods with no primary or secondary ranking are considered to be unreliable or are not widely accepted.

Valuation Approach	Valuation Method	Method Ranking	Comments
	Discounted Cash Flow (DCF)	Primary	Very widely used. Generally accepted in Canada as the preferred method.
Income	Monte Carlo Analysis	Primary	Less widely used, but gaining in acceptance
income	Option Pricing	Primary	Not widely used and not widely understood, but gaining in acceptance
	Probabilistic Methods		Not widely used, not much accepted.
	Comparable Transactions	Primary	Widely used with variations
	Option Agreement Terms	Primary	Widely used, but option aspect commonly not discounted as it should be
	Gross "In-Situ" Metal Value		Not acceptable.
Market	Net Metal Value or Value per unit of Metal	Secondary	Widely used rule of thumb
	Value per Unit Area	Secondary	Used for large Exploration Properties
	Market Capitalization	Secondary	More applicable to Valuation of single property asset junior companies than to properties
	Appraised Value	Primary	Widely used but not accepted by all regulators
Cost	Multiple of Exploration Expenditure	Primary	Similar to the Appraised Value Method but includes a multiplier factor. More commonly used in Australia
	Geoscience Factor	Secondary	Not widely used

 Table 12-2
 Valuation Methods for Mineral Properties

Source: CIMVal Standards and Guidelines

The CIMVal Standards and Guidelines state that more than one valuation method should be used and the results reported as a range of values to reflect the uncertainty and subjective nature of the valuation process. AMC's practice is to consider as many methods as are relevant to a particular project and to choose from the indicated values a range which it considers appropriate.

12.2 Valuation Approach to Blizzard Project

In the author's opinion, the Blizzard project falls into the Mineral Resource Property category. According to the CIMVal Standards and Guidelines, all three valuation approaches, Income, Market and Cost, are applicable to a Mineral Resource Property, with the Income and Cost approaches qualified as "in some cases".

Given the amount of exploration, drilling and development-related work undertaken in the late 1970s culminating in the production of the Kilborn 1979 engineering feasibility study, the author decided that the following valuation methods should be applied to Blizzard:

Valuation Approach	Valuation Method	Method Ranking	Comments	Expert	Expert's Report
Income	Discounted Cash Flow (DCF)	Primary	The availability of relatively advanced technical information from Kilborn's 1979 engineering feasibility study makes this method applicable	M Bowie, KPMG	Appendix 12
	Comparable Transactions	Primary	Sufficient transactions with elements reasonably comparable to Blizzard are available to allow use of this method	G R Appleyard, AMC	Appendix 13
Market	Actual Transactions, a sub-category of Comparable Transactions	Secondary	The deals and agreements in 2005 / 06 that resulted in resolution of the Blizzard tenure situation may provide some indication of value at the time	G R Appleyard, AMC	Appendix 14
	Market Capitalization	Secondary	Since Boss is essentially a one-project junior company, this method may be applicable as a guide to project value	M Bowie, KPMG	Part of Appendix 12

 Table 12-3
 Valuation Methods Applied to Blizzard Project

The author decided that none of the common Cost methods could be reasonably applied to Blizzard. The Appraised Value and Multiple of Exploration Expenditure methods require more complete and more recent exploration expenditure information than is available. The Geoscience Factor method was developed for, and is primarily used for, mining claims in the Canadian Shield.

Each of the valuations was undertaken by an expert in his field as listed in Table 12-3 and reports are attached as Appendices 12 to 14. Brief descriptions follow. The author reviewed the results, took into account the nature of the valuation method, the quality of the

information on which the valuation was based, the conclusions, observations and, if applicable, qualifying comments of the experts, and concluded a value for the Blizzard property as described in Section 13 of the Report.

12.3 Discounted Cash Flow Valuation

The Discounted Cash Flow or DCF valuation was undertaken by Mr M Bowie, Partner Advisory Services with KPMG in Vancouver. A copy of his report is attached as Appendix 12.

The technical inputs to the DCF valuation were based on Kilborn's 1979 engineering feasibility study and were provided to KPMG by AMC Team members as set out in Table 12-4. Their reports are attached as Appendices 5 to 12.

Technical Area	Expert	Expert's Report	Coverage
Geology and mineral resources	Mr M Sweeney (AMC)	Appendix 4	Review of the geology of the Blizzard deposit, the mineral resource estimates prepared by Kilborn in 1979, the quality of the data underpinning Kilborn's estimates, Christopher's 2007 re- classification of the Kilborn estimates, and the Boss-held adjoining uranium deposits
Open pit mining	Mr G Hollett (AMC)	Appendix 5	Review of Kilborn's open pit planning, an update to present-day standards, an estimate of tonnes and grade to be produced from a pit, and estimates of capital / operating costs
Underground mining	Mr H A Smith (AMC)	Appendix 6	Review of potential underground mining as an alternative to open pit mining (deemed not to be viable in this instance)
Mineral processing	Mr B Fielder (Melis)	Appendix 7	Review of Kilborn's processing plans, an update to present-day standards and estimates of capital / operating costs
In situ leach	Mr A Riles (Riles)	Appendix 8	Review of in-situ leach extraction, assessment of operating parameters and estimates of capital / operating costs
Infrastructure	Mr M Molavi (AMC)	Appendix 9	Review of Kilborn's infrastructure plans, an update to present-day standards and estimates of capital / operating costs
Environmental / permitting	Mr R Pope (Dillon)	Appendix 10	Review of available Blizzard environmental studies and permitting discussions, assessment of environmental and permitting requirements and costs, assessment of likely permitting delays and probabilities of being granted.
Uranium prices and markets	Mr N Carter (UxC)	Appendix 11	Provision of uranium pricing and marketing information

 Table 12-4
 Technical Input to Discounted Cash Flow Valuation

Kilborn's 1979 engineering feasibility study was taken as the technical basis for the DCF valuation. Kilborn's report is fairly brief. Its scope was to "select a design concept considered most desirable and practical for the development of the Blizzard Uranium Project". It was not a full feasibility study and appears not to have included a financial evaluation. Given these limitations and its age (30 years), each AMC Team member reviewed the available information and related studies, assessed how technical parameters should be updated to present-day standards, identified the key risks and opportunities and estimated capital and operating costs for the scenarios examined. In most cases, the capital and operating costs have an accuracy of $\pm 20-30\%$.

An important component of the AMC Team's work, given the known government and community opposition to development of the Blizzard project (refer to Appendix 10), was estimating the time required to gain regulatory approval and the probability of that approval ever being granted. This was given considerable attention by Mr Pope and is detailed in his report (Appendix 10).

Two main development scenarios were examined; (1) open pit mining / "conventional" processing and (2) in-situ leach, with sub-scenarios of (2a) acid in-situ leach and (2b) alkali in-situ leach.

12.3.1 Open Pit Mining / Conventional Processing

An open pit is essentially a surface quarry and is generally the cheapest and most efficient mining method if the characteristics of the deposit make it applicable (usually relatively shallow depth and without excessive overburden that needs to be removed before accessing the ore). Mined ore is crushed and leached in a uranium treatment plant, a chemical plant that uses acid or alkali solutions (leachate) to extract uranium from ore. The uranium is separated from other constituents of the leachate and the final product, commonly referred to as "yellowcake" (U_3O_8 with impurities), is packaged and shipped to customers.

This option was the one selected by Kilborn as the most appropriate to Blizzard. The relatively shallow depth of the deposit dictated open pit mining as opposed to the more expensive and less productive underground mining. Kilborn selected conventional processing over in-situ leach because of "low apparent porosity of the mudstone within the ore horizon" and concerns about groundwater contamination (see Appendix 8).

The AMC Team briefly examined the alternative of underground mining (Appendix 6), but concluded that it would not be technically or economically viable for Blizzard because of likely poor ground conditions in parts of the deposit, high operating costs relative to open pit mining and lower recovery of ore relative to open pit mining because of the need to leave pillars of rock to support the underground roof.

The AMC Team decided that a mining / milling rate of 600 tonnes per day represented a reasonable production rate for Blizzard. Given the relatively small tonnage of mineral resources available, significantly higher mining / milling rates would probably result in too short a mine life compared with the capital cost. Kilborn used the same mining rate.

Mr Bowie's valuations for the open pit / conventional processing option are summarized in Table 12-5.

Date	Valuation (C\$M)	
	Low	High
24 April 2008	(52.1)	(68.2)
12 March 2009	(36.4)	(46.9)

Table 12-5 Valuation, Open Pit Mining / Conventional Processing

Brackets indicate negative

The main elements impacting on the (negative) valuations are:

- Estimated capital cost for the processing plant and associated surface facilities of approximately C\$180-190M (Appendix 7)
- Approximate 75% probability that project approval would take between 4 and 8 years (Appendix 10).

Mr Bowie examined project sensitivities by creating a Speculative Case, which applied UxC's "high scenario" uranium price projection, a 10% reduction in capital and operating costs, and a 10% increase in ore grade. It should be noted that Mr Fielder opined (memo to Mr Stephenson dated 18 October 2010) that there was "at most a 10% probability of reducing the mill capital expenditures by 10%, a 5% probability of reducing the mill capital expenditures by 20% and perhaps a 1.0% probability of reducing the mill capital expenditures by 30%".

The Speculative Cases resulted in negative NPVs at both valuation dates. While recognizing the uncertainty in capital and operating costs estimates and in forward price projections for uranium, the author believes that the likelihood of the Speculative Cases being realized in practice is very low.

12.3.2 In-Situ Leach

In-situ leach extraction involves leaving the orebody where it is in the ground (hence the term in-situ), and using acid or alkali leaching solutions which are pumped through it to recover the metals from the ore. For in-situ leach to be applicable, the deposit needs to have sufficient permeability to the liquids used to allow efficient leaching of the uranium, and should be located so that these liquids do not contaminate groundwater away from the orebody.

There are currently no in-situ leach uranium operations in Canada. There are four in the USA with several at the exploration and development stages. There is one in-situ uranium operation in Australia with one at the advanced development stage and several in other countries, including Kazakhstan and Uzbekistan. All the USA operations use alkali leach, primarily because the levels of carbonate minerals in the USA deposits result in prohibitively high levels of acid consumption, and because of perceived difficulties with restoring the groundwater to pre-mining conditions.

Although rejected by Kilborn in its 1979 report, the AMC Team decided that extraction by insitu leach should be examined because (a) early in the study, it appeared as though open pit mining / conventional processing may not be economically viable based on the parameters applied by the AMC Team and (b) in-situ leach has a smaller footprint and reduced visible impact compared with open pit mining / conventional processing, is a closed system with no waste/tailings removal and storage requirements, and has lower capital costs than conventional processing.

Both acid leach and alkali leach were examined, primarily because the AMC Team recognized that acid leach, although a more efficient process than alkali leach and

technically more applicable to Blizzard, would be likely to face a greater degree of environmental, governmental and community opposition.

Recognizing the critical importance of minimizing the potential for leaching solutions to contaminate groundwater away from the orebody, Mr Riles concluded that the best potential for in-situ leach extraction was north of section 3200N (see Figure 8-1). In this portion of the deposit, the mineralization appears to lie below the water table, the available hydrogeological information suggests that leaching solutions could be contained within a wellfield (thus avoiding groundwater contamination), the uranium grades and uranium contents are substantially higher than the orebody average and the mineralization appears to have generally favourable leaching characteristics. This portion of the deposit contains around 781,000 tonnes with a grade of 0.42% U₃O₈ and contains 7.23M lbs of U₃O₈ (69% of the U₃O₈ content of the deposit as originally defined).

Mr Riles' report on in-situ extraction at Blizzard is attached as Appendix 8.

Mr Bowie's valuations for the in-situ leach option are summarized in Table 12-6.

Date	Acid ISL Valuation (C\$M)		Alkal Valuatio	-
Buto	Low	High	Low	High
24 April 2008	(3.34)	(1.02)	(3.97)	(2.94)
12 March 2009	(2.78)	0.66	(3.24)	(0.73)

Table 12-6Valuation, In Situ Leach Operation

Brackets indicate negative

The predominantly negative valuations are due to the low assessed probability of an in-situ leach operation receiving regulatory and governmental approval (around 20% for alkali leach and around 10% for acid leach – refer to Table 5 of Appendix 10). The net present values of the projected cash flows for an in-situ leach operation are positive, but the impact of allowing for the high probability that expenditure would be incurred on permitting without regulatory / governmental approval being eventually granted results in negative valuations.

Mr Bowie again created Speculative Cases, which applied UxC's "high scenario" uranium price projection, a 10% reduction in capital and operating costs, and a 10% increase in ore grade. This resulted in improved valuations, from slightly negative to reasonably positive (Table 30 of Appendix 12). The author believes that the likelihood of the Speculative Cases being realized in practice is very low.

12.4 Comparable Transactions

The comparable transactions review and valuation was undertaken by Mr G R Appleyard, Director and Principal Geologist with AMC Consultants Pty Ltd in Melbourne, Australia. A copy of his report is attached as Appendix 13.

Mineral projects that, at the present time, are not technically and / or economically viable can have a positive value in the marketplace. This is evidenced by transactions amongst

mining and exploration companies in the trade market as well as by implicit share market values assigned to mineral assets owned by listed companies. This situation can arise because of perceived possibilities of future increases in metal price, or enhancement of the resource by further exploration, or future technology changes, or changes in governmental / regulatory positions etc. One means of assessing such "option" value is by comparable transactions.

In the comparable transaction approach, a database of transactions around the same time as the effective date(s) of the valuation exercise is examined to select those concerning projects having similarities with the subject project in geology, potential mining and processing methods, tonnage and grade of resource if any exists, status of exploration / development and, usually, country or regional location. Values are estimated for 100% of each selected comparable project using the information in the database about a trade transaction for them, and the value range of the subject project is subjectively assessed from the resulting data.

Comparable transactions may not only involve the payment of cash and / or shares. Many involve conditional payments over time and / or exploration expenditure requirements over time and / or further commitments relating to completion of a feasibility study or to ongoing mining if it occurs, e.g., payment of a royalty from future production. These conditional elements require the valuer to include discounts for likely time of payment and for probability of the event occurring and thus add to the subjectivity of the approach.

For Blizzard, the transaction database was not restricted to Canada in order to obtain a useful sample. The main characteristics of the Blizzard project that were considered when assessing comparability of transactions were as follows:

- Indicated or Inferred Resource of 1.9 Mt averaging 0.25% U_3O_8 at a 0.025% U_3O_8 cut-off, containing 10.45 M pounds of uranium.
- Deposit is near surface, flat-lying in several lenses, hosted in carbonaceous mudstones and sandstones and to a lesser extent in conglomerates, thought to be of paleochannel origin.
- Advanced to a feasibility study stage in the late 1970s (probably a pre-feasibility study stage by today's standards), but not developed as an operation
- Likely to be exploited either by open pit mining / "conventional" processing or by in-situ leach.
- Likely to face considerable political, environmental and social opposition to development either as an open pit / "convention" processing option or as an in-situ leach option.

Mr Appleyard concluded that there was sufficient information in the database examined to indicate that uranium projects:

• that are probably sub-economic at the time of transaction generally attract unit values (dollars per pound of U_3O_8 contained in mineral resources) in the range of \$0.20 to \$0.80 in any of USA, Australian or Canadian currency

• for which studies have positive indications generally attract until values above \$1.00 and in some cases, above \$2.00.

The author has concluded that the unit values from comparable transactions for application to Blizzard as at 24 April 2008 should be towards the middle of the range for sub-economic deposits (C\$0.40 (low) to C\$0.60 (high)) for the following reasons:

- the assessed NPV values for Blizzard (see above) as an open pit / conventional processing operation are substantially negative and no reasonably likely combination of variations in project parameters make the project economic.
- the in-situ leach approach, which has a substantially lower capital cost compared with the open pit / conventional processing approach, has predominantly slightly negative NPVs but is subject to considerable technical uncertainty and is rated as only having a 10-20% probability of receiving regulatory approval.
- these characteristics of the project and the history of government opposition to the development of uranium mines in British Columbia suggests that there would be few prospective purchasers for the property, and that purchasers would therefore be in a strong bargaining position.

The author has further concluded that the unit values to be applied as at 12 March 2009 should be towards the lower end of the range for sub-economic deposits (C\$0.20 (low) to C\$0.40 (high)) because a prospective purchaser would be aware of the announcement of 24 April 2008 that the Chief Gold Commissioner had established a Mineral Reserve. The market's perception of the impact of the announcement on the value of Boss and its assets is reflected in Boss's share price chart (Appendix 14) which shows an approximate halving of the share price following the announcement.

Applying the unit values given above to the Kilborn resource estimate of 10.45 M pounds of contained U_3O_8 results in the valuations shown in Table 12-7.

Table 12-7 Valuation, Comparable Transactions

Date	Valuation (C\$)		
	Low	High	
24 April 2008	4.2	6.3	
12 March 2009	2.1	4.2	

12.5 Actual Transactions

The Actual Transactions review and valuation was undertaken by Mr G R Appleyard, Director and Principal Geologist with AMC Consultants Pty Ltd in Melbourne, Australia. A copy of his report is attached as Appendix 14.

The Actual Transactions valuation method is similar to the Comparable Transaction method, but uses actual transactions for the property in question. The actual transactions (negotiations and agreements) entered into in 2005 and 2006 in order to resolve the

ownership of the Blizzard claims are described in Section 6.2 of the Report and were used by Mr Appleyard to assess a value range in those years.

There are several areas of uncertainty in applying this method to valuation of Blizzard in 2008 and 2009:

- the extent to which the disputed ownership affected the deals
- lack of information on some share prices
- complexity of some of the deals

Mr Appleyard concluded values for 100% of Blizzard in 2005 and 2006 ranging from around C\$3.5M to almost C\$18.0M. He also observed that these values may have limited relevance to assessing valuations at April 2008 and March 2009.

In the author's opinion, a purchaser considering making an offer in 2008 or 2009 would give prime weight firstly to project NPV calculations and secondly to comparable project transactions, and would be unlikely to be significantly influenced by values computed from negotiations and deals entered into in 2005 and 2006 to resolve the project ownership issue. Accordingly the author has not used values derived from actual transactions in arriving at his project valuations, other than to given slight support to indicative valuations derived from comparable transactions.

12.6 Market Capitalization

The Market Capitalization valuation was undertaken by Mr M Bowie, Partner Advisory Services with KPMG in Vancouver. A copy of his report is attached as Appendix 12 (page 47).

Since Boss's only material mineral property asset is the Blizzard property, Boss's market capitalization at the valuation dates in question can provide some guide to project value.

Mr Bowie assessed the market capitalization of Boss as C\$29.3M as at April 24, 2008 and as C\$5.86 million as at 12 March 2009. However, he concluded that the volume of shares being traded around the time of the valuation dates was insufficient to allow Boss's market capitalization to be taken as reasonably reflective of the fair market value of all of the issued and outstanding Boss's shares, or of Boss's underlying net assets. The author has therefore not used these figures in arriving at his final valuation.

12.7 Other Boss Uranium Exploration Properties

Boss also holds the Hydraulic Lake prospect and, apparently, has the Fuki and Haynes Lake prospects under option. Historic resource estimates are described in Section 7 of the Report and are summarized again below.

Deposit	Reference	Cut-off (%U ₃ O ₈)	Resource Category	Tonnes (Mt)	U ₃ O ₈ (%)	U₃O ₈ (MPounds)
Hydraulic Lake	Placer (1979)	0.03	"Geologic Reserves"	0.57	0.08	1.06
	Placer (1979)	0.01	"Mineable Ore Reserves"	1.71	0.04	1.39
	Christopher (2007)	?	Inferred Resources	3.06	0.03	2.16
Haynes Lake	Christopher (2007)	?	Inferred Resources	>2.0	0.02	>0.9
Fuki	Christopher (2007)	?	Inferred Resources	>0.5	0.03	>0.3

Table 12-8 Historic Resource Estimates, Other Boss Uranium Properties

Tonnes and grade rounded

All estimates are prior to, and do not comply with, NI 43-101

Christopher (2007) reclassified estimates to be compatible with NI 43-101 terminology

Christopher reported grades as U; these were converted by AMC to U₃O₈ by multiplying by 1.1792

Consideration was given as to whether these deposits might provide a supplementary source of ore for a Blizzard treatment plant, but it was decided that (a) they appeared to be too low grade to have a material impact on a Blizzard operation and (b) not enough is known about the quality of the resource estimates at this stage for them to be used for even an indicative economic study. The author has previously concluded (Section 7.4) that there is doubt as to whether these resources would qualify as Inferred Resources under current classification and reporting standards.

In the author's opinion, the most appropriate way to estimate a value for these properties is by comparable transactions. Since the grades are substantially lower than Blizzard and the quality of the resource estimates probably also lower, the author has assigned a value of C\$0.1 to C\$0.2 per pound of uranium in resources. In addition, because of the uncertain status of the option agreement over the Haynes Lake and Fuki prospects, a discount of 50% has been applied for these properties. The resulting valuation (using the Christopher 2007 resource for Hydraulic Lake) is C\$0.22M to C\$0.44M rounded to C\$0.2M to C\$0.4M.

12.8 Other Valuations of Blizzard

The CIMVal Standards and Guidelines require the Valuator to consider previous valuations for the property in question. The author is aware that Boss has commissioned valuations of the Blizzard property as part of its litigation with the BCPG. BCPG provided AMC with a copy of a valuation report prepared by Onstream Resource Managers Inc on behalf of Boss, but subsequently instructed AMC to destroy all copies of the report.

12.9 Highest and Best Use

The CIMVal Standards and Guidelines require the Valuator to consider whether the highest and best use of the property may be other than its potential for the development of a mineral deposit. However BCPG has advised the author that Boss does not hold any nonmining rights in relation to the Blizzard property.

13 VALUATION RESULTS

13.1 Summary of Valuation Results

The results of the valuation exercises described in Section 12 are summarized in Table 13-1.

Valuation	Valuation		Valuation Range (C\$M)	
Date	Method	Development Scenario	Low	High
24 April 2008	DCF	Open pit / conventional processing	(52.1)	(68.2)
		Acid in-situ leach	(3.34)	(1.02)
		Alkali in-situ leach	(3.97)	(2.94)
	Comparable Transactions	Either scenario	4.2	6.3
	Actual Transactions	Either scenario	N/A	N/A
	Market Capitalization	Either scenario	N/A	N/A
	Other Boss Exploration Properties		0.2	0.4
12 March 2009	DCF	Open pit / conventional processing	(36.4)	(46.9)
		Acid in-situ leach	(2.78)	0.66
		Alkali in-situ leach	(3.24)	(0.73)
	Comparable Transactions	Either scenario	2.1	4.2
	Actual Transactions	Either scenario	N/A	N/A
	Market Capitalization	Either scenario	N/A	N/A
	Other Boss Exploration Properties		0.2	0.4

 Table 13-1
 Summary of Blizzard Valuation Results

N/A = not applicable

Brackets = negative

13.2 Discussion

Of the four valuation methods applied to Blizzard, two (actual transactions and market capitalization) turned out to be subject to significant uncertainty such that the author does not believe that they contribute materially to an assessment of value.

The DCF / NPV approach to an open pit mining / conventional processing project resulted in substantially negative values at both valuation dates, with no reasonably likely combination of variations to project parameters making the values positive. The main reasons for the negative NPVs are an estimated capital cost for the processing plant and associated surface facilities of approximately C\$180-190M, and a judgement that project approval would be likely to take between four and eight years with some risk of never being granted.

The DCF / NPV approach to an in-situ leach extraction resulted in slightly negative values at both valuation dates except for a small positive value for acid in-situ leach at 12 March 2009, with optimistic variations to project parameters resulting in slightly to reasonably positive values. However, there are substantial technical uncertainties with respect to this method, including permeability of the uranium deposit and potential contamination of groundwater with acid or alkali solutions. Moreover, the AMC Team, and Mr Pope in

particular, believe that there is only a very low likelihood that an in-situ leach project, using either acid or alkali solutions, would receive regulatory approval.

Although the DCF / NPV approaches yielded predominantly negative project values, the author believes that the project would have had some value in 2008 or 2009 because a purchaser may have been prepared to make an offer for the property as an option against future uranium price increases or favourable changes in government / community attitudes toward uranium mining in British Columbia etc. He has therefore given prime weight to the comparable transactions valuation method in concluding a value for the project.

The comparable transactions method indicates an "option" value for the Blizzard project (exclusive of other Boss-held exploration properties) in the range of C\$4.2M to C\$6.3M as at 24 April 2008 and C\$2.1M to C\$4.2M as at 12 March 2009.

13.3 Conclusion

The author concludes that:

- 1. the Blizzard project had a negative value in April 2008 and March 2009 on the basis of a DCF / NPV assessments of the most likely development scenarios,
- 2. sub-economic projects may have a positive "option" value insofar as a prospective purchaser may be prepared to make a judgement on possible future changes in project parameters / characteristics that would result in the project becoming economic,
- 3. the comparable transactions valuation method is a reasonable basis for assessing that option value and the data available makes it possible to apply the method to Blizzard,
- 4. using the results of the comparable transactions assessment described above and including a value of C\$0.2M (low) to C\$0.4M (high) for other Boss exploration properties, reasonable valuations for the Blizzard uranium property are:

24 April 2008: C\$4.4M to C\$6.7M, with a preferred (mid-point) value of C\$5.6M

12 March 2009: C\$2.3M to C\$4.6M, with a preferred (mid-point) value of C\$3.5M

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15 CERTIFICATES OF QUALIFICATIONS

P R Stephenson PGeo

AMC Mining Consultants (Canada) Limited Suite 1330, 200 Granville Street Vancouver, British Columbia V6C 1S4 Canada

Telephone:+1 604 669 0044Fax:+1 604 669 1120Email:pstephenson@amcconsultants.ca

- 1. I, Patrick Roger Stephenson, PGeo, BSc (Hons) FAusIMM (CP), MCIM, FAIG, do hereby certify that I am Principal Geologist and Regional Manager of AMC Mining Consultants (Canada) Limited, Suite 1330, 200 Granville Street, Vancouver, British Columbia V6C 1S4.
- 2. I graduated with a BSc (Hons) in Geology from the University of Aberdeen, Scotland in 1971.
- 3. I am a registered member of the Association of Professional Engineers and Geoscientists of BC, a Fellow of The Australasian Institute of Mining and Metallurgy (Chartered Professional), a Member of the Canadian Institute of Mining, Metallurgy and Petroleum and a Fellow of the Australian Institute of Geoscientists.
- 4. I have worked as a geologist for a total of 39 years since my graduation from university.
- 5. I have read the definition of "Qualified Valuator" set out in "Standards and Guidelines for Valuation of Mineral Properties" (CIMVal Standards and Guidelines) published by the Canadian Institute of Mining, Metallurgy and Petroleum and certify that, by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Valuator" for the purposes of CIMVal Standards and Guidelines.
- 6. I am responsible for the preparation of the report entitled "Blizzard Uranium Project, British Columbia, Canada, Valuation Report for British Columbia Provincial Government", dated 9 November 2010 (the Report).
- 7. I visited the Blizzard Project in June and July 2010.
- 8. I have not had prior involvement with the property that is the subject of the Valuation Report.
- 9. I am independent of the issuer..
- 10. I have read the CIMVal Standards and Guidelines and the Valuation Report has been prepared in compliance with that document with the qualification noted in Section 2.5.2 of the Report.
- 11. As of the date of this certificate, to the best of my information, knowledge and belief, the Valuation Report contains all scientific and technical information that is required to be disclosed to make the Valuation Report not misleading.

Dated 9 November 2010

Patrick Roger Stephenson, PGeo

Bruce C. Fielder, P.Eng. Principal Process Engineer, Melis Engineering Ltd. Suite 100, 2366 Avenue C North, Saskatoon SK Canada S7L 5X5 Tel: (306) 652-4084 Fax: (306)653-3779 Email: <u>melis@sasktel.net</u>

I, Bruce C. Fielder, am a Registered Professional Engineer in the Province of Saskatchewan, Registration No. 10309. I am Principal Process Engineer at Melis Engineering Ltd. with a work address of Suite 100, 2366 Avenue C North, Saskatoon, Saskatchewan, Canada.

- I am a member of the Canadian Institute of Mining Metallurgy and Petroleum and I hold a Consulting Engineer designation with the Association of Professional Engineers and Geoscientists of Saskatchewan. I graduated from the University of Alberta with a BSc. Degree in Metallurgical Engineering in 1981.
- 2) I have practiced my profession continuously since 1981 and have been involved in: metallurgical testwork supervision, process engineering, preparation of process audits, scoping, pre-feasibility, and feasibility level studies, and mill operations for precious metals, base metals, uranium, rare earth elements and diamond projects worldwide.
- 3) I have read the definition of "Qualified Person" set out in "Standards and Guidelines for Valuation of Mineral Properties" (CIMVal Standards and Guidelines) published by the Canadian Institute of Mining, Metallurgy and Petroleum and National Instrument 43-101 and certify that, by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of CIMVal Standards and Guidelines.
- 4) I served as the Qualified Person for Appendix 7, Expert Report on Blizzard Mineral Processing, of the report entitled "Blizzard Uranium Project, British Columbia, Canada, Valuation Report for British Columbia Provincial Government", dated 9 November 2010 (The Report). The work was completed at the project site and in the Melis Engineering Ltd. office.
- 5) I visited the Blizzard Property in July 2010.
- 6) I have not had prior involvement with the property that is the subject of the Valuation Report.
- 7) As of the date of this certificate, to the best of my knowledge, information and belief, the mineral processing section (Appendix 8) of the Report contains all scientific and technical information that is required to be disclosed to make the mineral processing component of the Technical Report not misleading.
- 8) I am independent of the Issuer in accordance with the application of Section 1.5 of National Instrument 43-101.
- 9) I have read "Standards and Guidelines for Valuation of Mineral Properties" (CIMVal Standards and Guidelines) and National Instrument 43-101 and certify that the portions of the Report for which I served as a Qualified Person have been prepared in compliance with that Instrument.

Dated 9 November 2010.

Bruce C. Fielder, P.Eng.

H A Smith PEng

AMC Mining Consultants (Canada) Limited Suite 1330, 200 Granville Street Vancouver, British Columbia V6C 1S4 Canada

Telephone:+1 604 669 0044Fax:+1 604 669 1120Email:bsmith@amcconsultants.ca

- 1. I, Herbert Anthony Smith, PEng, MSc, BSc, MCIM, do hereby certify that I am a Principal Mining Engineer and Group Manager, Mining of AMC Mining Consultants (Canada) Limited, Suite 1330, 200 Granville Street, Vancouver, British Columbia V6C 1S4.
- 2. I graduated with a BSc in Mining Engineering from the University of Newcastle Upon Tyne in 1972 and an MSc in Rock Mechanics and Excavation Engineering from the University of Newcastle Upon Tyne in 1983.
- 3. I am a registered member of the Association of Professional Engineers and Geoscientists of BC, a registered member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta, a registered member of the Association of Professional Engineers of Ontario and a Member of the Canadian Institute of Mining, Metallurgy and Petroleum.
- 4. I have worked as a Mining Engineer for a total of 34 years since my graduation from university.
- 5. I have read the definition of "Qualified Person" set out in "Standards and Guidelines for Valuation of Mineral Properties" (CIMVal Standards and Guidelines) published by the Canadian Institute of Mining, Metallurgy and Petroleum and certify that, by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of CIMVal Standards and Guidelines.
- 6. I am responsible for the preparation of Appendix 6, "Expert Report on Blizzard Underground Mining" of the report entitled "Blizzard Uranium Project, British Columbia, Canada, Valuation Report for British Columbia Provincial Government", dated 9 November 2010 (the Report).
- 7. I visited the Blizzard Project in July 2010.
- 8. I have not had prior involvement with the property that is the subject of the Valuation Report.
- 9. I am independent of the issuer..
- 10. I have read the CIMVal Standards and Guidelines and the Valuation Report has been prepared in compliance with that document with the qualification noted in Section 2.5.2 of the Report.
- 11. As of the date of this certificate, to the best of my information, knowledge and belief, the Valuation Report contains all scientific and technical information that is required to be disclosed to make the Valuation Report not misleading.

Dated 9 November 2010

Herbert Anthony Smith, PEng

Gregory R. Hollett P.Eng

AMC Mining Consultants (Canada) Limited Suite 1330, 200 Granville Street Vancouver, British Columbia V6C 1S4 Canada

Telephone:+1 604 669 0044Fax:+1 604 669 1120Email:ghollett@amcconsultants.ca

- 1. I, Gregory R Hollett, P.Eng, BEng (Mining Engineering), do hereby certify that I am a Senior Mining Engineer of AMC Mining Consultants (Canada) Limited, Suite 1330, 200 Granville Street, Vancouver, British Columbia V6C 1S4.
- 2. I graduated with a BEng in Mining Engineering from the Curtin University of Technology, Western Australia in 2000.
- 3. I am a registered member of the Association of Professional Engineers and Geoscientists of BC. In addition I hold a Western Australian Quarry Manager's Certificate, #554.
- 4. I have worked as a mining engineer for a total of 11 years since my graduation from university.
- 5. I have read the definition of "Qualified Person" set out in "Standards and Guidelines for Valuation of Mineral Properties" (CIMVal Standards and Guidelines) published by the Canadian Institute of Mining, Metallurgy and Petroleum and certify that, by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of CIMVal Standards and Guidelines.
- 6. I am responsible for the preparation of Appendix 5, "Expert Report on Blizzard Open Pit Mining" of the report entitled the report entitled "Blizzard Uranium Project, Open Pit Assessment", dated 9 November 2010 (the Report).
- 7. I visited the Blizzard Project in July 2010.
- 8. I have not had prior involvement with the property that is the subject of the Valuation Report.
- 9. I am independent of the issuer.
- 10. I have read the CIMVal Standards and Guidelines and the Valuation Report has been prepared in compliance with that document with the qualification noted in Section 2.5.2 of the Report.
- 11. As of the date of this certificate, to the best of my information, knowledge and belief, the Valuation Report contains all scientific and technical information that is required to be disclosed to make the Valuation Report not misleading.

Dated 9 November 2010

Gregory R. Hollett, P.Eng

Mo Molavi PEng

AMC Mining Consultants (Canada) Limited Suite 1330, 200 Granville Street Vancouver, British Columbia V6C 1S4 Canada Telephone: +1 604 669 0044 Fax: +1 604 669 1120

Email: mmolavi@amcconsultants.ca

- 1. I, Mo Molavi, PEng, MEng, BEng, MCIM, do hereby certify that I am a Principal Mining Engineer and Group Manager, Mining of AMC Mining Consultants (Canada) Limited, Suite 1330, 200 Granville Street, Vancouver, British Columbia V6C 1S4.
- 2. I graduated with a BEng in Mining Engineering from the Laurentian University in Sudbury Ontario in 1979 and an MEng in Mining Engineering specializing in Rock Mechanics and mining methods from the McGill University of Montreal in 1987.
- 3. I am a registered member of the Association of Professional Engineers and Geoscientists of Saskatchewan and a Member of the Canadian Institute of Mining, Metallurgy and Petroleum.
- 4. I have worked as a Mining Engineer for a total of 30 years since my graduation from university.
- 5. I have read the definition of "Qualified Person" set out in "Standards and Guidelines for Valuation of Mineral Properties" (CIMVal Standards and Guidelines) published by the Canadian Institute of Mining, Metallurgy and Petroleum and certify that, by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of CIMVal Standards and Guidelines.
- 6. I am responsible for the preparation of Appendix 9, "Expert Report on Blizzard Infrastructure" of the report entitled "Blizzard Uranium Project, British Columbia, Canada, Valuation Report for British Columbia Provincial Government", dated 9 November 2010 (the Report).
- 7. I have not visited the Blizzard Project.
- 8. I have not had prior involvement with the property that is the subject of the Valuation Report.
- 9. I am independent of the issuer.
- 10. I have read the CIMVal Standards and Guidelines and the Valuation Report has been prepared in compliance with that document with the qualification noted in Section 2.5.2 of the Report.
- 11. As of the date of this certificate, to the best of my information, knowledge and belief, the Valuation Report contains all scientific and technical information that is required to be disclosed to make the Valuation Report not misleading.

Dated 9 November 2010

Mohammad Ali Molavi, PEng

16 QUALIFICATIONS

AMC is a firm of mineral industry consultants whose activities include the preparation of due diligence reports and reviews on mining and exploration projects for equity and debt funding and for public reports.

The contributors to the Report are listed in Table 2-1. Neither AMC nor the contributors to the Report nor members of their immediate families have any interests in the parties to the litigation for which the Report has been prepared. AMC is being paid a fee according to its normal per diem rates and out-of-pocket expenses in the preparation of the Report. AMC's fee is not contingent upon the results of the litigation for which the Report has been prepared.

The Report and the conclusions in it are effective at 9 November 2010. Those conclusions may change in the future with changes in relevant metal prices, exploration and other technical developments with respect to the Blizzard property and the market for uranium properties.

The Report has been provided to BCPG for the purposes of preparing its case with respect to the litigation described in Section 1 of this report. The author has given his consent for the Report to be so used. Neither the Report nor any part of it may be used for any other purpose without the author's prior written consent.

The signatory to the Report is a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia, a Member of the Canadian Institute of Mining, Metallurgy and Petroleum, a Fellow of The Australasian Institute of Mining and Metallurgy (with Chartered Professional status) and a Fellow of the Australian Institute of Geoscientists, and is bound by the Codes of Ethics / Practice of these organizations.

P R Stephenson, PGeo MCIM, FAusIMM (CP), FAIG

Principal Geologist and Director

APPENDIX 1

RESUME, P R STEPHENSON

Pages 73 through 78 redacted for the following reasons: S.22 **APPENDIX 2**

CIMVAL STANDARDS AND GUIDELINES

STANDARDS AND GUIDELINES FOR VALUATION OF MINERAL PROPERTIES

SPECIAL COMMITTEE OF THE CANADIAN INSTITUTE OF MINING, METALLURGY AND PETROLEUM ON VALUATION OF MINERAL PROPERTIES (CIMVAL)

FEBRUARY 2003 (FINAL VERSION)

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PREAMBLE

P1.0 BACKGROUND

P1.1 There are at present no comprehensive standards for valuation of Mineral Properties in the Canadian mining industry. The Mining Standards Task Force (MSTF) of the Toronto Stock Exchange and the Ontario Securities Commission in its Final Report (January 1999) specifically recommended that the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) form a committee of valuation practitioners to review and advise on approaches to valuation of Mineral Properties.

P1.2 On May 5, 1999 at the Calgary Annual General Meeting, CIM Council approved the formation of a Special Committee on Valuation of Mineral Properties (CIMVal) to be co-chaired by Keith Spence (Chairman of the CIM Mineral Economics Society) and Dr. William Roscoe (Roscoe Postle Associates Inc.).

P1.3 The mandate of CIMVal is to recommend Standards and Guidelines for Valuation of Mineral Properties to be used by the mining industry in general and to be adopted by Canadian securities regulators and Canadian stock exchanges.

P1.4 The members of CIMVal represent of a mix of professional disciplines and experience in the field of Mineral Property valuation:

Keith N. Spence (Co-chair), Alliance Pacific Resources Inc., Toronto
William E. Roscoe (Co-chair), Roscoe Postle Associates Inc., Toronto
Michael J. Bourassa (Secretary), Aird & Berlis LLP, Toronto
Christopher R. Lattanzi, Micon International Limited, Toronto
Ross D. Lawrence, Watts, Griffis and McOuat Limited, Toronto
Paul E. Lunney, Noranda Inc., Toronto
Craig A. Roberts, Pacific International Securities, Vancouver
David A. Scott, CIBC World Markets, Toronto
Ian S. Thompson, Derry, Michener, Booth & Wahl Consultants Ltd., Vancouver
Willoughby A. Trythall, retired Placer Dome executive and consultant, Vancouver

P1.5 At the CIM Annual General Meeting in Toronto (Mining Millennium 2000), the CIMVal Committee organized a **"Valuation Day"** on March 8, 2000. Various industry experts presented papers on valuation of Mineral Properties. **A proceedings volume** of the papers was subsequently published by CIM (copies are available by contacting the CIM Head Office in Montreal).

P1.6 In the Spring of 2000 the CIMVal Committee published an "Initial Framework for Discussion" which categorized and listed various issues for initial consideration in devising valuation standards. Input and comments were solicited via this publication and by direct and Internet requests to numerous organizations and individuals with an interest in mineral valuation. Fifteen responses were received and were considered in a Draft Discussion Paper along with input from the CIMVal Committee members.

P1.7 A **"Draft Discussion Paper"** was released at the CIM Annual General Meeting in Quebec in May 2001. Again, comments and submissions were requested from all interested parties. The Draft Discussion Paper set out the CIMVal Committee's preliminary views, opinions and unresolved questions on the issues involved in establishing a set of Standards and Guidelines for Valuation of Mineral Properties. Twenty responses were received and were carefully considered in the **"Draft Standards and Guidelines for Valuation of Mineral Properties"**, released in February, 2002.

P1.8 On March 9, 2002, CIM Council adopted and approved the Draft Standards and Guidelines for Valuation of Mineral Properties, subject to any material changes in the final document being brought back to CIM Council for adoption and approval. The CIMVal Committee called for comments and submissions from all interested parties on the Draft Standards and Guidelines for Valuation of Mineral Properties. The CIMVal Committee received 39 submissions by April 30, 2002. Because some significant issues were raised in the submissions, the CIMVal Committee produced a **"Revised Draft Standards and Guidelines"** in September 2002 which was again distributed for comment.

P1.9 A further 17 submissions were received by November 29, 2002 with respect to the Revised Draft Standards and Guidelines. The committee evaluated and considered all submissions

during the course of several meetings in December 2002 and January 2003, prior to producing this final document. CIM Council adopted and approved this final document on March 9, 2003. The full name of this document is as stated on the cover page hereof. Within the document itself, it will be referred to as the "CIMVal Standards and Guidelines" or simply the "Standards and Guidelines".

P2.0 COMMENTARY

P2.1 The guiding philosophy and intent of the CIMVal Standards and Guidelines is that Mineral Property Valuations be carried out by appropriately qualified individuals and that all relevant information be fully disclosed. The Standards and Guidelines are based on industry best practices and allow for professional judgement in certain instances.

For purposes of clarification, Valuation in the CIMVal Standards and Guidelines is concerned with the value or worth of a Mineral Property as opposed to "evaluation" where the key objective is an economic assessment or determination of the economic merit of a property.

P2.2 The CIMVal Standards and Guidelines are organized into two parts. The first part consists of <u>Standards</u> which are general rules that are mandatory in the Valuation of Mineral Properties. The second part contains <u>Guidelines</u> which elaborate on the Standards and, while not mandatory, provide guidance and best practices which are highly recommended to be followed in the Valuation of Mineral Properties. Definitions are given at the beginning of the Standards for terms used. Where practical, terms are defined in a manner consistent with National Instrument 43-101.

P2.3 As noted above, the MSTF Final Report recommended that CIM review and advise on approaches to Valuation of Mineral Properties. The majority of the respondents to the Draft Discussion Paper indicated that the Valuation approaches and methods should be chosen by the valuator. The Australian VALMIN Code, 1998 Edition (Section C24) states that the decision as to the valuation methodology or methodologies to be used is solely the responsibility of the valuator, and that the valuator must state the reasons for selecting each methodology used. OSC Rule 61-501 and Companion Policy 61-501 CP (Insider Bids, Issuer Bids, Going Private

Transactions, and Related Party Transactions) do not specify what valuations methods should be used.

P2.4 CIMVal has accepted the view that the valuator is responsible for choosing approaches and methods. CIMVal's view is that, although the valuator can choose the approaches and methods for Valuation of a Mineral Property, there is a body of published papers, published valuations, presentations and court judgments to guide his or her choice. Certain approaches and methods appear to be currently accepted as standard practice, although they could change over time. The Guidelines provide guidance and commentary on the use and application of various approaches and methods.

P2.5 Mineral Property Valuations are carried out for a variety of reasons, such as mergers and acquisitions, non arm's length transactions, a component of pricing of initial public offering of stock, listing support, support of audited financial statements, support for property agreements, determination of vendor considerations, litigation, expropriation compensation, income tax matters, insurance claims, and as components of corporate valuations and fairness opinions, among others.

P2.6 Regulatory bodies under certain circumstances require Valuations of Mineral Properties. CIMVal recommends that the Standards and Guidelines be followed for Valuation of Mineral Properties required by regulatory bodies or where such Valuations are prepared for purposes of public disclosure. CIMVal encourages the use of the Standards and Guidelines for other purposes, including internal corporate matters.

P3.0 OTHER VALUATION RELATED STANDARDS

P3.1 THE AUSTRALIAN VALMIN CODE

P3.1.1 In Australia, the VALMIN Code and Guidelines govern the technical assessment and/or valuation of mineral and petroleum assets and securities and set standards for independent expert reports. It was introduced in 1995 and revised in 1997 by The Australasian Institute of Mining and Metallurgy (AusIMM). The VALMIN Code is currently being reviewed by AusIMM to

assess its impact and its effectiveness, and to determine whether amendments may be required. The VALMIN Code is obligatory for AusIMM members for reports relating to mineral and petroleum assets required under Corporations law and is supported by many other entities, including the Australian Stock Exchange, the Australian Securities and Investment Commission, the Institute of Chartered Accountants in Australia, and the Australian Institute of Company Directors.

P3.1.2 The VALMIN Code is a comprehensive document which covers purpose and type of technical reports and valuation reports, qualifications of experts and specialists involved in valuations, valuation methodology, obligations of the commissioning entity, items to consider in the valuation, and contents of a report. The four main tenets of the VALMIN Code are transparency, materiality, competence, and independence. It is implicit in the VALMIN Code that reasonableness is another major tenet.

P3.1.3 The VALMIN Code has withstood the test of time, and is respected internationally. Many non-Australian valuators attempt to follow the VALMIN Code. Accordingly it provides an extremely useful model for Canada, and is already accepted by many Canadian valuators. Although the situation in Canada is somewhat different from that in Australia, the VALMIN Code has provided much useful material and many key concepts for the CIMVal Standards and Guidelines. The VALMIN Code, including Guidelines, can be downloaded from <u>www.mica.org.au</u>.

P3.2 NATIONAL INSTRUMENT 43-101 (NI 43-101)

P3.2.1 NI 43-101, Standards of Disclosure for Mineral Projects, came into effect on February 1, 2001. NI 43-101 was formulated by the Canadian Securities Administrators (CSA), an umbrella association of Provincial Securities Commissions across Canada. The Instrument includes Form 43-101F1 (Technical Report) and Companion Policy 43-101CP, and is now the principal regulatory document in Canada for disclosure of information on mining projects.

P3.2.2 NI 43-101 contains a number of items with relevance to issues in mineral valuation, as noted in several places in these Standards and Guidelines. Some of the definitions in the

Standards are consistent with those used in NI 43-101 (e.g. "Qualified Person"). NI 43-101 can be referenced on the Ontario Securities Commission website. (www.osc.gov.on.ca/en/Regulation/Rulemaking/Rules.html)

P3.2.3 Part 4, Section 4.2(1) of NI 43-101 states that an issuer shall file a current Technical Report where a valuation is required to be prepared and filed under securities legislation. Section 4.2(1) does not refer to the contents of a valuation report to be prepared and filed in such circumstances. The CIMVal Standards and Guidelines recommend contents for a "Valuation Report", and its relationship to a Technical Report.

P3.2.4 The CIMVal Standards and Guidelines are intended to augment NI 43-101, with respect to the valuation of Mineral Properties

P3.3 CANADIAN INSTITUTE OF CHARTERED BUSINESS VALUATORS

The Canadian Institute of Chartered Business Valuators (<u>www.cicbv.ca</u>) has standards for the valuation of businesses and corporations which its members must follow.

P3.4 ONTARIO SECURITIES COMMISSION RULE 61-501

On May 1, 2000, Ontario Securities Commission Rule 61-501 came into effect. This document replaced OSC Policy 9.1. It governs insider bids, issuer bids, going private transactions and related party transactions. Under certain situations, such as insider bids, a formal valuation is required. The rule provides that the valuator shall be qualified and independent and outlines certain requirements as to the content of a valuation report. The rule does not specifically deal with mineral valuations or the valuation standards or methodologies used in the valuation of mineral properties (www.osc.gov.on.ca/en/Regulation/Rulemaking/Rules/rules.html)

P3.5 INVESTMENT DEALERS ASSOCIATION OF CANADA

The Investment Dealers Association of Canada, in Bulletin #2827 dated March 5, 2001, issued Amendments and Interpretation Notes on "Disclosure Standards for Formal Valuations and Fairness Opinions in Transactions Governed by OSC Rule 61-501 Now in Force". The intention of CIMVal is that the CIMVal Standards and Guidelines not conflict with this document. (www.ida.ca/Files/Regulation/Bulletins/B2827_en.pdf)

P3.6 INTERNATIONAL VALUATION STANDARDS COMMITTEE

The International Valuation Standards Committee (IVSC) is a sister organization of the International Accounting Standards Board. IVSC's aim is to develop a set of International Valuation Standards (IVS) which will ultimately be adopted globally. CIMVal intends to be consistent with the general thrust of this organization's work such that, if and when the IVSC's standards are adopted globally in the future, the CIMVal Standards and Guidelines will be readily adaptable. (www.ivsc.org/pubs/submission0106-A4.pdf)

P3.7 THE SOUTH AFRICAN SAMVAL CODE

The South African Institute of Mining and Metallurgy is coordinating an effort to constitute a set of standards and guidelines (SAMVAL) for valuation of mineral projects, properties and assets, for use by the South African securities regulators and stock exchanges. The SAMVAL Code is formulated to supplement the IVS being developed by the IVSC. The SAMVAL Code is in preparation and draws on the VALMIN Code, the CIMVal Standards and Guidelines, and the IVS. The CIMVal, VALMIN, and SAMVAL Committees are in communication with each other and with the IVSC and are working towards international consistency.

STANDARDS

The Standards are mandatory in the Valuation of Mineral Properties.

S1.0 DEFINITIONS

Commissioning Entity means the organization, company or person commissioning a Valuation.

Competence or Competent means having relevant qualifications and relevant experience.

Current means current with respect to, and relative to, the Valuation Date.

Data Verification means the process of confirming that data has been generated with appropriate procedures, has been accurately transcribed from the original source and is suitable to be used (NI 43-101, Section 1.2 Definitions).

Development Property means a Mineral Property that is being prepared for mineral production and for which economic viability has been demonstrated by a Feasibility Study or Prefeasibility Study and includes a Mineral Property which has a Current positive Feasibility Study or Prefeasibility Study but which is not yet financed or under construction.

Exploration Property means a Mineral Property that has been acquired, or is being explored, for mineral deposits but for which economic viability has not been demonstrated.

Fair Market Value means the highest price, expressed in terms of money or money's worth, obtainable in an open and unrestricted market between knowledgeable, informed and prudent parties, acting at arm's length, neither party being under any compulsion to transact (Income Tax Act of Canada).

Feasibility Study means a comprehensive study of a deposit in which all geological, engineering, operating, economic and other relevant factors are considered in sufficient detail that it could reasonably serve as the basis for a final decision by a financial institution to finance the development of the deposit for mineral production (NI 43-101, Section 1.2 Definitions).

Guideline means a best practices recommendation, which, while not mandatory in the Valuation of Mineral Properties, is highly recommended.

Independence or *Independent* means that, other than professional fees and disbursements received or to be received in connection with the Valuation concerned, the Qualified Valuator or Qualified Person (as the case requires) has no pecuniary or beneficial (present or contingent) interest in any of the Mineral Properties being valued, nor has any association with the Commissioning Entity or any holder(s) of any rights in Mineral Properties which are the subject of the Valuation, which is likely to create an apprehension of bias. The concepts of "Independence" and "Independent" are questions of fact. For example, where a Qualified Valuator's fees depend in whole or in part on an understanding or arrangement that an incentive will be paid based on a certain value being obtained, such Qualified Valuator is not Independent. For securities purposes, in addition to the general definition above, section 6.1 of the Ontario Securities Commission Rule 61-501 ("Insider Bids, Issuer Bids, Going Private Transactions and Related Party Transactions") and section 5.2 of its Companion Policy 61-501CP provide further guidance on the meaning of "Independence" and "Independence" and "Independence" and "Independence" and "Independence" and "Independence" and section 5.2 of its Companion Policy 61-501CP provide further guidance on the meaning of "Independence" and "Independent".

Materiality and *Material* refer to data or information which contribute to the determination of the Mineral Property value, such that the inclusion or omission of such data or information might result in the reader of a Valuation Report coming to a substantially different conclusion as to the value of the Mineral Property. Material data and information are those which would reasonably be required to make an informed assessment of the value of the subject Mineral Property. In addition to the general definition above, section 2.4 of Companion Policy 43-101CP to National Instrument 43-101 provides further guidance on the meaning of "Material" and "Materiality".

Mineral Property means any right, title or interest to property held or acquired in connection with the exploration, development, extraction or processing of minerals which may be located

on or under the surface of such property, together with all fixed plant, equipment, and infrastructure owned or acquired for the exploration, development, extraction and processing of minerals in connection with such properties. Such properties shall include, but not be limited to, real property, unpatented mining claims, prospecting permits, prospecting licenses, reconnaissance permits, reconnaissance licenses, exploration permits, exploration licenses, development permits, development licenses, mining licenses, mining leases, leasehold patents, crown grants, licenses of occupation, patented mining claims, and royalty interests

Mineral Reserves and Mineral Resources. The terms Mineral Reserve, Proven Mineral Reserve, Probable Mineral Reserve, Mineral Resource, Measured Mineral Resource, Indicated Mineral Resource, and Inferred Mineral Resource and their usage have the meaning ascribed by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Standards on Mineral Resources and Reserves Definitions and Guidelines adopted by CIM Council on August 20, 2000 (CIM Bulletin October 2000), as may be amended from time to time by CIM, and as included by reference in NI 43-101.

Mineral Resource Property means a Mineral Property which contains a Mineral Resource that has not been demonstrated to be economically viable by a Feasibility Study or Prefeasibility Study. Mineral Resource Properties may include past producing mines, mines temporarily closed or on care-and-maintenance status, advanced exploration properties, projects with Prefeasibility or Feasibility Studies in progress, and properties with Mineral Resources which need improved circumstances to be economically viable.

Prefeasibility Study and *Preliminary Feasibility Study* mean a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, has been established, and which, if an effective method of mineral processing has been determined, includes a financial analysis based on reasonable assumptions of technical, engineering, operating, economic factors and the assessment of other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve (adapted from NI 43-101, Section 1.2 Definitions). A Prefeasibility Study is at a lower confidence level than a Feasibility Study.

Preliminary Assessment means a preliminary economic study by a Qualified Person that includes Inferred Mineral Resources. The Preliminary Assessment must include a statement that the Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, outlines the basis for the Preliminary Assessment and any qualifications and assumptions made, and specifies that there is no certainty that the Preliminary Assessment will be realized (adapted from NI 43-101, Section 2.3 (3)).

Production Property is a Mineral Property with an operating mine, with or without processing plant, which has been fully commissioned and is in production.

Professional Association is a self-regulatory organization of engineers, geoscientists or both engineers and geoscientists that (a) has been given authority or recognition by law; (b) admits members primarily on the basis of their academic qualifications and experience; (c) requires compliance with the professional standards of competence and the code of ethics established by the organization; and (d) has disciplinary powers, including the power to suspend or expel a member. (adapted from NI 43-101, Section 1.2).

Qualified Person is an individual who (a) is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development or operations or mineral project assessment, or any combination of these; (b) has experience relevant to the subject matter of the mineral project and the Technical Report; and (c) is a member in good standing of a Professional Association (NI 43-101, Section 1.2).

Qualified Valuator is an individual who (a) is a professional with demonstrated extensive experience in the Valuation of Mineral Properties, (b) has experience relevant to the subject Mineral Property or has relied on a Current Technical Report on the subject Mineral Property by a Qualified Person, and (c) is regulated by or is a member in good standing of a Professional Association or a Self-Regulatory Professional Organization.

Reasonableness, in reference to the Valuation of a Mineral Property, means that other appropriately qualified and experienced valuators with access to the same information would value the property at approximately the same range. A Reasonableness test serves to identify Valuations which may be out of step with industry standards and industry norms. It is not sufficient for a Qualified Valuator to determine that he or she personally believes the value determined is appropriate without satisfying an objective standard of proof (adapted from NI 43-101CP, Section 1.6).

Report Date means the date upon which the Valuation Report is signed and dated.

Self-Regulatory Professional Organization means a self-regulatory organization of professionals that (a) admits members or registers employees of members primarily on the basis of their educational qualifications, knowledge and experience; (b) requires compliance with the professional standards of competence and code of ethics established by the organization; and (c) has disciplinary powers, including the power to suspend or expel a member or an employee of the member.

Standard means a general rule which is mandatory in the Valuation of Mineral Properties.

Technical Report means a report prepared, filed and certified in accordance with NI 43-101 and Form 43-101F1 Technical Report (NI 43-101, Section 1.2 Definitions).

Transparency and *Transparent* means that the Material data and information used in (or excluded from) the Valuation of a Mineral Property, the assumptions, the Valuation approaches and methods, and the Valuation itself must be set out clearly in the Valuation Report, along with the rationale for the choices and conclusions of the Qualified Valuator.

Valuation is the process of estimating or determining the value of a Mineral Property.

Valuation Date means the effective date of the Valuation, which may be different from the Report Date or from the cut-off date for the data used in the Valuation.

Valuation Report means a report prepared in accordance with these Standards and Guidelines.

S2.0 SCOPE AND LIMITATIONS OF THE STANDARDS

S2.1 The Standards are limited to Valuation of Mineral Properties (including any interests therein), and do not cover valuation of corporations or other entities that hold Mineral Properties as assets. However, it is recommended that the Standards govern the Valuation of Mineral Properties which are included as assets in the valuation of corporations and as assets in valuations related to fairness opinions.

S2.2 The Standards cover Valuation of metallic and non-metallic Mineral Properties, which also include bedrock, alluvium, placers, industrial minerals, dimension stone, aggregates, and energy fuels that could be produced by mining such as coal, uranium, oil sands and oil shales. Mining includes solution mining of such materials as uranium, potash and other salts. The Standards do not cover oil and gas properties.

S3.0 STANDARD OF VALUE

S3.1 Value in the Standards and Guidelines refers primarily to Fair Market Value. If some other type of value is utilized, a clear definition must be provided by the Qualified Valuator and highlighted in the Valuation Report.

S4.0 VALUATION TENETS

S4.1 The following basic tenets (see S1.0 Definitions) must be followed in the Valuation process and in the preparation of a Valuation Report. General principles of Valuation are discussed in the Guidelines.

Materiality Transparency Independence Competence Reasonableness

S5.0 QUALIFICATIONS AND RESPONSIBILITIES OF VALUATORS

S5.1 A Qualified Valuator is responsible for the overall Valuation of a Mineral Property and the preparation of the Valuation Report. The Qualified Valuator may be assisted in, or rely on, various aspects of the Valuation and the Valuation Report by one or more Qualified Persons.

S5.2 In situations where a Qualified Valuator is not a Qualified Person as defined in NI 43-101, all technical data relating to the Mineral Property being valued is subject to Data Verification by one or more Qualified Persons. If a Current Technical Report already exists, the Qualified Valuator may rely on a Current Technical Report to support the Valuation, and shall clearly disclose in the Valuation Report the extent to which such reliance is made.

S5.3 The Qualified Valuator is responsible for assuring that the Qualified Persons who contribute to the Valuation, or upon whom the Qualified Valuator relies, are appropriately qualified and experienced.

S5.4 The Qualified Valuator must be Independent, except for circumstances specified in S5.5. There must be clear, full, and plain disclosure of any past, present or anticipated business relationships, direct or indirect, between the Qualified Valuator and the Commissioning Entity or other interested parties which may be relevant to the Qualified Valuator's Independence, or a lack thereof.

S5.5 If a Valuation is undertaken, which under the particular circumstances does not require the Qualified Valuator to be Independent, the Qualified Valuator must clearly disclose in the introduction and in the summary of the Valuation Report: (i) why Independence of the Qualified Valuator is not required in the particular circumstances; (ii) that he or she is not Independent; and (iii) his or her relationship to the Commissioning Entity, to the holder of any right, title or interest to the Mineral Property, and/or to the Mineral Property, as the case may be.

S5.6 A Qualified Valuator must certify in the Valuation Report that he or she meets all of the attributes of the definition of "Qualified Valuator", and must stamp the Valuation Report with his or her professional seal, if applicable. In addition, non-Canadian valuators must certify and

provide evidence that their professional organization meets all of the attributes of a Professional Association or a Self-Regulatory Professional Organization.

S5.7 The Qualified Valuator is responsible for adhering to the tenets of Materiality, Transparency and Reasonableness in the Valuation of the subject Mineral Property and in the Valuation Report.

S5.8 The Qualified Valuator shall retain his or her work file and all supporting data relating to a Valuation and to a Valuation Report for a minimum of five years after the Report Date.

S6.0 COMMISSIONING A VALUATION

S6.1 A Commissioning Entity must reasonably establish that the Qualified Valuator is sufficiently Competent and Independent to carry out the Valuation of the subject Mineral Property or Properties.

S6.2 The Commissioning Entity and the Qualified Valuator must agree, in an engagement letter or written contract, on the terms of reference of the Valuation assignment, which terms must be summarized and disclosed in the Valuation Report.

S6.3 The Commissioning Entity must represent in writing to the Qualified Valuator that complete, accurate and true disclosure is made to the Qualified Valuator of all Material data and information relevant to the Valuation and that the Qualified Valuator has reasonable access to the Commissioning Entity's records and personnel to enable a proper Valuation to be made.

S6.4 The Commissioning Entity must inform the Qualified Valuator which, if any, of the data and information supplied is confidential and the extent to which it should or should not be disclosed to the public.

S7.0 VALUATION

S7.1 The Qualified Valuator has the responsibility to decide which Valuation approaches and methods to use. The choice of the specific approaches and methods used, or excluded, must be justified and explained by the Qualified Valuator. The limitations of each method must be explained.

S7.2 The three generally accepted Valuation approaches of Income, Market and Cost must be considered and discussed in the Valuation Report. More than one approach should be used in the Valuation of each Mineral Property. If a Qualified Valuator is strongly of the opinion that only one approach should be used in particular circumstances, the Qualified Valuator must justify and explain why other approaches are not used.

S7.3 The Valuation of a Mineral Property must be reported as a range of values to reflect the uncertainty and subjective nature of the Valuation process. If reporting of a single value is required, the selection of a single value from the range must be explained.

S8.0 VALUATION REPORTS

S8.1 A Valuation under these Standards and Guidelines must be reported in a Valuation Report. Instructions for the preparation of a Valuation Report and a recommended table of contents are set out in the Guidelines.

S8.2 NI 43-101 (Part 4, Section 4.2(1)) states "an issuer shall file a current Technical Report where a Valuation is required to be prepared and filed under securities legislation". For such Valuations that require a Technical Report to be filed, the Technical Report may be: (i) appended to the Valuation Report, or (ii) incorporated therein by reference, if the Technical Report is already publicly available. In such circumstances, the Technical Report may be referred to so that the same contents need not be repeated. The Technical Report must be Current, to the extent that there are no Material changes since the date of the Technical Report, which must be confirmed by a Qualified Person.

S8.3 All Current estimates of Mineral Resources and Mineral Reserves (as well as any reserves and resources that do not comply with or pre-date the CIM categories and definitions of Mineral Resources and Mineral Reserves) for the Mineral Property being valued must be disclosed and discussed in the Valuation Report, unless disclosed and discussed in an appended Technical Report. If there is more than one estimate of Mineral Resources and Mineral Reserves, a Qualified Person must decide which estimates are Material to use in the Valuation and state the reasons.

S8.4 If estimates of reserves and resources in non-Canadian jurisdictions and other reserves and resources which do not comply with or pre-date the CIM categories and definitions of Mineral Resources and Mineral Reserves are included in a Valuation Report, they must be disclosed and discussed along the lines specified in NI 43-101, Section 7.1. This allows the use of these reserves and resources, provided that a reconciliation by a Qualified Person to the CIM categories and definitions of Mineral Resources and Mineral Resources and Mineral Resources and Mineral Resources and Reserves and resources.

S8.5 The Valuation Report must specify the Valuation Date and refer to all previous Valuations of the subject Mineral Property within the last twenty-four months and explain any Material differences between them and the present Valuation.

S8.6 The Valuation Report must specify the key risks, assumptions and limitations in the Valuation and explain why the assumptions used are reasonable and appropriate in the circumstances.

S8.7 A Valuation Report must be signed by the Qualified Valuator who is responsible for the Valuation Report, or by a corporation, partnership, limited partnership or other entity (each an "Entity") provided that the Valuation has been supervised by a Qualified Valuator employed or engaged by such Entity.

S8.8 The Valuation Report must include a certificate of qualifications for the Qualified Valuator who supervised or is responsible for the Valuation, and any Qualified Persons involved in the

Valuation. The certificate of qualifications must contain information similar to those specified in NI 43-101, Section 8.1.

S8.9 The Valuation Report must contain a statement that the Valuation complies with these Standards in their entirety. If such a statement is absent from the Valuation Report or is qualified or limited in any way, the Valuation does not comply with these Standards. However, in circumstances where Independence is not required, and proper disclosure is made in the Valuation Report in accordance with Standard 5.5, the Valuation Report may contain a statement that the Valuation complies with these Standards, with the exception of Independence.

S8.10 The Valuation Report must contain a statement regarding the extent to which the Valuation is consistent with the Guidelines. Such statement must disclose and explain the reasons for any inconsistencies or deviations from the Guidelines. If such a disclosure statement is absent from the Valuation Report, the Valuation does not comply with these Standards.

S8.11 The Qualified Valuator or a Qualified Person relied upon by the Qualified Valuator should undertake a site visit to the Mineral Property being valued. The date of the site visit, the name of the person who conducted the site visit, and the extent of the examination must be specified in the Valuation Report or the appended Technical Report. If a site visit is not undertaken, the reason or reasons must be given.

S8.12 A Valuation Report shall contain a summary and introduction section. A Valuation Report shall address, if applicable, each of the following topics. Guideline 5.0 provides recommendations on the discussion to be contained with respect to each topic:

Summary Introduction and Terms of Reference Scope of the Valuation Compliance with the CIMVal Standards Property Location, Access and Infrastructure Property Ownership, Status and Agreements History of Exploration and Production Geology and Mineralization Exploration Results and Potential Sampling and Assaying Mineral Resources and Mineral Reserves Metallurgy Environmental Considerations Mining and Processing Operations Key Assumptions, Risk and Limitations Valuation Approaches and Methods Valuation Valuation Conclusions References Certificate of Qualifications

GUIDELINES

The Guidelines, while not mandatory, provide guidance and best practices which are highly recommended to be followed in the Valuation of Mineral Properties

G1.0 PROFESSIONAL ASSOCIATIONS FOR QUALIFIED VALUATOR

G1.1 For the purpose of the definition of "Qualified Valuator" in the Standards, the Qualified Valuator shall be a member of one or more of the following organizations:

- (a) a Professional Association; or
- (b) a Self-Regulatory Professional Organization. In addition to other organizations that meet the definition of "Self-Regulatory Professional Organization" in the Standards, the CIMVal Committee recognizes the following two organizations as acceptable Self-Regulatory Professional Organizations:
 - (i) Canadian Institute of Chartered Business Valuators (CICBV)
 - (ii) Investment Dealers Association of Canada (IDA).

There may be other associations or organizations that also meet the criteria set out in the definitions of Professional Association and Self-Regulatory Professional Organization.

G2.0 VALUATION PRINCIPLES

G2.1 There is a body of knowledge and accepted principles and standards in the general field of valuation that do not deal specifically with valuation of Mineral Properties. Many of these have application to the Valuation of Mineral Properties. A number of these widely accepted fundamental valuation principles, which must be applied when estimating value, are briefly described below. More information can be obtained in general literature on valuation.

- 1. Value relates to a specific point in time. Valuation opinions must be given as at the Valuation Date.
- 2. Value relates to Current and future expectations
- 3. The value of assets is based on, or directly related to, what they can earn.
- 4. If rights additional to mineral rights or mining rights are attached to the Mineral Property, the principle of "highest and best use" should be considered.

- 5. Hindsight is, in general, inadmissible in reaching valuation conclusions.
- 6. The market dictates the required rate of return.

G3.0 VALUATION APPROACHES AND METHODS

G3.1 The three generally accepted Valuation approaches are:

- Income Approach
- Market Approach
- Cost Approach

The *Income Approach* is based on the principle of anticipation of benefits and includes all methods that are based on the income or cash flow generation potential of the Mineral Property.

The *Market Approach* is based primarily on the principle of substitution and is also called the Sales Comparison Approach. The Mineral Property being valued is compared with the transaction value of similar Mineral Properties, transacted in an open market. Methods include comparable transactions and option or farm-in agreement terms analysis.

The *Cost Approach* is based on the principle of contribution to value. The appraised value method, is one commonly used method where exploration expenditures are analyzed for their contribution to the exploration potential of the Mineral Property.

G3.2 As applied to Mineral Properties, the Valuation approach depends on the stage of exploration or development of the property. For convenience, Mineral Properties can be categorized as four types. It should be noted that there are no clear-cut boundaries between these types, and it may be difficult to classify some Mineral Properties as to one specific category.

- Exploration Properties
- Mineral Resource Properties
- Development Properties
- Production Properties

G3.3 Table 1 shows which Valuation approaches are generally considered appropriate to apply to each type of Mineral Property.

Valuation	Exploration	Mineral Resource	Development	Production
Approach	Properties	Properties	Properties	Properties
Income	No	In some cases	Yes	Yes
Market	Yes	Yes	Yes	Yes
Cost	Yes	In some cases	No	No

TABLE 1. Valuation Approaches for Different Types of Mineral Properties

G3.4 Valuation methods are, in general, subsets of Valuation approaches. For example the Income Approach includes several methods. Certain Valuation methods are more widely used and may be more generally acceptable as industry practice than others, although this could change over time. Some methods can be considered to be primary methods for Valuation while others are secondary methods or rules of thumb considered suitable only to check Valuations by primary methods.

G3.5 Table 2 lists a number of Valuation methods for Mineral Properties, classifies them as to approach, specifies whether it is ranked as a primary or secondary Valuation method, and provides comments. Methods with no primary or secondary ranking are considered to be unreliable or are not widely accepted.

Valuation Approach	Valuation Method	Method Ranking	Comments
Income	Discounted Cash Flow	Primary	Very widely used. Generally accepted in Canada as the preferred method.
Income	(DCF) Monte Carlo Analysis	Primary	Less widely used, but gaining in acceptance
Income	Option Pricing	Primary	Not widely used and not widely understood but gaining in acceptance

TABLE 2. Valuation Methods for Mineral Properties

Valuation	Valuation	Method Ranking	Comments
Approach	Method		
Income	Probabilistic		Not widely used, not much accepted
	Methods		
Market	Comparable	Primary	Widely used with variations
	Transactions		
Market	Option	Primary	Widely used but option aspect commonly not
	Agreement		discounted, as it should be
	Terms		
Market	Gross "in situ"		Not acceptable
	Metal Value		
Market	Net Metal Value	Secondary	Widely used rule of thumb
	or Value per		
	unit of metal		
Market	Value per Unit	Secondary	Used for large Exploration Properties
	Area		
Market	Market	Secondary	More applicable to Valuation of single property
	Capitalization		asset junior companies than to properties
Cost	Appraised	Primary	Widely used but not accepted by all regulators
	Value		
Cost	Multiple of	Primary	Similar to the Appraised Value Method but
	Exploration		includes a multiplier factor. More commonly used
	Expenditure		in Australia
Cost	Geoscience	Secondary	Not widely used
	Factor		

G3.6 A current sampling of recent papers on Valuation methods can be obtained from presentations made at the Mining Millennium 2000 Valuation Day published in a Mineral Property Proceedings volume (www.cim.org) and which were subsequently published in the CIM Bulletin, from publications on VALMIN by the AusIMM (www.ausimm.com.au/publications/books.asp), and in other publications (many of which are referenced in the above papers). The VALMIN publications are "Mineral Valuation Methodologies 1994" and "Mineral Asset Valuation Issues for the Next Millennium 2001".

G4.0 USE OF MINERAL RESERVES AND MINERAL RESOURCES

G4.1 All Mineral Reserves and Mineral Resources on a Mineral Property should be considered in its Valuation. Depending on the circumstances, the Income Approach, the Market Approach or the Cost Approach may be more appropriate for the Valuation of a Mineral Property containing Mineral Reserves and Mineral Resources.

G4.2 For the Income Approach methods, it is generally acceptable to use all Proven Mineral Reserves and Probable Mineral Reserves, and to use Measured Mineral Resources and Indicated Mineral Resources in the circumstances described below.

G4.3 Mineral Reserves and Mineral Resources used in the Income Approach must be estimated or confirmed by a Qualified Person and must be Current with respect to the Valuation Date.

G4.4 It is generally acceptable to use Mineral Resources in the Income Approach if Mineral Reserves are also present and if, in general, mined ahead of the Mineral Resources in the same Income Approach model, provided that in the opinion of a Qualified Person the Mineral Resources as depicted in the Income Approach model are likely to be economically viable.

G4.5 It is generally acceptable to use Measured and Indicated Mineral Resources in the Income Approach if Mineral Reserves are not present provided that in the opinion of a Qualified Person the Mineral Resources as depicted in the Income Approach model are likely to be economically viable.

G4.6 Where Measured and Indicated Mineral Resources are used in the Income Approach, the technical and related parameters used must be estimated or confirmed by one or more Qualified Persons and a qualifying statement must be included in the Valuation Report about the confidence level of the technical and related parameters relative to Feasibility Study or Prefeasibility Study confidence level. Technical and related parameters must be Current with respect to the Valuation Date.

G4.7 Where Measured and Indicated Mineral Resources are used in the Income Approach and/or where technical and related parameters are at a lower confidence level than Prefeasibility

Study level it is recommended that the higher risk or uncertainty be recognized by some means, which might include using a higher discount rate, reducing the quantum of the Mineral Resources, or delaying the timing of production of the Mineral Resources in the Income Approach model, or some other appropriate means of reflecting the higher risk of including Mineral Resources.

G4.8 Inferred Mineral Resources should be used in the Income Approach with great care, and should not be used if the Inferred Mineral Resources account for all or are a dominant part of total Mineral Resources. Any use of Inferred Mineral Resources in the Income Approach must be justified in the Valuation Report and treated appropriately for the substantially higher risk or uncertainty of Inferred Mineral Resources compared to Measured and Indicated Mineral Resources. Inferred Mineral Resources should only be used in the Income Approach if Mineral Resources are present and if, in general, mined ahead of the Inferred Mineral Resources are used as specified in G4.3 to G4.7 and if, in general, mined ahead of Inferred Mineral Resources in the Income Approach model.

G4.9 It is not acceptable to use, in the Income Approach, "potential resources", "hypothetical resources" and other such categories that do not conform to the definitions of Mineral Reserves and Mineral Resources.

G4.10 Technical and related parameters include, but are not limited to, Mineral Reserves, Mineral Resources, mining recovery, mining dilution, mining plan, production schedule, metallurgical testwork, metallurgical recovery, process plant design, project engineering, construction schedule, environmental aspects, permitting, socio-economic aspects, political risk, reclamation and rehabilitation, capital costs, operating costs, smelter terms, product marketing and sales contracts and commodity prices. The relevant technical and related parameters should be disclosed in the Valuation Report or the appended Technical Report.

G5.0 VALUATION REPORTS - RECOMMENDED TABLE OF CONTENTS

G5.1 The Valuation Report should consist of technical information and Valuation analyses. Where a Technical Report is appended to or supports the Valuation Report, the technical information can be incorporated by reference to the Technical Report and need not be repeated in the Valuation Report.

G5.2 The following outline is intended to be a checklist for information purposes regarding the topics of discussion that must be addressed according to S8.12 The checklist is provided to assist the Qualified Valuator in identifying areas that may be appropriate to be included in a Valuation Report. It is not intended that the Valuation Report address all of the items on the checklist since it is in the discretion of the Qualified Valuator to determine their appropriateness to the Mineral Property being valued. Depending on the status of the property, the level of detail needed will vary. For instance, the information required in sections 8, 9 and 10 may be critical in valuing an Exploration Property, whereas the value of a Production Property will depend to a far greater extent on the information in sections 12, 13 and 14.

- 1. Summary
 - Provide a brief description of the terms of reference, scope of work, the Valuation Date, the Mineral Property, its location, ownership, geology and mineralization, history of exploration and production, current status, exploration potential and/or production forecast, Mineral Resources and Mineral Reserves, production facilities if any, environmental and permitting considerations, Valuation approaches and methods, Valuation and conclusions.
- 2. Introduction and Terms of Reference
 - Identify the Commissioning Entity for whom the Valuation is prepared, identify any other intended users, state the owner of the Mineral Property, and confirm who has paid for the Valuation.
 - Describe the Valuation mandate and terms of reference.
 - Outline the purpose of the Valuation and its intended use.
 - Describe the Mineral Property briefly, state the interest in the property that is being valued and indicate its type and stage.
 - State the Valuation Date and the Report Date.

- Name the Qualified Valuator and any Qualified Persons involved in the Valuation and their independence or lack of independence.
- Provide a definition of the type of value being determined.
- Provide other definitions used in the report.
- 3. Scope of the Valuation
 - Scope of work performed.
 - Describe information reviewed, or relied upon, and its source.
 - Describe steps taken to assure the reliability of the information relied upon.
 - Describe how Data Verification was done.
 - Name the Qualified Valuator or Qualified Person who carried out the site visit, when it was done, and what was examined, or explain why such a visit was not undertaken.
 - Specify if data are confidential, and why.
 - State any disclaimers that apply to the data or the Mineral Property title, or that apply to the extent that certain information or opinions of others are relied on.
- 4. Compliance with the CIMVal Standards
 - State that the Valuation complies with the Standards (as per S8.9).
 - Where the Valuation is inconsistent with the Guidelines, disclose and explain such inconsistencies or deviations and reasons therefor (as per S8.10).
- 5. Property Location, Access and Infrastructure
 - Describe the Mineral Property location in detail, including area, and provide a location map.
 - Provide distances to major centres, and an outline of how the property can be reached.
 - Describe the availability of infrastructure such as roads, rail, shipping, airports, power, water, pipelines, labour, supplies and services.
 - Provide a summary of other relevant local issues such as military or terrorist activities, social unrest, seismic risks and the like.

- Provide maps on a regional and local scale, showing all relevant infrastructure including roads, railways, power lines, pipelines, and tailings disposal sites. Provide geographic coordinates using national and international systems.
- 6. Property Ownership, Status and Agreements
 - Describe the Mineral Property title and the owner's interest in the property, including surface rights, including obligations that must be met to retain the property, and the expiry dates of claims, licences and other tenure rights, along with any encumbrances to the title.
 - Describe any applicable agreements, such as options, joint ventures, farm-ins, royalties, back-in rights, payments, and the like.
 - Describe the status of the Mineral Property at the Valuation Date including statutory work requirements, surface rights, water rights, easements, aboriginal land claims, any legal issues, environmental and permitting issues and the impact these may have on property development.
- 7. History of Exploration and Production
 - Provide chronology of previous exploration programs, including methods employed and results, quality of the work, and ownership at the time of the work.
 - Tabulate historical Mineral Resource and Mineral Reserve estimates, if relevant, along with the source and the quality of the estimates.
 - Tabulate production history showing annual amounts and grades. Provide a reconciliation between Mineral Reserves and production, where possible.
 - Provide information of a similar nature for the region and for adjacent properties, if relevant.
- 8. Geology and Mineralization
 - Describe the regional geology and mineralization.
 - Describe the detailed geology of the Mineral Property.
 - Describe the mineralization encountered on the property, the host rocks, and relevant geological controls. Give details on geometry and dimensions of the mineralized

zones, along with the type, character, continuity and distribution of the mineralization.

- Outline current thinking about sources and controls of mineralization and the models and concepts being applied to exploration.
- Provide similar information about adjacent properties, if relevant.
- Provide regional and property geology maps showing mineralization and other relevant details.
- 9. Exploration Results and Potential
 - Describe recent exploration work on the Mineral Property and discuss results, their interpretation and their significance. Discuss the quality and reliability of the exploration work and the data.
 - Provide opinion on the exploration potential for existence and discovery of economic mineralization on the Mineral Property.
 - Where a significant mineral deposit is indicated, provide an assessment of the potential for the discovery of additional mineralization.
 - Information from adjacent properties may be included provided that the distinction is clearly made between information on the adjacent properties and the property being valued.
 - Describe any constraints to further success, such as legal disputes, land claims, permitting constraints, or physical impediments to effective exploration.
- 10. Sampling and Assaying
 - Describe the methods of sampling and details of location, number, type, nature and spacing or density of samples collected, and the area covered.
 - Identify any drilling, sampling or recovery factors that could Materially impact the accuracy or reliability of results.
 - Describe sample preparation, security and analytical procedures, assay quality assurance and quality control procedures, and check assays; and discuss their adequacy.

• Note where the analytical data have been verified by a Qualified Person and any limitations on that verification.

11. Mineral Resources and Mineral Reserves

- Provide estimates of Mineral Resources and Mineral Reserves, if any, and how Current they are, and confirm that the work was carried out by a Qualified Person.
- State the date when they were effective, and describe any subsequent sampling, production or other information that would change the Mineral Resources and Mineral Reserves.
- Describe the reserve/resource database and how it was validated.
- Discuss geological interpretation and continuity of mineralization.
- Describe estimation methods and how they were applied.
- Discuss technical and economic parameters such as cut-off grade, dilution and mining recovery.
- Provide details of any reconciliation between Mineral Reserve estimates and subsequent production results.
- Discuss the classification of the Mineral Resources and Mineral Reserves.
- Provide representative plans and sections depicting the configuration of sampling data and the Mineral Resource and Mineral Reserve outlines or blocks.

12. Metallurgy

- Describe mineralogy of the mineralization, and the results of thin section, polished section and similar studies.
- Describe sampling procedures for metallurgical tests and discuss the representativeness of the samples.
- Provide details of metallurgical testwork including the laboratories used, who supervised and carried out the work, methods employed, results obtained.
- Describe proposed beneficiation process and flowsheet.

- 13. Environmental Considerations
 - Describe the environmental standards that have to be met, and the permits needed to continue work on the Mineral Property and any limitations they may impose on the exploration, development and production on the property.
 - Describe the status of environmental baseline studies.
 - Provide an outline of environmental issues that have to be dealt with, and the proposed means for dealing with them.
 - Describe plans for bonding, pre-closure remediation, reclamation, closure plan, and post-closure responsibilities.
- 14. Mining and Processing Operations
 - Outline current status and proposed activities for the future.
 - Where property is at a Feasibility Study stage, provide a full description of the engineering, Prefeasibility Studies and Feasibility Studies completed and planned, and discuss the significance of these studies and the plans for future work.
 - Where property is in production, provide a full description of mining and processing methods, mining dilution, metallurgical performance, throughput and output capacities, an assessment of operating costs, infrastructure, management capabilities and products marketing. Describe any technical or financial issues that may impact on Value, and discuss measures proposed to deal with these.
 - Provide an outline of capital and operating costs, contracts, taxes, and royalties.
 - Provide details and results of any cash flow analysis or economic study.
- 15. Key Assumptions, Risks and Limitations
 - Describe and discuss all Material assumptions and limiting conditions that affect the analyses, opinions and conclusions reached and upon which the Valuation is based.
 - Discuss the Material risks associated with the Mineral Property including technical, operating, financial, socio-economic, environmental, permitting, marketing, commodity prices and political risks.
 - Describe reliance on information obtained from management.

- 16. Valuation Approaches and Methods
 - Provide a list of recent Valuations of the Mineral Property (for at least the past two years), briefly describe the methods employed, and provide the resulting Valuations.
 - Consider whether the highest and best use of the property may be other than its potential for the development of a mineral deposit, and, if so, describe the valuator's opinion of the highest and best use for the property.
 - Discuss the possible application of various approaches and explain why each approach was utilized or not.
 - Describe the methods selected for the Valuation and justify their applicability. Include a discussion of the exposure time to the market and the marketing effort assumed.
- 17. Valuation
 - Provide an overview of the economic context within which the Valuation is carried out. For Exploration Properties, this might include comments on the demand for such properties by junior and major mining companies, and the availability of financing for exploration work. For Development Properties and Production Properties, the current economics of the mining industry and the particular commodity being studied should be discussed. The outlook for commodity prices and the availability and cost of funding should be outlined.
 - Specify currency used and provide any exchange rates utilized.
 - Provide details of database used to support each method.
 - Provide a clear description and analysis of the information utilized, the methods followed, and the reasoning that supports the analysis, opinions and conclusions as to value.

18. Valuation Conclusions

• Provide a summary of the Valuation estimates reached using each method employed. Provide a reconciliation of justification of any significant differences in the Valuation estimates.

- State the Valuation conclusions, expressed as a range of values. Discuss any reliance on or weighting of different Valuation estimates used to develop the range of values.
- Where a single value is required, discuss the rationale used to select this value within the stated range.
- 19. References
 - Include a detailed list of all sources of information cited in the Valuation Report
- 20. Certificate of Qualifications
 - The Qualified Valuator (QV) and each Qualified Person (QP) who contributed to the Valuation report must provide a certificate of qualifications which should include the following information:
 - Name, address and occupation.
 - Qualifications including relevant experience, education, the name of each Professional Association or Self-Regulatory Professional Association to which the QV or QP belongs, and a statement that the person is a QV or QP for the purpose of the Valuation.
 - Dates of the most recent visits to the Mineral Property.
 - Sections of the report for which each QP is responsible.
 - That the QV, and QP if applicable, is not aware of any Material fact not in the Valuation Report which would make the report misleading.
 - If the QV and QPs are independent.
 - What prior involvement with the Mineral Property that the QV or QP may have had.
 - That the Valuation Report has been prepared consistent with these Valuation standards.
 - Qualified Valuators belonging to non-Canadian Professional Associations or Self-Regulatory Professional Associations must certify that their professional organization meets all the attributes of a Professional Association or a Self-Regulatory Professional Association.

APPENDIX 3

CIM DEFINITION STANDARDS FOR MINERAL RESOURCES AND MINERAL RESERVES

CIM DEFINITION STANDARDS - For Mineral Resources and Mineral Reserves

Prepared by the *CIM Standing Committee on Reserve Definitions* Adopted by CIM Council on December 11, 2005

FOREWORD

CIM Council, on August 20, 2000, approved the "CIM Standards on Mineral Resources and Reserves – Definitions and Guidelines," developed by the CIM Standing Committee on Reserve Definitions. The CIM Definition Standards on Mineral Resources and Reserves (CIM Definition Standards) establish definitions and guidelines for the reporting of exploration information, mineral resources and mineral reserves in Canada. The Mineral Resource and Mineral Reserve definitions were incorporated, by reference, in National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101), which became effective February 1, 2001.

At the August 20, 2000 Council meeting a new CIM Standing Committee on Reserve Definitions was established consisting of the following: John Postle, Bernie Haystead, Larry Cochrane, Normand Champigny, Mike Hoffman, Colin McKenny, Jack Mullins, Phil Olson, Fred Payne, Jody Todd and Joe Ringwald.

Subsequent to the publishing of the August 20, 2000 CIM Standards on Mineral Resources and Reserves, various CIM committees have compiled and published more extensive documentation on mining industry standard practices for estimating Mineral Resources and Mineral Reserves. These standard practices provide more detailed guidance than that contained in the August 20, 2000 CIM Standards on Mineral Resources and Reserves. On November 14, 2004 CIM Council adopted an update to the CIM Definition Standards to reflect the more detailed guidance available and effect certain editorial changes required to maintain consistency with current regulations. This version of the CIM Definition Standards includes further editorial changes required to maintain compatibility with the new version of National Instrument 43-101 which is expected to become law at the end of 2005. The CIM Definition Standards can be viewed on the CIM website at www.cim.org.

Readers should be aware that reports written by persons issuing technical reports that disclose information about exploration or other mining properties to the public are governed by a number of regulations in Canada. The most important of these are NI 43-101 for mineral properties and National Instrument 51-101 for oil and gas properties.

CIM DEFINITION STANDARDS

The CIM Definition Standards presented herein provide standards for the classification of Mineral Resource and Mineral Reserve estimates into various categories. The category to which a resource or reserve estimate is assigned depends on the level of confidence in the geological information available on the mineral deposit; the quality and quantity of data available on the deposit; the level of detail of the technical and economic information which has been generated about the deposit, and the interpretation of the data and information. In the document the definitions are in bold type and the guidance is in italics.

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DEFINITIONS

Throughout the CIM Definition Standards, where appropriate, 'quality' may be substituted for 'grade' and 'volume' may be substituted for 'tonnage'. Technical Reports dealing with estimates of Mineral Resources and Mineral Reserves must use only the terms and definitions contained herein.

Qualified Person

Mineral Resource and Mineral Reserve estimates and resulting Technical Reports must be prepared by or under the direction of, and dated and signed by, a Qualified Person.

A "Qualified Person" means an individual who 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; has experience relevant to the subject matter of the mineral project and the technical report; and is a member or licensee in good standing of a professional association.

The Qualified Person(s) should be clearly satisfied that they could face their peers and demonstrate competence and relevant experience in the commodity, type of deposit and situation under consideration. If doubt exists, the person must either seek or obtain opinions from other colleagues or demonstrate that he or she has obtained assistance from experts in areas where he or she lacked the necessary expertise.

Determination of what constitutes relevant experience can be a difficult area and common sense has to be exercised. For example, in estimating Mineral Resources for vein gold mineralization, experience in a high-nugget, vein-type mineralization such as tin, uranium etc. should be relevant whereas experience in massive base metal deposits may not be. As a second example, for a person to qualify as a Qualified Person in the estimation of Mineral Reserves for alluvial gold deposits, he or she would need to have relevant experience in the evaluation and extraction of such deposits. Experience with placer deposits containing minerals other than gold, may not necessarily provide appropriate relevant experience for gold.

In addition to experience in the style of mineralization, a Qualified Person preparing or taking responsibility for Mineral Resource estimates must have sufficient experience in the sampling, assaying, or other property testing techniques that are relevant to the deposit under consideration in order to be aware of problems that could affect the reliability of the data. Some appreciation of extraction and processing techniques applicable to that deposit type might also be important.

Estimation of Mineral Resources is often a team effort, for example, involving one person or team collecting the data and another person or team preparing the Mineral Resource estimate. Within this team, geologists usually occupy the pivotal role. Estimation of Mineral Reserves is almost always a team effort involving a number of technical disciplines, and within this team mining engineers have an important role. Documentation for a Mineral Resource and Mineral

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Reserve estimate must be compiled by, or under the supervision of, a Qualified Person(s), whether a geologist, mining engineer or member of another discipline. It is recommended that, where there is a clear division of responsibilities within a team, each Qualified Person should accept responsibility for his or her particular contribution. For example, one Qualified Person could accept responsibility for the collection of Mineral Resource data, another for the Mineral Reserve estimation process, another for the mining study, and the project leader could accept responsibility for a Mineral Resource and/or Mineral Reserve estimate and supporting documentation, which has been prepared in whole or in part by others, is satisfied that the other contributors are Qualified Persons with respect to the work for which they are taking responsibility and that such persons are provided adequate documentation.

Preliminary Feasibility Study

The CIM Definition Standards requires the completion of a Preliminary Feasibility Study as the minimum prerequisite for the conversion of Mineral Resources to Mineral Reserves.

A Preliminary Feasibility Study is a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, has been established and an effective method of mineral processing has been determined, and includes a financial analysis based on reasonable assumptions of technical, engineering, legal, operating, economic, social, and environmental factors and the evaluation of other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve.

Exploration Information

Exploration information means geological, geophysical, geochemical, sampling, drilling, trenching, analytical testing, assaying, mineralogical, metallurgical and other similar information concerning a particular property that is derived from activities undertaken to locate, investigate, define or delineate a mineral prospect or mineral deposit.

It is recognised that in the review and compilation of data on a project or property, previous or historical estimates of tonnage and grade, not meeting the minimum requirement for classification as Mineral Resource, may be encountered. If a Qualified Person reports Exploration Information in the form of tonnage and grade, it must be clearly stated that these estimates are conceptual or order of magnitude and that they do not meet the criteria of a Mineral Resource.

Mineral Resource

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.

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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.

The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The phrase 'reasonable prospects for economic extraction' implies a judgement by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable. These assumptions must be presented explicitly in both public and technical reports.

Inferred Mineral Resource

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.

Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.

Indicated Mineral Resource

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.

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Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions.

Measured Mineral Resource

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.

Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.

Mineral Reserve

Mineral Reserves are sub-divided in order of increasing confidence into Probable Mineral Reserves and Proven Mineral Reserves. A Probable Mineral Reserve has a lower level of confidence than a Proven Mineral Reserve.

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 demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.

Mineral Reserves are those parts of Mineral Resources which, after the application of all mining factors, result in an estimated tonnage and grade which, in the opinion of the Qualified Person(s) making the estimates, is the basis of an economically viable project after taking account of all relevant processing, metallurgical, economic, marketing, legal, environment, socio-economic and government factors. Mineral Reserves are inclusive of diluting material that will be mined in conjunction with the Mineral Reserves and delivered to the treatment plant or

equivalent facility. The term 'Mineral Reserve' need not necessarily signify that extraction facilities are in place or operative or that all governmental approvals have been received. It does signify that there are reasonable expectations of such approvals.

Probable Mineral Reserve

A 'Probable Mineral Reserve' is the economically mineable part of an Indicated and, in some circumstances, a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

Proven Mineral Reserve

A 'Proven Mineral Reserve' is the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

Application of the Proven Mineral Reserve category implies that the Qualified Person has the highest degree of confidence in the estimate with the consequent expectation in the minds of the readers of the report. The term should be restricted to that part of the deposit where production planning is taking place and for which any variation in the estimate would not significantly affect potential economic viability.

RESOURCE AND RESERVE CLASSIFICATION

Technical Reports dealing with estimates of Mineral Resources and Mineral Reserves must use only the terms and the definitions contained herein. Figure 1, displays the relationship between the Mineral Resource and Mineral Reserve categories.

The CIM Definition Standards provide for a direct relationship between Indicated Mineral Resources and Probable Mineral Reserves and between Measured Mineral Resources and Proven Mineral Reserves. In other words, the level of geoscientific confidence for Probable Mineral Reserves is the same as that required for the in situ determination of Indicated Mineral Resources and for Proven Mineral Reserves is the same as that required for the in situ determination of Measured Mineral Resources.

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Figure 1 Relationship between Mineral Resources and Mineral Reserves

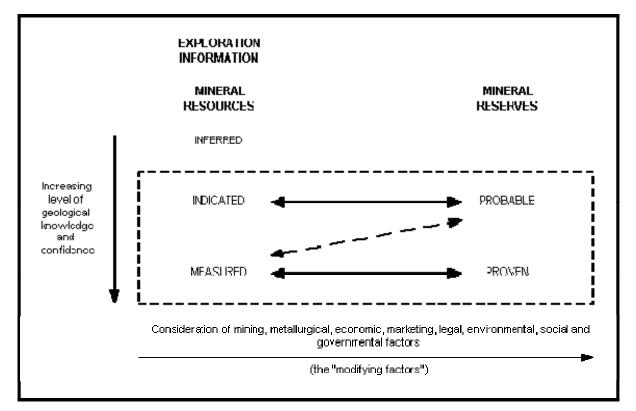


Figure 1 sets out the framework for classifying tonnage and grade estimates so as to reflect different levels of geological confidence and different degrees of technical and economic evaluation. Mineral Resources can be estimated by a Qualified Person, with input from persons in other disciplines, as necessary, on the basis of geoscientific information and reasonable assumptions of technical and economic factors likely to influence the prospect of economic extraction. Mineral Reserves, which are a modified sub-set of the Indicated and Measured Mineral Resources (shown within the dashed outline in Figure 1), require consideration of factors affecting profitable extraction, including mining, processing, metallurgical, economic, marketing, legal, environmental, socio-economic and governmental factors, and should be estimated with input from a range of disciplines. Additional test work, e.g. metallurgy, mining, environmental is required to reclassify a resource as a reserve.

In certain situations, Measured Mineral Resources could convert to Probable Mineral Reserves because of uncertainties associated with the modifying factors that are taken into account in the conversion from Mineral Resources to Mineral Reserves. This relationship is shown by the dashed arrow in Figure 1 (although the trend of the dashed arrow includes a vertical component, it does not, in this instance, imply a reduction in the level of geological knowledge or confidence). In such a situation these modifying factors should be fully explained. Under no circumstances can Indicated Resources convert directly to Proven Reserves.

In certain situations previously reported Mineral Reserves could revert to Mineral Resources. It is not intended that re-classification from Mineral Reserves to Mineral Resources should be applied as a result of changes expected to be of a short term or temporary nature, or where company management has made a deliberate decision to operate in the short term on a non-economic basis. Examples of such situations might be a commodity price drop expected to be of short duration, mine emergency of a non-permanent nature, transport strike etc.

GUIDANCE FOR REPORTING MINERAL RESOURCE AND MINERAL RESERVE INFORMATION

Qualified Persons preparing public Mineral Resource and Mineral Reserve reports in Canada must follow the requirements in Form 43-101F1 of National Instrument 43-101, available on the following websites: <u>www.osc.gov.ca</u>; <u>www.bcsc.bc.ca</u>; <u>www.albertasecurities.com</u> and <u>www.cvmq.com</u>.

The following discussion is included for additional guidance when preparing a Technical Report. For the CIM Definition Standards a Technical Report is defined as a report that contains the relevant supporting documentation, estimation procedures and description of the Exploration Information, or the Mineral Resource and Mineral Reserve estimate.

Technical Reports of a Mineral Resource must specify one or more of the categories of 'Inferred', 'Indicated' and 'Measured' and Technical Reports of Mineral Reserves must specify one or both of the categories of 'Proven' and 'Probable'. Categories must not be reported in a combined form unless details for the individual categories are also provided. Inferred Mineral Resources cannot be combined with other categories and must always be reported separately. Mineral Resources must never be added to Mineral Reserves and reported as total Resources and Reserves. Mineral Resources and Mineral Reserves must not be reported in terms of contained metal or mineral content unless corresponding tonnages, grades and mining, mineral processing and metallurgical recoveries are also presented

Qualified Persons are encouraged to provide information that is as comprehensive as possible in their Technical Reports on Exploration Information, Mineral Resources and Mineral Reserves. The Mineral Exploration Best Practices Guidelines, the Estimation of Mineral Resource and Mineral Reserve Best Practice Guidelines and the Guidelines for the Reporting of Diamond Exploration Results provide, in a summary form, a list of the main criteria which should be considered when reporting Exploration Information, Mineral Resources and Mineral Reserve estimates. These guidelines are available on the CIM website, www.cim.org.

These Guidelines are not prescriptive and it may not be necessary to comment on each item in the guidelines, however, the need for comment on each item should be considered. It is essential to discuss any matters that might materially affect the reader's understanding of the estimates being reported. Problems encountered in the collection of data or with the sufficiency of data must be clearly disclosed at all times, particularly when they affect directly the reliability of, or confidence in, a statement of Exploration Information or an estimate of Mineral Resources

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and Mineral Reserves; for example, poor sample recovery, poor reproducibility of assay or laboratory results, limited information on tonnage factors etc.

Mineral Resources and Mineral Reserves must be reported on a site by site basis.

Where estimates for both Mineral Resources and Mineral Reserves are reported, for consistency, it is recommended that Mineral Resources be reported exclusive of Mineral Reserves. Notwithstanding, it is recognized that there are legitimate reasons, in some situations, for reporting Mineral Resources inclusive of Mineral Reserves (the Australian approach) and, in other situations, for reporting Mineral Resources additional to Mineral Reserves (the South African and United States approach). When reporting both Mineral Resources and Mineral Reserves, a clarifying statement must be included that clearly indicates whether Mineral Reserves are part of the Mineral Resource or that they have been removed from the Mineral Resource. A single form of reporting should be used in a report. Appropriate forms of clarifying statements may be:

- 'The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Mineral Reserves,' or
- 'The Measured and Indicated Mineral Resources are additional to the Mineral Reserves.'

Inferred Mineral Resources are, by definition, always additional to Mineral Reserves.

REPORTING OF COAL RESERVES

For consistency in public reporting of coal resources and reserves, it is recommended that all issuers use the Mineral Resource and Mineral Reserve categories set out in the CIM Definition Standards. Qualified Person(s) should be guided by the Estimation of Mineral Resources and Mineral Reserve Best Practices Guidelines for Coal and by GSC Paper 88-21: A Standardized coal Resource/Reserve Reporting System for Canada. It is acceptable to use the GSC Paper 88-21 as a framework for the development and categorization of coal estimates, but the GSC 88-21 categories should be converted to the equivalent CIM Definition categories for public reporting. When using GSC 88-21 as a framework, in the classification of coal by A.S.T.M. ranking, the "Group" designation is preferred over the less descriptive "Class" designation.

REPORTING OF INDUSTRIAL MINERALS

When reporting Mineral Resource and Mineral Reserve estimates relating to an industrial mineral site, the Qualified Person(s) should be guided by the Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines for Industrial Minerals.

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REPORTING OF DIAMONDS AND GEMSTONES

When reporting diamond Exploration Information and Mineral Resources and Mineral Reserves the Qualified Person is expected to comply with the CIM Guidelines for the Reporting of Diamond Exploration Results and the Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines.

APPENDIX 4

EXPERT REPORT ON BLIZZARD GEOLOGY, MINERAL RESOURCES AND OTHER URANIUM PROPERTIES

AMC Mining Consultants (Canada) Ltd

BC0767129

Suite 1330, 200 Granville Street Vancouver BC V6C 1S4 CANADA

T +1 604 669 0044

F +1 604 669 1120

E amccanada@amcconsultants.ca



BLIZZARD URANIUM PROJECT VALUATION AMC MINING CONSULTANTS (CANADA) LTD On behalf of

MINISTRY OF ATTORNEY GENERAL OF THE BRITISH COLUMBIA PROVINCIAL GOVERNMENT

AMC Report 510102

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ADELAIDE +61 8 8201 1800 BRISBANE +61 7 3839 0099 MELBOURNE +61 3 8601 3300

PERTH +61 8 6330 1100 UNITED KINGDOM +44 1628 778 256 VANCOUVER +1 604 669 0044

www.amcconsultants.com.au

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APPENDIX A DATA USED IN STUDY

1 INTRODUCTION

The author, M (Mark) Sweeney, was requested by Mr. P Stephenson of AMC Mining Consultants (Canada) Ltd to undertake a review of the geology and mineral resource estimates of the Blizzard Uranium project in British Columbia, Canada as a contribution to an independent valuation of the project being undertaken by Mr. Stephenson, on behalf of the British Columbia Provincial Government. The Blizzard project is held by Boss Power Corporation and Blizzard Uranium Corporation (collectively Boss). The author was also asked to review mineral resource estimates on Boss-held uranium deposits in the region of the Blizzard project.

The author has over 25 years experience in the minerals industry, including 14 years in consulting roles with international mining consultancies. He joined AMC in November 2006, and is one of the Principal Resource Geologists in the Brisbane office. He has a Masters in Mining Geostatistics (1995) and a degree in Applied Economic Geology (1984).

The author has broad international mining experience gained form working with both large and small mining consultancies, and has been exposed to most commodities and mining environments. In addition to undertaking resource estimation and advanced geostatistical work on numerous feasibility studies, he also has extensive experience in technical reviews, audits, due diligence work and corporate reporting.

He has completed studies in underground narrow vein gold, open pit uranium and bulk commodities including bauxite. In addition to recent resource estimation, audit and review work, the author has also completed a number of Sarbanes Oxley reviews of mining operations to review corporate accountability in the mining industry.

Between 1989 and 1994 he worked as Senior Resource Geologist at the Rossing Uranium Mine in Namibia.

2 GEOLOGY

The majority of the regional and local geology described is taken from Norcen reports concerning 1977 and 1978 exploration programs.

2.1 Regional Geology

Regional mapping was first carried out over the Blizzard area by the Geological Survey between 1953 and 1956. The work is published on the Kettle River Sheets 82E at a scale of 1:253,440.

The Blizzard Uranium project is situated within the Omineca Crystalline Belt of the Canadian Cordillera. The metamorphic basement to the crystalline belt is referred to as the Shuswap terrane. In the Kettle River area, it comprises mainly layered, probably Precambrian gneisses and is called the Monashee Group. The Monashee Group biotite gneisses are of Proterozoic age (2,500 Ma (millions of years ago) to 542 Ma) and are the oldest rocks observed.

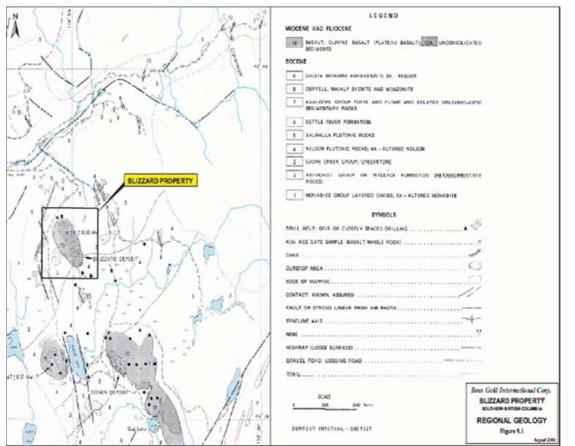


Figure 2.1 Regional Geology, Blizzard Area

The Anarchist Group is Paleozoic in age and consists of interbedded volcanic and metasedimentary rocks that overlie the core gneissic terrain. The basement rocks to the Blizzard deposit consist mainly of Cretaceous Nelson and Valhalla plutonic intrusions that

intrude the Anarchist Group. The Cretaceous intrusions are believed to be the source of the uranium mineralization found in the area (McWilliams, 1979).

The target for uranium exploration is the Miocene loosely consolidated sediments. This unit is very poorly exposed and generally encountered only by drilling beneath the late Tertiary basalt flows. These host sediments to the uranium mineralization appear to have been deposited in depressed fault zones and depressions in the underlying basement complex.

Outcrop in the Blizzard area is generally less than 20% (McWilliams, 1979).

2.2 Local Geology

The Blizzard Uranium Deposit is a flat-lying body of loosely consolidated sandstone and mudstone, occurring mainly beneath a capping of basalt. The basalt cap is massive at the top and becomes vesicular as it approaches the underlying sediments. The hosting sediments occupy an area of about 1,600m by 150m and have an average thickness of about 15m. Uranium occurs in a series of horizontal lenses generally striking NW to SE. The mineralization is covered by up to 60m of basalt and minor recent sediments with an average depth to the top of the deposit of about 30m.

The general geology of the Blizzard property area is shown in longitudinal section in Figure 2.2, and in plan view in Figure 2.3. Rocks considered to be "basement" to the Blizzard deposit consist mainly of Nelson and Valhalla intrusions and dykes of a felsic, alkaline nature and olivine basalts which are considered to be feeders to the plateau basalts. Dykes account for about 5% of the basement rocks and occur in swarms with a strike of N20°W to N15-25°E.

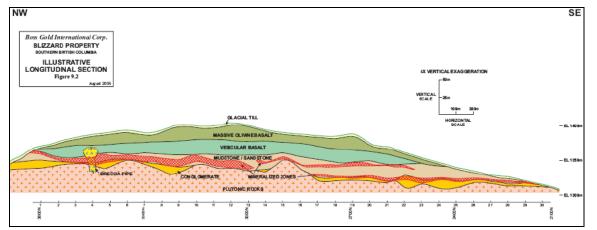


Figure 2.2	Illustrative Longitudinal Section of Blizzard Deposit (Christopher, 2007)
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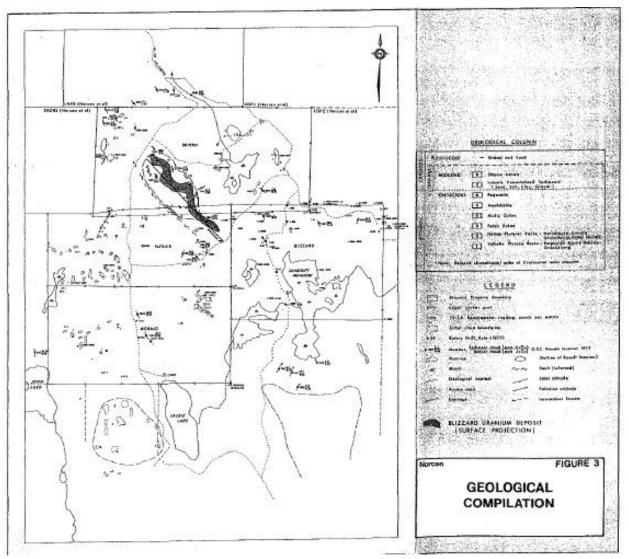


Figure 2-3 Local Geology, Blizzard Area

The paleo-stream channels containing the carbonaceous sediments that host the Blizzard deposit are considered to have formed during Miocene (26 Ma to 7 Ma) or early Pliocene (7Ma to 2Ma), before the extrusion of the plateau basalt cap around 5 Ma. The plateau basalt cap protected the channel sediments from erosion by Pleistocene glaciers and also sealed and protected the groundwater system from highly oxidizing surface conditions. Pleistocene glacial and glacofluvial deposits represent the last major unit deposited in the area and form a generally thin layer overlying other units.

A diatreme breccia pipe (Figure 2.2) intrudes the basalt and sedimentary rocks and occurs in the northwestern end of the Blizzard deposit. The breccia pipe is mushroom shaped and ranges in diameter from 60m to 90m. Breccia bodies have not been described at other, similar deposits,

Source: Norcen Energy report, October 1979

but the pipe occurs at the higher grade end of the deposit and may have increased fluid flow resulting in higher grade.

The presence of carbonaceous debris in host sedimentary rocks is common to most of the basal type deposits. Limonite staining is common and carbonaceous debris is rare in a sandstone unit. Carbonaceous sandstone contains 5% to 15% carbonaceous debris and is often interbedded with carbonaceous mudstone. Carbonaceous mudstone contains carbonaceous material from fine debris to wood fragment up to 4cm.

2.3 Style of Deposit¹

The Blizzard uranium deposits have been classified as basal type deposits (Christopher, 2007 and Ballantyne, 1976) and as a channel conglomerate type (McMillan, 1978).

Basal type uranium deposits in the Okanagan Plateau occur in poorly consolidated fluvial or lacustrine carbonaceous sediments. Hosted sedimentary rocks are capped by an impermeable horizon, either Pliocene or Miocene plateau basalt or by sediments of low permeability. Organic-rich sediments occupying palaeo-stream channels or basins have maintained a reducing environment that caused deposition of secondary uranium minerals in areas of groundwater entrapment.

The term 'basal type' uranium deposit is applied to these deposits because they often occur in a basal sequence of gravel and sands overlying a major unconformity, and are below or at the base of a trapping impermeable layer. Unifying genetic and physical characteristic also allow classification of the deposits as channel, stratabound, or groundwater type uranium deposits.

Favorable parameters for the formation of basal type uranium deposits of the Okanagan Plateau are (Christopher, 2007):

- The presence of leachable uranium in high background granitic or volcanic terrain (eg. Coryell syenite, Valhalla quartz monzonite, Kettle River volcanics or Kamloops Group volcanics in the East Okanagan uranium area)
- Weathering or faulting provides ground preparation for oxidizing groundwater or other leaching solution
- The presence in an aquifer of carbonaceous (reducing) stream and lake sediments that allow trapping of groundwater solutions and formation of a reducing environment in a normally oxidizing groundwater system
- An impermeable cap (eg. Plateau basalt) that protects the deposits from erosion and from oxidizing surface waters

The emplacement of a breccia pipe at Blizzard may have affected fluid flow and caused a higher grade zone in the northern area of the deposit.

¹ Technical Report – Peter Christopher, 2007

2.4 Mineralisation

2.4.1 Blizzard Mineralisation

At the Blizzard uranium deposit, the most abundant uranium minerals are autunite, (calcium uranyl phosphate), ningyoite (hydrated uranium-calcium-cesium phosphate) and saleeite (magnesium uranyl phosphate). Autunite and saleeite occur primarily within the sandstone and mudstone as coatings surrounding the clasts and within the matrix.

The highest grade uranium mineralization occurs within the clean sandstones (McWilliams, 1979). Uranium minerals including the dominant meta-autunite and saleeite minerals occur as small tabular or rectangular crystal aggregates and as surface coating on limonite concretions. Unmineralised clean sandstone beds undistinguishable from those containing uranium mineralization are not uncommon (McWilliams, 1979).

Uranium minerals occur to a lesser extent within the conglomerate, the breccia pipe and intermittently within the upper few meters of the basement rocks. In those holes where uranium is found in the conglomerate, the mineralization was concentrated at the boundary between the conglomerate and adjacent mineralised sandstones and mudstone.

The ore body is sinusoidal and trends SE in a channel containing fluvial sediments and has a strike of around 1,500m. Mineralization varies from 40m to 275m in width and from 0.6m to 16.6m in thickness. The uranium is concentrated in a series of horizontal lenses and does not appear to be associated with other metallic minerals (see Figure 2.4).

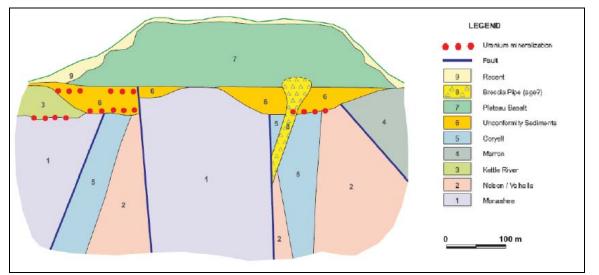


Figure 2.4 Schematic Cross-Section Through the Blizzard Deposit

Plutonic igneous rocks are generally barren, with minor uranium mineralization restricted to fracture zones around the western flank of the channel.

Kilborn identified mineralized zones I through VI with most of the estimated mineral resource in Zones I through III (Figure 2.5). Zone I contains higher grade, approximately 0.5% U_3O_8 , from the northwest end to basement highs at 3,300N. The southern part of Zone I and all of Zone II grade approximately 0.1% U_3O_8 . Zone III, situated mainly in conglomerate, averages 0.3% U_3O_8 .

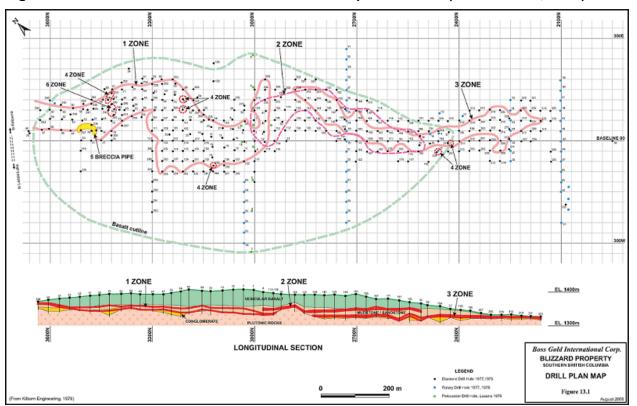


Figure 2.5 Blizzard Drill Hole Locations and Proposed Holes (from Kilborn, 1979)

The Blizzard deposit is not known for any other metals of economic significance. Studies have indicated that there are only trace amounts of thorium, vanadium and molybdenum (Johnson, 1979). Very minor fine grained pyrite (less than 1% by volume) has been observed (McWilliams, 1979).

2.4.2 Genesis

The Blizzard uranium deposit is thought to have been formed in a low temperature environment, under oxidizing conditions from uraniferous groundwaters migrating through structurally controlled channels.

The uranium in the groundwater was most likely leached from the felsic plutonic rocks and their derived sediments and soils. It is postulated that this process was cyclical and the cycle of leaching and deposition of uranium minerals continued over a long period.

Factors controlling the deposition of the uranium minerals include:

- Sorption of uranium on contact with carbonaceous debris and ferric oxyhydroxides
- Constriction of the groundwater channels and variations in the porosity and permeability of the channels containing the aqueous uranium rich fluids
- Localised changes in pH and oxidation state of the mineralizing groundwaters
- Mixing of uraniferous fluids with meteoric groundwater.

The basalt that caps the mineralized sediments has acted as a resistive cap preserving the mineralised sediments from leaching and erosion. Other than the above, the basalt remains benign with respect to the genesis of the uranium mineralization.

The hexavalent uranium minerals, including autunite and saleeite (calcium and magnesium uranyl phosphates), are normally considered to be secondary uranium minerals formed from the local oxidation of tetravalent uranium minerals. However, at the Blizzard deposit the autunite – saleeite minerals would appear to be primary since very little tetravalent uranium minerals have been documented (McWilliams, 1979).

The genetic relationship of the breccias pipe near the northern end of the deposit to the existing uranium mineralisaton is unclear. It is possible, however, that the pipe may have remobilized and had a concentrating effect on the uranium already contained within the sedimentary channels (McWilliams, 1979).

3 EXPLORATION OVERVIEW

Boss has not conducted any recent exploration on the Blizzard uranium project. The Blizzard property was previously explored by Lacana Mining Corporation (Lacana) and a consortium of companies with Norcen Energy Resources Limited (Norcen) as the operating manager.

Boss has not conducted exploration on the Fuki, Hydraulic Lake or Haynes Lake uranium mineralized areas which it also holds (or on the nearby Cup Lake uranium deposit, now held by another company). These were explored in the late 1960s and 1970s by other companies.

3.1 **Previous Exploration Work**

In August 1968, geologists working for Power Reactor and Nuclear Fuel Development Corporation (PNC) of Japan first discovered uranium mineralization in the Kelowna-Beaverdell area.

The discovery outcrop, known as the Fuki showing, is located just west of Dear Creek on the Beaver Creek Road between Beaverdell and the Christian Valley. Initial exploration work by PNC consisted of three diamond drill holes resulting in uranium grade intersection ranging from 1.5m to 2.1m, with grades ranging from 0.1% Ue² to 0.22% Ue (McWilliams, 1979).

3.1.1 Blizzard

At the Blizzard prospect, Lacana completed 15 holes totaling 954m of percussion drilling in 1976 that discovered the Blizzard uranium deposit. The property was then optioned to Norcen Norcen in 1977 which operated a joint venture on behalf Norcen, Campbell Chibougamou Mines Ltd, E & B Explorations Ltd and Ontario Hydro. Norcen completed 479 diamond, percussion and rotary holes totalling 20,946m between 1977 and 1979 as detailed in Table 3.1. Significant intersections of uranium mineralization are listed in Table 3.2

Year	Diamond Holes		Percussion Holes		Rotary Holes		Totals	
	No	Metres	No	Metres	No	Metres	No	Metres
1977	33	2,040			19	522	52	2,562
1978	294	15,000			47	2,000	341	17,000
1979			86	1,384			86	1,384
Total	327	17,040	86	1,384	66	2,522	479	20,946

Table 3-1	Norcen Drilling on Blizzard, 1977 - 1979
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² Ue (uranium equivalent) is a uranium grade calculated from radiometric measurements

Hole #	Section #	Interval (m)	Thickness (m)	% U ₃ 0 ₈	Recovery (%)
264	3630	8.84-13.87	5.34	1.700	75
266	3630	6.10-10.67	4.57	0.740	86
68	3600	14.79-20.27	5.48	1.667	67
87	3600	10.67-18.27	7.62	0.110	71
53	3540	26.37-31.10	4.73	0.281	100
258	3540	23.17-31.71	8.54	0.106	86
52	3510	30.18-35.82	5.64	1.006	97
238	3480	40.55-47.26	6.71	0.503	87
51	3480	30.50-42.07	11.57	1.31	84
236	3465	29.27-30.49	1.22	0.214	96
236	3465	36.58-60.67	24.09	0.299	91
75	3450	32.32-47.56	15.24	0.115	77
50	3450	35.36-45.27	9.91	0.642	100
49	3450	33.54-42.07	8.53	0.150	97
247	3435	30.18-51.52	21.34	0.421	95
243	3420	36.89-48.48	11.59	0.709	34
62	3420	35.21-50.30	15.09	0.884	80
249	3420	36.13-47.10	10.97	0.782	93
47	3420	42.68-44.51	1.83	0.232	100
245	3405	36.13-44.51	8.38	0.902	92
248	3390	36.13-47.79	11.66	1.408	90
46	3390	34.76-45.43	10.67	0.581	94
64	3360	35.51-40.85	5.34	0.411	95
45	3360	35.98-47.87	11.89	2.038	92
44	3330	32.01-43.90	11.89	1.372	?
261	3300	49.85-55.18	5.33	0.139	99
259	3300	32.93-45.27	12.34	0.508	76
43	3300	35.36-44.36	9.00	0.342	92
95	3270	39.33-55.94	16.61	0.306	95
42	3270	35.37-41.77	6.40	0.284	73
262	3270	32.77-37.80	5.03	0.570	54
103	3240	63.11-70.73	7.62	0.110	76

Table 3.2 Blizzard Property Significant Drill Intersections

				-	
260	3240	55.18-63.57	8.39	0.488	100
78	3240	42.22-51.07	8.85	0.248	72
22	3240	35.06-49.69	14.63	0.166	P/RC
84	3210	48.78-60.75	11.97	0.180	89
121	3180	73.78-75.30	1.52	0.237	88
277	3180	75.00-80.18	5.18	0.116	90
32	3180	51.83-67.07	15.24	0.118	P/RC
278	3150	72.56-75.46	2.90	0.121	94
88	3150	48.17-53.66	5.49	0.126	89
15	3120	77.74-80.18	2.44	0.131	P/RC
20	3120	46.65-53.66	7.01	0.119	P/RC
13	3090	50.31-65.55	15.24	0.181	P/RC
21	3090	44.21-47.87	3.66	0.131	P/RC
12	3060	64.94-71.95	7.01	0.141	P/RC
10	3060	52.13-64.02	11.89	0.164	P/RC
7	3030	54.57-69.81	15.24	0.109	P/RC
5	3030	45.73-54.88	9.15	0.119	P/RC
2	3000	48.78-55.79	7.01	0.156	P/RC
3	3000	43.29-53.05	9.76	0.108	P/RC
40	2970	42.68-46.65	3.97	0.204	82
40	2970	56.10-57.62	1.52	0.253	85
41	2970	39.94-56.92	7.22	0.126	90
298	2970	51.68-53.20	1.52	0.196	71
110	2940	45.88-47.41	1.53	0.305	98
273	2940	43.29-44.82	1.53	0.130	87
149	2760	41046-44.82	3.36	0.288	71
147	2760	35.36-46.19	10.67	0.172	66
147	2760	52.82-58.54	5.72	0.129	102
141	2850	59.15-61.43	2.28	0.198	98
142	2820	43.29-46.34	3.05	0.188	94
142	2820	39.94-41.46	1.52	0.130	97
144	2820	40.70-41.46	0.76	0.257	NA

Table 3.2 Blizzard Property Significant Drill Intersections (cont.)

				•	-
144	2820	59.91-63.11	3.20	0.532	79
165	2700	29.88-31.1 0	1.22	0.104	100
165	2700	43.29-44.82	1.53	0.130	83
189	2670	41.16-43.75	2.59	0.118	97
166	2670	55.94-58.84	2.90	0.912	99
185	2640	54.88-56.40	1.52	0.253	98
183	2610	39.02-43.21	4.19	0.119	95
171	2610	47.56-51.37	3.81	0.884	NA
181	2580	42.99-48.02	5.03	1.512	72
153	2550	35.52-39.94	4.42	0.497	92
34	2520	27.74-32.32	4.57	00408	58
36	2490	29.12-32.01	2.89	0.306	75
194	2460	23.63-26.22	2.59	0.131	94
306	2460	20.12-23.93	3.81	0.117	88
37	2430	17.84-21.95	4.11	0.428	90
196	2400	14.79-21.19	6.40	0.257	83
198	2370	13.72-18.60	4.88	0.126	58
207	2340	8.84-13.41	4.57	0.128	64
215	2280	9.91-12.65	2.74	0.170	92
216	2250	7.01-9.45	2.44	0.166	69
224	2250	3.81-6.1 0	2.29	0.196	66
221	2190	1.83-4.73	2.90	0.314	88
D/DC = marrow	agion / rovergo	irculation drilling ther	oforo no coro		

 Table 3.2
 Blizzard Property Significant Drill Intersections (cont.)

P/RC = percussion / reverse circulation drilling, therefore no core NA = not available

Drill core recovered from diamond drilling was removed from the core barrel and placed into wooden core boxes. Representative samples of basalt were selected to remain in the core boxes. The remainder of the basalt section (about 90%) stayed at the drill site and was reworked into the glacial overburden as part of the reclamation program. The basalt that remained at the drill site was radioactively inert.

The core was transported to the camp and deposited at the core logging and sampling facility. The core was split, logged and sampled under the direction of a geologist. Samples were sent to a laboratory for uranium assays and the remainder of the core was stored at the camp. Core initially was stored in open core racks. In January, 1979, a metal building was erected at the Lassie Lake exploration camp as a core depository and all drill core is stored there.

Drilling done during 1977 and 1978 was used by Kilborn in calculations that form the basis of its reserve estimate. Kilborn stated that the drilling basis for its estimate was 327 diamond drill

holes completed during 1977 and 1978 and 19 rotary drill holes completed during 1977. Drillhole locations, used for resource estimates, are summarized on Figure 2.5.

Lacana drilling in 1976 was not used in the Kilborn resource estimate because of down-hole contamination and caving issues related to loosely consolidated sediments within the 5cm diameter percussion holes, which made accurate evaluation of the grade and thickness of the uranium mineralization impossible (McWilliams, 1979).

Norcen, in 1977 completed 33 drill holes located on a regular grid using both HQ diamond drilling and percussion drilling for a total of 2,040m. Downhole radiometric logs were processed through the HQ drill stems upon completion of each hole.

As core recovery from the drilling averaged less than 60%, the radiometric logs were used to calculate uranium equivalent grades. Mineralised sections of the drill core were halved and shipped to Loring Assay Laboratory in Calgary for chemical assay.

Validation of the chemical assays with the radiometric data was not possible due to the assay grade intersections being different to the radiometric interval thicknesses (McWilliams, 1979). The author believes that this lack of quantifiable validation work on the radiometric and chemical assays has introduced a significant risk to the quality of the resulting resource database.

In 1978 Norcen undertook 294 diamond drill holes on the Blizzard property using a Longyear rig. Average core recoveries were greater than 80%. All core was HQ size (640mm) and was drilled using a triple tube core barrel resulting in the improved core recoveries recorded.

A hand held McPhar TV-1A spectrometer was used to scan the core to detect the presence of uranium mineralization. During the initial phases of the 1978 drilling program, PVC piping with an interval diameter of 445mm was placed down the hole through the rods to keep the hole open for gamma ray neutron logging (radiometric logging). From drill hole number 164 to 327, radiometric logging was carried out through the HQ drill rods (McWilliams, 1979).

In 1978, Norcen also completed 46 vertical rotary holes for a total of 1,767m to depths ranging from 10m to 83m. The rotary drill holes were used as an economical method to define the lateral extents of the uranium mineralization and to record the stratigraphy of channel sediments. The holes were drilled along four section lines that cross the channel containing the Blizzard uranium deposit (McWilliams, 1979). Sediments were intersected in 24 holes, but only 9 holes were mineralised.

The 1977 radiometric logging was undertaken by Data Logging Limited of Calgary. The measuring device used was a gross count probe with a 2cm by 7.5cm sodium iodide crystal. A Gearhart-Owen truck mounted instrument simultaneously recorded a low sensitivity gross count gamma log and a high sensitivity lithological log. Logging was carried out through PVC pipe placed in the drill hole.

Problems in the 1977 radiometric data were encountered due to the probe overloading during the logging of high grade uranium mineralization. This resulted in a lack of correlation between the 1977 diamond drilling radiometric grades and the corresponding chemical assay grades. In the author's opinion local disequilibrium of the uranium mineralization was also a factor.

Ongoing problems with the 1978 radiometric logging, including likely disequilibrium issues, delayed attempts to estimate the uranium equivalent grades from the radiometric data. Ultimately, radiometric grades from the 1978 drilling were not required as improved core recoveries due to improved drilling techniques resulted in the chemical assays being used for resource modeling purposes.

In the author's opinion the average drill hole spacing of 30m by 30m is appropriate for the style of mineralization and observed grade continuity in hardcopy sections.

In the author's opinion, the 1978 drilling is of a higher quality compared to the 1977 drilling program. The lack of comparative information between the 1977 and 1978 drilling to verify the 1977 resource data is of concern, as both data were used in the Kilborn resource estimate (1979).

3.1.2 Exploration of Other Uranium Properties

No feasibility reports or exploration reports are available for the Haynes Lake or Fuki deposits. A summary report exists on the Hydraulic Lake deposit by Placer Development Limited (Placer)³. A Technical Report is also available for the Cup Lake uranium deposit (Christopher, 2007), - Cup Lake is not held by Boss. In addition, the author was not able to determine if there was a Qualified Person to accept responsibility for the historical, non-compliant resource estimates for these deposits.

³ Overview of the Geology, History and Exploration of the Hydraulic Lake Uranium Deposit" (August 1979),

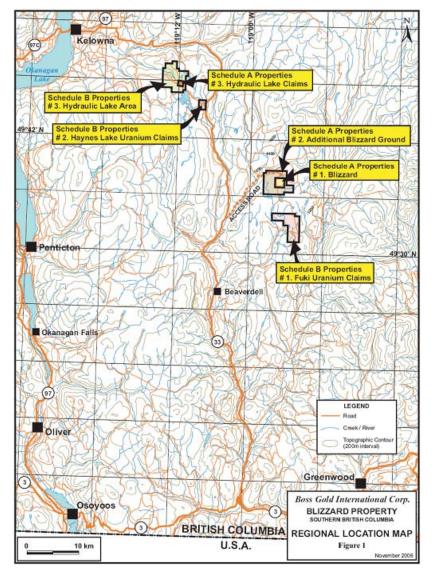


Figure 3.1 Plan of Blizzard, Hydraulic Lake, Fuki and Haynes Lake Claims

The Hydraulic lake, Haynes Lake, Fuki and Cup Lake occurrences (Figure 3.1) were explored in the late 1960s and 1970 by PNC, a Japanese uranium exploration company. Diamond drilling was used to identify small, low grade, uranium deposits. Historical resource estimates are detailed in the following sections.

A lack of information on the geology and exploration programs at Haynes Lake and and Fuki deposits has limited the author's ability to assess the exploration potential for these deposits.

Given the current average grades from the historical non-compliant resource estimates, in the author's opinion the Hydraulic Lake, Haynes Lake and Fuki deposits have low exploration potential in terms of stand-alone operations due to their overall lower uranium grades. Should the Blizzard deposit go into operation, is it possible that these lower grade satellite deposits

could supply low grade ore to the mill to supplement the higher grade ore from the Blizzard deposit, this would need to be verified with additional technical and economic studies.

3.1.3 Hydraulic Lake

Drilling undertaken by Tyee Lake Resources Limited (Tyee) in June 1976 discovered the Hydraulic Lake deposit. Drilling was continued by Tyee until September 1976. It was then explored under option by Noranda Exploration Company Limited and Kerr Addison Mines Limited until September 1977, then by Placer Development Limited (Placer) under option until July 1979 when Placer withdrew. According to Placer in its "Overview of the Geology, History and Exploration of the Hydraulic Lake Uranium Deposit" (August 1979), it withdrew because it received a negative metallurgical report on the leachability of the deposit using ammonium carbonate (alkali) leaching. Placer decided not to pursue acid leaching because "it was felt that would be too difficult to return the aquifer that contains the orebody to an environmentally acceptable state".

Hydraulic Lake appears to be geologically similar to Blizzard, but without the basalt capping. The main uranium mineral was identified as ningyoite, a calcium uranium phosphate, in association with marcasite (an iron sulphide mineral). The best uranium grades were found in the deeper parts of the deposit, which meant that considerable barren and lower grade uranium mineralization would have to be mined before gaining access to the higher grades. Placer observed that this made open pit mining unattractive⁴, which was why it pursued in-situ leach as an extraction option.

By the time of Placer's withdrawal, the deposit had been tested by 100 drill holes. Placer listed two tonnage / grade estimates and Christopher, citing a reference not seen by the AMC Team⁵, listed one estimate (see Table 3.3).

Reference	Cut-off (%U ₃ O ₈)	Resource Category	Tonnes (Mt)	U ₃ O ₈ (%)	U ₃ O ₈ (MPounds)
Placer (1979)	0.03	"Geologic Reserves"	0.57	0.08	1.06
Placer (1979)	0.01	"Mineable Ore Reserves"	1.71	0.04	1.39
Christopher (2007)	?	Inferred Resources	3.06	0.03	2.16

Tonnes and grade rounded

Christopher's estimate was reclassified by Christopher to comply with NI 43-101

The average grades for the Hydraulic Lake deposit are an order of magnitude lower than the currently reported Blizzard resource grade ($0.25\% U_3O_8$), however, tonnage appears to be similar to the Blizzard resource (depending on the cut-off grade applied).

Placer's estimates are prior to, and do not comply with, NI 43-101

⁴ Placer estimated that the stripping ratio (volume of waste to volume of ore) would be around 9.45 : 1, and that around 7 Mt of barren overburden would have to be removed before the first tonne of ore was accessed.

⁵ Sutherland Brown, A., Carter, N.C., Johnson, W.M., Preto, V.A., and Christopher, P.A., A Brief Submitted to the Royal Commission of Inquiry, Health and Environmental Protection, Uranium Mining. Ministry of Energy, Mines and Pet. Res, Paper 1979-6

3.1.4 Haynes Lake

The Haynes Lake deposit is classified as a basal type deposit (Christopher, 2007) similar to the Blizzard uranium deposit. Historical resource estimates were also recorded by Kilborn (1979), and are summarized in Table 3.4. The author was not able to source any feasibility or resource estimation documentation supporting the historical resource estimate.

Table 3.4	Haynes Lake Deposit Historical Resource Estimate, after Kilborn (1979)
		,

Deposit	Tonnes (Mt)	Grade (%U)	Comments & References
Haynes Lake	> 2	0.017	Boyle, 1982b

To conform with NI-43-101 conversions were necessary.

The Haynes Lake deposit is low grade compared to the Blizzard deposit. In the author's opinion exploration potential in this area is low unless higher grades can be found. The current average grade for the Haynes Lake deposit is lower than the cut-off grade used to define the mineralised boundaries at the Blizzard deposit.

3.1.5 Fuki Deposit

The Fuki uranium deposit is about 9 kilometers south of the Blizzard uranium deposit.

The Fuki outcrop, the discovery outcrop in British Columbia, was located during the 1968 prospecting program and car-borne scintillometer to check favourable geologic settings. A strong radioactive response was found adjacent to Dear Creek, about 32 km SE of Kelowna. Follow-up geological, radiometric, geochemical and drilling programs by PNC located other mineralized zones near Lassie Lake and Hydraulic Lakes. The Fuki discovery outcrop measured 10m by 3m and assayed 0.10% uranium across 1.5m.

The Fuki deposit has been classified as a basal type deposit (Christopher, 2007). Historical resource estimates were also recorded by Kilborn (1979), and are summarized in Table 3.5.

Table 3.5 Fuki Historical Resource Estimate, after Kilborn	(1979)	
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Deposit	Tonnes (Mt)	Grade (%U)	Comments & References
Fuki	> 0.5	0.025	Boyle, 1982b

To conform with NI-43-101 conversions were necessary.

4 SAMPLING AND ASSAYING – BLIZZARD DEPOSIT

Blizzard property data was mainly from samples collected by Norcen personnel and consultants. The last major program on the Blizzard structure was completed in 1979. A seven year moratorium on uranium mining and exploration followed and no further exploration has been undertaken to date.

Several site examinations of the Blizzard uranium project were undertaken by Peter Christopher, a geologist with Peter Christopher and Associates Inc, during the late 1970's as a representative of the British Columbia Ministry of Energy, Mines and Petroleum Resources. He reportedly found the personnel to be competent and the exploration programs being implemented to 1970's industry best practice standards.

Peter Christopher, as a representative of the British Columbia Ministry of Energy, Mines and Petroleum Resources, also made several site examinations of the Fuki, Cup Lake and Haynes Lake deposit areas with PNC geologists (Christopher, 2007). He reported that the PNC exploration had also been conducted to 1970's best practice standards.

4.1 Sampling Methodology

Holes were logged geologically and radiometrically and cores split and sent for chemical assays to Loring Laboratories Ltd. in Calgary, Alberta.

The core was measured to determine core recovery to within 0.05m. The entire sedimentary section was sampled for uranium mineralization. The procedure for sampling the drill core is as follows (McWilliams, 1979):

- Unconsolidated core was split using a butchers knife and removed from the core box by lifting the underlying plastic liner. Consolidated core was split using a core splitter
- Assay intervals were pre-determined by the drilling meter intervals
- Two samples were collected from drilling intervals greater than 0.9m with core recovery greater than 80%, otherwise only one sample was collected per drilling interval
- The drill hole number, sample interval, core recovery and bag counts (gamma count using McPhar TV-1A spectrometer) were recorded in a sample book.

The author notes that there are two main issues. Firstly, the host lithology is largely unconsolidated sedimentary rock that is susceptible to significant sample loss during drilling. This issue has the potential to bias the assay grades either high or low depending on where the lower and higher grades were located in respect to the remaining sample collected for assaying.

The second issue is that the uranium minerals are susceptible to being washed away during the sample collection process. This would result in the assay grade estimates being biased low due to the loss of uranium minerals from the sample.

Both issues are pertinent to the quality of the resulting resource estimates. It is the author's opinion that these issues have not been adequately addressed in the course of the feasibility work.

The first issue of unconsolidated host rock sediments is particularly relevant for the 1977 drilling program where average core recoveries were in the order of 60%. The 1978 drilling program core recoveries were significantly better, averaging around 80% due to improved drilling and core recovery techniques.

The problem of the poor core recoveries and potential to lose uranium minerals was exacerbated due to the inadequate radiometric logging verification and validation studies to verify and validate the chemical assay data.

4.2 Sample Preparation and Assaying

Drill core was collected from the diamond drill rigs at the end of each drilling shift. Core was logged and bagged and the drill hole number and sample number recorded.

Chemical analysis for the Norcen drilling was carried out by Loring Laboratories in Calgary, or by Chemex Laboratories in Vancouver. Both laboratories used the fluorometric technique to determine uranium assay grades.

4.3 Radiometric Sample Data

Chemical assays were on average higher than the radiometric assays. Possible causes for this discrepancy include uranium disequilibrium issues. Disequilibrium results from the daughter products not having time to reach equilibrium in a young deposit, or alternatively, removal or addition of remobilized uranium mineralization before the uranium mineralization and daughter products can reach equilibrium.

The 1977 drilling was chemically assayed and logged radiometrically. However, the Kilborn⁶ report stated that the probes could not be calibrated against the chemical assay analysis due to significant core losses during drilling. The probes were ultimately calibrated from an ore grade drill hole 40 km from the Blizzard deposit.

In the author's opinion, this has introduced significant uncertainty with respect to the 1977 radiometric data as there is no assurance that the calibration hole is appropriate for the Blizzard uranium mineralization.

Figure 4.1 illustrates the lack of correlation between the 1977 diamond drilling radiometric grades and the corresponding chemical assay grades, although the global statistics would wrongly indicate that the correlation is good.

⁶ Report: Norcen Energy Resources Limited – Blizzard Uranium Project – Engineering Feasibility Report, Kilborn, August 1979

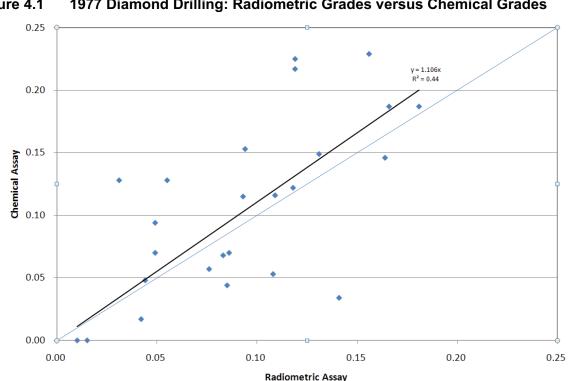


Figure 4.1 1977 Diamond Drilling: Radiometric Grades versus Chemical Grades

The other significant issue reported by Norcen⁷ is the significant discrepancy between the identified 1977 radiometric and chemical grade ore intersects for holes 1 to 33. The largest difference between the radiometric and chemical contacts is 7.42m for the top contact and 10.07m for the bottom contact. Variations between the radiometric and chemical ore zone contacts appear to be random with no systematic bias, as the average differences between the radiometric and chemical assay intercepts is only 1m for the top and bottom contacts. The lack of consistency between the ore contacts could be contributing to the lack of correlation between the radiometric and chemical assay grades.

Kilborn⁸ reported that, for holes logged radiometrically in 1978, the chemical accumulations (grade x thickness) was 24% higher than for the radiometrically logged holes. Kilborn suggests that disequilibrium issues were to blame for the significant differences in accumulations (grade x thickness) between the chemical and radiometric grades. Radiometric logging was discontinued.

For the above reason, the radiometric (gamma) analyses were not calculated for the remainder of the 1978 cored holes. The grades and thicknesses used in the reserve calculations are developed from chemical analyses except for a few holes drilled in 1977 in which core losses

⁷ Yearend Geological Report – 1978 Drilling and Exploration Program – Blizzard Property, Norcen, January 1979

⁸ Report: Norcen Energy Resources Limited – Blizzard Uranium Project – Engineering Feasibility Report, Kilborn, August 1979

were high. In these cases, the radiometric (gamma) probe analyses were used without application of a corrective factor.

4.4 Sample Quality Assurance and Quality Control

Mineralized drill core was removed by Norcen from the Blizzard deposit and un-mineralized core was buried. No surface showings of Blizzard deposit mineralization exist and drilling would be required to obtain confirmation uranium samples.

A review of current documentation (Kilborn Report, 1979, Norcen Year-end Geological Report, 1978 and the Peter Christopher Technical Report, 2007) suggests that there is no documentation or records of Quality Assurance / Quality Control (QA/QC) studies verifying the Blizzard chemical assay resource database.

In 1979⁹ a small group of 39 pulverised samples from the Blizzard deposit which had previously been assayed by Loring Laboratories Ltd in Calgary, Alberta were submitted to the Commercial Products Division of the Atomic Energy Control Board (AECB) for analysis by neutron activation. The results indicated that the original Loring assays were 8% lower than the AECB check assays.

No corrective factors were applied to the resource assay database.

⁹ Report: Norcen Energy Resources Limited – Blizzard Uranium Project – Engineering Feasibility Report, Kilborn, August 1979

5 MINERAL RESOURCES

5.1 Resource Drilling Data

Drilling done during 1977 and 1978 was used in preparing the resource estimates. The resource drilling used in the estimate was based on 327 diamond drill holes and 19 rotary drill holes (Kilborn, 1979). Chemical assays were used for resource estimation in preference to radiometric measurements for the reasons discussed above. Radiometric assay measurements were only used where no sample was recovered from the diamond drilling.

It is the author's opinion that there are insufficient QA/QC checks and processes to verify the quality of the current resource database due to the drilling and sampling methodologies applied during the 1977 and 1978 drilling programs. The main issues include poor sample recovery, and lack of accurate radiometric data to verify the chemical assay database.

5.2 Bulk Density

Two samples collected by Norcen staff were estimated to have an average bulk density of 2.55 t/m³. Determination of the bulk density from metallurgical test samples by Hazen Research was 2.58 t/m³.

The dry bulk density used for Kilborn's "ore reserve" estimation was 2.25 t/m³. This was based on experience in similar deposits (Kilborn, 1979) where bulk density varied from 2.25 t/m³ to 2.36 t/m^3 .

The author is unclear as to the rational for not accepting the bulk density values calculated from samples taken from the Blizzard deposit. It may have been the case that the samples were not representative of the unconsolidated material and were biased towards the more competent ore.

The author is not aware of what bulk density estimation technique was used to determine the average density for the mineralised sediments. This is particularly important in the context of the unconsolidated nature of the host rock to the uranium mineralization and the high probability of the sample not being representative of the global bulk density for the deposit.

5.3 Grade and Thickness Cut-off

In the absence of an economic ore cut-off grade study, the $0.025\% U_3O_8$ cutoff used to define the ore and waste boundaries for grade modeling is considered by the author to be appropriate for the style of mineralization.

For the 1979 Kilborn resource model, approximately 50% of the classified material is currently reporting below the 0.1% U_3O_8 cutoff (Kilborn, 1979). If the Blizzard project is to progress further, the author recommends reviewing the current modeling strategy after the economic cutoff grade is estimated to validate the grade modeling process.

Isolated intersections assaying more than $0.025 \ \% U_3 O_8$ over thicknesses of less than one meter were diluted with waste at nil grade to a thickness of one meter.

5.4 Geological Modeling

The Blizzard deposit was described by Kilborn as follows: "The concentration of ore grade uranium in sedimentary rocks appears to be continuous from 70 m northwest of the basalt capping (3680N) to at least 265 m southeast of the basalt, a minimum distance of 1,520 m. The ore varies from 40 m to 275 m in width, and from 0.6 m to 16.6 m in thickness. The ore body is sinusoidal and trends southeasterly. At section 3300N the ore formation suddenly spreads southerly from a width of 75 m on 3300 N to a width of 275 m on 3270 N. It gradually narrows to a width of 60 m at 2870 N and continues around 100 m in wide to its southeastern end at section 2160 N."

The Blizzard deposit was subdivided into mineralized zone I through VI, with most of the estimated mineral resource in Zones I through III. Zone I contains higher grade, approximately $0.5\% U_3O_8$, from the northwest end to basement highs at 3300N. The southern part of Zone I and all of Zone II grade approximately $0.1\% U_3O_8$. Zone III, situated mainly in talus conglomerate, averages $0.3\% U_3O_8$ (Kilborn, 1979).

5.5 Resource Model Limits

Ore grade intersections located at the basalt-sedimentary rock contact were not included in Kilborn's estimates due to doubts of the area of influence.

The distance that ore was extended beyond a drill hole was governed by the grade, thickness and geology of that hole and by the results of drilling on adjoining sections. The maximum 'projection of ore beyond a drill hole was 15m. Normally, a projection of 5m to 10m was assumed (Kilborn, 1979).

5.6 Mineral Resource Estimate

The author has undertaken a preliminary desktop review of the Blizzard resource estimates reported by Kilborn in August 1979.¹⁰

In 1977 Norcen reported the first combined Indicated and Inferred Blizzard resource estimate as 0.98 Mt grading 0.089% U_3O_8 for 1.75 Mlb of uranium oxide. This estimate was based on 33 rotary and diamond drill holes drilled by Norcen in 1977 for a total of 2,040m. Indicated and Inferred resources were generated by Kenting Exploration Limited.

Subsequent drilling by Norcen of 346 drill holes in 1978 resulted in a revised resource estimate in August 1979 (Kilborn, 1979) reporting Measured Resources of 2.35 Mt tonnes grading 0.186% U_3O_8 , and Indicated Resources of 0.06 Mt grading 0.342% U_3O_8 for a total of 10 Mlb of U_3O_8 .

Kilborn's 1979 engineering feasibility study provided historical reserve estimates that were converted to resources by Christopher in 2007¹¹, see Table 5.1. The resource estimate used a

¹⁰ Report: Norcen Energy Resources Limited – Blizzard Uranium Project – Engineering Feasibility Report, August 1979.

cut-off grade of 0.025% U_3O_8 to define grade boundaries with a minimum of one meter thickness.

Resource Category	Tonnes (Mt)	U ₃ O ₈ (%)	U₃O ₈ (Mkg)
Indicated	1.92	0.246	4.73
Inferred	0.005	0.162	0.01

Table 5.1	Blizzard Deposit Historical Resource Estimate, after Kilborn (1979)
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The 1979 Kilborn resource model was estimated using the horizontal polygonal method with polygons drawn on plans to conform to geological interpretations and the polygon area estimated manually. The estimation procedure was as follows (Kilborn, 1979):

- 1. Exploration drill holes were plotted on 1:500 scale plans and on cross-sections showing the ore zone. Cross-sections were drawn at 30m intervals for the length of the deposit.
- 2. Weighted averages of ore grade intersections for each drill hole were calculated and plotted, assuming a cut-off grade of 0.025% U₃O₈ over a minimum intersection-of one meter.
- 3. Intersections were connected on sections where continuity was apparent except where contra-indicated by the geologic structure.
- 4. Polygons of influence were drawn on plan to conform with geologic interpretation. Normal procedure was to draw perpendicular bi-sectors of the lines joining the intersection under consideration and surrounding drill holes.
- 5. "Ore reserves" for each zone in each drill hole were calculated by multiplying the assigned polygon area by the length of the ore intersection to obtain a volume of ore in each zone for each hole.
- 6. "Reserves" for each 30m section of the pit were calculated by adding the volumes of the polygons of holes on or near the section and converting the total volume to tonnes using a dry bulk density of 2.25 t/m³. Average grade for each section was calculated by weighing the grade of each drill hole intersection in proportion to the calculated volume for that intersection.

It is the author's opinion that this method of estimation is only suitable for early stage feasibility studies to define the global tonnes, grade and metal and as such is not suitable for detailed mine planning studies. This polygonal method can suffer from conditional bias and when the economic cut-off grade is applied, the polygonal estimate has the potential to locally over-estimate tonnes and grades.

¹¹ Technical Report on the Blizzard Uranium Deposit, Peter Christopher & Assoc., May 2007

The current Blizzard estimates are considered to be historical in terms of NI 43-101 definitions. No further resource estimation has been undertaken on the Blizzard deposit since 1979.

The author believes that the current historical resource estimates have an accuracy of +/- 30% and are appropriate as global estimates of tonnes and grades for the purposes of the AMC valuation exercise. The following issues having been identified as contributing to the uncertainty with the 1979 Kilborn estimate:

- Only limited QA/QC data is available.
- Inadequate bulk density data for waste and ore tonnage and metal calculations.
- Variable sample recoveries in the unconsolidated sediments with potential for loss of uranium minerals during the sampling process.
- Polygonal estimation method may introduce grade biases above the mining cut of grade.

In the author's opinion that lack of adequate QA/QC data prevents the assigning of the Indicated category to the Blizzard resource estimates.

5.7 Resource Classification

The 1979 Kilborn resource estimate pre-dates NI 43-101 and is an historic estimate of the Blizzard deposit's potential. For the 1979 Kilborn resource estimate, the Indicated and Inferred Reserves were converted by Christopher (2007) to Indicated and Inferred Resources, respectively, to comply with current NI43-101 guidelines.

The Blizzard deposit has been sampled on a regular 30m grid pattern at depths varying from 2m to 100m in depth. Kilborn's "Drill Indicated" classification was based on definitions from the Association of Professional Engineers of Ontario (APEO).

It is the author's opinion that Christopher's adjusted resource classification for the August 1979 resource estimate would be appropriate if it was to be based only on the drill hole spacing. However, the lack of a comprehensive QA/QC study verifying the quality of the resource database would today result in the resource being downgraded to 100% Inferred Mineral Resource.

The main issues surrounding the resource database include the poor sample recoveries and lack of analysis using the radiometric logging program to verify the chemical resource database.

5.8 Mineral Resource Risks

5.8.1 Sample Recoveries Risk

Poor recoveries in the unconsolidated sandstones and loss of uranium minerals coating the poorly consolidated host rocks could result in under-estimation of the chemical assay grades. Disequilibrium in the radiometric logging has resulted in this data having limited use. Sample recoveries in the 1978 drilling were variable with average recoveries reported by Norcen to be 80% with drill hole recoveries ranging from 20% to 100% in the mineralised zone.

5.8.2 QA/QC Risk

The lack of a comprehensive QA/QC database presents a serious risk to the quality of the historical resource estimates. Systematic biases due to poor assay laboratory practices may have been introduced to the resource database by the sampling and assaying methodology.

A lack of a QA/QC database will also affect the resource classification process, with current best practices in resource classification indicating that the resource would be classified as Inferred.

If the project is to progress further, the author recommends that further studies be undertaken using the Prompt Fission Neutron (PFN) radiometric logging method to directly determine if the chemical resource data is unbiased.

The author has undertaken some preliminary estimates to undertake a diamond drilling validation program to check the quality of the existing resource database. A budget of approximately C\$2M (Million) would be required to drill the resource on a 50m by 50m grid with the average drill hole depth being 80m. Approximately 120 holes would be required to achieve complete coverage of the deposit.

5.8.3 Check Resource Estimates

No check resource estimates were undertaken using an alternative estimation approach to test the robustness of the polygon estimation method. In addition, no statistical checks have been documented validating the resource estimates with the underlying raw drill hole grades.

5.8.4 Resource Classification Risk

The author has not done sufficient work to determine the appropriate resource classification for the Blizzard resource estimates. Based on previous experience the Indicated Resource classification appears to be appropriate if it was to be based only on the current drill hole density. However, in the author's view, the lack of adequate QA/QC information or check estimates would prevent the assigning of an Indicated Resource category in this case and the whole Kilborn resource should be classified as Inferred.

Further work is required to confirm the appropriateness of the geological model used to constrain the resource estimates and also undertake verification checks on available QA/QC data in order to verify that the resource classification is appropriate.

5.8.5 Dilution Risk

Of concern is the fact that 79% of the modeled resource is below the average grade of the drill hole data. This raises concerns regarding the cut-off grade used to define the mineralised shapes used to constrain the resource estimates, which appear from the global statistics to be incorporating significant volumes of internal material below the cutoff grade.

In the author's opinion, internal dilution could become a significant issue during mining resulting in production grade targets not being met.

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Pages 157 through 159 redacted for the following reasons: S.22 **APPENDIX 5**

EXPERT REPORT ON BLIZZARD OPEN PIT MINING

AMC Mining Consultants (Canada) Ltd

BC0767129

Suite 1330, 200 Granville Street VANCOUVER BC V6C 1S4 CANADA

- T +1 604 669 0044
- F +1 604 669 1120
- E amccanada@amcconsultants.ca



MEMORANDUM

To: Pat Stephenson

From: Greg Hollett

cc: Bert Smith

Date: 08 November 2010

Subject: Blizzard Project: - Open Pit Evaluation

Summary:

I have completed a high level review of the Blizzard uranium deposit reviewing the proposals for open pit mining contained in a report by Kilborn Engineering Ltd (Kilborn) in August 1979¹, assessing how Kilborn's mining parameters and equipment should be modified for today's practices and making a high level (±20-30%) assessment of mine operating and capital costs. This information has been supplemented by surface observations made during a site visit on 21 July 2010.

It is my opinion that the mining methods described in the Kilborn report are reasonably practical, allowing for some updates for modern mining practices. There is no evidence to suggest that there are any physical or practical constraints to mining the deposit using conventional open pit techniques.

This review has not assessed the economic limits of the chosen open pit design as there was limited data available at the time of review. This would be undertaken as part of a more detailed study if deemed necessary.

MELBOURNE +61 3 8601 3300

PERTH +61 8 6330 1100 UNITED KINGDOM +44 1628 778 256 VANCOUVER +1 604 669 0044

¹ Report: Norcen Energy Resources Limited – Blizzard Uranium Project – Engineering Feasibility Report, August 1979.

Introduction

I was requested by Mr. P Stephenson of AMC Mining Consultants (Canada) Ltd to undertake a review of the open pit mining aspects of the Blizzard Uranium project in British Columbia, Canada as a contribution to an independent valuation of the project being undertaken by Mr. Stephenson, on behalf of the British Columbia Provincial Government. The Blizzard project is held by Boss Power Corporation and Blizzard Uranium Corporation (collectively Boss).

I am a mining engineer with eleven years' experience in both operational and technical areas of open pit mining. This includes mine planning and design, mine production, scheduling and budgeting, life of mine planning, pit optimization, and contract management. I am a competent user of various types of mining software, in particular Vulcan, Surpac, Whittle 4X and MineMax Scheduler.

I graduated in 2000 with a BEng, Mining Engineering, from the Curtin University of Technology in Perth, Western Australia. I hold a Western Australian Quarry Manager's Certificate and am a member in good standing of the Association of Professional Engineers and Geoscientists, British Columbia.

Between 2002 and 2004 I was the mine planning engineer for the Plutonic Gold Mine in Western Australia. There I completed over thirty open pit optimization, design, scheduling and feasibility projects for a number of pits, including supervision of the commencement, production and closure of the pits that were approved for mining, consisting of over twenty individual pits over a sixty kilometre long zone.

In 2005 I completed a pit optimization, design and scheduling for the Tulawaka Gold Mine in Tanzania, and then managed the mining operation for two years.

Since 2008 I have been a mining consultant for AMC Mining Consultants (Canada) Ltd. I have worked on numerous projects, including the Snowfield-Brucejack Preliminary Economic Assessment, which is an open pit multiple metal project in British Columbia.

Description of Deposit

The mineralized material is described as consisting of loosely consolidated sandstone and mudstone underneath a capping of basalt, overlain by a layer of glacial till of varying thickness.²

The topography of the immediate area is rolling hillside with no extreme slope variations. The photograph shown as Figure 1 was taken from the approximate top of the western edge of the proposed open pit, looking toward the north.



Figure 1: Photograph of Proposed Blizzard Open Pit Site, Looking North

² Technical Report on the Blizzard Uranium Deposit, Peter Christopher & Assoc., May 2007

Proposed Mining Methods

The three major material horizons had differing approaches to mining identified.³

The glacial till was to be removed by either scrapers or a combination of pushing up by dozer and loading by front end loader (FEL) and truck. Either method would be acceptable, though parts of the topography would lend itself more toward the latter due to the sloping topography in some areas of the project.

Basalt is the only material identified as requiring blasting. The recommended blast pattern identified by Kilborn is as per Table 1.

Parameter	Unit	Value
Hole Diameter	mm	250
Burden	m	6
Spacing	m	6
Bench Height	m	10
Subdrill	m	1.5
Hold Depth	m	11.5
Explosive Type	Class	ANFO
Powder Factor	kg (explosive) / m³ material	0.9

Table 1:	Kilborn	Blasting	Parameters
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I believe that the stated powder factor is high, and that a figure between 0.6 and 0.7 would be acceptable, probably using smaller blast holes; otherwise the assumptions are generally valid.

The basalt is assumed to be loaded by an electric hydraulic face shovel with a 3.3m³ bucket into 45t mining trucks, with backup provided to the shovel by FEL. Given the size of the operation an equivalent sized diesel hydraulic backhoe excavator would be more acceptable and would allow for greater flexibility of operation. The size of the mining trucks is acceptable for the scale of operation.

Due to the loosely consolidated nature of the sedimentary material that hosts the uranium mineral, Kilborn made the assumption that blasting would not be necessary and that the material could be ripped and pushed into windrows by track dozer. The windrows would then be loaded by FEL into trucks of equivalent size to the basalt fleet. This mining method is used for other loosely consolidated materials such as bauxite. Grade control, the method by which the mineralized material is sorted into different grades for processing or stockpiling, is assumed to be completed by using a radiometric probe on the windrows⁴.

³ Report: Norcen Energy Resources Limited – Blizzard Uranium Project – Engineering Feasibility Report, August 1979.

⁴ Report: Norcen Energy Resources Limited – Blizzard Uranium Project – Engineering Feasibility Report, August 1979.

With modern improvements to excavator technology and the increased breakout force available on these machines it may be possible and more efficient to avoid the step of ripping by using a diesel hydraulic excavator for direct excavation of the sedimentary material. However, this would require an alternative grade control method to be established and as such I find the mining methods as described by Kilborn to be acceptable for this level of study.

Given that the open pit is reasonably shallow, and in a low rainfall area, dewatering requirements are likely to be low and should not affect the described mining methods or production rates,

Mining Fleet and Capital Estimate

When describing and scheduling the fleet, Kilborn separates the basalt and sedimentary material mining fleets into separate entities. In practice this would not occur, as the same fleet could be shared between the operations and sized accordingly.

An estimate of the capital cost has been completed using an up to date conversion of the equipment list and pricing from a combination of recent quotes and publicly available information.⁵ The list of major mining fleet and total costs are shown in table 2.

There are a number of options available for sourcing the mining fleet. For the purpose of this study it has been assumed that the mining fleet is purchased up front in the same manner as other capital items for the site. Other options include leasing of equipment and using a contractor to perform the mining function. Leasing would defer capital costs, while increasing the total undiscounted cost of capital. Using a contractor would negate a large proportion of the capital expense, at the price of a higher unit mine operating cost. While the value of each option has not been calculated, it is unlikely that there would be a material effect on the total NPV.

Other costs including fixed infrastructure such as the truck workshop and fuel storage facility have been addressed in a separate report.

Туре	Class	Example	Units	Unit Cost (US\$)	Total Cost (US\$)
Rotary Drill	105-165mm	Atlas Copco ROC L7	2	\$1,010,000	\$2,020,000
Diesel Hydraulic Excavator	3.4m3 Bucket	Komatsu PC800-8	1	\$770,000	\$770,000
Haul Trucks	36t	Cat 770F	8	\$620,000	\$4,960,000
Track Dozer	460hp	Cat D9T	2	\$865,000	\$1,730,000
Track Dozer	315hp	Cat D8T	1	\$573,000	\$573,000
Front End Loader	3.8m3 Bucket	Cat 966H	2	\$395,000	\$790,000
Motor Grader	165hp	Cat 12M	2	\$320,000	\$640,000
Sand and Water Truck	18t	Mack	2	\$244,000	\$488,000

Table 2: Major Mining Fleet Capital List

⁵ Mine and Mill Equipment Costs – *An Estimator's Guide* – 2008, InfoMine USA.

				Unit Cost	Total Cost
Туре	Class	Example	Units	(US\$)	(US\$)
Service trucks	18t	Mack	1	\$200,000	\$200,000
Pick up Trucks		Ford F250	4	\$65,000	\$260,000
Crew Cabs		Ford F250	2	\$45,000	\$90,000
Dewatering Pumps/pipes			4	\$75,000	\$300,000
Subtotal					\$12,821,000
Ancilliary Equipment					
Survey equipment			1	\$150,000	\$150,000
Rescue equipment			1	\$100,000	\$100,000
Computer			1	\$50,000	\$50,000
Software			1	\$150,000	\$150,000
Subtotal					\$450,000
TOTAL Pre-Contingency					\$13,271,000
Contingency				20%	\$2,654,200
TOTAL					\$15,925,200

Mining Operating Cost Estimate

The Kilborn report did not include an estimate of operating costs. For the purposes of the valuation, mining operating costs have been estimated using recent costs from other BC projects scaled for the size of the proposed Blizzard operation. The estimated operating costs are shown in Table 3.

Table 3: Blizza	ard mining Operation	ing Cost Estimate
Material Type	Unit	Value
Topsoil/Till	US\$/t	1.80
Basalt	US\$/t	2.50
Sedimentary	US\$/t	1.80

Table 3: Blizzard Mining Operating Cost Estimate

These costs are at a scoping level of accuracy, plus or minus 30-40%.

Mine Design and Schedule

The mine design proposed in the Kilborn report has not been digitally verified; however on inspection of the drawings it appears to be practical.

The geotechnical design assumptions for the pit have not been verified, however they appear sound and in line with both previous geotechnical reports and current practices.⁶

⁶ Report on Preliminary Slope Design - Blizzard Uranium Project – Douglas R. Piteau, March 1979.

The mineral resource estimate that the mine plan is based on does not conform to current NI 43-101 standards and as such is classed as an historic estimate.⁷ The mine plan also includes Inferred Resources, which is acceptable only at a Preliminary Economic Assessment (PEA) or Scoping Study level, and cannot be reported as a mineral reserve. As such there is no mineral reserve reportable for the Blizzard project. For the purpose of this report, the material included in the mine plan will be referred to as mineable inventory. Table 4 shows a comparison of the reported historical mineral resources from 2007 with the mineable inventory as reported by Kilborn in 1979. Kilborn's mineral reserves were directly translated to mineral resources due to modern reporting requirements for the purpose of the 2007 report.

	Unit	2007 Resources	1979 Mineable Inventory
Indicated	M tonnes	1.92	1.92
U ₃ 0 ₈ Grade	%	0.25	0.25
U ₃ 0 ₈ Contained	M lb	10.42	10.42
Inferred	tonnes	0.01	0.01
U ₃ 0 ₈ Grade	%	0.16	0.16
U ₃ 0 ₈ Contained	kg	0.02	0.02
Dilution	tonnes		0.29
U ₃ 0 ₈ Grade	%		0
U ₃ 0 ₈ Contained	kg		0
Total Material	tonnes		2.21
U ₃ 0 ₈ Grade	%		0.21
U ₃ 0 ₈ Contained	kg		10.44

Table 4: Blizzard Historic F	Resources and Mineable	Inventory

A dilution factor of 15% with barren material has been built into the mining plan. Dilution refers to the unavoidable mixing of sub-economic material with identified ore material during the mining process. This is an acceptable approach, however could be considered conservative due to the presence of some grade in the diluting material.

Scheduling of the mining operation has been built around supplying a consistent 600tpd ore feed to the processing plant. The plan includes mining concurrently from each end of the orebody to access higher grade material early in the mine life and defer higher levels of waste stripping from the middle of the orebody until late in the mine life. Both of these strategies are consistent with current practices to improve Net Present Value. The mine schedule used for the valuation is attached as Appendix A.

The cut-off grade chosen by Kilborn of 0.025% U_30_8 has not been verified. Variations in operating costs, metal price and process recovery may create variations in the base cut-off grade. There may also be an opportunity to vary cut-off grades over the life of the mine to further

⁷ Technical Report on the Blizzard Uranium Deposit, Peter Christopher & Assoc., May 2007

increase head grade in the early years, thereby improving Net Present Value. This has not been assessed due to the available data, however it is unlikely that this would create variations to the operating and capital estimates greater than the stated accuracy of this report (±20-30%).

Conclusions and Recommendations

While the methods stated in the Kilborn report are practical, many of the underlying assumptions have not been verified, such as the resource model and optimal extents of the open pit.

Should further analysis of the project be required, the main recommendation would be to assess the economic limits of the ultimate open pit using modern techniques such as the Lerchs Grossman algorithm available commercially through software such as Gemcom Whittle 4X. This will only be possible if the resource model is converted into a digital format.

APPENDIX A

Open Pit Mining Schedule

BLIZZARD URANIUM PROJECT															
OPEN PIT MINING	Units	TOTAL	Yr 1	Yr 2	Yr 3	Yr4	Yr 5	۲r6	Yr7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13
Total Material Mined	kt	31,494	1,129	2,707	3,129	3,064	2,849	3,504	3,790	4,088	3,134	2,831	582	404	282
Waste stripping - till	kt	1,583	0	450	777	356	0	0	0	0	0	0	0	0	0
Waste stripping - basalt	kt	22,951	1,129	2,258	2,258	2,258	2,258	2,258	3,010	3,010	2,258	2,257	0	0	0
Waste stripping - Ore Class B	kt	2,496	0	0	21	122	196	540	295	451	345	186	191	97	53
Waste stripping - Ore Class C	kt	1,901	0	0	16	93	149	411	224	344	263	142	145	74	40
Ore Mined (diluted)	kt	2,208	0	0	55	219	219	219	219	219	219	219	219	219	182
Low grade ore mined (diluted) Class A	kt	356	0	0	3	17	28	77	42	64	49	27	27	14	7
Ore Mined (diluted)	%U308	0.214%	0.000%	0.000%	0.320%	0.320%	0.320%	0.320%	0.164%	0.164%	0.164%	0.164%	0.164%	0.164%	0.164%
Low grade ore mined (diluted)	%U3O8	0.024%	0.000%	0.000%	0.024%	0.024%	0.024%	0.024%	0.024%	0.024%	0.024%	0.024%	0.024%	0.024%	0.024%
Total Mineralized Material mined (diluted)	kt	2,564	0	0	58	236	247	296	261	283	268	246	246	233	189
Total Mineralized Material Grade (diluted)	%U308	0.19%	0.00%	0.00%	0.30%	0.30%	0.29%	0.24%	0.14%	0.13%	0.14%	0.15%	0.15%	0.16%	0.16%

Pages 171 through 173 redacted for the following reasons: S.22 **APPENDIX 6**

EXPERT REPORT ON BLIZZARD UNDERGROUND MINING

AMC Mining Consultants (Canada) Ltd

BC0767129

Suite 1330, 200 Granville Street Vancouver BC V6C 1S4 CANADA

T +1 604 669 0044

- F +1 604 669 1120
- E amccanada@amcconsultants.ca

AMC CONSULTANT

MEMORANDUM

To: Pat Stephenson

From: Bert Smith

cc:

Date: 4 November 2010

Subject: High Level Review of Blizzard Underground Mining Option

EXPERTISE

The author's primary expertise is in mine design and planning, mining economic and viability assessment, feasibility studies and mechanical excavation of hard rock. His broad mining career in hard and soft rock has also included work in geomechanics, fill system design, project management and ventilation.

SUMMARY OF EXPERIENCE

The author began his mining career in Canada more than thirty years ago. He worked in a variety of engineering roles in underground room and pillar coal mining in Alberta before switching to underground hard rock mining in the early 1980's. Most of the author's career has been spent in the Sudbury region at Falconbridge Ltd (now Xstrata Nickel), where he initially specialized in ground control and geomechanics. He went on to hold senior engineering positions and manage large projects in several operating mines, the central engineering group, and with multi-stakeholder R&D ventures under the auspices of HDRK Mining Research Ltd.

Specializing in mine design and planning in his latter years in the Sudbury basin, the author had a particular focus on Life of Mine (LOM) planning and implementing the PSER (planning, scheduling, execution and review) process at several operating mines. Previously as Falconbridge's Chief Engineer of R&D Projects he was responsible for the development, coordination and management of a variety of innovative, hard rock excavation projects.

The author's final appointment at Xstrata was as Chief Mining Engineer at Fraser Mine, with special responsibility for ensuring the planning alignment of a mature, fully operating mine with a major mine expansion project.

EGM-2011-00095 Page 175 Since joining AMC in February 2008 as Principal Mining Engineer, the author has led or played a key role in a wide variety of projects, ranging from polymetallic narrow-vein due diligence assessments to more in-depth studies of both underground and open pit bulk mining opportunities. He was promoted to the position of Group Manager, Mining for AMC's Canadian office in September 2008.

Experience Relevant to Blizzard Evaluation Project:

In his work engagements as a mining engineer over many years and, in particular, as a Chief Mine Engineer and latterly, as a Principal Consultant Mining Engineer, the author has became familiar with estimating components of underground mining costs, with preparing budgets for operating mines, and with estimating costs for prospective mines. The data provided in this study are not detailed and have not been developed in an in-depth manner, but the author believes that they may be considered as providing a reasonable basis for determining the likelihood of the Blizzard deposit to become a viable, operating, underground mine.

1. Background

The author believes that, from a technical standpoint, it is possible to extract the uranium mineralization of this deposit by underground mining methods. For this high level study, consideration of what appears to be the deposit's relatively tabular and shallow nature indicates that room and pillar mining could be a potentially efficient and safe mining method.

One of the most important criteria for a room and pillar mining method is roof and wall stability. At this point there is insufficient geotechnical data to properly assess ground control requirements. From the available information in the Kilborn report, it appears that there are regions where the deposit is overlayed by basalt which would require minimum roof control. However, there may also be regions where roof material is made up of unconsolidated mudstone and sandstone. These areas could require grouting in advance of mining plus bolting and meshing or shotcreting while mining.

Mine ventilation for provision of fresh air to operating personnel, for appropriate dilution of any diesel contaminants and, particularly, for control of radon gas to within acceptable limits would be a key issue.

Mine automation to remotely mine this deposit would require an in-depth study and very significant upfront capital. The author does not believe that the value and potential life of mine of the deposit are sufficient to warrant a remote mining operation.

There is limited relevant hydrological data to determine if ground water will be an issue and if grouting is a requirement.

Although mechanical mining in a room and pillar scenario utilizing mining machines is suitable for weaker rock, it is capital intensive for purchase of machinery. These machines also have a long delivery time. If roof control and formation stabilization by means of grouting are significant activities to be built into the mining cycle, that would probably make the use of mechanical cutting machines unproductive. Such machines (e.g. roadheaders and drum miners) are also not efficient at cutting unconsolidated formations. The relatively short life of the mine also makes this option uneconomical. For these reasons a mechanical mining option is not considered as potentially viable.

For the purpose of this evaluation a drill and blast, room and pillar mining system in association with mine backfill has been selected.

2. Mining Criteria

Some of the key conceptual underground mining criteria are listed below:

- Room and pillar, with waste fill in areas of sufficient height to take more than one cut
- Indication of mineralization in unconsolidated ground so assume reasonably conservative room and pillar design dimensions - 5m wide for rooms and pillars and 4m height (75% recovery) - with significant ground support
- Portal access from northern end of the zone (higher grade to the north)
- Steady state production/day of approximately 600 tonnes (t)
- Typical blast design 5m wide x 4m high at 4m depth and ore bulk density of 2.25 t/m³ gives approximately 200t per blast (including dilution); therefore 3 blasts/day required for 600 tonnes per day (tpd)
- 2 x 10.5 hour shifts/day working 4-on and 4-off (3 crews)
- Average manpower cost per annum (pa) of C\$130,000, including bonus and NWL
- 350 working days pa

3. Development and Mining

Parallel development drives into the north end of the deposit are envisaged for access and main ventilation. If ground conditions within the deposit so dictate, these 'permanent' openings may be required to be located in the basalt.

The ore zone would be divided into panels or districts with each panel being mined in a 'checkerboard' fashion by the blasting of rooms as indicated above. Ore would be loaded via scoop trams into a haulage truck of nominal 20t capacity and driven to surface for unloading.

With a work schedule of two shifts per day and allowing for about 18% absenteeism (sickness, training, vacation), a total manpower crew of approximately 110 people is projected.

An equipment list to support a 600 tpd operation forms part of the attachments to this report.

4. Costs and financial analysis

Utilizing Kilborn's 1979 study data for determining the size of the available resource and a mining rate of 600 tpd, a high level mining schedule suggests a potential mine life (LOM) of about 10 years.

Based on the author's experience from similarly sized operations together with data obtained from the "2008 Infomine Cost Estimator's Catalogue", and using a reasonable escalation factor to account for uranium mining, the following high-level cost estimate has been developed for the LOM:

Mine Equipment and Sustaining Capital:	C\$30.8M
Mine Operating Cost	C\$175.4M

Other costs obtained from preliminary reports presented by other contributing authors to the valuation are¹:

Processing Capital	C\$151.9M
Infrastructure Capital	C\$11.0M
Project EPCM Costs	C\$22.2M
Mill Operating Cost	C\$63.9M
Tailings Management Pit	C\$20.5M
Contingency	C\$45.0M

Mine operating costs have been estimated as C\$100 per tonne of ore. The high-level calculation for that cost is included as Attachment 1.

5. Conclusions

The major uncertainties associated with the determination of a reasonable cost estimate for underground mining are:

- Lack of a definitive resource model
- Lack of hydrological data
- Lack of geotechnical data.

In consideration of the above items and relative to the high level nature of this study, the cost data presented in this section should be considered as accurate to a Class IV level or +/- 30%.

¹ The author notes that more recent adjustments to some of the inputs to the financial model do not materially affect the underground viability conclusion

With a 10 year mine life, 75% mineral recovery, uranium price of \$50 per pound and cost data as presented, the financial model generates a negative NPV of C\$91.9M.

In light of the above the author has concluded that underground mining is not likely to be a viable option for this deposit without a very significant increase in uranium prices.

ATTACHMENT 1.

HIGH LEVEL UNDERGROUND MANPOWER AND COST CALCULATION

			Total w. 18%
	Per shift	Total	absenteesim
Miners	12	36	43
Nippers/support	2	6	8
Mechanics	4	12	15
Electricians	2	6	7
Truckers	1	3	4
Dry/crib/lamps	2	6	8
Survey/vent	2	2	2
Planning	1	1	1
Ground Control	1	1	1
Yard/whse	2	4	4
Shifter	1	3	4
Mech Fmn	1	3	3
Elec Fmn	1	3	3
Mine Eng	1	1	1
Captain	1	1	1
Safety Sprvr/Trainer	1	2	2
Maintce GF	1	1	1
Superintendent	1	1	1
			109
Cost pa @ \$65/hr and hc	ours pa =	2000	\$14,170,000
For number of tonnes pa	ı =		210,000
Manpower cost/tonne			\$67
Trucking & materials, po	wer, diesel, et	c./t	\$27
	Sub-total Add \$6/t ref.		\$94
	Uranium		\$100

Pages 181 through 184 redacted for the following reasons: S.22 **APPENDIX 7**

EXPERT REPORT ON BLIZZARD MINERAL PROCESSING



MEMORANDUM

November 7, 2010

Melis Project No. 513

To: Pat Stephenson, P.Geo. AMC Mining Consultants (Canada) Ltd.

From: Bruce C. Fielder, P.Eng. Melis Engineering Ltd.

Re: Blizzard Project – Phase I Process Plant Capital and Operating Cost Estimates, Rev. 4

Relevant Experience

Process engineer with over 29 years experience in hydrometallurgical operations, water treatment and process engineering for uranium, base metals and precious metals. Experienced in aspects ranging from process design, feasibility studies, and engineering to mill operations.

Project engineer for Cameco Corporation's Cigar Lake mine basic engineering, reviewed and revised basic engineering for the Cigar Lake mine, and was project engineer for detailed engineering of the Cigar Lake Mine Water Treatment Plant.

Prepared report detailing Cameco Corporation's Key Lake mill circuit capacities for site revitalization program. Lead process engineer for capital and operating cost analysis of expansion to Key Lake mill. Prepared process flowsheets, mass balances, and operating costs for four options proposed for nickel cobalt recovery from Key Lake tailings.

Metallurgical assistance with operation of Cameco Corporation's MacArthur River mine water treatment circuit during upset period. Start-up assistance as metallurgist and general foreman of underground milling process circuits of grinding, thickening and slurry pumping.

Detailed process engineering of Areva's McClean Lake uranium process plant, including process flowsheets and mass balances. Preparation of mill operating manuals for McClean Lake Process Plant circuits for start-up. Preparation of uranium environmental impact statement documents. Preparation of equipment specifications and bid evaluations.



Designed and prepared pre-feasibility capital and operating cost estimates for Strateco Resources Inc.'s Matoush uranium mine in Quebec, Canada. Designed and prepared prefeasibility capital and operating cost estimates for the development ramp water treatment plant. Prepared risk assessment for the development ramp water treatment plant.

Designed and prepared pre-feasibility capital and operating cost estimates for Western Prospectors Group Limited – Saddle Hills Uranium Project uranium mine in Mongolia.

Basis of Capital Cost Estimate

A conventional process plant, including crushing, grinding, leaching, counter current decantation, solvent extraction, impurity precipitation, uranium precipitation and calcining (plus ancillary circuits and buildings) has been assumed. Capital (Capex) and operating (Opex) costs have been estimated on the basis of "best practice" for the uranium industry in the years 2008 and 2009. The capital and operating costs estimated do not include those for the tailings management facility, which is to be estimated by AMC.

Costs have been estimated on an order-of-magnitude basis for the dates of April 24, 2008 and March 12, 2009. The estimated costs are approximately Class IV, as defined by *AACE International Recommended Practice No. 18R-97* which describes a Class IV estimate as having an accuracy of -15% to -30% / +20% to +50%.

The process designed by Kilborn in 1979 no longer represents "best practice" and has therefore been revised. In particular, the following changes were made:

- Solvent extraction replaces ion exchange,
- A strong sulphuric acid strip was designed for the solvent extraction, thus eliminating the use of ammonium sulphate and the requirement for an ammonium sulphate crystallization circuit,
- To reduce capital cost a sulphuric acid plant was not included in the capital cost estimate.
- The tailings management facility has been changed from a beaching facility to a sub-aqueous deposition facility in a purpose built pit (Note: the cost of this tailings management facility is not included in this memo.)

Electrical generators have been included so that a power line will not be required. The higher oil price prevalent in 2008 was included in the Opex by assuming a generated



power cost of Cdn \$0.25/kWh for the April 24, 2008 cost estimate. This was reduced to Cdn \$0.22/kWh for the March 12, 2009 estimate.

Mill sustaining capital has been estimated at one percent of equipment cost, annually (ie, excluding building cost). This is reported in the "Capex Mill" sheet of the Excel file.

EPCM and Contingency have been included in the "Capex G&A" sheet in the Excel file. I have not estimated the remaining lines listed in this sheet.

Equal annual tonnages and grades (210,000 tonnes/a and 0.21% U_3O_8) were assumed. A mill recovery of 97% was assumed.

The capital cost estimate was based on the equipment list shown in the table below.

Blizzard Project – Phase I Milling Capital Cost Estimation Projected Process Plant Equipment List With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery		
Area	Equipment Name	
Crusher		
	Ore Feeder	
	Mill Feed Conveyor	
	Ore Feed Bin	
	Ore Feed Bin Apron Feeders	
	Dust Scrubber System	
	Crusher Area Overhead Crane	
	Crusher Area Sump Pump	
	Crusher Area Safety Shower	
	Crusher Area Overhead Crane	
	Crusher Area Sump Pump	
	Crusher Area Safety Shower	
Grinding		
	Mill Feed Conveyor	
	SAG Mill	
	Ball Mill	
	Ball Mill Discharge Pumpbox	
	Ball Mill Discharge Pumps	
	Grinding Cyclones	
	Grinding Area Sump Pump	
Leaching		
	Neutral Thickener and Mechanism	



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Blizzard Project – Phase I Milling Capital Cost Estimation Projected Process Plant Equipment List With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery	
Area	Equipment Name
	Neutral Thickener Overflow Pumpbox
	Neutral Thickener Overflow Pumps
	Neutral Thickener Underflow Pumps
	Leach Pachucas
	Leach Pachuca Air Blowers
	Leach Discharge Pumpbox
	Leach Discharge Pumps
	Leach Area Sump Pump
Counter	Current Decantation
	CCD Thickener No. 1 Intermix Tank
	CCD Thickener No. 1 and Mechanism
	CCD Thickener No. 1 Overflow Tank
	CCD Thickener No. 1 Overflow Pumps
	CCD Thickener No. 1 Underflow Pumps
	CCD Thickener No. 2 Intermix Tank
	CCD Thickener No. 2 and Mechanism
	CCD Thickener No. 2 Overflow Tank
	CCD Thickener No. 2 Overflow Pumps
	CCD Thickener No. 2 Underflow Pumps
	CCD Thickener No. 3 Intermix Tank
	CCD Thickener No. 3 and Mechanism
	CCD Thickener No. 3 Overflow Tank
	CCD Thickener No. 3 Overflow Pumps
	CCD Thickener No. 3 Underflow Pumps
	CCD Thickener No. 4 Intermix Tank
	CCD Thickener No. 4 and Mechanism
	CCD Thickener No. 4 Overflow Tank
	CCD Thickener No. 4 Overflow Pumps
	CCD Thickener No. 4 Underflow Pumps
	CCD Area Sump Pump No. 1
	CCD Thickener No. 5 Intermix Tank
	CCD Thickener No. 5 and Mechanism
	CCD Thickener No. 5 Overflow Tank
	CCD Thickener No. 5 Overflow Pumps
	CCD Thickener No. 5 Underflow Pumps



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Blizzard Project – Phase I Milling Capital Cost Estimation Projected Process Plant Equipment List With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery		
Area	Equipment Name	
	CCD Thickener No. 6 Intermix Tank	
	CCD Thickener No. 6 and Mechanism	
	CCD Thickener No. 6 Overflow Tank	
	CCD Thickener No. 6 Overflow Pumps	
	CCD Thickener No. 6 Underflow Pumps	
	CCD Thickener No. 7 Intermix Tank	
	CCD Thickener No. 7 and Mechanism	
	CCD Thickener No. 7 Overflow Tank	
	CCD Thickener No. 7 Overflow Pumps	
	CCD Thickener No. 7 Underflow Pumps	
	CCD Wash Water Tank	
	CCD Wash Water Pumps	
	CCD Area Sump Pump No. 2	
Clarificat	ion	
	Pregnant Aqueous Tank	
	Pregnant Aqueous Pumps	
	Pregnant Aqueous Sand Filters	
	Pregnant Aqueous Sand Filter Backwash Surge Tank	
	Pregnant Aqueous Sand Filter Backwash Surge Tank Pump	
	Clarified Pregnant Aqueous Tank	
	Clarified Pregnant Aqueous Pumps	
	Pregnant Aqueous Sand Filter Backwash Pump	
	Clarified Pregnant Aqueous Heat Exchanger	
Solvent E	xtraction	
	Extraction Cells c/w Mixers	
	Acid Scrub Cell c/w Mixer	
	Raffinate Aftersettler	
	Raffinate Transfer Pumps	
	Raffinate Tank	
	Raffinate Pumps	
	Raffinate Tank Organic Pump	
	Weak Acid Mix Tank	
	Weak Acid Pumps	
	Extraction Area Sump Pump	
	Stripping Cells c/w Mixers	



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Blizzard Project – Phase I Milling Capital Cost Estimation Projected Process Plant Equipment List With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery		
Area	Equipment Name	
	Acid Recovery Cells c/w Mixers	
	Loaded Strip Aftersettler	
	Loaded Strip Transfer Pumps	
	Barren Organic Transfer Pumps	
	Acid Water Pumps	
	Loaded Strip Tank	
	Loaded Strip Pumps	
	Loaded Strip Tank Organic Pump	
	Loaded Organic Heater	
	Permeate Heater	
	Barren Organic Tank	
	Barren Organic Pumps	
	Barren Organic Tank Aqueous Drain Pump	
	Barren Organic Heater	
	Strong Acid Holding Tank	
	Strong Acid Feed Pumps	
	Stripping Area Sump Pump	
	Regeneration Cell c/w Mixer	
	Regeneration Cell Organic Pumpbox	
	Regeneration Cell Organic Pump	
	Regeneration Cell Aqueous Tank	
	Regeneration Cell Aqueous Pump	
	Crud Tank	
	Crud Pump	
	Regeneration Area Sump Pump	
	Strong Acid Mix Tank	
	Strong Acid Pumps	
	Strong Acid Mix Heat Exchanger	
	Strong Acid Area Sump Pump	
Impurity	Precipitation	
	Impurity Precipitation Tanks	
	Impurity Precipitation Tank Agitators	
	Impurity Precipitation Discharge Pumpbox	
	Impurity Precipitation Discharge Pumps	
	Gypsum Thickener Tank and Mechanism	



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Blizzard Project – Phase I Milling Capital Cost Estimation Projected Process Plant Equipment List With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery		
Area	Equipment Name	
	Gypsum Thickener Overflow Tank	
	Gypsum Thickener Overflow Pumps	
	Gypsum Thickener Underflow Pumps	
	Impurity Precipitation Area Sump Pump	
	Gypsum Thickener Tunnel Sump Pump	
	Gypsum Thickener Underflow Tank c/w Steam Coil	
	Gypsum Thickener Underflow Tank Agitator	
	Gypsum Thickener Underflow Tank Pumps	
	Gypsum Belt Filter	
	Gypsum Belt Filter Vacuum Pump	
	Gypsum Belt Filter Vacuum Receivers	
	Gypsum Belt Filter Filtrate Pumps	
	Gypsum Filter Repulp Tank	
	Gypsum Filter Repulp Pumps	
	Gypsum Filter Area Sump Pump	
Uranium	Precipitation	
	Uranium Precipitation Feed Heat Exchangers	
	Uranium Precipitation Tanks	
	Uranium Precipitation Tank Agitators	
	Uranium Precipitation Discharge Pumpbox	
	Uranium Precipitation Discharge Pumps	
	Uranium Precipitation Area Sump Pump	
Calcining	and Packaging	
	Product Thickener Tank and Mechanism	
	Product Thickener Overflow Tank	
	Product Thickener Overflow Pumps	
	Product Grinder	
	Product Thickener Underflow Pumps	
	Barren Strip Sand Filters	
	Barren Strip Tank	
	Barren Strip Pumps	
	Barren Strip Sand Filter Backwash Pump	
	Barren Strip Backwash Surge Tank	
	Barren Strip Backwash Surge Pump	
	Product Thickener Tunnel Sump Pump	



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Blizzard Project – Phase I Milling Capital Cost Estimation Projected Process Plant Equipment List With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery							
Area	Equipment Name						
	Product Wash Tank						
	Centrifuge Feed Pumps						
	Product Centrifuges						
	Product Centrate Pumpbox						
	Product Centrate Pumps						
	Product Calciner						
	Product Lump Disintegrator						
	Calcining Area Sump Pump						
	Product Bin c/w Rotary Valve						
	Product Packaging Roller Conveyor						
	Product Calciner Scrubber						
	Product Calciner Scrubber Seal Tank						
	Product Calciner Scrubber Recirculation Pump						
	Product Calciner Room Scrubber						
	Product Calciner Room Scrubber Seal Tank						
	Product Calciner Room Scrubber Recirculation Pump						
	Product Packaging Scrubber						
	Product Packaging Scrubber Seal Tank						
	Product Packaging Scrubber Recirculation Pump						
	Product Scrubber Water Pumpbox						
	Product Scrubber Water Pumps						
	Product Packaging Area Sump Pump						
Tailings I	Precipitation						
	Tailings Feed Launder						
	Tailings Neutralization Tanks						
	Tailings Neutralization Tank Agitators						
	Tailings Thickener and Mechanism						
	Tailings Thickener Overflow Tank						
	Tailings Thickener Overflow Pumps						
	Tailings Thickener Underflow Pumps						
	Tailings Neutralization Area Sump Pump						
Effluent 7	Freatment						
	Primary Effluent Treatment Tanks						
	Primary Effluent Treatment Tank Agitators						
	Primary Clarifier and Mechanism						



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Blizzard Project – Phase I Milling Capital Cost Estimation Projected Process Plant Equipment List With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery								
Area	Equipment Name							
	Primary Clarifier Overflow Tank							
	Primary Clarifier Overflow Pumps							
	Primary Clarifier Underflow Pumps							
	Secondary Effluent Treatment Tanks							
	Secondary Effluent Treatment Tank Agitators							
	Secondary Clarifier and Mechanism							
	Secondary Clarifier Overflow Tank							
	Secondary Clarifier Overflow Pumps							
	Secondary Clarifier Underflow Pumps							
	Effluent Treatment Area Sump Pump							
	Effluent Sand Filters							
	Effluent Discharge Tank							
	Effluent Discharge Pumps							
	Effluent Sand Filter Backwash Pump							
	Monitoring Ponds							
	Monitoring Pond Discharge Pumps							
Reagent	S							
	Ferric Sulphate Tank							
	Ferric Sulphate Distribution Pumps							
	Ferric Sulphate Area Sump Pump							
	Hydrogen Peroxide Package Plant							
	Oxygen Plant							
	Kerosene Unloading Pump							
	Kerosene Storage Tank							
	Kerosene Transfer Pump							
	Organic Dump Tank							
	Isodecanol Transfer Pump							
	Amine Transfer Pump							
	Sodium Carbonate Silo							
	Sodium Carbonate Silo Bin Vent							
	Sodium Carbonate Silo Bin Activator							
	Sodium Carbonate Mix Screw							
	Sodium Carbonate Mix Tank							
	Sodium Carbonate Mix Tank Agitator							
	Sodium Carbonate Transfer Pump							



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Blizzard Project – Phase I Milling Capital Cost Estimation Projected Process Plant Equipment List With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery						
Area	Equipment Name					
	Sodium Carbonate Distribution Tank					
	Sodium Carbonate Distribution Tank Agitator					
	Sodium Carbonate Distribution Pumps					
	Sodium Carbonate Area Sump Pump					
	Magnesia Silo					
	Magnesia Silo Bin Vent					
	Magnesia Silo Bin Activator					
	Magnesia mix Screw					
	Magnesia Mix Tank					
	Magnesia Mix Tank Agitator					
	Magnesia Transfer Pump					
	Magnesia Distribution Tank					
	Magnesia Distribution Tank Agitator					
	Magnesia Distribution Pumps					
	Magnesia Area Sump Pump					
	Barium Chloride Mix Tank					
	Barium Chloride Mix Tank Agitator					
	Barium Chloride Transfer Pump					
	Barium Chloride Distribution Tank					
	Barium Chloride Distribution Pumps					
	Barium Chloride Area Sump Pump					
	Lime Blower					
	Lime Silo					
	Lime Silo Bin Vent					
	Lime Silo Bin Activator					
	Lime Mix Screw					
	Lime Mill					
	Lime Mill Discharge Pumpbox					
	Lime Mill Discharge Pumps					
	Lime Cyclone					
	Lime Storage Tank					
	Lime Storage Tank Agitator					
	Lime Loop Feed Pumps					
	Lime Area Sump Pump					
	CCD and Tailings Thickener Flocculant Mix Package					



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Blizzard Project – Phase I Milling Capital Cost Estimation Projected Process Plant Equipment List With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery					
Area	Equipment Name				
	Gypsum and Product Thickener Flocculant Mix Package				
	Effluent Clarifier Flocculant Mix Package				
Utilities (Water, Air and Steam)				
	Permeate Tank				
	Permeate Distribution Pumps				
	Fire Pumps				
	Diesel Fire Pump				
	Fire Loop Circulation Pumps				
	Process Water Tank				
	Process Water Pumps				
	Seal Water Tank				
	Seal Water Pumps				
	Process Air Compressors				
	Process Air Receivers				
	Air Dryer/De-Oiler				
	Instrument Air Receiver				
	Steam Boilers				
Power Ge	eneration				
	Generators (6)				
	Electrical Switch Gear				
Reagents,	, First Fills				
	Alamine 336 Amine				
	Barium Chloride				
	Caustic Soda (NaOH)				
	Flocculant, Anionic Polyacrylamide				
	Flocculant, Non-ionic Polyacrylamide				
	Hydrogen Peroxide				
	Isodecanol Alcohol				
	Kerosene				
	Lime (98% Cao)				
	Magnesia (MgO)				
	Product Drums				
	Steel Grinding Balls (Grinding)				
	Steel Grinding Balls (Lime Slaking)				



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Blizzard Project – Phase I Milling Capital Cost Estimation Projected Process Plant Equipment List With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery			
Area	Equipment Name		
	Sulphuric Acid		

Capital Cost Estimate

The capital cost estimates thus developed are listed in the table below.

Blizzard Project – Phase I Milling Capital Cost Estimation For 600 Tonnes/Day Processing Plant and Surface Facilities With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery					
Circuit	Estimate, \$ Cdn				
Circuit	April 24, 2008	March 12, 2009			
Crushing	6,600,000	6,200,000			
Grinding	24,500,000	23,300,000			
Leaching	7,400,000	7,000,000			
Counter Current Decantation	14,000,000	13,300,000			
Solvent Extraction	3,700,000	3,500,000			
Impurity Precipitation	3,600,000	3,400,000			
Uranium Precipitation	3,000,000	1,700,000			
Calcining & Packaging	4,200,000	4,000,000			
Tailings Neutralization	4,500,000	4,300,000			
Effluent Treatment	7,800,000	7,400,000			
Reagent Preparation	11,800,000	11,200,000			
Utilities (Water, Air and Steam)	5,000,000	4,800,000			
Power Generation	7,100,000	6,800,000			
Reagents, First Fills	4,900,000	4,600,000			
Plant, Administration and Maintenance Buildings	34,100,000	32,400,000			
Sub Total	142,200,000	133,900,000			
EPCM (15%)	21,300,000	20,100,000			
Contingency (20%)	28,400,000	26,800,000			
TOTAL	191,900,000	180,800,000			



Operating Cost Estimate

As per the format emailed to Melis Engineering Ltd., the fixed and variable operating costs have been estimated as summarized in the table below.

Blizzard Project – Phase I Milling Operating Cost Estimation For 600 Tonnes/Day Processing Plant and Surface Facilities With a 0.21% U ₃ O ₈ Head Grade and 97% Recovery						
Operating Costs						
Operating Costs	Unit	April 24, 2008	March 12, 2009			
Fixed Costs	\$ Cdn/a	21,000,000	21,000,000			
Variable Costs	\$ Cdn/t	63.20	58.90			
Total On anoting Cost	\$ Cdn/t	163.00	159.00			
Total Operating Cost	\$ Cdn/lb U ₃ O ₈	36.40	35.40			

I have added costs to the milling sections of the Excel file emailed to me earlier. I have done so only for the 600 TPD (ie, ten year lifespan) plant as I believe we agree that this is the most economic option.

Yours truly,

MELIS ENGINEERING LTD.

Bruce C. Fielder, P.Eng. Principal Process Engineer Pages 199 through 204 redacted for the following reasons: S.22 **APPENDIX 8**

EXPERT REPORT ON BLIZZARD IN-SITU LEACH EXTRACTION

Blizzard Uranium Project: Mining and Processing

Alternative extraction options - In Situ Leaching

1. Introduction

The Kilborn Engineering (B.C.) Ltd Engineering Feasibility Report on the Blizzard Uranium Project (the Kilborn study) concluded that the only option for extraction was an open-pit, dismissing underground mining due to incompetent rock, and in-situ leaching on the grounds of low porosity.

This report deals with the alternative of in-situ leaching, which the author believes merits reevaluation especially as recent in-situ leaching of similar deposits in Australia has demonstrated their viability.

The author is a metallurgist with over 35 years operating and project experience across a broad range of commodities in the international resources industry to a senior corporate level. He has particular experience in base metals hydrometallurgy. His recent consulting work has included significant assignments in the areas of project evaluation, due diligence and feasibility studies, also in the international arena.

Having spent some time at the Gunpowder copper project in NW Queensland, he has taken a special interest in the subject of in-situ leaching and this professional knowledge of this technology has been applied to the Blizzard uranium project.

2. In-Situ leaching (ISL)

2.1. ISL Simplified Process Description

In-situ leach (ISL) mining, also known as solution mining, involves leaving the orebody where it is in the ground (hence the term in-situ), and using recycled liquids which are pumped through it to recover the metals from the ore by leaching.

For ISL to be an applicable technology, the orebody needs to have sufficient permeability to the liquids used, and should be located so that these liquids do not contaminate groundwater away from the orebody. The general term for a rock or sediment layer saturated with water, and through which water may easily pass, is an aquifer. An orebody may occupy only part of its hosting aquifer.

Uranium deposits suitable for ISL occur in permeable sand or sandstones, preferably confined above and below by impermeable layers (called aquitards), and which are below the water table.

An ISL uranium mine comprises the following:

• A pattern of injection wells that inject leach solution into the aquifer orebody zone, and recovery wells used to pump out the leachate with dissolved uranium together with a suite of metals and metalloids usually associated with uranium mineralization as well as a range of elements derived from leaching of the host rock. The leachate comprises natural groundwater conditioned with acid or alkali, usually an oxidising agent (oxidant), and other reagents if required.

• A system whereby slightly more water is extracted than is injected, to keep the leaching solution in the vicinity of the orebody by drawing in a small amount of excess groundwater.

• Pipes to and from the injection and recovery wells equipped with a header system, and main trunk lines to and from the processing plant.

• A processing plant in which the uranium is extracted from the leachate. The resulting barren solution is then conditioned with additional reagents as necessary, ready for re-injection. The leach solution is thus continually recycled.

• A series of monitoring wells around each wellfield.

• Facilities for the handling and disposal of liquid and solid wastes. These will generally include storage/evaporation ponds and disposal wells, where excess solution is re-injected into the same aquifer system away from areas being actively mined, or in some overseas examples into a different aquifer containing water of poor quality.

• Spill confinement infrastructure.

Figure 1 shows a typical ISL well field operation, and Figure 2 is a flow sheet of the generalised minerals processing operations associated with an ISL acid operation. The minerals processing plant is usually located within close proximity to the wellfield, although with intermediate processing, the wellfield and minerals processing operation can be some kilometres apart.

In addition the distinction between acid and alkali leaching should be mentioned. In the US the presence of carbonates in uranium deposits often renders acid leaching uneconomic due to excessive acid consumption whereas in Kazakhstan and Australia the predominant siliceous sandstones do not incur the acid consumption penalty. Acid leaching generally enjoys faster kinetics and usually achieves higher ultimate recoveries than alkali leaching but the degree of end-of-mine-life neutralisation required makes final rehabilitation more challenging. This is discussed in more detail in section 2.6 below.

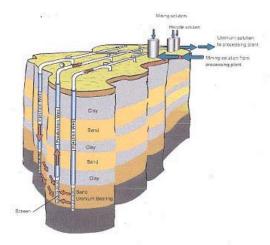


Figure 1 In-Situ Leaching – typical wellfield operation (Source: Uranium SA website)

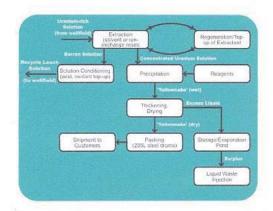


Figure 2 Process chart showing steps in recovery of Uranium

2.2. A brief review of ISL Operations Worldwide

2.2.1. Acid ISL

The majority of acid ISL operations have been in the former Soviet Union and other "Eastern Block" countries, as summarised in Table 1 below, abstracted from the Aug 2004 CSIRO "Review of Environmental Impacts of the Acid In-Situ leach Uranium Mining Process".

Table 1: Acid ISL Operations

Country	Name of Operation	Grade (%U)	Start	Finished	Nominal capacity (t U/year)	Total production ⁴ (t U)
China	Kujieertai/Yili basin		1993	-	200	
Czech Republic	Straz	0.03	1967	1998	250	15,500
Former GDR	Konigstein ¹		1.1	6 1 A A		5,400
Kazakhstan	Tsentranloe	0.063	1982		1000	
	Stepnoye	0.042	1978		1000	
	No. 6 Mining Co.	0.086	1985		600	30,000#
	Katko	0.064	2001		700	
	Inkay	0.063	2001		700	
Russia	Sanarskoye		1968	1980		440
	Dalmatovskoe		2002 ?		700	
	Khiagda		2005			
Uzbekistan						
Eastern Mining Div.	Sugraly		1977	1994		
Northern Mining Div.	Uchkuduk		1964		3,000#	42,000#
	Kendytube					
Southern Mining Div.	Sabyrsaji		1966			
	Ketmenchi					
	Shark					
	Ulus					
Mining Div. No. 5	North Bukinai		1968			
	South Bukinai					
	Beshkak					
	Lyavlyakan					

Table 2 Acid ISL Operations for uranium outside of USA and Australia

Underground block leaching

Figures are approximate (to 2001)

For all operations in country

Note that the conversion factor from %U to U₃O₈ is 1.1792

Insofar as information is available, it is noted the grade of these ISL operations is generally low, particularly when compared with the Blizzard resource grade at a 0.025% U_3O_8 cut-off grade of 0.25% U₃O₈.

In Australia the Beverley ISL Uranium mine of Heathgate Resources has been operating since 2001 and producing approx 1000T U_3O_8 p.a. from a total resource of 21,000T U_3O_8 grading 0.18% U₃O₈., ie like the Honeymoon project described in more detail below, of similar grade to the Blizzard resource.

2.2.2. Alkali ISL (USA)

The reasons for the choice of alkali ISL in USA are discussed in more detail in section 2.6. There are currently 4 ISL operations in USA, 2 in Texas (Alta-Mesa and Kingsville Dome), 1 in Nebraska (Crow Butte) and 1 in Wyoming (Smith Ranch-Highland in the Powder Basin) producing in total approx 1000 T U_3O_8 p.a. from grades around 0.1% U_3O_8 .

In addition there a number of ISL projects at exploration and development stage in Wyoming, generally each in the 1000 tpa U_3O_8 scale from resource grades of approx. 0.1% U_3O_8 .

2.3. Background to ISL at Blizzard

The ore mineralisation at Blizzard has been described as follows, (adapted from the Kilborn study):- The three most abundant uranium minerals are the oxidised species, autunite (calcium uranyl phosphate) and saleeite (magnesium uranyl phosphate), as well as the reduced species ningyoite (hydrated uranium-calcium-cesium phosphate) more prevalent in the southern part of the orebody. Autunite and saleeite occur primarily within the sandstone and mudstone as coatings surrounding the clasts and within the matrix. Uranium minerals occur to a lesser extent within the conglomerate, the breccia pipe and intermittently within the upper few meters of the basement rocks. The deposit is sinusoidal and trends south-east in a channel containing fluvial sediments. The uranium is concentrated in a series of horizontal lenses and does not appear to be associated with other metallic minerals.

As mentioned earlier, the Kilborn study dismissed ISL on the grounds of "low apparent porosity of the mudstone within the ore horizon" and concerns about groundwater contamination, but without providing any justification for this conclusion. There is perhaps some rationale behind the statement given that the Blizzard deposit consists mainly of sandstones and mudstones, albeit described as unconsolidated, rather than the typically permeable coarse sandstones/gravels and conglomerates. However no ISL testwork has been carried out at Blizzard and moreover the recent development of uranium deposits with apparently similar geology to Blizzard (basal paleochannels) in Australia (Beverley and Honeymoon ISL projects) adds weight to the argument for at least conducting a preliminary evaluation of in-situ leaching.

The Peter Christopher technical reports of 2005 and 2007 concluded there was merit in evaluating ISL, citing its potential economic and environmental benefits, as opposed to open pit mining, in terms of its much smaller footprint and reduced visible impact as well as being a closed system with no waste/tailings removal and storage requirements. Christopher recommended additional resource drilling plus a program of testing to evaluate the ISL potential.

2.4. ISL criteria

The key criteria for successful in-situ leaching of uranium are as follows:-

- **Hydrogeologically**, a water-saturated zone comprising a confined aquifer with an impermeable base below and usually, but not essentially, an impermeable layer above as a cover and trap.
- Sufficient **permeability** to allow adequate contact between the leaching solution (leachant) and the uranium minerals

• Favourable **leaching metallurgy** ie readily leachable in moderately oxidising conditions at ambient temperatures

2.5. Blizzard ore-body assessment

The Kilborn study "reserves" of 1,9 million tonnes averaging 0.25% U_3O_8 containing 10.4 million pounds of U_3O_8 place the Blizzard deposit at the small end of world uranium deposits, but still slightly larger than the Honeymoon ISL project which is used as an analogue and benchmark in this evaluation.

With respect to the key ISL criteria listed above, Blizzard features the following:-

Hydrogeology:

The longitudinal sections through the deposit show the horizontal ore horizon(s) lying above an intrusive complex reasonably deemed by the author to be impermeable and with an overlying basalt similarly deemed impermeable. However, although the ore-bearing sediments are horizontal, the topography gently sloping to the south-east results in the ore horizon "daylighting" at south-eastern extremity of the ore-body (effect exaggerated to a certain extent by the usual exaggerated vertical scale of the sections – see Fig 3 below). The author considers that the essential requirement of a confined aquifer is not met by the entire ore-body but that it is reasonable to conclude that the northern section of the orebody some 1000m north of the southern "daylighting" termination would be saturated and could be confined within a wellfield.

This opinion is in line with the preliminary (note not ISL specific) hydrogeological investigations carried out by Brown, Erdman and Associates, reported in "Hydrogeology of Blizzard Uranium Project" of September 1979 and referenced in the B.C. Royal Commission into Uranium Mining of March 1980. The Royal Commission referred to the deposit as being hosted in a semi-confined aquifer and the Brown; Erdman and Associates report described it in more detail as follows:

"The groundwater flow through the basement rocks is so small and so slow that for all practical purposes it can be ignored. The relatively high permeability (see also below) ore-bearing sandstones allow the groundwater to flow longitudinally along the sinusoidal bedrock channel containing these sediments and to discharge as springs and seeps at either end of the deposit"

"Hydrogeologically, the orebody consists of a series of confined, slightly consolidated sandstone aquifers which occur within the mudstone-sandstone sequence forming the actual ore zone."

The hydrogeology report also referred to the local hydrogeology in the following terms: "The deeply incised valleys of Trapping, Copper Kettle and Beaverdell Creeks and of the Kettle and West Kettle Rivers effectively separate the Blizzard Ridge groundwater flow system from areas beyond these valleys. The report also stated that: "Groundwater is <u>not</u> used by humans on the plateau surrounding Blizzard Ridge (except for the Norcen camp) nor in the valleys of Trapping or Copper Kettle Creeks"

Note that the hydrogeology report is of a preliminary nature and further investigations will be required. However the author of this report believes that it supports his opinion that there is a zone that is potentially exploitable using ISL in the confined aquifers of the northern section of the orebody.

The author notes that the opinion of Boss Power was that ISL would not be feasible due to the orebody not being within a saturated aquifer. Although this is a valid objection looking at the entire orebody, the piezometric data contained in the Hydrogeology report cited indicates the water table to be about 40m below surface in the northern section being considered as potentially suitable. Orebody depths in this part are 50m and greater so again the author believes there are reasonable grounds to assume suitable aquifer conditions in the northern part.

As most of the high grade uranium is contained in the northern section, this potential ISL zone coincides with the richest ore – see discussion below on the ore distribution etc.

Permeability:

This is an important issue and there is no doubt that the sandstone/mudstone sequences with their finer grain size will be less permeable than the coarser basal gravels and conglomerates that ideally characterise ISL deposits. However, there is some conglomerate present. Also the Honeymoon analogue in Australia is described in terms of sand silt and clay sediments fining upwards in a similar basal paleochannel setting and with the wellfield designed to match. The author has undertaken a limited assessment of the lithology from the sections and has inputted his findings into the general ore-body assessment described below. This shows a favourable lithology (indicated by presence of conglomerate) coinciding with the northern section containing the majority of the uranium.

The hydrogeology report previously referred to cited "effective permeabilities", strictly hydraulic conductivities, as:

Basement Rocks	10 ⁻⁷ cm/sec (essentially impermeable)
Surficial Sediments	10⁻⁵ cm/sec
Ore-bearing sandstones	10 ⁻³ cm/sec (equivalent to approx 1 m/day)

The International Atomic Energy Agency "Manual of acid in situ leach uranium mining technology" (IAEA-tecdoc-1239) would indicate that an orebody of such permeability just falls within the moderately permeable ore category exhibiting favourable leaching characteristics (minimum 0.5-1.0 m/day), being typical of a fluvial deposition process.

As with the hydrogeology discussed above, any further studies would require additional permeability testing as confirmation of the ISL potential. The approach with the data available has been to note this concern about permeability, apply suitably conservative

design parameters, eg recovery – see below, and proceed with a preliminary valuation against the base case open-pit scenario to see if an alternative extraction is potentially viable, albeits with caveats of further testing required.

<u>Leaching metallurgy</u>:

Metallurgical testwork undertaken for the Kilborn study by Lakefield Research and Hazen Research towards a conventional open-pit mining and milling option showed the following:-

- Acid leaching achieved faster kinetics and higher ultimate recoveries than alkali leaching and with acceptable acid consumption
- 98% ultimate recovery was achieved with acid leaching (compared to 65% with alkali leaching)
- Leaching conditions were moderate ie relatively low temperature (50 degC) and with no oxidising agent required, auguring well for extraction by ISL as far as chemistry is concerned.

These results reflect the predominantly oxidised nature of the uranium mineralisation, but with some reduced species present which would be less amenable to alkali leaching without greater attention to the use of an oxidising agent. It is possible that alkali leaching performance could be improved by additional tests and optimisation of oxidising conditions.

The author considers that the Blizzard ore satisfies the key criteria of being readily leachable in moderately oxidising conditions. ISL recoveries typically range from 60-90%, 70% being a common ISL yardstick subject to potential upside with wellfield optimisation etc. However in this case and despite the very high laboratory leach recoveries obtained, the author considers that the marginal permeability already discussed dictates a conservative assumption for recovery and therefore 60% is used hereon in this evaluation. The author also considers that even this conservative recovery value would not be achieved with alkali leaching although the relative performance could possibly be improved with optimisation of the oxidising conditions. Recovery with alkali leaching is estimated to be in the range 40-50%.

In the absence of digitised data the author entered the Kilborn data into a spreadsheet for further analysis and the following graphs illustrate various aspects of the ore body with respect to ore distribution, grade etc and some key parameters pertinent to ISL. Fig 3 abstracted from the Christopher 2007 Technical report provides some assistance in determining the location and orientation of the sections and ore zones discussed below.

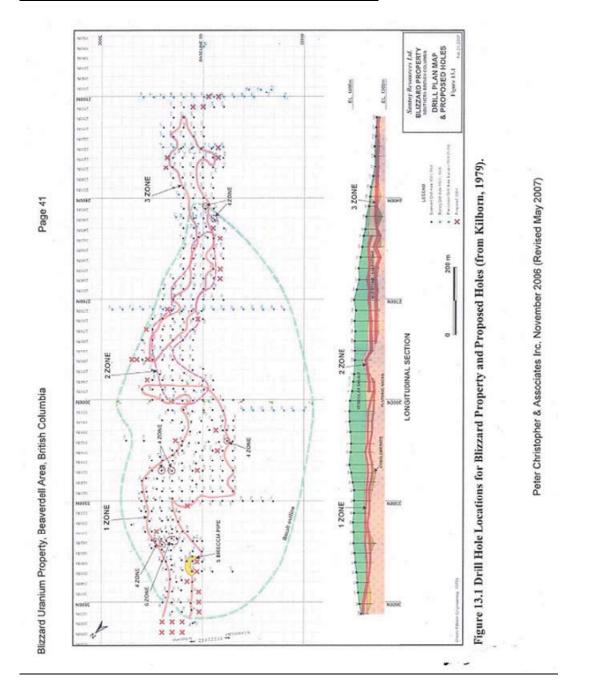
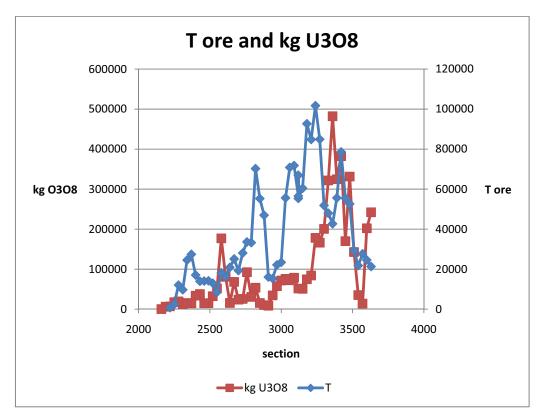
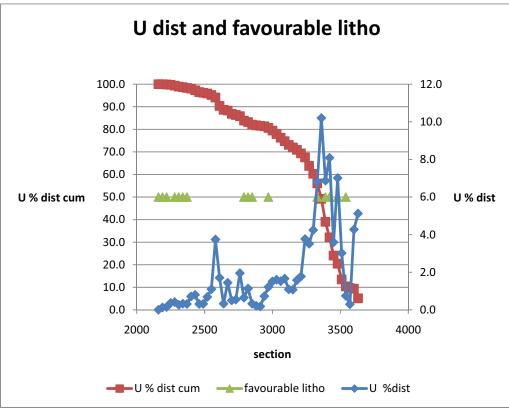
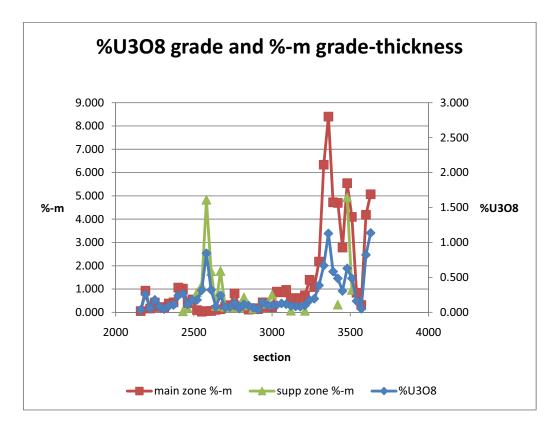
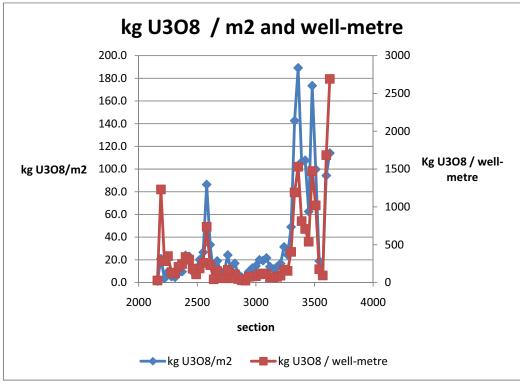


Fig 3: Plan and longitudinal section of Blizzard orebody









As illustrated in the graphs above, although the ore tonnage is more or less centrally – focussed, the uranium content is heavily skewed towards the northern end, driven largely by the superior grades and thicknesses in the north.

In terms of the potential wellfield footprint and also taking into account depth and the total well-metres, the uranium content per square metre and well-metre is also significantly higher at the northern end despite this being where the ore is at its deepest. Moreover some of the favourable lithology, as indicated by conglomerate being present, is at the northern end of the orebody.

Although the Manual of Acid in situ Leaching previously cited would categorise the Blizzard orebody as only marginally favourable for ISL in terms of permeability there are other characteristics of the orebody which place it the highly favourable category, for example its shallow depth and very high ore productivity as expressed in the parameter kg U_3O_8/m^2 .

Taking into account the comments earlier about the requirement for a confined aquifer, the author considers that the best potential for ISL is north of section 3200N, where grades and grade-thicknesses are also quite exceptional and lithology appears generally favourable. Additional high grade material containing another 9% of the uranium content is available around section2600N where the north end of zone 3 exhibits some high grades but lithology is less favourable and there would be some concerns about aquifer control at this end of the ore-body. Therefore this is not considered by the author to be amenable to ISL, although this comment needs to be viewed in the context of the semi-quantitative criteria so far applied to the hydrogeology and permeability in the absence of comprehensive data. North of section 3200N being the deepest part would also be the portion of the ore-body where open-pit mining would involve a high strip ratio, enhancing the relative attractiveness of the ISL option. However this ISL-amenable ore body is still relatively shallow, with a maximum of 90m and averaging around 50m.

In summary, an assessment of the ore-body for potential extraction by ISL technology shows that from a preliminary hydrological point of view as well as that of grade distribution and wellfield efficiency, the tonnage of ore would be limited to around 781,000 tonnes north of section 3200N with a grade of 0.42% U_3O_8 and containing 7.23M lbs U_3O_8 ie 69.3 % of the orebody U_3O_8 content as originally defined. Ore tonnage is substantially reduced from 1.9Mt, and grade almost doubled from the original 0.24%.

This represents the ISL base case; once additional permeability and hydrogeological data and better-defined costs are available, potential extension southwards would be assessed on a marginal basis, subject to the limits imposed by the hydrogeology.

2.6. Acid vs Alkali Leaching

Concerns about permitting of the ISL process in general and acid ISL in particular have led to a consideration of alkali leaching for Blizzard despite its inferior performance in uranium leaching testwork to date.

The key elements in assessing the relative suitability of acid vs alkali leaching are:-

- Host rock and ore composition, particularly with respect to carbonate levels, the critical upper limit for acid leaching being 2% carbonate
- The corollary of composition is reagent (acid) consumption and cost

- Uranium recovery and kinetics, and the influence of mineralogy
- Environmental considerations, as a function of local conditions and the receiving environment.

These are further detailed in Table 2 overleaf, also abstracted from the Aug 2004 CSIRO "Review of Environmental Impacts of the Acid In-Situ leach Uranium Mining Process".

The driving force for the adoption of alkali leaching in the USA has been twofold:-

- Primarily, the high carbonate levels in the host rocks render acid consumption prohibitively high
- Secondly, the difficulties associated with restoration of the groundwater to pre-mining aquifers suitable for drinking water or, as a minimum, for livestock use.

While the difficulty of restoration is the commonly reported reason for the use of alkali leaching, the history of ISL development in the USA shows that the primary shift to alkali leaching was in response to the high carbonate contents, and this shift has been sustained by the emphasis on restoration and licensing requirements. Note also that the uranyl phosphate minerals, such as carnotite and autunite with uranium in the oxidised hexavalent state, and which are common in the USA uranium deposits, are more amenable to alkali leaching than reduced ore minerals like uraninite where more intensive oxidation is required in an alkali system than in an acid system.

Initial application of acid in-situ leaching in Eastern Europe and the former Soviet Union was often carried out without due attention to restoration and the requirement to have the restoration requirements part of the planning from the outset. As a result there are several legacy issues of significant groundwater contamination although recent efforts particularly in Kazakhstan have resulted in a number of techniques to address groundwater restoration.

In summary, from a leaching chemistry point of view, acid leaching is generally superior, achieving higher recoveries with faster kinetics especially where tetravalent uranium is present, unless the deposit has high carbonate levels.

From the environmental perspective, acid leaching results in greater dissolution and therefore contamination eg with sulphates which can require an extended restoration period unless natural attenuation is supplemented with additional measures; however it should be noted that although alkali dissolution is less the soluble species are not as susceptible to natural attenuation and have the potential to migrate considerable distances.

Table 2: Acid vs Alkaline Leaching Comparison

Table 1	Relative F	eatures	of Acid	and.	Alkaline	In-situ	Leaching

Acid leaching	Alkaline Leaching		
Acid leaching achieves a high uranium extraction, typically 70-90%.	Extraction from alkaline leaching is low(er), typically 60-70%.		
Acid leaching yields faster dissolution of uranium, requiring 40 to 70 pore volumes.	Slower kinetics of uranium dissolution. Alkaline leaching requires typically more pore volumes than acid leaching.		
Increased concentration of dissolved solids (TDS) in recycled leach solutions (10-25 g/L).	Insignificant increase in groundwater TDS		
High acid consumption for carbonate-bearing ores.	Potential to treat ores containing high levels of carbonate.		
Mandatory use of corrosion resistant equipment and pipelines.	Common material and equipment can be used.		
Addition of oxidant not always required because of presence of iron in recycled solutions.	Addition of oxidant always required.		
Possibility of recovering by-products.	Leaching chemistry is very selective for uranium.		
Additional processing on surface may be required to produce contaminant "free" product.	Product solution from ion exchange should produce product of required quality.		
Risk of deterioration of permeability due to chemical and gaseous plugging.	Formation of carbonate or sulfate precipitates also a concern that can lead to plugging of formation.		
Restoration to baseline levels requires an extended treatment period. Such restoration has only been demonstrated at one pilot site ¹ .	Restoration of water to pre-mining baseline water quality has been demonstrated for some sites.		
Seepage beyond bore field is unlikely due to formation of chemical precipitates that reduce porosity, and given natural attenuation due to reaction of contaminants with adjacent barren rock and unaffected groundwater.	Potential for residual solutions to spread beyond the contours of areas being treated.		

¹ Note, for many acid ISL sites, restoration to pre-mining water quality has not been a requirement, because of the poor quality of the pre-mining groundwater.

As far as Blizzard is concerned, the metallurgical tests focussed on acid leaching for a conventional milling circuit, and rightly so given the very low (<1%) carbonate levels. The autunite and saleeite (calcium and magnesium uranyl phosphates respectively) should be equally amenable to acid and alkali leaching. However the rarer mineral ningyoite reported as non-leachable in the Placer Development Ltd Hydraulic Lake alkali leach testwork and known to occur also at Blizzard would not be amenable to alkali leaching unless strongly oxidising conditions were applied to oxidise the tetravalent uranium. Only cursory alkali leaching tests were carried out and further leaching work would be required to investigate the process chemistry under an alkali system. The author also notes that the Interim Report on the Uranium Mineralogy of the Blizzard Deposit by Johnson, Morton and McWillimas (1979) also refers to the reduced species occurring mainly in the southern end of the orebody so it is reasonable to conclude that alkali leach performance in the northern part selected as suitable for ISL could be significantly improved. For these reasons the author believes that a recovery of 50% for the alkali leach, being at the upper end of the 40-50% range previously cited, is reasonable.

2.7. ISL operating scenario

Based on the foregoing assessment of the orebody the following ISL scenario is proposed by the author:-

Item	Value
ISL-amenable ore location	North of 3200N
Ore-body footprint: m2 and approx dimensions	47179m2, 420m x 110m
Approx. depth: average, maximum	50m, 90m
T ore	Approx 781,000 tonnes
Grade % U_3O_8	0.42% U ₃ O ₈
U3O8 content	Approx 3280 tonnes
Recovery: acid / alkali	60% / 40-50%
Recoverable U ₃ O ₈ (acid base case)	Approx 1970 tonnes
Production well-spacing (7-star pattern)	17.5m
Total no. of production wells	162
Total no. of wells (2.4:1 injection to production for 7 star pattern)	551
Total well-metres	19596
Flow per production well	20m3/hr
Average solution grade	100mg/l U ₃ O ₈
No. of wells operating any given time	20
Total flow to plant	400m3/hr
Annual production (8000 hrs per year)	320 T U ₃ O ₈
Mine life (including initial ramp-up year)	7 years

Note the following:-

- These ISL parameters are very similar to the Honeymoon project in South Australia, as described in the July 2006 technical report filed by Uranium One and summarising the feasibility study. Honeymoon details are set out below in comparison with Blizzard:-
 - Despite being in a desert-setting, Honeymoon is similarly situated with respect to infrastructure ie 60km NW of the regional centre of Broken Hill and with grid power relatively close by
 - \circ 1.2Mt ore at 0.24% U₃O₈ with 2880T contained U₃O₈
 - \circ 400 tpa U₃O₈ production over 6 year mine life including initial ramp-up year
 - Similar geological setting in a basal paleochannel with upward-fining unconsolidated sands, silts and clays, but generally deeper, averaging 100-120m
 - o Alkali leaching trialled in early testwork but showed much slower kinetics
 - Despite > 90% recovery in laboratory acid leaching tests, 70% recovery assumed, pending actual well performance optimisation
 - Similar 7 spot well pattern; initial spacing 22m, with provision for infilling if lower permeability encountered
 - Total no. of production wells 215 with estimated total well-metres 61920m, reflects lower grade, less favourable grade-thickness and greater depth
 - \circ Average solution grade 75mg/l U₃O₈, 650m3/h solution to plant

- Regarding closure costs, Honeymoon is a poor analogue as no post-operations acid neutralisation and remediation of the pre-existing highly saline, radionuclide-contaminated groundwater is contemplated.
- The author has applied conservative assumptions for recovery (60%) and well-spacing (7 star pattern with 17.5m between like wells) in view of the sketchy permeability data previously discussed; also, despite the significantly higher grade than Honeymoon, the average solution grade of 100mg/l reflects extended "scavenging" leach time to offset potential low permeability. This effectively means there is a 2-3 x margin on the usual total solution volume of the equivalent of 70 pore volumes pumped through the orebody over the mine life, which in the case of an alkali leach case and slower kinetics should still provide sufficient contact time, albeit with a reduced margin. Hence the only variable to change for an alkali leach case is the recovery, assumed to be in the 40-50% range. The acid leach case is used hereon as the base case with sensitivity to an alkali leach case assuming a recovery of 50% and no change to the costs.

2.8. Costs and financial analysis

Continuing to use Honeymoon as an analogue:-

The Honeymoon operating cost structure (Q2 2006) has the following key components:-

- Labour/Admin/Camp: considered fixed, A\$5.9M p.a.
- Wellfield development and operating costs: considered semi-variable, A\$3.3M p.a.
- Plant and power costs: considered variable with solution flowrate, A\$5.5m p.a. which for the 650m3/hr 8400 hrs p.a. operation contemplated equates to A\$1/m3 of solution.

Scaling the wellfield costs in proportion to total well-metres and with an exponent of 0.6 applied to the fixed cost component of the wellfield, applying an escalation of 10%, and using an AUD:USD exchange rate of 0.9, the operating cost model for Blizzard is:

US\$5.8M p.a.fixed

+ US\$1.7M p.a. wellfield development and operating costs

+ US\$1.0 x m3 solution flow.

Therefore annual ISL operating costs amount to US10.7M, equivalent to US33/kg U $_{3}O_{8}$ produced, roughly comparable with the much larger scale but much lower grade Kazakhstan ISL operations

Although no precise closure costs are available at this stage, the author has made an estimate by assuming one full year of decommissioning with the full quantum of operating costs to reflect recovery of residual soluble uranium (with a partially off-setting revenue stream) and acid neutralisation (acid reagent costs assumed to be replaced in full by neutralisation costs). A reclamation bond equivalent to those decommissioning costs is deemed payable in year 1 and repaid the year following decommissioning, ie net cost is zero but of course with impact on NPV. There are some sweeping assumptions implicit in this closure cost and bond estimate but the author considers them not unreasonable and given the small scale of Blizzard to be within the range of values cited for USA ISL mines.

The Honeymoon capital cost (also Q2 2006) is as follows:-

- Direct: A\$31.1M
- Indirects: A\$5.5M
- Owners Costs: A\$10.8M
- Total A\$47.8M

The Honeymoon 2006 capital cost scope included access road upgrade, step-down transformer from grid power and supply to site, a small camp, wellfield control centres (actual wells and piping considered an operating cost and included in operating cost estimate set out above), and a process plant comprising pregnant liquor solution handling, solvent extraction (SX), U_3O_8 precipitation / drying / handling and reagents/services etc. However it did not include some of the sunk costs amounting to approx. A\$20M for testwork and field trials etc . It also appears that there has been considerable over-run in the Honeymoon capital costs, attributed to various factors including delays. It would appear prudent to add at least \$20M to the Honeymoon study estimate, reflecting over-runs and the field trials; earlier testwork costs will be attributed to the forecast feasibility study costs.

Scaling in proportion to solution flow rate as the main determinant of equipment size and with an exponent of 0.6, applying an escalation factor of 30% reflecting the 2007/08 commodity boom impact on capital equipment costs, adding A\$20M (unescalated) as per above, and using an exchange rate again of 0.9, the Blizzard capital cost is estimated to be:

Approximately US\$60M, equivalent to approximately US\$31/ kg of total life of mine recoverable U_3O_8 content.

This capital cost has been cross-referenced to the solution component of the conventional circuit estimate being carried out by Melis Engineering and thought to be reasonable. One comment from Melis Engineeering was that capital efficiency may be improved by having ion exchange (IX) followed by a much smaller SX circuit. (This was not done at Honeymoon due to the adverse hyper-saline groundwater impacts on IX.)

Both capital and operating cost accuracy are considered to be +/- 30%.

A simple financial model constructed around these cost estimates for 320 tpa U_3O_8 production and assuming a 2009 U_3O_8 price of US\$52.50/lb (the midpoint price in the pricing data received from UxC) is shown below (all costs in USD, all AUD-sourced costs converted at exchange rate of 0.9):-

		YEAR	-1	1	2	3	4	5	6	7	8 Decomm	9	TOTAL
U₃O ₈ Gross		tpa			320	320	320	320	320	320	47		1967
Revenue		US\$M			35.28	35.28	35.28	35.28	35.28	35.28	5.18		211.68
Capex		US\$M	29.9	29.9									
sustaining Bond		US\$M US\$M		10.7	0.598	0.598	0.598	0.598	0.598	0.598		-10.7	3.59
bond		00çivî		10.7								10.7	
Opex		US\$M		2.33	10.7	10.7	10.7	10.7	10.7	10.7	10.7		77.23
Cash flow		US\$M	-29.9	-42.93	24.58	24.58	24.58	24.58	24.58	24.58	-5.52	10.7	74.65
NPV		US\$M	18.1										
	at	15.0%	1011										
IRR			24.1%										

Key sensitivities on the NPV (US\$M) are U_3O_8 price and discount rate. The table below show these sensitivities related to a base case of 15% and US\$52.50/lb U_3O_8 for U_3O_8 prices reflecting 2008, 2009 and a long-term estimate . Note that this is not a definitive valuation, nor does it reflect any permitting delays, but is simply a portrayal of the project sensitivity to key variables from the point in time in which major expenditure would be incurred.

Uranium price \$US/lb: (midpoint)	67(2008)	52.5 (2009)	75(long-term)
Discount Rate:			
10%	71.5	34.1	92.2
15%	47.8	18.1	64.2
20%	30.7	6.8	43.9

An alkali leaching situation with 50% recovery but same cost structure is shown below.

Uranium price \$US/lb: (midpoint)	67(2008)	52.5 (2009)	75(long-term)
Discount Rate:			
10%	42.7	34.1	59.9
15%	24.9	0.1	38.6
20%	12.3	-7.6	23.3

The author considers that a high discount rate should be applied to reflect critical uncertainties with respect to hydrology, permeability, and closure costs. A minimum of 10% is considered applicable with 15% a reasonable metric to use at this stage.

Therefore the <u>acid</u> ISL option for Blizzard, exclusive of any allowance for permitting delays / costs / probabilities, could realise a net present value at 15% discount rate of <u>US\$18.1M</u> at a 2009 U₃O₈ price of \$52.5/lb. A "break-even" U₃O₈ price is \$43.7/lb.

If an alkali ISL process were adopted for reasons of easier permitting then the net present value drops to <u>US\$-0.1M</u> at the same price and discount rate and again exclusive of any allowance for permitting delays / costs / probabilities. A price of \$63/lb is required for alkali leaching to deliver the same NPV as the acid case at 15% discount rate.

3. Conclusions

- The available information contains only preliminary hydrogeology and limited permeability data to assist in an evaluation of the ISL potential for the Blizzard ore-body.
- Nevertheless the author considers it reasonable to view the portion of the ore-body north of section 3200N, containing almost 70% of the U₃O₈ content, as potentially suitable for ISL on the basis of:
 - o A semi-quantitative assessment of the hydrogeological setting,
 - It having the most favourable lithology, estimated to exhibit marginally favourable permeability characteristics, and mineralogy
 - $\circ~$ Highly favourable ISL indicators eg grade-thickness and $U_3O_8~$ content per well-metre

However in view of the data issues mentioned, conservative assumptions have been applied to recovery (60%), solution tenors (100mg/l), wellfield pattern spacing (7 star pattern with 17.5 m spacing), and discount rate (15%).

- A potential acid ISL production scenario has been developed producing 320 tpa U₃O₈ for a mine life of 7 years including the initial ramp-up and wellfield development year.
- An alternative alkali leach scenario with 50% recovery would produce 267 tpa U₃O₈ over the same time frame with similar costs assumed to apply. The author believes that there is reason to expect that the previous inferior leaching results in an alkali system can be significantly improved with testwork focussed on the northern, more oxidised part of the orebody and with optimisation of the oxidation step in the process chemistry.
- The Honeymoon project in South Australia, also a basal paleochannel of similar size, is a useful analogue and cost benchmark.
- Using Honeymoon costs as a basis and applying appropriate scaling and escalation factors etc, the author estimates the Blizzard project value by acid ISL to be US\$18.1M at 15% discount rate and SU\$52.5/lb U₃O₈ price. This NPV value is sensitive to U₃O₈ prices with a \$43.7/lb "break-even" price and value ranging up to nearly \$65M at a long-term price forecast figure and same discount rate. Under the alkali leach scenario a price of \$63/lb is required to generate the same NPV as for the acid leaching. Note that this is not a

definitive valuation, nor does it reflect any permitting delays, but is simply a portrayal of the project sensitivity to key variables from the point in time in which major expenditure would be incurred.

- An estimate of closure costs and bonds is included in the simple financial model and resulting valuation.
- The AMC team has noted that the permitting of an acid ISL process in British Columbia could be problematic. There are ISL examples in the USA but all using alkali reagents; current acid ISL examples are in semi-desert or desert settings of Australia or Kazakhstan assessed as having less sensitive receiving environments and therefore with limited remediation requirements.
- The author considers that any further refinement of this evaluation is not justifiable without additional data/testwork on hydrogeology and permeability. It is recommended that the following steps be investigated as part of any further evaluation:-
 - Specialist hydrogeological advice on the Blizzard setting to confirm and further quantify the current semi-quantitative only assessment of the aquifer,
 - Consideration of the feasibility of obtaining a representative sample of the ore for ISL specific permeability test purposes, either from the buried core site or from some targeted drilling. This optionality would also be relevant to valuation in the case that a potential buyer in 2008 or 2009 elected to pursue an option or earn-in approach.
- It is estimated that the ISL extraction process specific elements of a feasibility study (ie excluding additional drilling for resource/reserve estimation purposes, and any environmental studies and permitting costs) would amount to approximately US\$750,000, comprising:
 - o Drilling for metallurgical samples and hydrogeology/geotechnical data, \$250k
 - Hydrogeological assessment \$50k
 - o ISL related testwork including alkali leach investigations, \$100k
 - Comparative studies and site visits, \$50k
 - Basic engineering, \$250k
 - Report compilation etc \$50k
 - NB Overall study management costs not included.

It should also be noted that ISL field trials would be required to validate the study. It is likely that initial trials would commence during the feasibility study and that, assuming an overall positive study outcome, confirmation trials would continue after the study and in parallel with the final environmental/permitting activities and be a necessary condition precedent for any major project expenditure. The author suggests a very rough estimate of \$2M for these trials, split 50/50 between the study phase and the early part of the project development phase

Alan Riles

October 2010

Appendix A: References

Norcen Energy Resources Ltd Blizzard Uranium Project Engineering feasibility Report by Kilborn Engineering (B.C.) Ltd, August 1979

Review of Environmental Impacts of the Acid In-Situ Leach Uranium Mining Process by CSIRO Land and Water, August 2004

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Pages 227 through 232 redacted for the following reasons: S.22 **APPENDIX 9**

EXPERT REPORT ON BLIZZARD INFRASTRUCTURE

AMC Mining Consultants (Canada) Ltd

BC0767129 Suite 1330, 200 Granville Street VANCOUVER BC V6C 1S4 CANADA T +1 604 669 0044 F +1 604 669 1120 E amccanada@amcconsultants.ca



MEMORANDUM

To: Pat Stephenson

From: Mo Molavi

CC:

Date: 8 November 2010

Subject: Blizzard Uranium – Cost Estimates for Infrastructure

EXPERTISE

Mo Molavi, the author has over 30 years experience, including over 25 years in Canadian potash mining industry, Mo's operational experience ranges from Shaft General Foreman and Mine Captain to Feasibility Study Manager and Manager of Technical Services. He also managed a feasibility study and technical services at the Diavik diamond mine.

His technical expertise includes underground mine design and planning, mechanical excavation and haulage in soft rock mining environment, rock mechanics and ground control in soft rock, mine ventilation, project management ranging from individual projects to feasibility studies, shafts and friction hoists familiarity, equipment specification and selection, and, finally, management and mentorship of technical staff.

SUMMARY OF EXPERIENCE

Mo's mining experience began in open pit porphyry copper mine and later a precious metals hard rock mine with a shrinkage stope mining method. In the following 25 years, Mo's operational experience in Saskatchewan focused on underground room and pillar potash mines, beginning as an engineer in the PCS Potash Rocanville operation, with significant experience gained in managing stoppage of a water inflow into the mine.

As Chief Mine Engineer at PCS Allan, he was responsible for the mine engineering group, including oversight of shaft and hoist operations and maintenance. His most significant achievement was streamlining the underground mine plan which included design and construction of new ore storage facility, driving access to the bottom of shafts, dewatering sump installation, and implementation of a long range mine plan.

As a Senior Mine Engineer with PCS Potash Technical Services Group, his duties included the PCS Lanigan mine expansion and PCS New Brunswick Feasibility Study.

As Manager of Underground Feasibility Studies at Rio Tinto Diavik Diamond Mines Inc, NWT, Mo's main task was the transition of this diamond mine from an existing open pit to an underground operation.

Mo joined AMC Vancouver in 2010.

Relevant Experience applied to Blizzard evaluation project:

The author in his previous work engagements, as a mining engineer and in particular as a FS study manager, became familiar with estimating costs for various components of infrastructure and overall FS study costs. The data provided in this study are not detailed and in-depth, but rather an estimate. The range of accuracy of this data is specified in various sections of the report.

INFRASTRUCTURE

<u>Roads</u>

The author has developed the construction cost estimate for the project using historical unit costs from previous similar projects. The estimate is to a +/-30% accuracy.

Access road from Highway 33 to site is called Trapping Creek Road. This road is 21 km long and in Kilborn's report it was recommended to be widened to 9.3 meters. The estimated cost per kilometre for road widening is \$200,000/km.

21km x \$200,000/km = \$4.2M

A total of 9.3 km of new site roads were deemed to be required. The cost of building new roads in this environment was estimated at \$400,000/km.

9.3km x \$400,000 = \$3.72M

Total road Capex estimated at, \$7.92M.

Power

Kilborn's report indicated a power load requirement of 3 Megawatt.

Transmission line cost estimate was reviewed, for a 161 kv line capacity from the estimators guide a cost of \$US483, 000/km was recommended. If closest tie in is at Kelowna, it is 51 road km away for a cost of \$US24.63M. If Beaverdell is the closest tie in then it would be \$US17.9M. Therefore transmission line concept was rejected.

Diesel power generation was deemed to be most cost effective.

Melis Engineering estimated the diesel generator costs of \$7.1M. AMC added another \$0.5M for fuel farm for a total Capex of \$7.6M.

TAILINGS MANAGEMENT FACILITIES

The author in consultation with Melis Engineering devised this system of tailings management. The lined pit containment system discussed here is for the open pit or underground mine options only. The ISL method does not require a tailings management facility. This containment is a standalone pit, whereby it can be lined to prevent leakage to the neighbouring rocks and aquifers. The same cost estimate parameter was applied to digging this pit as it was to mining an open pit. It was also suggested to excavate a 500m x 5m x 5m drift (tunnel) to be filled with broken rock as a filter for the water to flow into following settling in the collection pit.

Piping and pumping costs for transport of tailings to this pit and discharge water from the tunnel are covered in the process plant section. However the cost estimate associated with this TMF are as follows:

Pit excavation and lining	\$14.4M
Access tunnel	\$6.1M
Total	\$20.5M

FEASIBILITY STUDY COST

Depending on many things such as; level of detail engineering, drilling, metallurgical testing, hydrology, bulk samples, environmental, legal, community investigations etc. the estimate can vary greatly.

Recent examples of basic feasibility studies indicate an estimated 2% of the total project capex. For a \$200M Capex, a FS cost of \$4M.

Mo Molavi, P.Eng.

Principal Mining Engineer

Pages 237 through 239 redacted for the following reasons: S.22 **APPENDIX 10**

EXPERT REPORT ON BLIZZARD ENVIRONMENTAL / PERMITTING

REVIEW OF POTENTIAL ENVIRONMENTAL ISSUES, CONSTRAINTS AND CONSIDERATIONS FOR THE BLIZZARD URANIUM PROPERTY

Prepared by:

Richard Pope, M.Sc., R.P.Bio. Dillon Consulting Limited 3820 Cessna Drive, Suite 510 Richmond, BC V7B 0A2

Prepared for:

AMC Consultants Suite 1330, 200 Granville Street Vancouver, British Columbia V6C 1S4

November 8, 2010

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	Typical vegetation on the Blizzard Property. Trapping Creek at access road to Blizzard Property. Trapping Creek at bridge crossing along access road. Old campfire north of Lassie Lake. Pet cemetery located just north of Lassie Lake.

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- Appendix II: Letter from Big White to the Honourable William Bennett (May of 2006)
- Appendix III: Environmental Assessment cost estimates

1.0 INTRODUCTION

Richard Pope, a Partner and senior environmental scientist with Dillon Consulting Limited, was engaged by AMC Consultants to provide environmental support for an independent valuation of the Blizzard Uranium property located in the BC interior. More specifically the author's role was to:

- review the project for potential environmental issues and constraints;
- summarize the anticipated permitting process for a project such as the Blizzard Project;
- provide an initial evaluation of potential costs and timelines associated with environmental permitting requirements;
- provide an initial evaluation of potential environmental costs that might be expected should the project go into operation; and
- provide an initial evaluation of potential reclamation / decommissioning costs that might be expected for the project.

The author's assessment was based on information specific to the Blizzard Project available at the time of writing of this report as well as other information available for comparable projects.

2.0 ABOUT THE AUTHOR

Richard Pope is a senior environmental scientist with over 23 years of consulting experience. He is currently a Partner with Dillon Consulting Limited. He holds a Master's degree in freshwater ecology and a Bachelor's degree in marine biology. Richard has extensive Environmental Assessment and permitting related experience that includes mine developments, infrastructure, power, waterfront/shoreline protection projects, and waste-management projects. His project experience is extensive and varied and includes a range of mining-related projects including several large Environmental Assessments in British Columbia.

Of particular relevance to this assignment is Richard's involvement with the Sechelt Carbonate Project from 2005 to 2007. Richard was Project Manager for this comprehensive environmental impact assessment (both federal and provincial permitting requirements) for a proposed open pit carbonate project near Sechelt on the west coast of British Columbia. Similar to what would be expected for the Blizzard Project, this project was highly contentious and required significant liaison with local communities, First Nations and other stakeholders, including several large and often confrontational Open Houses. The project was eventually withdrawn from the permitting process due to poor geological findings.

Richard is currently managing several large Environmental Assessments for proposed mine development projects in British Columbia, including the Harper Creek Copper-Gold Project in central British Columbia and the Storie Molybdenum Project in northern British Columbia. To date these projects have require extensive consultation and interaction with federal and provincial regulators, First Nations, and other stakeholders.

A complete resume is provided in **Appendix I**.

3.0 THE BLIZZARD PROPERTY

3.1 General Site Description

The Blizzard property covers approximately 335 hectares and is located in the Okanagan Plateau area of south-central British Columbia. Other specifics regarding location include (from Christopher 2007):

- approximately 50 kilometers southeast of Kelowna (Figure 1);
- approximately 25 kilometers northeast of Beaverdell (Figure 1);
- site access from Highway 33 via existing gravel logging roads;
- the climate in the region is that of a dry, elevated Plateau area;
- the Blizzard deposit area is situated at the divide between the Kettle and West Kettle River drainages;
- elevations, in the area, range from under 760 meters in the Kettle and West Kettle Rivers to about 1400 meters at the northerly end of the Blizzard basalt cap; and
- the area is covered by interior forest with the Blizzard claim area logged just prior to Lacana's staking of the area in 1976.

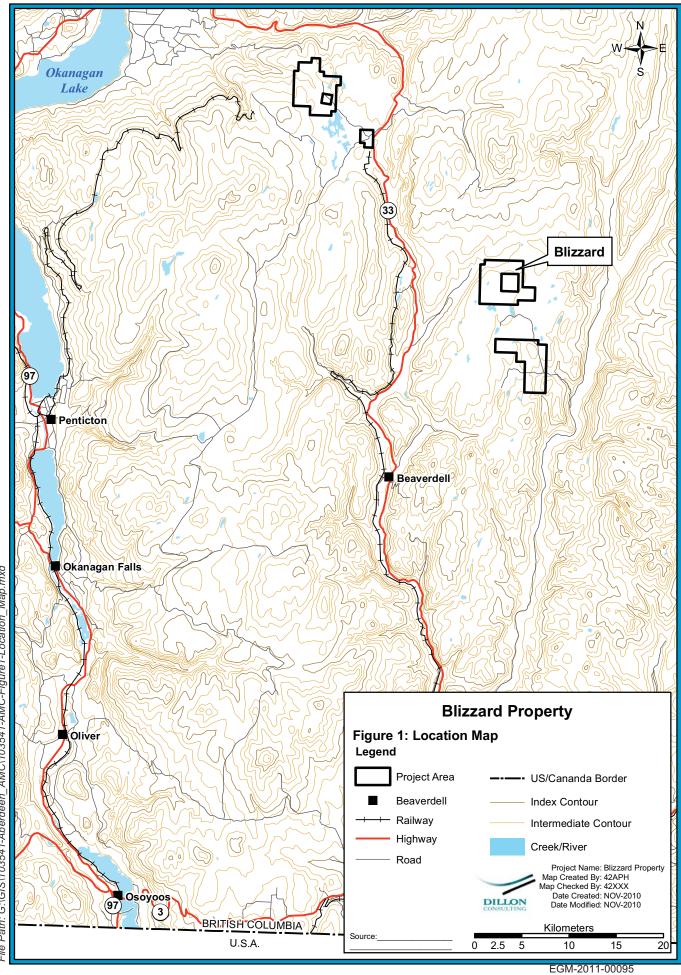
A site visit was completed by Richard Pope and other members of the assessment team on July 21^{st} , 2010. Various site characteristics are illustrated in Photos 1 - 3 on the following pages.



Photo 1: Typical vegetation on the Blizzard Property.



Photo 3: Trapping Creek at bridge crossing along access road.



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3.2 Environmental Characteristics

3.2.1 Existing Environmental Baseline Information

The availability of site-specific baseline studies / data is quite limited. Where they exist, they are quite dated such as baseline work completed in 1980 by Environcon Ltd. Gordon (1992) reviewed these baseline studies and noted that the documents included "*Information on uranium in rocks, sediments, surface waters, groundwaters, soils and plant*" There are also various government reports available for the region; however none are specific to the Blizzard Property. Many of these reports are available through internet databases such as the the Ministry of Environment's EcoCat: The Ecological Reports Catalogue (http://a100.gov.bc.ca/pub/acat/public/welcome.do).

As part of our review of existing information the Ministry of Environment was also contacted to determine if other site-specific information was available for the project area. In response to this request an "Overview Assessment of Environmental Values" was prepared for the Blizzard Project site and surrounding areas (Stewart 2010). Site specific information was limited; however some broader scale habitat information was available including mapping for various species of interest (e.g., grizzly bear).

More recent site-specific baseline studies are limited. A letter to the Ministry of the Attorney General by the law firm Nathanson, Schachter & Thompson LLP (October 12, 2010) acting on behalf of Blizzard Uranium Corp noted that baseline environmental studies related to water and climate (meteorology) were conducted by John Jemmett from mid-2007 to the spring of 2008. However specific details regarding this program were not provided beyond the comment that a climate station was installed in March 2008 and removed in May 2008. Klohn Crippen Berger was engaged in early 2008 to complete additional work but this was limited to preliminary baseline environmental surveys (details not provided) from April 14th to April 21st 2008, before the program was discontinued.

3.3 Overview of Environmental Features and Identification of Potential Issues and Constraints

A preliminary overview of potential constraints/issues for development and operation of the Blizzard project was completed. This review was based on existing environmental data, discussions with other team members regarding potential uranium mining methods, and a review of other project related documentation (**Table 1**). It must be stressed that this assessment was based on existing information only and our current understanding of the project, and as such was intended to provide an overview of potential issues and constraints only. If the project were to move forward it is expected that various issues / concerns would be raised by provincial and federal regulators, First Nations, and other stakeholders.

Deposit.	Potential Issues and/or Constraints	Concerns regarding potential impacts to water quality (mobilization and migration of metals, acid rock drainage, etc.) including potential downstream impacts. Potential concerns to water quantity (flows and/or lake levels) should the project require water diversions and/or water extraction.	Concerns related to the potential contamination of groundwater systems in the area, as well as the potential for contamination of associated surface waters.	Potential concerns regarding potential impacts to fish and fish habitat. Potential impacts related to direct loss of habitat (in- filling of fish-bearing systems) or habitat reduction due to flow diversions/water taking. Also potential impacts related to introduction of contaminants to surface waters (deleterious substances).	Potential concerns as they relate to hydrological functions and attributes for ecosystems and potential listed species.
Overview of potential constraints/issues associated with the Blizzard Deposit.	Description	The deposit is situated at the divide between the Kettle and West Kettle River drainages. Key waterbodies include Trapping Creek, Joan Lake, Lassie Lake, Sandrift Creek, Beaverdell Creek, Kettle River and West Kettle River (Figure 2) Stewart (2010) noted the presence of various water intakes (including some for human consumption) and points of diversion for public utilities, public facilities, domestic and enterprise licenses in the Okanagan	Preliminary hydrogeological investigations carried out by Brown, Erdman and Associates, reported in "Hydrogeology of Blizzard Uranium Project" of September 1979 and referenced in the B.C. Royal Commission into Uranium Mining of March 1980 Brown Erdman and Associates noted that "Hydrogeologically, the ore body consists of a series of confined, slightly consolidated sandstone aquifers which occur within the mudstone-sandstone sequence forming the actual ore zone." The authors also noted groundwater discharging as springs and seeps at either end of the groundwater discharging as springs and seeps at either end of the	Many of the rivers (e.g., Trapping Creek) and lakes (e.g., Joan Lake) are fish bearing (Province of British Columbia 2010b). Stewart (2010) confirmed areas of significant fish streams such as the Kettle River watershed which supports sensitive fish populations and a valuable sport fishery	Wetlands to the north of Joan Lake and to the northeast of Lassie Lake (Figure 2).
Table 1: Overview o	Component/Item	Surface water quality and quantity	Hydrogeology (groundwater)	Fish habitat and fish communities – lakes and rivers	Wetlands

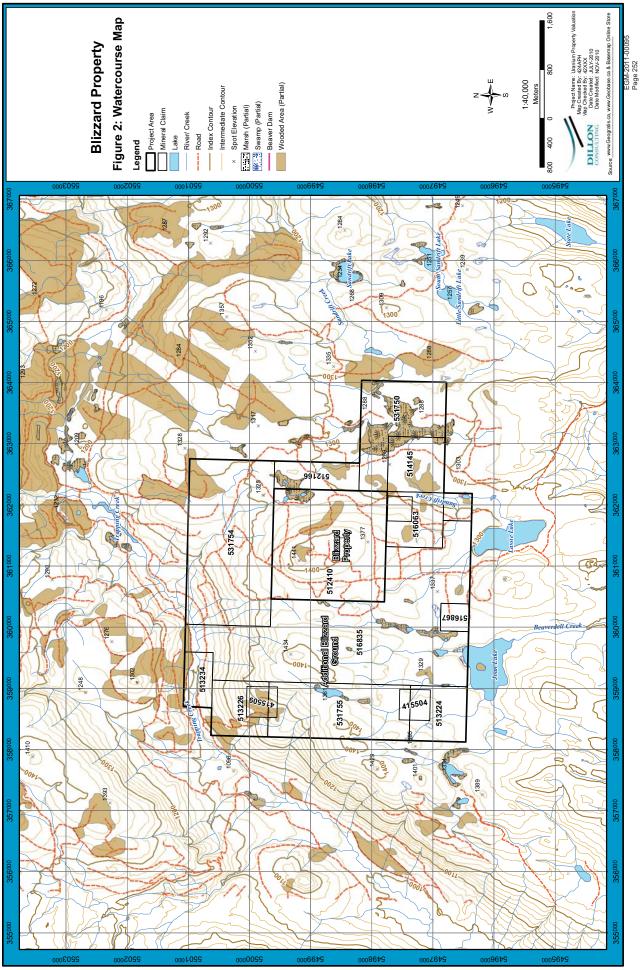
Component/Item	Description	Potential Issues and/or Constraints
Wildlife (Amphibians, Birds, Mammals)	Occurrence data (census and aerial survey data) is available for grizzly bear and ungulate species within the Okanagan (Province of British Columbia 2010a). Grizzly bear presence has been recorded within the Blizzard Property, while moose has been recorded in the grounds surrounding this area (Figure 3). Moose, bear, and mule deer are expected within the Blizzard Property and other claims given their recorded presence throughout the area.	Concerns related to potential impacts to large mammals and their habitat (e.g., grizzly bear). Potential presence of rare, threatened, or endangered wildlife (would need to be determined by detailed site specific surveys)
	Stewart (2010) noted areas of connectivity corridors and grizzly bear management priority zones. Other wildlife corridors could also be present within the area.	
	Information provided by the MOE (Stewart 2010) and confirmed by a query of the British Columbia Conservation Data Centre (CDC) also noted several Red (Endangered and Threatened) and Blue (Special Concern) species and ecosystems that are likely to occur in the study areas.	
Vegetation	The Blizzard Property falls within the Montane Spruce Biogeoclimatic Zone (British Columbia Ministry of Forests, n.d.). Information provided by the MOE (Stewart 2010) and confirmed by a	Potential presence of rare, threatened, or endangered vegetation and vegetative communities (would need to be determined by detailed site specific surveys)
	query of the British Columbia Conservation Data Centre (CDC) noted several Red (Endangered and Threatened) and Blue (Special Concern) species and ecosystems that are likely to occur in the study areas.	
Air Quality	Site-specific data not available. Existing emissions sources would include those associated with forestry activities in the area.	Concerns regarding dust from site operation including mobilization and potential exposure to contaminants. Air quality of particular concern due to proximity of site to the Big White Ski Resort
Noise	Site-specific data not available. Existing sources of noise would include those associated with forestry activities in the area.	Concerns regarding increased noise, particularly if open pit mining methods used requiring the use of explosives. Noise of particular concern due to proximity of site to the Big White Ski Resort

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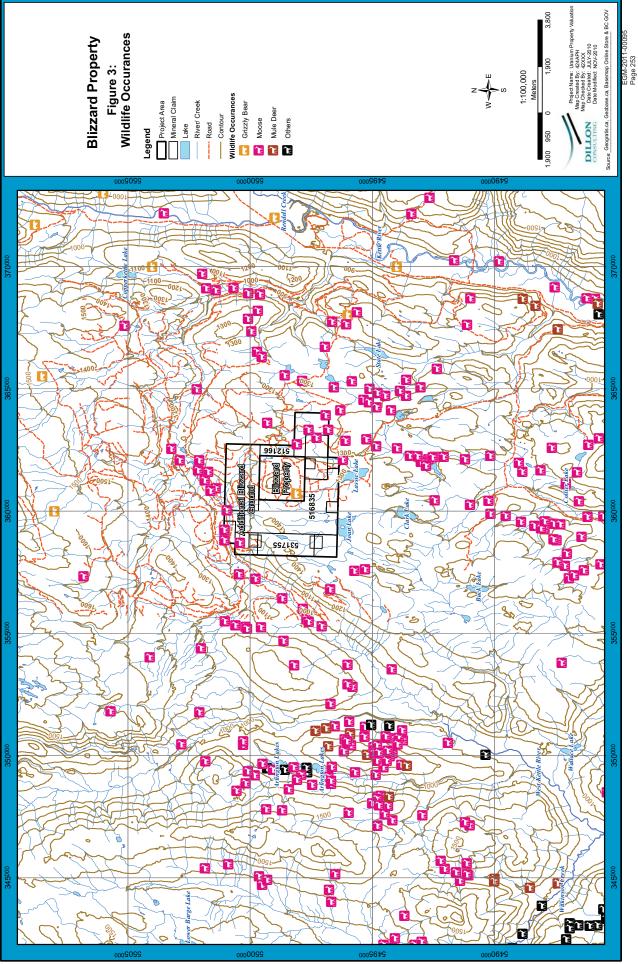
Evaluation of Potential Environmental Constraints, Issues, and Considerations For the Blizzard Uranium Property

November 8, 2010

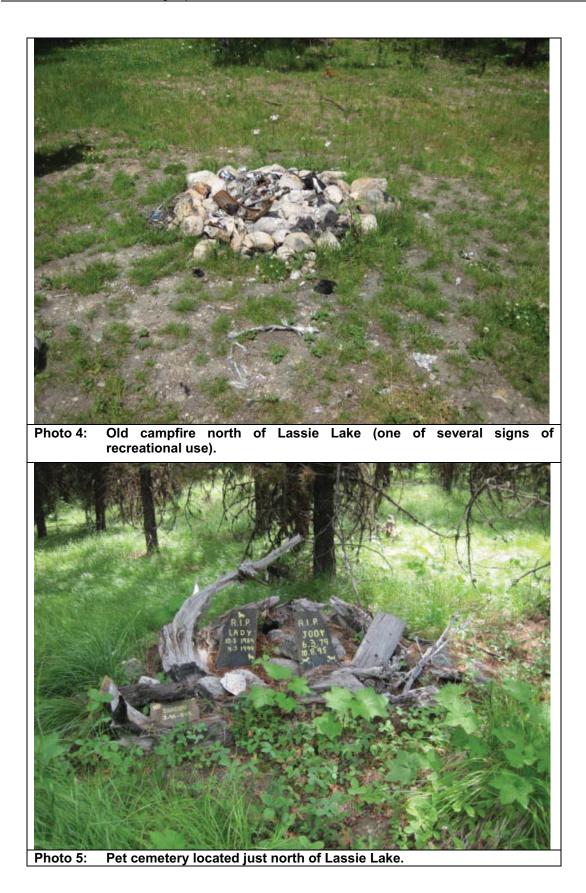
Potential Issues and/or Constraints	 is, Expect that site use by recreational groups would be impacted ls, by mining activities. Current camping areas would no longer be accessible. 	or te 3d	Potential impacts to traditional uses – such as hunting, fishing, and gathering of plants.	Potential impacts to archaeological sites / features
Description	Use of The area is used by recreational groups – camping, ATVs, hunters, etc. Signs of use (campfires, garbage/debris, shotgun shells, extensive tire tracks from ATVs and dirt bikes, etc.) were evident during the site visit particularly near Lassie Lake (Photos 4 and 5).	Lassie Lake and Joan Lake are both referred to as potential camping areas on the internet (e.g., <u>www.bcadventure.com</u>). For Lassie Lake the bcadventure site notes a large well treed campsite with a boat launch. It also notes that "this heavily Rainbow stocked lake provides a good fishery for trout up to 2+lbs".	Project is located in the Traditional Territories of multiple First Nations.	
Component/Item	Recreational Use of Project Area		First Nations	



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4.0 MINING APPROACHES FOR THE BLIZZARD PROJECT

Mining methods historically used for the extraction of uranium include underground extraction, open pit mining, or in-situ leach (ISL) methods. Each approach has its advantages and disadvantages. For example, open pit extraction methods result in increased site disturbance for tailings facilities, waste rock dumps, and overburden storage areas, as well as require the use of explosives (issues with storage, dust, noise, etc.). By comparison, ISL involves the extraction of uranium by injection of a solution into the ore body (either an acid or alkaline solution). Although ISL methods can reduce the amount of surface disturbance they can result in significant issues related to groundwater contamination.

The Kilborn Engineering Feasibility Report on the Blizzard Uranium Project (Kilborn 1979) concluded that the only option for extraction was an open-pit, dismissing underground mining due to incompetent rock, and in-situ leaching on the grounds of low porosity. However as part of the overall valuation of the Blizzard Project, others within the team re-evaluated the alternative of ISL methods. Acid leach and alkaline leach options were evaluated - each with its associated advantages and disadvantages (for details please see report by Alan Riles, AMC Consultants – the author completed a review of alternative extraction options – in situ leaching). Based on the ore mineralisation at the Blizzard Property and preliminary data regarding ground porosity, and groundwater conditions the author concluded that at least the northern portion of the Blizzard ore body was suitable for ISL.

5.0 ENVIRONMENTAL PERMITTING

5.1 Uranium Mining in British Columbia

There has never been a uranium mine in BC and the BC Energy Plan clearly states that nuclear power will not be a part of B.C.'s energy supply mix (MEMPR 2009). MEMPR (2009) also noted that the Province will not support the development or the exploration of uranium in British Columbia and as such established a "no registration reserve" under the Mineral Tenure Act for uranium and thorium in early 2008. Also in early 2009 and following a request by the Province's Environment and Land Use Committee, the government issued an order to prevent permits from being issued for uranium and thorium exploration and development (MEMPR 2009). This move was intended to complement the "no registration reserve" policy.

5.2 Canadian Nuclear Standards Committee

All uranium mines and mills in Canada are regulated and licensed by the Canadian Nuclear Standards Committee (CNSC). This includes oversight of Environmental Assessments (EA) as required by the *Canadian Environmental Assessment Act*. CNSC's EA process is somewhat different from EA processes at other federal departments and agencies, because their Commission Tribunal is responsible for making most EA decisions. CNSC works in concert with the Canadian Environmental Assessment Agency (CEAA) and provincial agencies. The main stages of the process can be found at (http://www.cnsc-ccsn.gc.ca/eng/ea/about/process/index.cfm) and include 1) preparing for the EA (determines if an EA is needed, CNSC develops project-specific EA guidelines, etc.); 2) conducting the EA (technical studies, baseline studies, consultation activities, preparation and submission of an Environmental Impact

Statement to the CNSC); and 3) the final EA decision by Commission Tribunal (CNSC prepares EA report, public consultation including hearings if required). If the project is approved, CNSC issues the appropriate licence. Licences are required for various phases of the life-cycle of a uranium mine including 1) prepare a site and to construct 2) to operate; 3) to decommission; and 4) to abandon. Licences are normally granted for each project phase and issued in sequence, although this process would be confirmed through early dialogue with the CNSC.

Based on the information available it is likely that the Blizzard Project would require the completion of a Comprehensive Study. A Comprehensive Study is usually conducted for large, complex projects (generally new mines) that are likely to have significant negative environmental effects or draw public interest or concerns. There is also the possibility that the project would need to go to a Review Panel if public interest was high.

The project would also be tracked by the federal Major Projects Management Office (MPMO). The MPMO would be responsible for coordinating the work of federal departments and agencies.

Previous Consultation by Boss Power with the CNSC

Information provided by the CNSC (P. Stephenson email exchange with Marc Drolet, Public Affairs and Media Relations, Canadian Nuclear Safety Commission) confirms that no request for a permit to mine has ever been filed with the CNSC, however a permit was requested (and granted) to Norcen Energy Resources Limited (AECB-ORP-125-O) on June 5, 1980, allowing removal and burial of core.

5.3 **Provincial Environmental Assessment Process**

Under the existing provincial – federal harmonization agreement it would be expected that any EA Application would also be reviewed under the provincial process. Based on our current understanding of the project (anticipated throughput of 600 tonnes per day – over a period of 10 years) the Boss Project would be considered a reviewable project pursuant to Part 3 of the Reviewable Project Regulation (B.C. Reg. 370/02) – that is a new mineral mine with a production capacity greater or equal to 75,000 tonnes/year.

The CNSC, CEAA, and the MPMO would work closely with The British Columbia Environmental Assessment Office (EAO) to ensure that provincial permitting requirements are met.

5.4 Other Provincial Authorizations, Licences and Permits

In addition to a project authorization from the CNSC, a provincial EA certificate, a wide variety of provincial authorizations, licences, and permits would also be required for the project, prior to it going into operation. Examples could include, but would not necessarily be limited to (final requirements would depend on final project scope):

- Mines Act Permit (Ministry of Energy, Mines and Petroleum Resources);
- License to Cut (Ministry of Forests and Range);
- Road Use Permit (Ministry of Forests and Range).

- Water Act Permit (e.g., to take water; stream diversions Ministry of the Environment)
- Environmental Management Act Permit (for sewage treatment if needed Ministry of the Environment)

Depending on the overall project timelines set by the company, there is the option to complete concurrent permitting. This means that provincial permitting, licensing, and approval processes could proceed concurrently with the EA review process. The other option is to wait until a license is received from the CNSC and an EA certificate is received from the province before proceeding with efforts to acquire other permits.

5.5 Key Stakeholders, Consultation, and Engagement

The EA and permitting process would include the involvement of a wide variety of interested stakeholders for this project including federal, provincial, municipal, community, First Nations, and other key stakeholders. They would include, but not necessarily limited to:

Federal:

- Canadian Nuclear Standards Committee
- Fisheries and Oceans Canada
- Health Canada
- Natural Resources Canada
- Transport Canada
- Environment Canada

Provincial:

- British Columbia Ministry of Environment (MOE)
- British Columbia Ministry of Energy, Mines and Petroleum Resources (MEMPR)
- British Columbia Ministry of Community and Rural Development
- British Columbia Ministry of Small Business, Technology, and Economic Development
- British Columbia Ministry of Tourism, Culture and the Arts
- British Columbia Ministry of Agriculture and Lands
- British Columbia Ministry of Forests and Range (MOF)
- British Columbia Integrated Land Management Bureau

Municipal/Community/Local Government

- Regional District of Kootenay Boundary (RDKB)
- The Village of Beaverdell (downstream)
- Rock Creek (downstream)

• City of Kelowna

First Nations:

• The Blizzard Project is located within the Traditional Territory of the Okanagan Nation which covers areas of the BC southern interior and northern Washington (Figure 4). First Nations that are members of the Okanagan Nation that are expected to have a specific interest in the project include the Lower Similkameen Indian Band, Penticton Indian Band, and the Westbank First Nation (Duquette 2010). Traditional use of the area by the Okanagan people would include hunting and gathering activities. The Okanagan people were said to be semi-nomadic and their diet consisted of deer, rabbit, salmon, other wild game, as well as roots, berries and other native plants (Okanagan Nation Alliance 2004)

Other Interested Parties / Groups:

- Big White Ski Resort (due to proximity to the site)
- Potential guide outfitters
- Active forest companies in the area
- Public Interest Groups (e.g., Uranium-free BC Coalition; Committee for a Clean Kettle Valley)
- Trappers, hunters and other recreational users

Documentation made available to the team indicates that some stakeholder consultation activities took place between representatives of Boss Power and selected groups in 2008. Meetings with representatives of the provincial (MEMPR, MOF, MOE) and local government (RDKB) reportedly took place in the Okanagan and Kootenays (email from David Stone to a variety of recipients – dated Feb 22, 2008). Some details are summarized below:

Ministry of Energy Mines and Petroleum Resources

A meeting took place with Bruce Reid in Cranbrook). Mr. Reid alluded to potential delays for exploration permits and expected that there would be considerable opposition to proposed exploration activities at the Boss property. Reference was made to a public meeting in Rock Creek a couple of years earlier that was disrupted and shut down by uranium protestors.

Regional District of Kootenay Boundary

A meeting took place with John McLean (head of Regional District). Mr. McLean noted that there is considerable concern in area regarding potential uranium mining. He also noted that radon and groundwater would be key issues. A meeting also took place with the RDKB District Chair. The chair noted that they are very concerned about water contamination in the Kettle River and had already passed a District memorandum "condemning uranium mining". Concerns were also raised regarding trucking of yellowcake down the Kettle River valley to the US border. Referred to previous opposition to Merritt Mining at their public meetings

Ministry of Forestry (Castlegar)

The meeting reviewed items such as road use permits, tree cutting permits, etc. No issues were identified during this meeting.

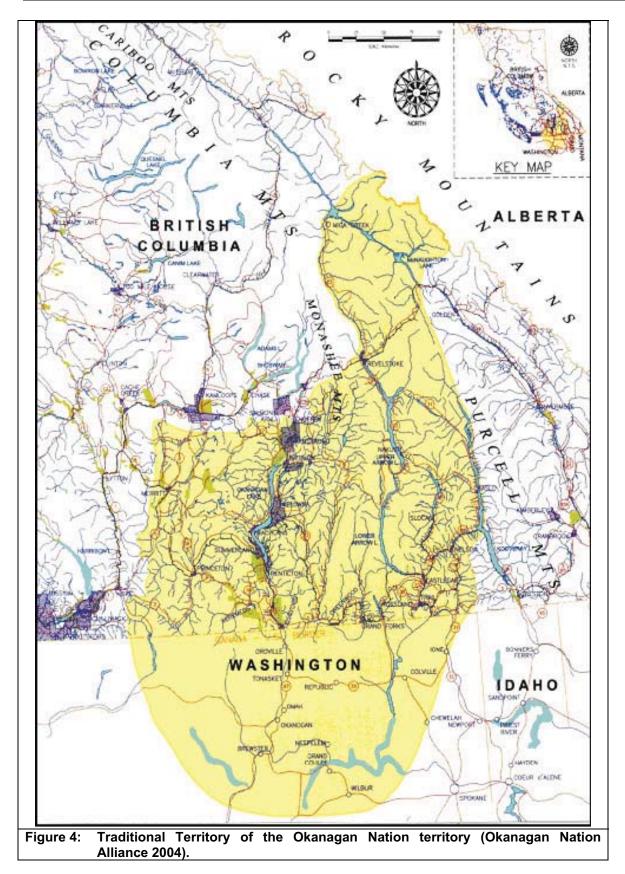
5.5.1 Current Views of Interested Parties

As part of this assessment the author contacted various individuals or groups with expected interest in the project. The intent was to obtain a better understanding of current opinions and views – both positive and negative – with regards to the project. This information has given the team a better understanding on how the overall project is viewed by the public, as well as an overall perspective on the potential for the project to be permitted.

Contact was limited to telephone conversations, as schedules did not allow for one-on-one meetings. A summary of contacts is provided in **Table 2**. With exception of a neutral response from a representative of the Westbank First Nation (not for or against project – decision would be made once additional information provided to the Nation), all other parties contacted were extremely negative towards the potential project indicating that should the project proceed into the permitting process that there would be extensive opposition.

Michael Ballingall, Senior VP with Big White Resort also forwarded a copy of a letter sent from Big White to the Honourable William Bennett in May of 2006 (**Appendix II**). The letter referred to "extremely negative, if not disastrous" impacts to the ski resort and noted that they had been receiving negative feedback from the public.

Group/Organization	Contact	Record of Contact
		Nov 1 st , 2010
Okanagan Nation Alliance	Grand Chief Stewart Phillip ONA Chairman	Brief conversation with Grand Chief Philip (via cell phone). He was brief and to the point - "absolutely no support for uranium mining"; a view that will "never change"; Noted there was widespread opposition to uranium mining - was not aware of any support for the project. When asked that if the provincial moratorium were to be lifted, in his opinion could the project be permitted - his answer was "not a chance".
		Sept 8 th , 2010
Lower Similkameen Indian Band	Chief Robert Edward	Very brief call. Was surprised by my call - he thought "the project was dead".
		Sept 10 th , 2010
Penticton Indian Band	Chief Jonathan Kruger	Chief Kruger suggested I talk to Grand Chief Phillip. Chief Kruger referred to various resolutions against uranium that have been signed by local First Nations (through the Okanagan Nation Alliance).
		Sept 20 th , 2010
West Bank First Nation	Chief Robert Louie	In response to a voicemail left for Chief Louie, received call from Raf Deguevara - Manager of Traditional Territories and Intergovernmental Affairs. He confirmed that the Boss project site is within the traditional territory of the Westbank First Nation. He noted that the Band had been approached by Boss in 2007 and had initial meetings with management. However the process stopped when Moratorium went into effect in mid-2008. Said there was a community meeting (end of 07 or early 08). Raf noted that the Band was not necessarily opposed but needed more information before forming opinion. One of the things that they wanted was confirmation of the final use of uranium (i.e., power not bombs). Raf also noted that there is a local trap-line in area. In closing of our conversation he noted that the FN would be open to re-starting talks with Boss if the moratorium was lifted.
		Sept 8 th , 2010
		Brief telephone conversation. Michael was quite vocal in opposition to project - called the project a "travesty". Willing to meet to discuss further.
Big White Ski Resort	Start with - Michael J. Ballingall, Senior VP Sales & Marketing	Follow-up call on Sept 24 th , 2010, as schedules did not allow for a meeting. Very concerned about visual impacts - particularly Open Pit. Concerned about all mining (not just Uranium) in the area - visual impacts regardless. As it stands now he says he already gets negative comments from tourists about clear-cutting in the area.
		Noted that Big White is the economic engine for area during the winter, and anything that could potentially impact that is a concern. Also concerned with potential for increased truck use on Highway 33, particularly during the winter when skiers/tourists are using the road. Called Highway 33 the "lifeline for tourism"
		Nov 1, 2010
Regional District of Kootenay Boundary - Area E district	Bill Baird - Area E Director	Noted that people in the area would strongly oppose the potential project - in fact "overwhelmingly so". Said that in the past meetings that have taken place have gotten "out of hand" - people are passionate about the Kettle River and this project would be located directly in the headwaters - not a good thing.



6.0 POTENTIAL TIMELINES AND COSTS

There are a wide range of factors that could influence the overall EA process, permitting timelines and associated costs including:

• <u>Support / lack of support from local First Nations</u>

Depending on how the project moves forward and how the project is received by local First Nations will affect the overall EA process. Information reviewed to date indicates that there are no agreements in place between Boss Power and local First Nations. It is expected that agreements, such as Impact Benefit Agreements would need to be made with potentially affected First Nations to allow the project to move forward.

• <u>Support / lack of support from local stakeholders/residents</u>

Existing documentation reviewed as part of this assessment notes environmental concerns expressed by local communities and other stakeholders. An extensive public education program would be key if the project were to move forward (e.g., in the Beaverdell-Rock Creek areas). Discussions with Michael Ballingall (Senior VP Sales and Marketing, Big White Ski Resort) indicated significant opposition to the project and extensive concerns related to visual and noise impacts to the resort. Mr. Ballingall also expressed concerns regarding trucking of Yellowcake on Highway 33.

• <u>Requests from Regulators</u>

The level of support or opposition from provincial and federal regulators including the CNSC could influence the overall timeline of the project. The level of requests from regulators (e.g., requests for additional studies, modelling, etc.) would depend on a variety of factors such as final project design (e.g., final design for the tailings management facility, extraction method/approach). The more complicated and or contentious the proposed approach the more time that will be required for approvals.

<u>Company Commitment</u>

A company's commitment (or lack thereof) to make the permitting process a priority can influence timelines. For example, changing project economics can significantly influence the overall project schedule including permitting.

<u>Final Project Design and Mining Approach</u>

Potential mining methods for a deposit such as the Blizzard Property include open pit or in-situ leach (ISL) methods. Each approach has its advantages and disadvantages. For example, open pit extraction methods result in increased site disturbance for tailings facility, waste rock, and overburden, as well as requiring the use of explosives (issues with storage, dust, noise, etc.). By comparison, ISL involves the extraction of uranium by injection of a solution into the ore body (either an acid or alkaline solution) resulting in reduced site disturbance, but can result in significant issues related to groundwater contamination.

The final mining approach selected is considered to be one of the key factors that could significantly influence permitting timelines and associated costs. Reviews completed by other team members indicate that ISL methods would be the preferred mining approach, due to overall project economics. The use of ISL methods in British Columbia is expected to bring with it considerable permitting challenges. One of the main challenges would be the acceptance of ISL methods by regulators, First Nations, communities,

and other stakeholders. The team is not aware of ISL methods being used in Canada, and given the potential concerns and uncertainties associated with this method it is likely that permitting would take longer than that for a project using more "traditional" methods accepted in other parts of the country (e.g., Saskatchewan) such as open pit or underground mining methods. There would be a steep learning curve for both provincial and federal regulators to overcome with regards to ISL methods – a learning curve that the proponent would have to take time to overcome. This would require a range of consultation activities such as education sessions, workshops, open houses, meetings, etc – all taking time and money. One would also expect that regulators would likely look south of the border for guidance and information, where several alkaline leach operations are in operation.

Four (4) permitting scenarios were evaluated to assess their potential implications to costs and timelines including:

Scenario 1 - First Nations, stakeholder and government support – resulting in no significant delays with permitting process.

Scenario 2 - Limited First Nations, stakeholder, and government support resulting in increased consultation requirements, additional studies - resulting in delays with permitting process and potentially increased costs.

Scenario 3 - Extensive pushback by First Nations, stakeholders, and government groups - resulting in significant delays in permitting process.

Scenario 4 – The "no permit" scenario. Permits are denied, or company withdraws application due to intense opposition and/or extended permitting timelines.

Each of the four scenarios was applied to the three potential development options for the Blizzard Property – Open Pit (**Table 3**), Alkaline ISL (**Table 4**), and Acid ISL (**Table 5**). Under the four scenarios, permitting timelines are expected to range from 3 to 8, or more years. For an open pit operation it is the author's opinion that Scenario 3 has the higher probability of occurring, due to the anticipated project opposition from First Nations and other stakeholders which would result in a potentially extended timeline (estimated 6 - 8 years).

The probabilities of success for permitting an ISL operation, regardless of type (acid or alkaline), are expected to be quite low for the various reasons noted previously in this report. The probability of success for permitting an alkaline ISL operation is estimated at 20% with an estimated timeline of up to 8 years. The probability of success for permitting an acid ISL operation is considered to be even lower with an estimated probability of only 10% again with an potential timeline of up to 8 years. This view was echoed in 1979 when a review of the applicability of ISL methods to the Blizzard property was completed by D.A. Sawyer (Norcen 1979). Sawyer concluded that *"I would tend to believe that the licensing of a solution mine in Canada would encounter both difficulty and timely delays since there are no regulations that I am aware of to fully provide for a solution mining operation in Canada"*.

It must be stressed that there exists the real possibility that the project would not be permitted at all (Scenario 4). One only needs to look at some of the recent permitting decisions in British Columbia such as the Kemess North Copper-Gold Mine Project (2007) and more recently the Prosperity Copper-Gold

Mine (2010). Federal approval for the Kemess Project was denied by the Kemess North Mine Joint Review Panel in September 2007. The Panel concluded that development of the project as presented would not be in the public interest (Kemess North Mine Joint Review Panel 2007). In the Panel's view the economic and social benefits provided by the project were outweighed by the risks of significant adverse environmental, social and cultural effects. The Panel also recognized the "consistently strong Aboriginal opposition" to aspects of the project.

In early November 2010, the federal government denied a federal approval for Taseko Mine's Prosperity Project. In this case the federal review panel concluded that the project would result in significant adverse environmental effects on fish and fish habitat, on navigation, on the current use of lands and resources for traditional purposes by First Nations and on cultural heritage, and on certain potential or established aboriginal rights and title (Canadian Environmental Assessment Agency - <u>http://www.ceaa-acee.gc.ca/050/document-eng.cfm?document=46185</u>).

SENES (2008) completed a review of potential environmental associated with uranium mining on behalf of the Alberta Government and noted that a key component of a successful environmental assessment process is the acceptance by local people of any proposed development involving uranium or nuclear technology, and that in many countries, including Canada, interest and lobby groups may strongly oppose uranium mine development and the use of nuclear power. Strong opposition to uranium mining in British Columbia would be expected.

6.1 Environmental Assessment Costs

Potential costs to complete an Environmental Impact Assessment for the project based on an open pit mining approach and using in-situ leaching methods were estimated between \$3.4M and \$5.5M and between \$4.5M and \$6.7M, respectively. Details regarding how these estimates were determined are provided in **Appendix II**. The cost estimates are based on a baseline program focussed on the Blizzard Property only and does not include baseline surveys for either of the Fuki or Hydraulic Lake sites, or other permitting costs (discussed elsewhere in this document). It must also again be stressed that these are estimates only and would be expected to vary once the EA process is initiated and regulators, First Nations, and other stakeholders provide input regarding project specific concerns and issues.

The higher cost estimate for a proposed ISL operation was the result of an expectation that there would be a requirement from regulators for very detailed and extensive groundwater, geological and surface water baseline programs (multiple years / multiple seasons). These detailed programs would be necessary to obtain a full understanding of hydrological and hydrogeological aspects of the project area. Based on information available to date regarding existing geological and groundwater conditions (e.g., Brown, Erdman and Associates, reported in "Hydrogeology of Blizzard Uranium Project" 1979) there is some uncertainty regarding the suitability of this mining method for the Blizzard Property.

Boss Power completed a preliminary assessment of the applicability of ISL methods and determined that the project was not amenable to in-situ leaching (Examination for Discovery of Dr. Stone by T. Gouge October 19, 2010). Reasons for this determination included the presence of unsaturated raised gravel

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Table 3:

Scenario	Scenario Description and Associated Assumptions	Estimated Timeline (years)	ated ine rs)	EA C Estir (rang	EA Costs Estimate (range \$M)	Estimated Probability of Scenario	Notes and Rationale
		Min	Мах	Min	Мах	occurring (%)	
.	-General stakeholder, First Nations and government support of project – good ongoing dialogue between company and groups. -Appropriate agreements in place with First Nations (e.g., Impact Benefits Agreement) -Community opposition minimal (always have some) -Regulators are in agreement with level of effort for baseline programs and their findings -Regulators are in agreement with proposed mining methods/ mine design -Harmonized federal and provincial EA process -Concurrent permitting for other permits (e.g., effluent discharge permit, mines act, etc.)	n	4	\$3.55M	\$5.5M	10% (5-15%)	-A lower probability has been assigned to this permitting scenario occurring due to expected extensive opposition to the project.
Ν	-Ongoing discussions/dialogue with First Nations (some concerns opposition, but not show stoppers; agreements being drafted) -Community opposition requiring additional open houses, meetings, educational sessions -Regulators more or less in agreement with preliminary baseline programs but have requested additional information (e.g., groundwater) -Regulators are questioning some aspects of the proposed mine design (e.g., tailings management facility) -Concurrent permitting for other permits	4	ω	\$3.55M	\$5.5M	30% (25-35%)	-A mid-range probability assigned to this permitting scenario. Under this scenario there would likely be additional time and costs associated with addressing community and First Nation concerns, questions and requests from regulators, etc. -Additional efforts from proponent to alleviate concerns associated with uranium mining including potential downstream effects.
ო	 Significant opposition to the project from First Nations and communities -No agreements with First Nations Ongoing requests from regulators for additional information, studies, etc.; regulators don't agree with preliminary findings (e.g., groundwater modelling) -Regulators are questioning mine design, approach, etc. -No concurrent permitting – proponent does not wish to spend additional money pursuing other permits until license from CNSC granted. 	Q	ω	\$3.55M	\$5.5M+	45% (40-50%)	-Based on information available for the project this is considered to be the more probable permitting scenarios, although it must be stressed that one will not know until the project enters the permitting process and stakeholders, First Nations, and regulators come to the table and discuss specific issues/concerns.
4	 Permits are denied, or company withdraws application Opposition is intense (could include protests, blockades, etc.) No agreements with First Nations and none are expected (Nations are not at the table) Regulators not in agreement with findings, mining approach, etc. 	+ ∞		\$5.5M +		15% (10-20%)	-The potential that the project will not be permitted is a very real possibility particularly given recent federal decisions for mining projects such as North Kemess and Prosperity Projects.
-	Notes:						

Notes: -Environmental cost estimate does not include costs associated with other permitting (provincial permits, etc.)

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Scenario	Scenario Description and Associated Assumptions	Estimated Timeline (vears)	lated line urs)	EA C Estir (rand	EA Costs Estimate (range \$M)	Estimated Probability of	Notes and Rationale
		Min	Max	Min	Max	occurring (%)	
~	-General stakeholder, First Nations and government support of project – good ongoing dialogue between company and groups. -Appropriate agreements in place with First Nations (e.g., Impact Benefits Agreement) -Community opposition minimal -Regulators are in agreement with level of effort for baseline programs and their findings -Regulators are in agreement with proposed ISL mining methods -Harmonized federal and provincial EA process -Concurrent permitting for other permits (e.g., effluent discharge permit, mines act, etc.)	ო	4	\$4.5M	\$6.7M	%0	-Expected concerns / issues regarding the use of ISL methods. ISL methods have not been used in Canada to date -Extensive baseline programs expected to be needed -Scenario not realistic due to anticipated concerns and issues
Ν	-Ongoing discussions/dialogue with First Nations (some concerns opposition, but not show stoppers; agreements being drafted) -Community opposition requiring additional open houses, meetings, educational sessions -Regulators more or less in agreement with preliminary baseline programs but have requested additional information (e.g., groundwater) -Regulators are questioning some aspects of the ISL methodology -Concurrent permitting for other permits	4	ω	\$4.5M	\$6.7M	5% (0-10%)	-Atthough slightly higher, still a low probability of this permitting scenario occurring due to expected concerns / issues regarding the use of ISL methods -ISL methods have not been used in Canada to date
ĸ	-Significant opposition to the project from First Nations and communities -No agreements with First Nations and none are expected (Nations are not at the table) -Expect extensive requests from regulators for information on the ISL process (they will not be familiar with it given that it has not been used in Canada) -Detailed studies required particularly for groundwater, geology, and surface water -Extensive data modelling required to alleviate regulator concerns	Q	ω	\$4.5M	\$6.7M+	15% (10-20%)	-Considerable permitting challenges encountered for ISL method -EA costs expected to be higher due to additional baseline requirements for items such as groundwater. Increased level of effort and costs required for public education, meetings with regulators, etc. to increase comfort with ISL methods
4	-Permits are denied, or company withdraws application -Opposition is intense (could include protests, blockades, etc.) -No agreements with First Nations and none are expected (Nations are not at the table) -Studies indicate concerns with groundwater conditions and connectivity with surface water receptors -Regulators are not willing to approve ISL methods for the project	8	ı	\$6.7M +	ı	80% (75 – 85%)	-Significant environmental concerns with ISL and implications to groundwater. Regulators are not willing to approve ISL methods for the project, even though alkaline methods acceptable in the US
27	Notes: -Environmental cost estimate does not include costs associated with other permitting (provincial permits, etc.)	ng (provir	ncial permi	ts, etc.)			

Dillon Consulting Limited

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Evaluation of Potential Environmental	For the Blizzard Uranium Property

Summary of potential permitting scenarios assessed for Acid ISL Methods Table 5:

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Scenario	Scenario Description and Associated Assumptions	Time (ve	Estimated Timeline (vears)	EA Costs Estimate (range \$M)	osts nate e \$M)	Estimated Probability of Scenario	Notes and Rationale
		Min	Мах	Min	Мах	occurring (%)	
~	-General stakeholder, First Nations and government support of project – good ongoing dialogue between company and groups. -Appropriate agreements in place with First Nations (e.g., Impact Benefits Agreement) -Community opposition minimal -Regulators are in agreement with level of effort for baseline programs and their findings -Regulators are in agreement with proposed ISL mining methods -Harmonized federal and provincial EA process -Concurrent permitting for other permits (e.g., effluent discharge permit, mines act, etc.)	n	4	\$4.5M	\$6.7M	%0	-ISL methods have not been used in Canada to date -Acid ISL methods are not acceptable in North America -Extensive baseline programs expected to be needed -Scenario not realistic due to anticipated concerns and issues
Ν	-Ongoing discussions/dialogue with First Nations (some concerns opposition, but not show stoppers; agreements being drafted) -Community opposition requiring additional open houses, meetings, educational sessions -Regulators more or less in agreement with preliminary baseline programs but have requested additional information (e.g., groundwater) -Regulators are questioning some aspects of the ISL methodology -Concurrent permitting for other permits	4	9	\$4.5M	\$6.7M	%0	-ISL methods have not been used in Canada to date -Acid ISL methods are not acceptable in North America -Scenario not realistic due to anticipated concerns and issues
n	-Significant opposition to the project from First Nations and communities -No agreements with First Nations and none are expected (Nations are not at the table) -Expect extensive requests from regulators for information on the ISL process (they will not be familiar with it given that it has not been used in Canada) -Detailed studies required particularly for groundwater, geology, and surface water. -Extensive data modelling required to alleviate regulator concerns	ω	ω	\$4.5M	\$6.7M+	10% (5-15%)	-Considerable permitting challenges encountered for ISL methods, particularly for acid leach -Very low probability of success -EA costs expected to be higher due to additional baseline requirements for items such as groundwater. Increased level of effort and costs required for public education, meetings with regulators, etc. to increase comfort with ISL methods
4	-Permits are denied, or company withdraws application -Opposition is intense (could include protests, blockades, etc.) -No agreements with First Nations and none are expected (Nations are not at the table) -Studies indicate concerns with groundwater conditions and connectivity with surface water receptors. -Regulators are not willing to approve ISL methods for the project	÷ ∞	ı	\$6.7M +	ı	90% (85 – 95%)	-Significant environmental concerns particularly with acid ISL and implications to groundwater -Regulators are not willing to approve acid ISL methods for the project -Acid ISL method not accepted in the United States and likely would not be acceptable in Canada/BC - this is reflected in the high probability of this scenario occurring
	Notes:						

Notes: -Environmental cost estimate does not include costs associated with other permitting (provincial permits, etc.)

beds (they would require a large amount of leachate to saturate them and to extract uranium) and the concerns regarding the interconnectivity of gravel beds and potential off-site migration of leachate.

6.1.1 Comparison to Other Projects

Currently, the CNSC has applications for five new mines: the Millennium Mine Project in Northern Saskatchewan, the Kiggavik Project in the Kivalliq region of Nunavut, the Matoush Exploration Project in central Québec, and the Midwest and Caribou Projects located at existing mine sites in Northern Saskatchewan. The applications for these projects are ongoing.

Information specific to these projects is generally quite limited, however some background information was available for Strateco's proposed underground Matoush Uranium project in Quebec. A recent news release from Strateco (Newswire, November 11, 2009) indicated that the Environmental Impact Study took 29 months to prepare and cost approximately \$4.5M. This cost was for submission of the study but does not take into account additional costs (and time) that would likely be required to address comments for the public review period. Lecuyer et al. (2010) for the same project cited "Initial licensing cost and Environmental Impact Study" for the project at between \$8M and \$10M. It must be stressed that these numbers are for information purposes only and are not applicable to the Blizzard Property.

6.2 Other Permits

There will be requirements for other permits for the project. These permits would only be issued once a licence has been issued for the project, however it is expected that other permitting activities would be completed concurrently with the EA process. Supporting permits will rely on baseline information collected as part of the EA process and as such it is not expected that additional surveys would need to be collected. Also project design / process information would flow from the completed feasibility study and form part of various permit applications.

Costs associated with the acquisition of other permits are estimated between **\$500,000** and **\$1M.** Final costs will depend on specific regulatory requirements, efficiency of submitting teams, and ability to complete permit applications concurrently (i.e., minimize overlap).

6.3 Monitoring Costs during Operation

There would be various long term monitoring requirements for the Blizzard Project should it enter into production. Process water would likely contain various metals and radium. The extent of these monitoring requirements would depend on a wide range of factors such as the final extraction method / approach selected (Open Pit versus ISL) and specific monitoring commitments / requirements set by approving agencies. Regardless of the final mine design it is expected that there would be significant monitoring requirements for items such as surface water, groundwater, and the aquatic environment (e.g., fish and fish habitat).

Should open pit methods be employed and a tailings management facility constructed there would be additional monitoring requirements under the Metal Mining Effluent Regulations (MMER). Under this regulation companies are required to design and implement an Environmental Effects Monitoring (EEM)

program. The MMER prescribes limits for the discharge of deleterious substances, including arsenic, copper, total cyanide, lead, nickel, radium-226, zinc, pH of effluent, and total suspended solids (TSS), and a requirement for effluent to be non-acutely lethal to rainbow trout. The MMER apply to all Canadian metal mines (except placer mines) that exceeded an effluent flow rate of 50 m³ per day at any time after the Regulations were registered. Mines are defined as facilities where ore is mined or milled and include mines under development, new mines, and reopened mines. An EEM program for the Blizzard property would include monitoring studies for fish (including fish tissues), benthic invertebrates, and effluent and water quality.

If ISL methods are employed it will be extremely important to install a well designed groundwater monitoring system that can detect the potential escape of solutions. This monitoring system would go hand-in-hand with the surface-water monitoring program. Costs would vary depending on the number of monitoring wells installed, frequency of sampling (daily, weekly), and parameters evaluated.

Assuming that suitable reference condition data / information is obtained through EA baseline studies, annual monitoring costs are expected to range between \$300,000 and \$500,000. It must be stressed that costs will vary depending on the required frequency of EEM monitoring (open pit mining) or expanded groundwater and surface water monitoring (ISL methods). Annual monitoring costs would also vary depending if studies / sampling are completed internally or by external consultants.

In addition to monitoring costs there would be various costs associated with maintaining various licences. This is estimated at between **\$50,000** and **\$100,000** per year, with much of this handled internally by the company.

6.4 Reclamation

This section discusses issues related to potential site reclamation activities including bonding, pre-closure remediation, reclamation, closure plan, and post-closure responsibilities. Regardless of the final mining methods selected a detailed reclamation plan would need to be developed and approved before a license would be issued. A detailed reclamation plan would also be part of the project Environmental Assessment.

6.4.1 Open Pit Mining Operation

For an open pit operation reclamation activities would be expected to include provision for:

- removal of all site infrastructure (plant site, buildings, etc.);
- restoration of disturbed areas (open pit, waste dumps, overburden storage areas, roads, etc.); and
- restoration and long-term stabilization of open pit, waste rock areas and tailings facility.

A preliminary estimate of reclamation costs for a potential open pit operation was completed based on the teams interpretation and understanding of the preliminary mine layout presented in Kilborn (1979). Some of the assumptions for this cost estimate include:

- An overall reclamation area of approximately 130 ha (reclaim areas include the pit, basalt dumps, overburden dumps, topsoil dump, tailings area, plant site, lay down area, and roads).
- An on-site crushing plant to produce materials for reclamation work (e.g., stockpiles of crushed basalt). Tailings will receive 1.0 m of cover and all other areas will receive 0.5 m of cover.
- Overburden and topsoil dumps contain necessary material for reclamation. Tailings will receive 1.0 m of cover and all other areas will receive 0.5 m of cover.
- A source of woody debris, such as a saw mill, is available locally to supply organic material for soil amendment.
- Soil amendment costs are not included as a source is unknown and soil deterioration is unknown.
- Site will be cleared of all structures.
- Concrete will be broken up, re-bar salvaged, crushed concrete will be mixed with cap rock material.
- Roads are assumed to be 12 m wide.
- Vegetative cover of native grasses, poplar whips and coniferous seedlings will be planted over all areas.
- Tailings is lined with a geo-membrane and will be capped with a geo-membrane, (a source of clay for capping tailings may be problematic).
- All reclaimed areas will be graded for drainage.
- Pit floor will be filled with an average of 10 m of Basalt fill, covered with crushed rock, overburden/topsoil, and re-vegetated, as per Kilborn design (it may be possible to direct haul basalt material during the life of the mine, however this has not been included in this estimate. This would be assessed as part of the reclamation planning if the project were to move forward).
- Pit surface drainage will be directed to a wetland area east of the pit.

Reclamation costs for an open pit operation at the Blizzard Property are estimated at approximately \$11.7M (Table 6).

ltem	Description	Cost Estimate (2010 \$)
Pit Fill	Est. 33.6 ha	\$5.35M
	Cap ore zone, buttress pit walls in ore zone, swale for surface drainage using Basalt, average 10 m thickness, 2,200,000 t of Basalt required.	
Pit Cap	Est. 33.6 ha	\$1.4M
	Cap with 0.5 m of 15 mm and 0.5 m of overburden/topsoil, grade, add soil amendments, vegetative cover of grasses and trees.	
Basalt	Three basalt dumps (est. 15.2 ha; 18.0 ha; 10.8 ha)	\$1.95M
	Contour in place, cap with 0.5 m of 15 mm and 0.5 m of overburden/topsoil, add soil amendments, vegetative cover of grasses and trees.	
Over	Two overburden areas (est. 9.1 ha and 3.1 ha)	\$67.5K
burden	Material used to reclaim Pit and Basalt dumps, contour in place, add soil amendments, vegetative cover of grasses and trees.	

Table 6:	Summary of	potential reclamation	costs for an open	pit mine at the Blizzard Project.

ltem	Description	Cost Estimate (2010 \$)
Topsoil	Est. 6.7 ha Material used to reclaim Pit and Basalt dumps, contour in place, add soil amendments, vegetative cover of grasses and trees.	\$37K
Tailings	Est. 14.4 ha Contour in place, cap with geo-membrane, cap with 1.0 m of 15 mm and 1.0 m of overburden/topsoil, add soil amendments, vegetative cover of grasses and trees.	\$1,01M
Plant Site	Est. 4.2 ha Scarify, contour in place, cap with 0.5 m of 15 mm and 0.5 m of overburden/topsoil, add soil amendments, vegetative cover of grasses and trees.	\$165K
15 mm Stockpile	Est. 8.1 ha Material used to reclaim all areas, scarify, contour in place, cap with 0.5 m of overburden/topsoil, add soil amendments, vegetative cover of grasses and trees.	\$182K
Lay down	Est. 6.0 ha Scarify, contour in place, cap with 0.5 m of 15 mm and 0.5 m of overburden/topsoil, add soil amendments, vegetative cover of grasses and trees	\$238K
Roads	Est.10,000 m Assume a width of 12 m, 4 passes to scarify, re-contour, pull culverts, add soil amendments, vegetative cover of grasses and trees	\$248K
Sub-total		\$10.65M
Contingend	y (10%)	\$1.06M
Total Estin	nate	\$11.7M

6.4.2 In-Situ Leaching Operation

Although an ISL would result in a much smaller footprint (no waste/tailings) and reduced visible impact when compared to open pit extraction, it would still require the removal and decontamination of surface facilities (plant site, buildings, etc.), the neutralization and stabilisation of the leaching zone(s), and plugging of all wells. The primary steps involved in decommissioning an ISL facility include (from U.S. Nuclear Regulatory Commission 2009):

- Conduct radiological surveys of facilities, process equipment, and materials to evaluate the potential for exposure during decommissioning
- Remove contaminated equipment and materials for disposal at an approved facility or for reuse
- Decontaminate items to be released for unrestricted use
- Clean-up of areas used for contaminated equipment and materials
- Clean-up of evaporation ponds
- Plugging and abandoning wells
- Survey excavated areas for contamination and removal of contamination to meet approved cleanup limits
- backfilling and re-contouring disturbed areas
- re-vegetation and reclamation of disturbed areas
- site monitoring

Of particular importance is the restoration of groundwater to pre-mining conditions and as such groundwater restoration costs would be expected to be a major portion of the cost of decommissioning an ISL facility (Davis and Curtis 2007). Groundwater restoration involves the chemical treatment of the affected area to remove the residual solutions and chemicals from the mined out area and immobilising any elements that have been dissolved into solution by the ISL process, such as arsenic and other trace elements (Mudd 1998). Two widely used techniques for groundwater restoration are "groundwater sweep" and water treatment by reverse osmosis. The amount of time required for restoration would depend on a range of factors including site chemistry, aquifer characteristics, and pre-mining groundwater quality.

Reclamation costs for an ISL operation necessary to service the Blizzard Property are estimated at \$10.7M (as per Alan Riles, AMC Consultants – the author completed a review of alternative extraction options – in situ leaching). This cost is based on the assumption of one full year of decommissioning with the full quantum of operating costs to reflect recovery of residual soluble uranium (with a partially off-setting revenue stream) and acid neutralisation (acid reagent costs assumed to be replaced in full by neutralisation costs). It must be stressed that the reclamation cost estimate is based on a range of assumptions, but is similar to other ISL mines in the United States.

6.4.3 Post-Reclamation Monitoring

For both open pit and ISL approaches it is expected that long-term post-closure site monitoring would be required before the CNSC would issue a license to abandon the property. Post closure monitoring costs have not been estimated as part of this assessment. The type and focus of monitoring will depend to a large degree on how the project is developed and what mining approach is used. It is expected that if ISL methods are employed that an intensive groundwater and surface water monitoring program would be established.

7.0 SUMMARY AND CONCLUSIONS

Environmental Baseline and Site Characteristics

Recent site-specific baseline data is limited. Where information is available it is quite dated and limited to baseline work completed between the mid-1970s to the early 1980's (approximately). Historical data includes surface water, groundwater, sediments, and vegetation. Some broader scale regional data was available from the Ministry of Environment including mapping for various species of interest (e.g., grizzly bear).

- A preliminary overview of potential constraints/issues for development and operation of the Blizzard project indicates potential concerns / issues associated with:
 - Surface water quality (mobilization and migration of metals, acid rock drainage, etc.) including potential downstream impacts.
 - Changes to water quantity (flows and/or lake levels) should the project require water diversions and/or water extraction.
 - Groundwater quality

- Fish and fish habitat
- Wetlands and associated flora and fauna (including potential listed species)
- Large mammals and their habitat (e.g., grizzly bear)
- Rare, threatened, or endangered wildlife
- Rare, threatened, or endangered vegetation and vegetative communities
- Dust from site operation including mobilization and potential exposure to contaminants
- Increased noise, particularly if open pit mining methods used requiring the use of explosives
- Impacts to recreational use of property and surrounding area
- First Nations including potential impacts to traditional uses such as hunting, fishing, and gathering of plants; also potential impacts to archaeological sites / features

Environmental Permitting

- Regardless of the final approach for mining (open pit versus in-situ leaching), the permitting process is expected to be challenging. The process will be influenced by a range of factors including support / opposition from communities and local First Nations, and specific requests from regulators.
- Cost estimates for a project environmental assessment based on an open pit operation are estimated at between \$3.4M and \$5.5M.
- Cost estimate a project environmental assessment based on a mine using In-Situ Leach methods is estimated at \$4.5M and \$6.7M. Higher cost estimate reflects expectation for detailed groundwater, geological, and surface water baseline for this relatively unknown method in Canada.
- Timelines for the permitting scenarios evaluated ranged from 3 to 8 years.
- Expected permitting scenario for a potential open pit operation estimates a time line of between 6 and 8 years, due to the anticipated project opposition from First Nations and other stakeholders.
- The probabilities of success for permitting an ISL operation, regardless of type (acid or alkaline), are expected to be quite low.
- Regardless of proposed mining method there is the possibility that the project would not be permitted at all due to perceived significant adverse environmental, social and cultural effects and/or strong First Nations and community opposition.

Other Costs

- There will other permitting costs in addition to those associated with an environmental assessment. Costs associated with the acquisition of other permits are estimated between \$500,000 and \$1M, although final costs will depend on specific regulatory requirements, efficiency of submitting teams, and ability to complete permit applications concurrently.
- During site operation there will be various long term monitoring requirements for the project (groundwater, surface water, etc.). The extent of these monitoring requirements would depend on a wide range of factors such as regulatory requirements but are estimated to range between \$300,000 and \$500,000.

• During site operational it is expected that there would be costs to maintain and/or update various licenses (as required by regulators). This cost is estimated at between \$50,000 and \$100,000 per year.

Reclamation

- Regardless of the final mining methods selected a detailed reclamation plan would need to be developed and approved before a license would be issued. The detailed reclamation plan would also be part of the project environmental assessment.
- Reclamation costs for a potential open pit operation at the Blizzard Property are estimated at approximately \$11.7M.
- Reclamation costs for a potential ISL operation are estimated at \$10.7M.

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APPENDIX I RESUME - RICHARD POPE

Pages 278 through 293 redacted for the following reasons: S.22

APPENDIX II

LETTER – BIG WHITE SKI RESORT TO THE HONOURABLE WILLIAM BENNETT (DATED MAY 9, 2006)



Snow ... Our Natural Advantage

May 9 2006

The Honourable William Bennett Minister of State for Mining P.O. Box 9070, Stn. Prov. Govt. Victoria, B.C. V8W 9E2

Dear Mr. Bennett:

Re: Uranium Mine near Big White Ski Resort

Big White Ski Resort would like to express grave concern over the creation of a uranium mine at the Blizzard uranium deposit, which is located only 6 kilometres south of Big White.

Big White Ski Resort is an important player for tourism in this Province, attracting visitors and investors from around the world. Big White can currently accommodate 15,500 overnight guests, with more development currently under way. In the 2005/2006 ski season, Big White attracted over 550,000 skier visits.

The proposed uranium mine would have an extremely negative, if not disastrous, impact on our resort particularly at a time when environmental concerns are so prevalent. From a public relations perspective, we are already receiving negative feedback. Real estate investors have told us that they have many choices when selecting a "lifestyle property" to purchase, and they would NOT be interested in purchasing this type of property near a uranium mine. Visitors have expressed similar choices regarding options of places to ski. Investors, visitors and residents are all concerned with radioactivity. Their concerns are not only with their safety at the resort, but also with the perception that the environment is unsafe given the close proximity of the mine.

Drifting RADON gas released from mining presents known hazardous environmental concerns which are completely at odds with the presentation of our resort as a pristine environment for recreational activity. Even if health concerns could be mitigated in mining development plans, the overwhelming fear of radioactivity would remain because of the potential escape of hazardous substances.

Beyond the arguments regarding safety, are those fears of the final destination of the Uranium produced. Arguments over controversial uses such as nuclear bombs and nuclear power plants are also inevitable, and are a subject that Big White would rather not be associated with. Big White would appreciate receiving copies of any environmental impact studies which have or will be conducted related to this proposed mine. Big White would like to see a ban placed on uranium mining in British Columbia, specifically at the Blizzard location. Such a ban would provide positive reassurance to to to train to to the set at a ban be bar would be positive reassurance to to the set at the bar would be bar

This matter is causing great concern. Respectfully, we await your reply.

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Yours truly, Big White Ski Resort Ltd.

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For Peter Schumann President

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APPENDIX III ENVIRONMENTAL ASSESSMENT COST ESTIMATES

-OPEN PIT -IN-SITU LEACHING

> EGM-2011-00095 Page 297

BLIZZARD PROJECT ENVIRONMENTAL IMPACT ASSESSMENT - Cost Estimate OPEN PIT EXTRACTION

Components	Details/Description	Cost Estimate Iow	Cost Estimate high	Assumptions regarding costs
General Tasks				
Background information and data review	Acquisition and summary of existing information is key and allows team to focus effort on areas where information is not readily available.	\$75,000	\$100,000	Final cost will depend on amount of information available. Need to confirm if previous baseline data readiy available. Generally this task is low cost and completed concurrently with other project components.
Environmental Assessment Process				
EA process documentation - CNSC, EAO	development of a project description, workplans for review and approval by regulators, etc.	\$50,000	\$100,000	Final cost will depend on specific information requirements of CSNC and provincial / federal regulators
Meetings and interaction with federal and provincial regulators (CNSC, etc.)	There will be ongoing interaction with provinicial and federal regulators required for the duration of the EA process. Given the potential contentious nature of the project it is expected that there will be numerous meetings to discuss project specifics	\$100,000	\$150,000	Meeting requirements would be better defined as the project moves forward.
Public Consultation/Community Open Houses/ etc.	Public consultation is key for this project. As noted by Christopher (2005) a Public Relations and Education program is needed for the Okanagan Valley and Beaverdell-Rock Creek Areas	\$100,000	\$200,000	Final timing and extent of community meetings will depend to a large degree on how the EA process proceeds, expect multiple meetings/open houses; expect considerable opposition which will require additional meetings to educate/inform public
Liatson with First Nations	Expected that this would be led by company with assistance from their consultants. Given the nature of the project company may hire a FN consultation specialist	\$100,000	\$200,000	Cost difficult to define until intial meetings take place and FN expectations are put on the table.
Atmospheric Environment				
Climate	Collection of relevant data to characterize the climate of the study area, data used to finalize project water budget and also assist with design components such as the tailings facility. Information related to winds (direction speed) also need to evaluate potential dust impacts. Would need to install, monitor, and maintain site specific weather station. Also site-specific snow surveys.	\$100,000	\$150,000	Need to discuss with regulators to determine final scope requirements. Final costs will depend on station set-up, download frequency, etc
Air quality	Baseline air quality data to evaluate potential air-quality issues with the project.	\$100,000	\$150,000	Need to discuss with regulators to determine final scope requirements
Noise	Baseline noise data to evaluate potential noise-related issues with the project.	\$50,000	\$100,000	Need to discuss with regulators to determine final scope requirements
Terrestrial Environment				
Physiography	Topography, landforms, etc.	\$50,000	\$75,000	Need to discuss with regulators to determine final scope requirements

Components	Details/Description	Cost Estimate	Cost Estimate	Assumptions regarding costs
Surficial geology	Surface rock types, surficial material, etc	000	\$50,000	assumes that the necesssary information is obtained from other project components. Information related to ARD / metal leaching will be obtained from a separate site specific program.
Geochemistry - ARD and metal leaching potential	Acid rock drainage (ARD) issues would need to be addressed in detail for the Environmental Assessment. Information would include ABA work, kinetic testing results, etc. A detailed ARD assessment program would need to be competed including static and kinetic AB testing; evaluation of different types of mineralization in the area (i.e., look at different rock types/lithologies - waste rock, ore, etc.).	\$100,000	\$200,000	Need to discuss with regulators to determine final scope requirements
TEM Mapping	Terrestrial Ecosystem Mapping as per provincial standards. Covers soils, vegetation, and wildlife features	\$100,000	\$150,000	Need to discuss with regulators to determine final scope requirements Final area to be assessed will depend to a large degree on the final project footprint
Rare Plants	A rare plant survey will be completed as part of TEM as per provincial standards. Focus of survey will be on areas of potential disturbance (i.e., pit area, tailings area, mill area, and infrastructure).	\$50,000	\$100,000	Assumes that the rare plant survey is completed concurrently with TEM Final area to be assessed will depend to a large degree on the final project footprint. Final scope would be discussed with regulators.
Mammals	Baseline surveys for both large and small mammals. Species of interest such as deer, bear, etc. Also species at risk wildlife information would also becollected as part of TEM Other surveys may include winter track surveys, etc.	\$50,000	\$100,000	Need to discuss with regulators to determine final scope requirements
Birds	Bird surveys as per provincial standards required. Would include breeding bird surveys and raptor surveys, species at risk	\$50,000	\$100,000	complete bird and amphibian work concurrently, also with other project components such as ongoing water quality sampling
Wetlands/Amphibians	Surveys of existing wetlands would need to be completed as per appropriate standards. Baseline amphibian surveys - focus on areas potentially impacted by development such as the tailings area. Other \$50,000 wetland areas northeast and southeast of project area would also need to be evaluated.	\$50,000	\$100,000	Need to discuss with regulators to determine final scope requirements Multiple surveys - spring and early summer
Wildlife Suitability and Capability	Generally for large mammals such as bear, moose, and deer, other species could be added at the request of regulators. Suitability and capability assessment is based on the TEM.	\$50,000	\$100,000	Final species to be selected based on input from regulators
Freshwater Aquatic Environment				

Components	Details/Description	Cost Estimate Iow	Cost Estimate high	Assumptions regarding costs
Surface water quality	A surficial water quality program will be needed to evaluate baseline quality in waterbodies in and around the project area. The Blizzard deposit area is situated at the divide between the Kettle and West Kettle River drainages with local runoff entering Beaverdell Creek. Trapping Creek and Copperkettle Creek. Water quality sampling program needs to be developed and implemented. Monthly sampling at locations in key watercourses and waterbodies including Joan Lake, Lassie Lake, Beaverdell Creek, Sandrift Creek, Trapping Creek, etc.	\$150,000	\$250,000	Final cost will depend on frequency of sampling, number of sampling locations, and parameters selected for analysis
Hydrageology	This baseline component will provide information on aquifers, groundwater movement, groundwater quality, groundwater elevation contours, hydraulic gradients, and groundwater flow directions. Would include characterization of soils.	\$200,000	\$400,000	Size of program both temporally and spatially will depend to a large degree on the final mine design. Scope will also depend on discussions with regulators
Hydrology	Program to evaluate flows within watercourses potentially affected by the project. Water level monitoring stations (water level transducer in stilling wells) would be installed in site watercourses such as Trapping Creek or Beaverdel Creek. Likely will be able to use existing flow information for Kettle Creek. Develop site rating curves (relationship derived between water levels and flows at a watercourse crossing), etc	\$150,000	\$200,000	Scope will also depend on discussions with regulators
	Program to evaluate fish presence/absence and fish habitat within watercourses in and around the project area. Program includes evaluation of benthos and periphyton.	\$100,000	\$150,000	Scope will also depend on discussions with regulators
Heritage and Archaeological Resources Archaeology	Program to include an initial Archaeological Overview Assessment (AOA) followed by a site-specific Archaeological I mpact Assessment (AIA)	\$150,000	\$200,000	Site-specific AIA would needt be completed with assistance from FNs; Scope for follow-up archaeological work will be determined based on the findings of the AOA.
Traditional Use and Traditional Ecological Knowledge	Incorporation of traditional use (TU) and traditional ecological knowledge (TEK) information is a key part of the EA. This task will rely on input from members of the local FNs. Component likely to include detailed assessment of country foods and background levels of metals, etc.	\$200,000	\$250,000	cost will depend on number of FNs - check can they work together and complete one survey? Or will they insist on doing their own for each ot their traditional territories.
Socio-Economics First Nations	Section of EA will summarize information regarding each of the FNs. Information will be from a variety of government sources but will supplemented with information (if provided) from First Nations. Initiate discussions with FNs to obtain other data (discussions can be completed concurrently with discussions related to TU/TEK and archaeology).	\$50,000	\$100,000	Additional details regarding FNs concerns such as archaeology and traditional use covered under other stections. Meetings as required with FNs to discuss demographics, etc.
Land and Resource Use	Review and discuss existing and proposed land use in and around the project area. Existing land use includes forestry, recreation (e.g. fishing), skiing (Big White), etc.	\$50,000	\$100,000	Would require meetings with communities, key stakeholders in the area

Components	Details/Description	Cost Estimate Iow	Cost Estimate hiah	Assumptions regarding costs
Socio-Economics	Baseline description of relevant socio-economic conditions for the impact areas such as information on economic activity, population, demographics, and community services. Information will be used to assess both short-term and long-term positive and negative effects. Section will also review and discuss existing and proposed land use in and around the project area, including recreational use of the area	\$100,000	\$150,000	Would require meetings with communities, key stakeholders in the area
Visual Resources and Aesthetics Assessment	Due to proximity of pit to Big White, there will need to be a visual impact assessment completed. What does the pit look like from the ski hill during construction, operation, and post closure	\$50,000	\$100,000	
Noise Assessment	Due to proximity of pit to Big White, there will need to be a noise mpact assessment completed. What are potential noise levels from activities such as blasting? What could be heard at the ski hill? Kilborn report notes that at least the Basalt will require blasting.	\$50,000	\$75,000	
Human Health Assessment	A detailed assessment of potential health impacts will be key for the EA. Assessment would need to follow ingorous and scientificially defensible risk assessment principles and protocols. Items that would need to need to addressed would include drinking water and country foods. Potential concerns related to potential stadon gas release and the trucking of yellowcake would also need to be addressed.	\$200,000	000'008\$	Communities are very concerned about potential human health impacts
Reporting				
Impact Assessment Document	A detailed EA document will be prepared for submission to the CNSC and other key stakeholders. The assessment will focus on environmentally sensitive areas, habitat features important to wildlife, and other features of concern, and locations will be identified on maps. Linkages of the study area to adjacent natural habitats will be investigated, and their importace on a local and regional level will be assessed. The impact assessment will evaluate potential impacts both spatially and temporally. Key components of the EA will include detailed environmental management plans to address specific areas of concern such as water management, surface water and groundwater quality, ARD issues, erosion and sediment control, etc. Also assessments of accidents and malfunctions, effects of the environment on the project, cumulative effects, climate change, etc. The EA documental effects monitoring plans and follow-up plans.	000,000	\$400,000	Specific project details would be needed to complete the assessment of potential impacts, such as final tailings and waste rock locations, cross-sections, etc. This information will likely flow from a Pre-Feasibility or Feasibility study. Final cost will depend on information available and ability of team to effectly incorporate into EA. Also will depend on format of baseline write-ups.
Post submittal Interaction with regulators				
Follow Requests to EA	It is expected that there will be multiple information requests , requests for clarification, etc. based on the initial EA submission	\$50,000	\$100,000	Final cost will depend on feedback and requests from regultors, FNs, and stakeholders
Follow-up Meetings with Regulators and other Stakeholders	Additional meetings with regulators will be required to discuss and clarify requests	\$50,000	\$100,000	Final cost will depend on feedback and requests from regultors, FNs, and stakeholders. It is expected that other meetings, etc may be required.
	SUB TOTAL	\$3,050,000	\$5,000,000	
	10% CONTINGENCY	\$305,000	\$500,000	
	TOTALS	\$3,355,000	\$5,500,000	

BLIZZARD PROJECT ENVIRONMENTAL IMPACT ASSESSMENT - Cost Estimate OPEN PIT EXTRACTION

General Tasks Acquisition and summer viewiew Background information and data Acquisition and summer viewiew Background information and data Acquisition and summer viewiew Environmental Assessment Process Acquisition and summer viewiew EAD EAD EAO development of a projuction and summer viewiew Meetings and interaction with federal There will be ongoing the EA process. Give and provincial regulators (CNSC, etc.) Public Consultation/Community Open Public consultation is Feducation program is Houses/ etc. Liaison with First Nations Expected that this wo nature of the project consultations			\$100,000 \$400,000 \$400,000 \$400,000 \$400,000 \$400,000 \$400,000 \$400,000 \$400,000 \$400,000 \$400,000 \$150,0000\$100,000 \$150,0000\$100,0000\$10000\$1000\$1000\$1000\$	Cost will depend on amount of information available. Need to confirm if previous baseline data readiy available. Generally this task is low cost and completed concurrently with other project components Final cost will depend on specific information requirements of CSNC and provincial / federal regulators Meeting requirements would be better defined as the project moves forward. Final timing and extent of community meetings will depend to a large degree on how the EA process proceeds; expect multiple and dirinol motions requirement on this defined timing and extent of community meetings will depend to a large degree on how the EA process proceeds; expect multiple
	mmary of existing information is key and allows team to focus effort on areas s not readily available.			Cost will depend on amount of information available. Need to confirm if orevious baseline data readiy available. Generally this task is low cost and completed concurrently with other project components "inal cost will depend on specific information requirements of CSNC and provincial / federal regulators Meeting requirements would be better defined as the project moves forward. The timing and extent of community meetings will depend to a large degree on how the EA process proceeds; expect multiple meetings/open houses; expect considerable opposition which will and under the advected of community meetings will depend to a large degree on how the EA process proceeds; expect multiple
	roject description, workplans for review and approval by regulators, etc. \$: ng interaction with provinicial and federal regulators required for the duration of iven the potential contentious nature of the project it is expected that there will \$: ings to discuss project specifics			Tinal cost will depend on specific information requirements of CSNC and provincial / federal regulators Meeting requirements would be better defined as the project moves orward.
	roject description, workplans for review and approval by regulators, etc. \$: ng interaction with provinicial and federal regulators required for the duration of iven the potential contentious nature of the project it is expected that there will \$: ings to discuss project specifics			Tinal cost will depend on specific information requirements of CSNC and provincial / federal regulators Meeting requirements would be better defined as the project moves onward. The timing and extent of community meetings will depend to a large degree on how the EA process proceeds; expect multiple anetings/open houses; expect considerable opposition which will meetings/open houses; expect considerable opposition which will
	ng interaction with provinicial and federal regulators required for the duration of iven the potential contentious nature of the project it is expected that there will \$; ings to discuss project specifics			Meeting requirements would be better defined as the project moves onward. Final timing and extent of community meetings will depend to a large degree on how the EA process proceeds; expect multiple constructional mostings to produce the ord unable constructional mosting to adduce the ord unable of the pro-
iiy Open				Final timing and extent of community meetings will depend to a large degree on how the EA process proceeds; expect multiple meetings/open houses; expect considerable opposition which will common additional mastime to additional/inform public
	Public consultation is key for this project. As noted by Christopher (2005) a Public Relations and Education program is needed for the Okanagan Valley and Beaverdell-Rock Creek Areas \$			פלמוב מתמווטומו וווכבווואז וט בתמכמיביוויט וו אמטומ
Atmospheric Environment	Expected that this would be led by company with assistance from their consultants. Given the \$,	\$200,000	\$300,000	Cost difficult to define until intial meetings take place and FN expectations are put on the table.
Collection of relevant data to ch project water budget and also a Information related to winds (dir Would need to install, monitor, a Also site-specific snow surveys.	arracterize the climate of the study area, data used to finalize saist with design components such as the tailings facility. ection speed) also need to evaluate potential dust impacts. and maintain site specific weather station.	\$100,000	\$150,000	Need to discuss with regulators to determine final scope requirements. Final costs will depend on station set-up, download frequency, etc
Air quality da	Baseline air quality data to evaluate potential air-quality issues with the project.	\$100,000	\$150,000	Need to discuss with regulators to determine final scope requirements
Noise Baseline noise data t	Baseline noise data to evaluate potential noise-related issues with the project.	\$50,000	\$100,000	Need to discuss with regulators to determine final scope requirements
Terrestrial Environment				
Physiography landforms, etc.		\$50,000	\$75,000	Need to discuss with regulators to determine final scope requirements

Components	Details/Description	Anticipated Cost Iow	Anticipated Cost high	Notes / assumptions regarding costs
Surficial geology	Surface rock types, surficial material, etc	\$50,000	\$100,000	More detail on surface geology, etc will be required with the selection of ISL methods.
Geochemistry - ARD and metal leaching potential	Acid rock drainage (ARD) issues would need to be addressed in detail for the Environmental Assessment. Information would include ABA work, kinetic testing results, etc. A detailed ARD assessment program would need to be competted including static and kinetic AB testing; evaluation of different types of mineralization in the area (i.e., look at different rock types/lithologies - waste rock, ore, etc.).	\$100,000	\$150,000	Need to discuss with regulators to determine final scope requirements
TEM Mapping	Terrestrial Ecosystem Mapping as per provincial standards. Covers soils, vegetation, and wildlife features		\$150,000	Need to discuss with regulators to determine final scope requirements Final area to be assessed will depend to a large degree on the final project footprint
Rare Plants	as per		\$100,000	Assumes that the rare plant survey is completed concurrently with TEM Final area to be assessed will depend to a large degree on the final project footprint. Final scope would be discussed with regulators.
Mammals	Baseline surveys for both large and small mammals. Species of interest such as deer, bear, etc. Also species at risk Wildlife information would also becollected as part of TEM Other surveys may include winter track surveys, etc	\$50,000	\$100,000	Need to discuss with regulators to determine final scope requirements
Birds	Bird surveys as per provincial standards required. Would include breeding bird surveys and raptor surveys; species at risk	\$50,000	\$100,000	complete bird and amphibian work concurrently also with other project components such as ongoing water quality sampling
Wetlands/Amphibians	Surveys of existing wetlands would need to be completed as per appropriate standards. Baseline amphibian surveys - focus on areas potentially impacted by development such as the tailings area. Other wetaind areas northeast and southeast of project area would also need to be evaluated.	\$50,000	\$100,000	Need to discuss with regulators to determine final scope requirements Multiple surveys - spring and early summer
Wildlife Suitability and Capability	Generally for large mammals such as bear, moose, and deer; other species could be added at the \$50,000 request of regulators. Suitability and capability assessment is based on the TEM.		\$100,000	Final species to be selected based on input from regulators
Freshwater Aquatic Environment		-		
Surface water quality	A surficial water quality program will be needed to evaluate baseline quality in waterbodies in and around the project area. The Blizzard deposit area is situated at the divide between the Kettle an West Kettle River drainages with local runoff entering Beaverdell Creek. Trapping Creek and Copperkettle Creek. Water quality sampling program needs to be developed and implemented. Monthly sampling at locations in key watercourses and waterbodies including Joan Lake, Lassie Lake, Beaverdell Creek, Sandrift Creek. Trapping Creek, etc. With the selection of the ISL extraction method, it is expected that there would be are requirement for a more intensive (both frequency and geographic extent) program	\$220,000	\$350,000	Final cost will depend on frequency of sampling, number of sampling locations, and parameters selected for analysis

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Components	Details/Description	Anticipated Cost	Anticipated Cost	Notes / assumptions regarding costs
Hydrogeology	This baseline component will provide information on aquifers, groundwater movement, groundwater quality, groundwater elevation contours, hydraulic gradients, and groundwater flow \$4 directions. Would include characterization of soils.		\$500,000	With selection of ISL methods expect the size of program both temporally and spatially to expand. Will require extensive modelling. Scope will also depend on discussions with regulators
Hydrology	Program to evaluate flows within watercourses potentially affected by the project. Water level monitoring stations (water level transducer in stilling wells) would be installed in site watercourses such as Trapping Creek or Beaverdel Creek. Likely will be able to use existing flow \$150,000 information for Kettle Creek.		\$200,000	Scope will also depend on discussions with regulators
Fish and fish habitat	Program to evaluate fish presence/absence and fish habitat within watercourses in and around th \$100,000 project area. Program includes evaluation of benthos and periphyton.		\$150,000	Scope will also depend on discussions with regulators
Herriage and Archaeological resources Archaeology Sp	ogram to include an initial Archaeological Overview Assessment (AOA) followed by a site- ecific Archaeological Impact Assessment (AIA)	\$150,000	\$200,000	Site-specific AIA would needt be completed with assistance from FNs; Scope for follow-up archaeological work will be determined based on the findings of the AOA.
Traditional Use and Traditional Ecological Knowledge	Incorporation of traditional use (TU) and traditional ecological knowledge (TEK) information is a key part of the EA. This task will rely on input from members of the local FNs. \$2 Component likely to include detailed assessment of country foods and background levels of metals, etc.	\$200,000	\$250,000	cost will depend on number of FNs - check can they work together and complete one survey? Or will they insist on doing their own for each ot their traditional territories.
Socio-Economics				
First Nations	Section of EA will summarize information regarding each of the FNs. Information will be from a variety of government sources but will supplemented with information (if provided) from First Nations. S5 Initiate discussions with FNs to obtain other data (discussions can be completed concurrently with discussions related to TU/TEK and archaeology).	\$50,000	\$100,000	Additional details regarding FNs concerns such as archaeology and traditional use covered under other stections. Meetings as required with FNs to discuss demographics, etc.
Land and Resource Use	Review and discuss existing and proposed land use in and around the project area. Existing land \$50,000 use includes forestry, recreation (e.g, fishing), skiing (Big White), etc.		\$100,000	Would require meetings with communities, key stakeholders in the area
Socio-Economics	Baseline description of relevant socio-economic conditions for the impact areas such as information on economic activity, population, demographics, and community services. Information will be used to assess both short-term and long-term positive and negative effects. Section will also review and discuss existing and proposed land use in and around the project area, including recreational use of the area.	\$100,000	\$150,000	Would require meetings with communities, key stakeholders in the area
Visual Resources and Aesthetics Assessment	Due to proximity of pit to Big White, there will need to be a visual impact assessment completed. \$5 What does the pit look like from the ski hill during construction, operation, and post closure	\$50,000	\$100,000	

Components	Details/Description	Anticipated Cost Iow	Anticipated Cost high	Notes / assumptions regarding costs
Noise Assessment	Due to proximity of pit to Big White, there will need to be a noise mpact assessment completed. What are potential noise levels from activities such as blasting? What could be heard at the ski hill? Kilborn report notes that at least the Basalt will require blasting.	\$50,000	\$75,000	
Human Health Assessment	A detailed assessment of potential health impacts will be key for the EA. Assessment would need to follow rigorous and scientifically defensible risk assessment principles and protocols. Items that would need to addressed would include drinking water and country foods. Potential concerns\$200,000 related to potential radon gas release and the trucking of yellowcake would also need to be addressed and the trucking of yellowcake would also need to be	\$200,000	\$300,000	Communities are very concerned about potential human health impacts.
Reporting				
	A detailed EA document will be prepared for submission to the CNSC and other key stakeholders. The assessment will focus on environmentally sensitive areas, habitat features important to wildlife, and other features of concern, and locations will be identified on maps. Linkages of the study area to adjacent natural habitats will be investigated, and their importance on a local and regional level will be assessed. The impact assessment will evaluate potential impacts both spatially and temporally.			Specific project details would be needed to complete the assessment of
Impact Assessment Document	Key components of the EA will include detailed environmental management plans to address specific areas of concern such as water management, surface water and groundwater quality, ARD issues, erosion and sediment control, etc.	\$400,000	\$500,000	proemean implements, such as mer taimings and waster lock locations, ucoss sections, etc. This information will likely flow from a Pre-Faasibility or Feasibility study.
	Also assessments of accidents and malfunctions, effects of the environment on the project, cumulative effects, climate change, etc			rinal cost will depend on information available and apply of team to effectly incorporate into EA. Also will depend on format of baseline write-ups.
	Present proposed environmental effects monitoring plans and follow-up plans.			
	The EA document will be a large multi-volume document			
Post submittal Interaction with regulators				
Follow Requests to EA	It is expected that there will be multiple information requests , requests for clarification, etc. based on the initial EA submission	\$100,000	\$200,000	Final cost will depend on feedback and requests from regultors, FNs, and stakeholders
Follow-up Meetings with Regulators and other Stakeholders	Additional meetings with regulators will be required to discuss and clarify requests	\$200,000	\$300,000	Final cost will depend on feedback and requests from regultors, FNs, and stakeholders. It is expected that other meetings, etc may be required.
	SUB TOTAL	\$4,125,000	\$6,100,000	
	10% CONTINGENCY	\$412,500	\$610,000	
_	TOTALS	\$4,537,500	\$6,710,000	

APPENDIX 11

EXPERT REPORT ON URANIUM PRICES / MARKETS



The Ux Consulting Company, LLC

Nicolas F. Carter 1501 Macy Drive Roswell, GA 30076 Ph: +1 (770) 642-7745 Fx: +1 (770) 643-2954

5 November 2010

Introduction

I, Nicolas F. Carter, Vice President, Uranium, was contacted by AMC Consultants on June 28, 2010 to perform work as an expert on uranium marketing and pricing as part of the Blizzard Uranium Valuation project. Specifically, I was asked to provide pricing data for what would have been reasonable uranium prices to utilize for Blizzard project valuation purposes on April 24, 2008 and March 12, 2009. Additionally, I was asked to address what the standard industry practice is for selling uranium output from a project such as Blizzard, as well as to provide information from our company database regarding potential comparable sales of projects around the above-noted valuation dates. Later in the project, I was asked to provide a benchmark of operating and capital cost estimates for comparable projects around the dates of the valuations.

I have been employed by The Ux Consulting Company, LLC (UxC) (see Attachment A) for more than 13 years and am currently responsible for managing and coordinating all uranium consulting projects and products, including *The Ux Weekly*, *Uranium Market Outlook*, and *Uranium Suppliers Annual*. I have extensive and varied expertise, providing strategic consulting to major commercial companies in the nuclear fuel industry, and advising governments and international organizations on uranium market and policy issues. My primary job duties involve providing economic analysis and forecasting of the uranium market, specifically in the areas of worldwide U_3O_8 production capability, production costs, and price projections. My resume is attached as Attachment B.

Uranium Market Overview

Uranium (U_3O_8) is purchased on the open market (although some political constraints and restrictions do exist), either through a formal request for quotation (RFQ) process submitted by a buyer, or through more quiet means of direct contact/negotiation initiated by the buyer or through unsolicited offers by the sellers. All market participants can or have played roles as both buyers and sellers.

Historically, the uranium fuel market had over twice the number of participants that were active buyers and sellers than exist today. The downturn in nuclear power, consolidation, and long-term depressed prices reduced the number of participants. However, the number of market participants is once again growing, and as the industry enters into a nuclear renaissance, this number is expected to increase even further.

The end users of uranium fuel are power utilities. There are currently 25 U.S. utilities that have nuclear fuel buying groups, and over 50 utilities, including national programs, outside the U.S. that procure nuclear fuel. Other market participants in the market include uranium producers (about 15 currently producing, and an increasing number of potential new producers, with over 400 companies involved in some form of exploration, acquisition, or project development), other nuclear fuel service/component suppliers – convertors (4), enrichers (4), and fabricators (4) – nuclear fuel traders (5), related nuclear fuel companies, and governments. A relatively new entrant to the nuclear fuel market is the financial community – hedge and investment funds. A small number of nuclear fuel brokers and agents also exist. There are 50 to 60 potential sellers

in the uranium market; however, only about 20 to 30 are normally active at any given time. On the buy side, all sellers also play a role in purchases so combined with utilities, well over 75 worldwide, the pool of potential buyers can range about 125 to 135. UxC has contact with between 80% to 90% of the active market sellers. A much smaller portion of the buyers' pool is regularly active at any given time. Also, due to the more global/regional nature of the buyer population (such as utilities in China, Brazil, Ukraine, etc.), UxC estimates that it has contact with 60% to 75% of the active buyers at any given time.

Uranium Price Reporting

There is no formal exchange for uranium as there is for other commodities such as gold or oil. Uranium price indicators are developed by a small number of private business organizations, like The Ux Consulting Company, LLC (UxC), that independently monitor uranium market activities, including offers, bids, and transactions. Such price indicators are owned by and proprietary to the business that has developed them. The Ux U_3O_8 Price is one of only two weekly uranium price indicators that are accepted by the uranium industry, as witnessed by their inclusion in most "market price" sales contracts, that is, sales contracts with pricing provisions that call for the future uranium delivery price to be equal to the market price at or around the time of delivery.

The Ux U_3O_8 Price is the longest-running weekly uranium price series, dating back two decades. In addition to being used by the industry in sales contracts, Ux price indicators have been referenced by the U.S. Government in the determination of price-tied quotas and for determination of prices in the highly enriched uranium (HEU) deal between the U.S. and Russian Governments. Ux price indicators are also referenced in *The Wall Street Journal* and other major media publications when they discuss uranium price developments.

The world market for physical uranium consumption is about 180 million pounds U_3O_8 per year. A large volume of bilateral transactions are settled at least in part if not wholly on the Ux U_3O_8 Price and thus are accepted by virtually all market participants. Two of the largest uranium suppliers in the world, Cameco and AREVA, tie the prices paid under their contracts to published industry indicators such as the Ux U_3O_8 Price. For Cameco and AREVA it is 60% (as reported in each company's annual reports), while for Kazatomprom, the world's largest uranium supplier, nearly 100% of contracts are linked to published industry indicators. Newer producers such as Uranium One and Paladin have reported that all of their contracts have prices that are 100% indexed to indicators such as the Ux U_3O_8 Price. In recent years, the vast majority of new contracts signed have prices that are indexed to indicators such as the Ux U_3O_8 Price. These movements show a considerable amount of trust and confidence in the price indicators by the nuclear fuel industry, both on the buy and sell sides.

Ux Consulting employs a team of experts that collectively have over one hundred years of uranium market and industry experience to assess price-related data and analyze developments that affect the uranium market. It is important to note that, at all times, UxC remains an independent and unbiased entity in the acquisition, analysis, development, and reporting of uranium pricing data. Compliance with this policy has gained the long-term trust of the industry that UxC's price indicators are accurate and reflect true competitive market conditions.

Ux Price Indicator Definition

The **Ux U₃O₈ Price** is based on the most competitive offer of which UxC is aware, subject to specified form, quantity, and delivery timeframe considerations (all subject to change). It is thus

not necessarily based on completed transactions (although a transaction embodies an offer and its acceptance). The "spot" market in uranium has traditionally involved contracts calling for delivery as far out as 12 months, although more recently deliveries take place in the forward one to three month period.

In its *Ux Weekly* publication, UxC goes into considerable detail about market developments, including recent and pending transactions, outstanding requests for supply, and the changing terms and conditions that characterize the market. UxC not only covers the spot uranium market, but also the market for long-term contracts, as well as the spot and term markets for conversion and enrichment. Important insights can be gained by examining the trends in different markets, as well as the changing contracting and procurement policies of the industry. Thus, it is important to know more than just a single price to understand what's happening in the uranium market, as well as other nuclear fuel markets.

Ux U₃O₈ Price – An Industry Benchmark

Over time, the Ux U_3O_8 Price became the leading industry accepted price indicator used in market-related pricing mechanisms. The results of surveys done in 2003 and 2004 by an independent consultant firm¹ reflect UxC's market leadership in price reporting. Below is an excerpt from one of the survey summaries.

Excerpt from FreshFuel - April, 7, 2003 © Washington Nuclear Corp.

"Regarding the issue of uranium spot market price, the respondents were asked to rank order the five industry indicators in terms of accuracy, usefulness, validity, and integrity. In this instance, 65% of the total respondents provided input. The results are as follows (once again, the highest ranking is listed first):

- Ux Weekly Price
- TradeTech (Nuexco Exchange Value)
- Nukem Price Range
- UPIS
- NuclearFuel"

"The next question asked for a ranking of long term market price indicators based upon the same criteria of accuracy, usefulness, validity and integrity.

- Ux Weekly Price
- TradeTech (Long Term Price Indicator)
- Nukem Market Range
- TradeTech (Nuexco Exchange Value)
- UPIS (tied with Nuexco Exchange Value)
- NuclearFuel"

"The Ux Weekly Price and the TradeTech/Nuexco Exchange Value are considered to be the leaders in uranium price indicators **although some 73%** of the respondents considered the Ux Weekly Price to be the prime indicator compared to both the Nuexco Exchange Value and UPIS, which garnered only 9% support for the number 1 ranking."

¹ Washington Nuclear Corporation performed industry surveys, including views on price reporting, publishing the results in its *FreshFuel* newsletter on April 7, 2003 (Vol. 19, No. 705) and February 16, 2004.

UxC Support

I provided AMC Consultants with UxC Spot Price forecast scenarios from our 4th Quarter 2008 Uranium Market Outlook report and 1st Quarter 2009 Uranium Market Outlook report, which were published around the time of the valuation dates (attached as Appendix A). These forecasts included high, base, and low price scenarios out through 2020. Additionally, AMC Consultants was provided with both historical weekly and monthly spot U_3O_8 prices, as well as the monthly long-term U_3O_8 prices (Uranium Prices.xls). I also provided input on how long term U_3O_8 prices relate to prices for future deliveries, with delivery timeframe typically greater than or equal to 24 months, not contemporaneous ones, providing the specific definition for the long term price. While it has been noted that the long-term U_3O_8 price is more reflective of producers' costs and thus is not subject to the vagaries of the inventory-driven spot market, I stressed that it does not necessarily follow that the long-term U_3O_8 price is a good reference price for long-term contracts, precisely since one is already referencing a forward price.

In a later task, I provided AMC Consultants with a benchmark of operating and capital costs for comparable projects under development – which included ISL, underground, and open pit mines – by global region from our database. AMC was also given a list of project acquisitions by region around the time of the Blizzard evaluations for comparison purposes (attached as Appendix B).

ATTACHMENT A

Background on Ux Consulting Company LLC

The Ux Consulting Company, LLC (UxC) is one of the nuclear industry's leading consulting companies. UxC offer a wide range of services spanning the full fuel cycle with special focus on market-related issues. The company was founded in March 1994 as an affiliate of The Uranium Exchange Company (Ux), in order to extend and provide greater focus to Ux's consulting and information services capabilities. Over time, UxC has taken over these functions and now publishes the *Ux Weekly*® and *Market Outlook* reports on uranium, enrichment, conversion, and fabrication as well as publishing the industry standard Ux Prices, referenced in many fuel contracts.

While publications are an important part of UxC's services, UxC is foremost a traditional consulting firm providing a vast array of custom consulting services. In addition, UxC also prepares special reports on key topics of interest, as well as provides data services, such as nuclear fuel price indicator reporting, including support for the New York Mercantile Exchange (NYMEX) uranium futures contract. Given our industry experience, strong analytical skills, comprehensive data, and our team of external consultants, UxC is poised to provide the most complete consulting and information services in the nuclear fuel industry and related nuclear power sectors.

UxC is probably best known for its price reporting services, including the weekly reporting of the Ux U3O8 Price®. Dating back over two decades, the Ux U3O8 Price® indicator is the longestrunning weekly uranium price series. In addition to being used by the industry in sales contracts, Ux Price indicators have been referenced by the U.S. Government in the determination of price-tied quotas and for determination of prices in the highly enriched uranium (HEU) deal between the U.S. and Russian Governments. The Ux U3O8 Price® is also used as the official settlement price for the NYMEX UxC Uranium Futures Contract (UX). Ux Price indicators are also referenced in *The Wall Street Journal* and other major media publications when they discuss uranium price developments.

UxC is also known for its data collection with respect to supply and demand, and market transactions for uranium, conversion, and enrichment. As part of its price reporting and consulting services, UxC has developed an extensive database of transactions. While detailed information in this database remains confidential, UxC provides trending analysis as part of its consulting services. UxC also provides detailed forecasts based on various methodologies and forecasting models, including reactor requirements forecasts and uranium production cost curves.

Page 312 redacted for the following reason: S.22 Appendix A

Uranium Price Forecast Scenarios relevant to Blizzard Valuation Dates

2008

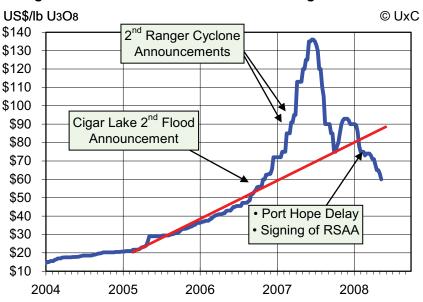
6 - Market Outlook and Price Forecast

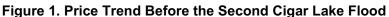
Near-Term Outlook for Spot Prices

After quickly dropping last quarter to \$75, the spot price has continued its downward trend and now finds itself at \$63 at the time of this writing. The looming question is whether the spot price has more room to fall, or are we now near a bottom where spot buying becomes much more attractive given the \$27 discount to the term price.

Are we at the bottom?

Looking at Figure 1, the spot price is well below our red trend line that has been utilized for some time now in our analysis. At the current spot price of \$63, the trend line is about \$25 higher, or near where our current long-term price of \$90 lies. This brings into question whether the spot price is now near the bottom, and perhaps due for a correction. In the price run-up last fall, the spot price rebounded from a low of \$75 and then peaked at \$93. From a technical standpoint, we are seeing price support in the \$60-\$65 range, and the previous low of \$75 appears to be somewhat of a resistance point going forward and also is almost the midpoint between \$63 and \$90. Thus, it sounds feasible that we might be commencing a new mini price cycle shortly with a move toward \$75 that may serve as a new equilibrium price.





Another way of looking at the market is by utilizing the Tullett Prebon FIP (fund implied price) which is derived from the implicit uranium value in uranium investment funds. As shown in **Error! Reference source not found.**, the FIP has been a leading indicator of the spot price, as the spot price has tended to lag the FIP by a range of 2-4 weeks. As of this writing, the FIP has increased to \$68.05 after bottoming at around \$58 last month. Interestingly enough, the recent FIP bottom and subsequent movement higher supports the notion that the spot price is due for a reversal in direction. Accordingly, a spot price move back to the \$75 level may not be that far off.

Figure 2. Ux U₃O₈ Price vs. Tullett Prebon Fund Implied Price (FIP), 2006-2008

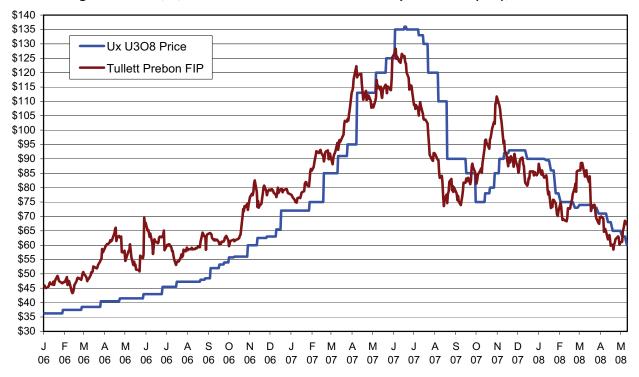


Figure 2. Ux U₃O₈ Price vs. Tullett Prebon Fund Implied Price (FIP), 2006-2008

Another way to analyze the potential future movement in the spot price is through the NYMEX UxC U_3O_8 Futures Contract Activity. The December 2008 contract price is at \$68, while the June 2009 and December 2008 contract prices are at \$74. Again, this technically supports a move in the spot price towards \$75 in the future, following along the lines of the FIP, and our trend line analysis. While there is no way to tell whether we have reached a bottom for certain, the above-mentioned clues are pointing to this.

Outlook – 3 Months

In the previous report, we had a 3-month price range (through April) of \$65-\$95. The spot price continued to plummet over the last three months and ended up testing the bottom of this range, ending April at \$65 per pound. We noted that last October's decline in the spot price to \$75 would be a technical area of support for price during the first quarter in that many aggressive sellers had already placed significant amounts of material and February is historically a strong month for price.

As it turns out, none of the above occurred, and our argument for lower prices was right on par. Available supply continued to push the spot price lower as actual demand has more or less remained absent from the market. Much of this supply came from investors and hedge funds that looked to

Table 1. 3-Mon Varia	
Current	Range
Table 2. 12-Month Spot Price Variance	
	-
	-
Varia	ince

profit on closing out some of their positions as the stock market and other commodities suffered losses during the first quarter of the year. Additionally, some of the investor material has been sold into mid-term contracts to brokers/traders, who have in turn placed this material into the spot market by trading on the margins.

To the upside, we have set \$75 as our limit, mainly because we expect the \$60-\$65 range to attract some interest from utilities and producers. The current spot price of \$63 is at a discount of \$27 to the term price and is attractive from a buy/hold point of view. It is our contention that producers will also be looking to make more spot purchases in support of the price at the \$60 level, especially since many of their long-term contracts are more heavily weighted to spot market prices. Furthermore, producers are fully aware of their past production problems, and will likely look to build inventory as a cushion in the event of future production disruptions. From an investor/hedge fund point of view, many of the junior uranium stocks are beaten up, and the acquisition of both cheap company shares and physical uranium begins to look more favorable for a quick profit should price rebound.

To the downside, we have set \$55 as our limit, mainly because there are pockets of supply still available and it only takes one aggressive seller to push price lower, as was demonstrated last fall and again earlier this year. We are also entering the early summer season, which is typically rather slow from a utility point of view, and it may take more aggressive selling in order to entice buyers given that the majority of utility unfilled needs are covered through the end of 2009. However, buyers need to recognize that at this downward limit of \$55, there is a greater chance that the spot price could rebound quickly if producers, traders or investors end up diving into the market quickly to clear out existing supplies. And if this is somehow combined with production problems, a significant price rebound could result.

• Outlook – 12 Months

Going out the next twelve months, we have lowered the spot price range to \$55 to \$90, indicating that we still foresee the potential for significant upward pressure on the spot price, but less so than last quarter when the upper end of our range was \$100. Supporting a move to the downside, we expect that spot demand may hold near its current level through the early summer period, in which case the spot price could be susceptible to downward pressure and conceivably hit the lower limit of \$55. However, by late summer and early fall, we anticipate that spot demand should pick up as potential buyers look to cover any remaining unfilled needs in late 2009 and into 2010. This demand could even be stronger if the summer period is met with increased buying on behalf of producers, traders and investor/hedge funds. In fact, we are aware of at least one new investor fund –Deutsche Bank – that has indicated in industry

publications that it could purchase up to 2 million pounds of U_3O_8 equivalent within the next several months.

In terms of sellers over the next 12 months, the most active groups are expected to be brokers/traders and investor/hedge funds, although it is expected they may be less aggressive going forward given the recent notable pullback in price. In fact, these two groups could again become net buyers of material if they foresee the opportunity to capitalize on a price rebound. Primary producers may sell a small amount of material into the market over the next 12 months, but their main preference would be to capture higher prices through the term market. It is more likely that the smaller producers such as Denison, Heathgate, Mestena, and Paladin could make material available in the next 12 months depending on their production rates. As far as the potential for a DOE auction, we do not foresee this happening within the next year; however, material certainly could be sold later in 2009, but this would likely have a bigger impact on the term market.

It should be noted that this outlook does not assume any major shocks to production, as these could result in the spot price rebounding much higher depending on the severity of the disruption.

Medium-Term Outlook (2009-2011)

The period from 2009-2011 is important in the transition to a more productiondriven market, particularly as the U.S.-Russia HEU deal comes to a close by 2013. Missing targeted production plans slightly would not necessarily be detrimental to the market, but missing them severely would certainly cause the price to turn higher. On the flip side, meeting or exceeding targeted plans could result in stagnant or lower prices in this period, especially since most of the growth in requirements in the Far East, Russia, and South Africa is beyond the medium-term outlook.

In the last report, we noted the number of positive developments related to production. Since then, we have received a number of mixed developments, but the overall production trend still remains favorable. While this positive production trend does not guarantee that we will be free of disruptions or problems in the long-term, it does help minimize risk in the medium-term. Some of the key factors influencing the market over the medium term are examined below.

Production Developments

For a while now, we have been focusing on certain key production projects or countries to determine the extent to which production can increase going forward. Below we examine their recent progress/shortcomings and how this is likely to impact the market over the medium to long-term.

Kazakhstan

Over the past few years, the country has come close to meeting its production target on an annual basis. In 2007, Kazakhstan produced 17.26 million pounds U_3O_8 , and has plans to produce 15,400 tU (~40 million pounds U_3O_8) by 2010 and 18,200 tU (~47.3 million pounds U_3O_8) by 2011. This represents planned Kazakh production growth of an additional 30 million pounds per year or 174% from 2007 to 2011, which more than exceeds the annual loss from the U.S.-Russian HEU Agreement in the period beyond 2013. The big question here is whether Kazakhstan can come close to meeting its production targets in 2008 through 2011. If it does, the market will not likely move much higher from its current price level and could conceivably be pushed lower with this vast amount of relatively low-cost production reaching the market. However, if Kazakhstan fails to come close to these production levels due to infrastructure problems or other unknown interferences, the market will rely more heavily on production from other higher-cost projects, which certainly would force prices higher. Accordingly, Kazakhstan is a huge wild card in both the medium and long-term outlook, and developments there should be monitored closely.

Niger

AREVA is banking on the new Imouraren mine in Niger to meet its planned growth in production going forward. AREVA plans to produce about about 5,000 tU (~13 million pounds U_3O_8) per year from Imouraren, with production scheduled to commence in the 2011/2012 period. However, there are a number of challenges at Imouraren, including its remote location (about 80 kilometers south of the Arlit mine) and the low grade of the ore. AREVA is committing to spend US\$1 billion to develop the project, which is a vast expenditure in a market being impacted now by falling prices. Perhaps the big question here is whether the price will stay high enough to support this new project, or will customers pay a premium to help underwrite the project. Imouraren is also in an area under the influence of the Tuareg rebels, which is certainly not a positive factor going forward.

Cigar Lake

In mid-February, Cameco noted that it had made significant progress in remediating efforts at Cigar Lake. Testing the effectiveness of the seal by pumping water down the shaft showed encouraging results. However, the mine must still be dewatered and its structural integrity must be examined. While the company continues to anticipate production startup by 2011 at the earliest, startup in the 2012/2013 timeframe is probably more realistic. The key question here is whether Cameco and AREVA are overcommitted in this timeframe. Any further delay in the project would certainly force upward pressure on both spot and term prices, as Cigar Lake represents annual capacity of 18 million pounds per year. And as we noted in the last report, production from Cigar Lake is imperative for AREVA and Cameco by 2014 since the two entities will no longer be receiving HEU feed from Russia.

Will low prices impact projects under development?

We noted above that higher cost projects such as AREVA's Imouraren in Niger could be impacted by the current lower prices in the market. We have witnessed the spot price pullback from \$75 last quarter to its current value of \$63. While most new projects have costs below this level, a price move much lower could certainly remove a percentage of these new projects from the drawing board as they struggle to obtain private capital for development. Thus, while low prices are appeasing utilities in the near-term, the declining price environment is not necessarily beneficial over the mid- and long-term.

Governments seek bigger returns on projects

While new and existing producers look to bring new projects online, some of them are encountering government interference in their production plans. In Niger, the government has demanded that it be allowed to market a greater share of future domestic production and receive higher prices from AREVA for its ownership share in the Somair and Cominak mines. Similarly, in Kazakhstan, Kazatomprom demanded that Cameco award it an increased share of expanded production from the future doubling of production at the Inkai joint venture. Additionally, Kazatomprom sought a new conversion plant as part of the deal. AREVA has also reportedly encountered similar problems with Kazatomprom in attempting to double future production from its Katco joint venture, with an unconfirmed rumor that Kazatomprom asked for an interest in the Eurodif enrichment enterprise in exchange. Going forward, we may see other governments attempt to follow suit in obtaining more value from uranium mining, primarily through royalties or taxation. The result of this could certainly lead to more upward price pressure in the mid-term, especially if the rate of production expansion is impacted.

Demand Issues

In the 2009-2011 timeframe, there is little uncertainty about demand, or at least reactor requirements, since these are relatively well-known and there is not much variance in requirements over such a short period of time.

Low Utility Unfilled Requirements

As we noted last quarter, the long-term contracting volumes over the last three years have resulted in unfilled requirements declining considerably over the period from 2009 through 2011. As a result, we have seen actual spot demand by utilities fall off during the first quarter of this year, and we could see this trend continue for the remainder of the year and potentially into 2009. Total unfilled requirements increase from 5.6 million pounds U_3O_8 in 2009 to 25.7 million pounds U_3O_8 by 2011. Given that the higher unfilled requirements are in the out years (2010 and 2011), it will take some time for demand to build unless buyers take advantage of the existing low price environment and entertain the buy/hold option.

Speculative Demand

Speculative demand has fallen off significantly since last October when the uranium price began its first retreat. Now that the spot price has fallen even further, speculator demand is again increasing, and Deutsche Bank is rumored to be interested in buying spot material in the near-term for one of its funds. If such a move is made, this could spur a new round of interest from the investment community, particularly if they believe uranium is an undervalued commodity in a world moving toward carbon-free emissions. With nuclear power forecasted to play a much larger role worldwide in future carbon-free electricity generation, it may only be a matter of time before the larger investor community jumps aboard the uranium bandwagon.

HEU Deal

Western buyers of HEU feed are continuing to negotiate with Russia on the new pricing structure of the HEU feed. Although this is basically a matter of income redistribution, higher costs to the buyers could preclude them from selling some of the future material into the spot market if the margins are not high enough. Additionally, it is not known whether Russia will institute a tiered pricing structure whereby a higher price is paid for feed above a base allotment over the next few years. Should such a pricing mechanism be utilized (pure speculation at this point), this could potentially result in less feed entering the market in the forward period.

Table 3 on the following page presents bullish and bearish arguments for the direction of spot prices over the next few years.

Table 3. Arguments for 2009-2011 Price Movements

Bullish Case

Uranium Costs are Increasing – Costs of production are increasing as input supplies to producers are stressed. Electricity is in short supply in South Africa and sulfuric acid seems to be in short supply everywhere. In fact, higher sulfuric acid costs add about \$3 per pound to the cost of uranium, in some areas. Also, carbon taxes are going to raise the costs of other products used by uranium producers to the extent that these products are very energy intensive to produce.

Lower Prices to Take Toll on Production -Falling prices this ear will impact production in the 2009-2011 period as some juniors will not be able to go forth with their projects and countries like Kazakhstan will cut back on their expansion plans. These reactions will translate into higher prices, potentially much higher if production is cut back or delayed too much relative to the demands placed on the market in that period.

China and India – Our unfilled requirements data do not include all uncovered needs for China and India, as these countries are new entrants to the market, and, in the case of India, is not allowed to participate in the mainstream market. Demand in these countries is not just limited to uranium needed to fuel reactors, but also uranium associated with any inventory building that is planned. China is also looking to purchase reserves in the ground, which means these supplies will not be available to others.

Are Producers Short? – While we report that uncovered requirements for utilities appear to be low over the next couple of years, there is concern that some producers and reactor vendors may be overcommitted in the future, especially since utilities are counting on them for future supply.

SWU Shortage – Euratom recently conducted a survey that raised concern that European utilities may face SWU shortages over the 2010-2013 period depending on how the expansion of European SWU capacity progresses. This is a critical period for the uranium market as many large producers are close to being sold out in this period, and any problems with enrichment

Bearish Case

Sulfuric acid issue overblown – In the last several months, much discussion has been made about the potential sulfuric acid shortage in Kazakhstan and its potential impact on production. While it might affect the market in the very near-term, Cameco and Uranium One have already found alternate suppliers of sulfuric acid for their joint ventures with Kazatomprom. And if Kazakhstan even produces 75% of targeted production capacity over the next few years, this is potentially enough to move prices even lower.

Beware of the Juniors – New projects coming online from junior and mid-tier producers will compete with production from the senior producers in the 2009-2011 period. Known producers such as Heathgate, Mestena, Paladin, and Uranium One have indicated they have uncovered positions in the next few years. Throw in others –First Uranium, Forsys, Uranerz, Ur-Energy and Uranium Energy – and supplies increase significantly.

DOE Inventories Coming – DOE stated in March that it intends to introduce inventory to the market not to exceed 10% of total annual U.S. reactor fuel requirements. This means that up to 5 million pounds U_3O_8 of inventory could enter the U.S. market on an annual basis.

Reactors will be Delayed – Just as many production centers have faced delays and disruptions over the past three years, a similar situation will happen with planned reactors. Forging capacity is limited, as Japan Steel Works is currently the only company capable of forging large reactor components. Reactor growth plans have been laid out for the U.S. and Russia, but both countries have historically experienced delays and cost overruns.

Dollar to Rebound – No, the U.S. dollar did not make the NBA playoffs, but it has shown some recent strength against the Canadian dollar and South Africa rand; however, it is still struggling against the Australian dollar. With the drop in U.S. interest rates about to come to an end, this should help the U.S. dollar from

being further devalued, with room to move higher heading into the national election in November.

Long-Term Outlook (2012-on)

The long-term outlook remains favorable for nuclear power, particularly with global warming and climate change fears impacting the use of fossil fuels. Moreover, there remains the need for new production to fill the void resulting from the end of the U.S.-Russian HEU deal and meet the demand of the nuclear renaissance that lies ahead.

Nuclear Power Growth

A crucial component to future demand is the extent of reactor growth, which depends on a number of factors including economic growth, public acceptance of nuclear power, preferred mix of generating capacity, energy security, and global warming/climate change. Of all these factors, global warming/climate change is one that stands out since the dilemma could result in significant increases in the use of nuclear power to provide clean energy to both the developed and developing world in a carbon-neutral manner.

Global Warming/Climate Change

Some of the major CO_2 emitting countries, like Japan, are planning increases in nuclear power as a way to reduce their carbon emissions. However, as we all know, the U.S., China, India and some other major energy consuming nations have yet to implement national policies to force the reduction of carbon emissions. The U.S. is starting to see a national coalition of policymakers evolve that will likely change the current policy status quo. Ultimately it is likely that policies both in the OECD countries, as well as in many of the leading emerging economies, will require steps to be taken to reduce greenhouse gas emissions.

Of all the climate change proposals in the U.S., S. 2191, the Lieberman-Warner Climate Security Act of 2007, is considered to be the most likely to find traction among a large number of Senators and Congressman. The basic thrust of S. 2191 is to require the U.S. Environmental Protection Agency (EPA) to establish a cap-and-trade program aimed at reducing the emission of greenhouse gases (GHG) in the U.S over the 2010-2050 period. Under EIA's Core Case, S.2191 causes U.S. nuclear power generation to increase from 787 billion kWh in 2006 to 979 billion kWh in 2020 (24% increase over 2006), and to 2,877 billion kWh in 2030 (265% increase over 2006). Under EIA's High Cost Case (where nuclear costs are 50% higher than in the Core Case), S.2191 causes U.S. nuclear power generation to increase from 787 billion kWh in 2030 (86% increase over 2006), and to 1,460 billion kWh in 2030 (86% increase over 2006).

Growth Challenges Ahead

While there has been much discussion in the industry surrounding the difficulties and challenges of expanding and bringing online new production in the past few years, little discussion often surfaces around the challenges to building new reactors. Among these challenges are financial and economic risks, supply chain constraints, labor inadequacies, role of government and perception of need for subsidies, used fuel issues, safety and environmental concerns, security and terrorism fears, nonproliferation issues, and overall public and policymaker acceptance. From a capacity standpoint going forward, perhaps the biggest issue is heavy forging capacity. Japan Steel Works is currently the only company in the world capable of forging all large reactor components, and the company is expanding from 5.5 reactors per year to 8.5 reactors per year in 2010. Additional capacity is projected from other companies, but some of these companies will need firm orders before committing the necessary capital.

So while production disruptions and delays have become common in the uranium production industry, the same is likely to happen on the demand side. We have already witnessed a delay in the startup of Olkiluoto 3 in Finland, and delays have been common historically with U.S., Eastern European and Western European new builds. To expect things to change this time is perhaps too optimistic.

Kazakh/Australian Production Expansion

With the U.S.-Russian HEU Agreement coming to a close in 2013, about 24 million pounds U_3O_8 equivalent per year will be lost from the market. Kazakh production is already expected to be a major source in filling in the medium term void, but development there and in Australia will also be critical to meeting demand from the nuclear renaissance that lies ahead. Kazakhstan currently has plans to boost production from 15,400 tU (~40 million pounds U_3O_8) in 2010 to 30,950 tU (~80.5 million pounds U_3O_8) in 2020. Similarly, Australian production could expand significantly over the long-term from just the tripling of production from the Olympic Dam mine alone. BHP Billiton is likely to begin expanding the Olympic Dam mine around the 2014/2015 timeframe from a capacity of about 10 million pounds U_3O_8 to over 30 million pounds U_3O_8 in the 2020-2025 timeframe. Additionally, an expansion to near 60 million pounds U_3O_8 has been discussed. Therefore, Kazakhstan and Australian production could grow by at least 60 million pounds U_3O_8 per year or 120% from 2010 to around 2020.

One major concern is whether all this additional production will be necessary in this timeframe, especially with new production growth expected from Africa and Canada as well. Even if new demand emerges as planned, there could be some downward pressure on price out in the 2013-2020 period if the above-mentioned production plans remain. However, in all practicality, it would not be surprising to see a scale-back in forward production plans, especially if the spot uranium price continues to hover near its current price level or lower.

UxC Price Projections

Table 4 lists key factors that are taken into consideration in developing each of the scenarios, along with a description of each. The scenarios examined – Mid Price, High Price, and Low Price – have changed from what has traditionally been examined due to the evolving nature of the market. The Low Price scenario replaces the Price Spike scenario in our previous reports. Also, the key assumptions, listed in Table 4, have changed somewhat to better reflect the factors driving today's market. The price scenarios themselves along with supporting discussion start on page 23.

Table 4. H	Key Factors Used to Develop Price Forecasts
Factor	Description
Requirements	The level of projected uranium requirements for utilities worldwide.
Inventory Demand	Demand associated with both utilities and producers seeking to build strategic stocks to secure against future supply problems.
Production Response	How quickly production is likely to respond to market conditions and specific assumption about major production sources.
Exchange Rates	This assumption relates to the strength of the U.S. dollar versus producer currencies since the price of uranium is expressed in U.S. dollars but most production comes from outside of the United States.
Investor Activity	Buying or selling by hedge funds and investors.
SWU Developments	This assumption encompasses such developments as expansion of enrichment capacity, restrictions on the import of Russian enrichment and their effect on operational tails assays.
HEU Feed Availability	The availability of HEU feed, both during the term of the HEU deal and after the deal expires.
Other Secondary Supply	This primarily includes sales of DOE inventories in various forms.

Price Projection Definitions

- Scenarios Four scenarios are presented: Mid, High, Low, and Composite. The scenarios produce different results both because the underlying assumptions are different and because of the way market participants are projected to react to market developments. The underlying supply/demand assumptions are given on the following pages along with the price projections.
- **Prices** The projected prices are given as annual midpoint values expressed in terms of current, year-of-delivery dollars. Underlying this forecast is the assumption that inflation will increase to moderate levels, and that costs specific to uranium production will be under greater upward

pressure than general inflation, and these costs will be passed on to consumers.

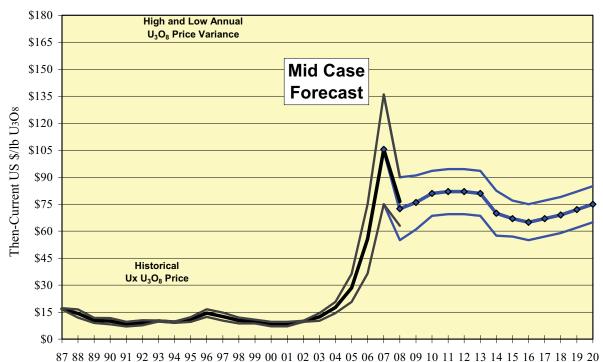
- **Probabilities** The probabilities given for the scenarios are expressed as the likelihood of one particular scenario versus the others. The fact that the probabilities sum to 100 does not mean that the scenarios cover the entire range of market outcomes.
- Price Ranges (Variance) Over the course of the year, spot prices historically have fluctuated by somewhere between \$0.50 and \$3.00 per pound, although over the past several years price volatility has increased, and price changed a total of \$146 during 2007. An estimate of the high/low range is provided for the next twelve months. For future years, prices can be expected to fluctuate around these midpoints, as illustrated by the price bands shown in

\$180 High and Low Annual Ux U₃O₈ Price Variance \$165 \$150 \$135 Comparison Then-Current US \$/lb U3O8 **Forecasts** \$120 \$105 \$90 \$75 \$60 \$45 Historical Ux U₃O₈ Price \$30 \$15 \$0

Figure 3. UxC Scenario and Composite Price Projection Comparison, 1987-2020

• Figure 3 through Figure 6.

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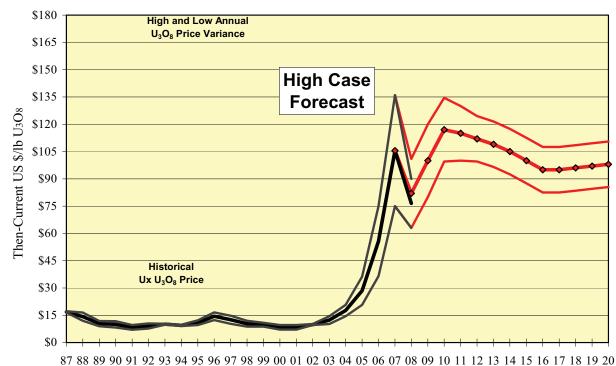


Figure 5. UxC High Price Scenario Projection and Annual Variance, 1987-2020

\$180

\$165 \$150

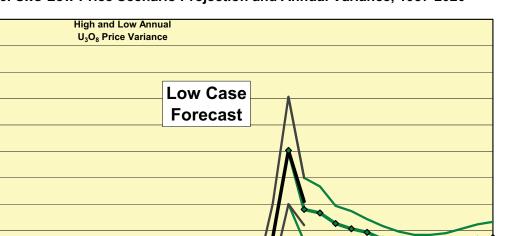
\$135

\$120 \$105 \$90

> \$75 \$60 \$45

> \$30 \$15 \$0

Then-Current US \$/lb U3O8





Mid Price Scenario

Historical Ux U₃O₈ Price

Changes – Projected prices in the near-term (2008-2009) and midterm (2010-2012) have been lowered significantly from our last report. Additionally, the probability of this price scenario increases slightly (5%) from 2008-2010, as well as from 2012-2015. Slight upward pressure will remain on price in the 2009-2012 period ahead of the U.S.-Russia HEU deal ending in 2013 and potentially a further delay in start-up of the Cigar Lake joint venture.

Table 5. UxC Annual Price Projections – Mid Price Scenario, 2008-2020 (Then-Current US\$//lb U ₃ O ₈)													
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
High Variance	\$90.00	\$91.00	\$93.50	\$94.50	\$94.50	\$93.50	\$82.50	\$77.00	\$75.00	\$77.00	\$79.00	\$82.00	\$85.00
Midpoint	\$72.50	\$76.00	\$81.00	\$82.00	\$82.00	\$81.00	\$70.00	\$67.00	\$65.00	\$67.00	\$69.00	\$72.00	\$75.00
Low Variance	\$55.00	\$61.00	\$68.50	\$69.50	\$69.50	\$68.50	\$57.50	\$57.00	\$55.00	\$57.00	\$59.00	\$62.00	\$65.00

87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20

 Discussion – Unfilled requirements are fairly low over the remainder of 2008 and first half of 2009, which is one reason why price is much lower in those years. Inventory demand is foreseen being low for the remainder of 2008 due to the heavy contracting of the past few years, but it is expected that this demand will pick up by late 2009 and into 2010, which accounts for some of the increase in price during these two years. On the production side, unknowns persist going forward that may impact the direction of price. The two largest factors are the status of the Cigar Lake mine remediation and the planned growth in production from Kazakhstan. We continue to believe Cigar Lake will be delayed beyond late 2011 to at least 2012, and this could slip into late 2013 or 2014. Kazakh production will grow, but not to the levels that Kazatomprom estimates due to the infrastructure issues at hand, as well as its potential for lower prices. Kazatomprom estimates Kazakh production will be near 40 million pounds by 2010, but 30-35 million pounds is assumed in this case.

Table 6. Ke	Table 6. Key Factors Used to Develop Mid Price Scenario								
Factor	Assumption (Changes from Last Report in Italics)								
Requirements	Requirements are equal to UxC Demand Base case on page Error! Bookmark not defined. .								
Inventory Demand	Inventory demand continues to be in the low to moderate range.								
Production Response	Additional production delays are experienced, and Cigar Lake comes on line by <i>late 2012</i> . <i>Kazakh production is slightly lower than planned targets</i> .								
Exchange Rates	The U.S. dollar's relationship to producer currencies stabilizes after its protracted fall.								
Investor Activity	Fund buying continues but at a constrained pace as price rises.								
SWU Developments	The amended Russian Suspension Agreement gives the U.S. market access to Russian SWU and a small amount of EUP.								
HEU Feed Availability	Moderate levels of Russian HEU are available after the current deal expires. The U.S. continues to blend down HEU at low levels.								
Other Secondary Supply	DOE sells inventory at a moderate pace and makes it available to meet first core demands.								

High Price Scenario

 Changes – Projected prices in this scenario have declined significantly from 2008 through 2014, with the price midpoint now expected to peak at \$117 in 2010. From 2015 forward, projected prices remain the same. The probability of this scenario declines slightly (5%) from 2008 to 2015 at the expense of the mid case.

Table 7. UxC Annual Price Projections – High Price Scenario, 2008-2020 (Then-Current US\$/Ib U ₃ O ₈)													
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
High Variance	\$101.00	\$120.00	\$134.50	\$130.00	\$124.50	\$121.50	\$117.50	\$112.50	\$107.50	\$107.50	\$108.50	\$109.50	\$110.50
Midpoint	\$82.00	\$100.00	\$117.00	\$115.00	\$112.00	\$109.00	\$105.00	\$100.00	\$95.00	\$95.00	\$96.00	\$97.00	\$98.00
Low Variance	\$63.00	\$80.00	\$99.50	\$100.00	\$99.50	\$96.50	\$92.50	\$87.50	\$82.50	\$82.50	\$83.50	\$84.50	\$85.50

 Discussion – For reasons similar to the mid price scenario, we have lowered prices substantially in this case from 2008 through 2015. However, unlike the mid price scenario, we believe inventory demand will continue being relatively high with investors taking advantage of the fragile nature of the production industry. The production response from 2008 to 2015 is assumed to be weaker than expected, as the Cigar Lake mine is delayed until at least 2014 and infrastructure problems delay/disrupt the expansion of production from Kazakhstan and Africa. Also, higher requirements from China and India will only exacerbate potential production problems, especially if India becomes a market participant by 2009/2010. This scenario also assumes that DOE inventory doesn't come into the market as quickly as planned, aggravating the supply situation even more over the next few years. A small amount of Russian HEU will become available beyond 2013, but this is expected to have little impact on the market then.

Table 8. Ke	Table 8. Key Factors Used to Develop High Price Scenario								
Factor	Assumption (Changes from Last Report in Italics)								
Requirements	Requirements are equal to UxC Demand High case on page Error! Bookmark not defined. , with initial core demand a factor over the short term.								
Inventory Demand	Due to future supply uncertainty and higher requirements assumed in this scenario, discretionary demand will continue being high.								
Production Response	The rate of Kazakh production slows immensely, and the Cigar Lake mine is delayed until at least 2014. Infrastructure issues also slow the growth rate of production from Africa.								
Exchange Rates	Dollar continues to weaken against producer currencies.								
Investor Activity	<i>New Investor/hedge funds emerge and existing ones add to their positions in anticipation of production shortages.</i>								
SWU Developments	U.S. utilities given some access to Russian SWU, but SWU capacity is limited, resulting in large uranium needs for utilities.								

HEU Feed Availability	Some (little) Russian HEU is available after the current deal expires.
Other Secondary Supply	DOE sells inventory at a slower than anticipated pace.

Low Case Scenario

• **Changes** – In this scenario, prices are slightly lower from 2008 to 2010, while prices from 2011 through 2020 period are essentially unchanged.

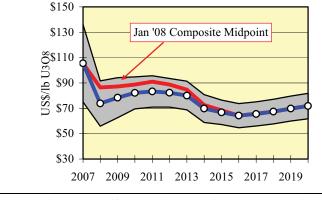
Table 9. UxC Annual Price Projections – Low Price Scenario, 2008-2020 (Then-Current US\$//b U ₃ O ₈)													
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
High Variance	\$90.00	\$85.00	\$74.00	\$71.00	\$66.50	\$62.50	\$59.50	\$57.50	\$57.50	\$58.50	\$61.00	\$63.50	\$65.00
Midpoint	\$72.00	\$70.00	\$64.00	\$61.00	\$59.00	\$55.00	\$52.00	\$50.00	\$50.00	\$51.00	\$53.00	\$55.00	\$56.00
Low Variance	\$54.00	\$55.00	\$54.00	\$51.00	\$51.50	\$47.50	\$44.50	\$42.50	\$42.50	\$43.50	\$45.00	\$46.50	\$47.00

• Discussion – This price scenario has certainly gained more acceptance given the downward trend in the spot price since the middle of last year. In this case, we assume that requirements are similar to the WNA reference case, although new reactor demand is delayed somewhat. Meanwhile, the assumption is that production response will be very positive through 2013, with Cigar Lake coming online by late 2011, and new projects in Kazakhstan, Africa (Imouraren, Trekkopje, Kayelekera, and Valencia) proceeding as planned. All of this new production amidst a "not so stellar" demand backdrop will send investors/hedge funds to the exits, and price will be subject to downward pressure between now and 2015. This case also assumes that utilities become more confident about the production situation and thus do not feel the urgency to come to the market to add to existing inventories. Prices remain stable beyond 2013, as Russian HEU continues to flow to the market and BHP Billiton commences expansion of its Olympic Dam mine to over 30 million pounds.

Table 10. Key Factors Used to Develop Low Price Scenario							
FactorAssumption (Changes from Last Report in Ital)							
Requirements	World requirements are roughly equal to WNA reference case levels, but initial core demand is delayed.						
Inventory Demand	As production increases, utilities feel more confident and						

	avoid adding to existing inventories.					
Production Response	Cigar Lake comes online by late 2011, and new Kazakh and African production is near planned targets.					
Exchange Rates	The dollar strengthens somewhat against producer currencies.					
Investor Activity	Investors exit the market as prices stagnate, demand slips, and production expands.					
SWU Developments	Russia is given more access to the U.S. market than in the mid-price scenario, and this additional supply and a more competitive environment causes tails assays and uranium demand to fall.					
HEU Feed Availability	Russia continues to blend down some HEU after the current deal expires, but at a rate higher than assumed in the mid price case.					





Other Secondary	DOE elects to sell more inventories even as prices fall,
Supply	and also make inventories available to meet initial core
	demand in the U.S., although this demand is limited.

Composite Price Scenario

- Changes As shown in Figure 7 below, the composite price forecast is now lower for the period from 2008 to 2015, with no change in the 2016 to 2020 period. The annual midpoint of the composite price peaks at \$83.35 in 2011, then declines to a bottom of \$64.25 in 2016, before rebounding to \$71.80 by 2020. The probabilities of the scenarios have been modified as discussed below.
- **Discussion** The lowering of prices in the near-term (2008-2009) and mid-term (2010-2012) in both the mid price and high price scenarios is largely due to the level of supply that is expected to become available during this period relative to demand. The recent

production gains in 2007 have given utilities some level of assurance that progress is being made and increased competition among suppliers is expected to play a significant part in prices being pushed lower in the future (2011-2015). In the period 2008 through 2011, there is actually a steeper increase in the composite price (although the composite price itself is now significantly lower) compared to our last report, as the assumption here is that the current spot price has, in all likelihood, overshot the bottom in both the mid price and high price scenarios. For the period 2012 to 2013, price stability is maintained, before the composite price experiences downward pressure again in 2014 to 2015 due to the greater likelihood that more Russian HEU feed will enter the market. For 2016 to 2020, the composite price is nearly identical to our last report.

Table 11. UxC Annual Price Projections – Composite Price, 2008-2020 (Then-Current US\$/lb U ₃ O ₈)													
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
High Variance	\$91.65	\$94.15	\$94.78	\$95.73	\$93.50	\$91.35	\$80.85	\$76.48	\$73.75	\$75.10	\$77.13	\$79.65	\$81.83
Midpoint	\$73.83	\$78.40	\$82.15	\$83.35	\$82.25	\$80.10	\$69.85	\$66.85	\$64.25	\$65.60	\$67.45	\$69.80	\$71.80
Low Variance	\$56.00	\$62.65	\$69.53	\$70.98	\$71.00	\$68.85	\$58.85	\$57.23	\$54.75	\$56.10	\$57.78	\$59.95	\$61.78

Table 12. UxC Composite Price Weightings, 2008-2020 (Percentage)													
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
High Price	15%	15%	15%	20%	20%	20%	15%	15%	15%	15%	15%	15%	15%
Mid Price	65%	65%	60%	55%	55%	55%	55%	55%	50%	50%	50%	50%	50%
Low Price	20%	20%	25%	25%	25%	25%	30%	30%	35%	35%	35%	35%	35%

2009

6 – Market Outlook and Price Forecast

Near-Term Outlook for Spot Prices

With the three-month price outlook at \$38-\$53, the expectation is that demand will be relatively weak in the near-term, particularly from North American utilities. The majority of buying over the next few months will likely to be discretionary in nature, with some utilities, suppliers and traders taking advantage of buy/hold opportunities at lower price levels. To the extent that any production disruption or delay announcements are made, price will remain volatile.

Overview

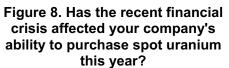
In our last report, we noted that the three-month outlook had a range of \$45-\$65, but the potential for a rebound (to the upper end of this range) depended on the amount of discretionary demand. So far this year, there has been little to no discretionary demand, and coupled with little in the way of unfilled requirements, price has fallen again back toward the bottom of this range. As such, the prospects for the forward three months have lessened, and the price projection has correspondingly declined.

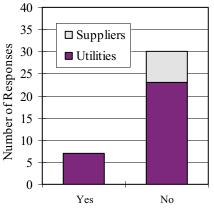
In order for the spot price to rebound, discretionary demand will have to return to the market since there are few utilities with unfilled requirements in 2009. The most likely case for this to develop over the next few months is if the long-term price remains at a significant premium to the spot price. At the time of this writing, the term price is at a \$23 premium to the spot price. Given this premium, some utilities may consider buy/hold scenarios rather than engaging in term contracts a couple of years out. The spot price is also approaching a level which is close to several producers' production costs, and this group could make some discretionary purchases to feed into much higher-priced sales commitments at a nice profit. Thus, the potential exists for discretionary demand to increase, but is not terribly strong at the moment.

Spot Demand

After an extremely active 2008 – the most spot volume ever recorded by UxC – 2009 has started off extremely slow. As noted above, near-term unfilled requirements are very low and discretionary demand is down, partly due to the large amount of discretionary demand last year and partly due to the financial crisis. In our recent winter survey, we asked respondents

whether the recent financial crisis had affected their company's ability to purchase spot uranium this year. As shown in Figure 8, of the utilities surveyed, slightly less than one-third indicated that it had affected their ability to purchase uranium in 2009. If broken down further by U.S. utilities, more than 40% said it had affected their ability to purchase, showing how the financial crisis has had a greater impact on U.S. utility buying than non-U.S. utility buying. This is also important since U.S. utilities purchase a larger percentage of uranium from the spot market than non-U.S. utilities.

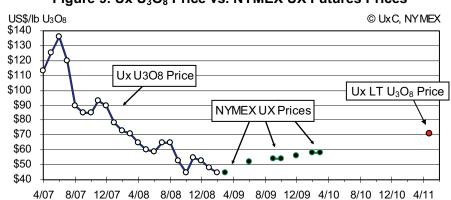




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Futures Price Curve vs. Term Price

Figure 9 presents the forward price curve based on futures activity that extends through March 2010. Superimposed on this chart is the current long-term price of \$70, which would apply to deliveries starting at least two years out, so it is shown for January 2011. Important here is that the long-term price is currently about \$12 higher than the futures prices of \$58 in March 2010. In drawing the futures cost curve out further, the long-term price would be at least \$5 higher, suggesting that the term price may be slightly on the high side relative to market expectations. However, since the futures prices are pegged to the spot price, the long-term price is really only at a \$5 premium and represents what could be considered fair value for locking-in guaranteed supply two years out. Therefore, it is not surprising that the long-term price has shown little downward movement as the spot price has declined in the last month. Also, the term market remains more driven by production costs and the future supply/demand balance than inventories – which more directly impact the spot market.





Exchange Rates

Since the financial crisis started, the U.S. dollar has strongly appreciated against producer currencies. A stronger U.S. dollar results in higher sales revenue in terms of the producer country currency since uranium sales are typically made in U.S. dollars. Accordingly, the stronger U.S. dollar has made it feasible for some non-U.S. producers and traders to sell at slightly lower prices without reducing their overall margins. This contributed to the record spot volume sold in late 2008, as well as to the lower prices seen in the spot market recently.

In early February, Kazakhstan decided to devalue its currency – the tenge – by about 20 percent against the U.S. dollar. Many of the Western producers in Kazakhstan have about 80 percent of their cash costs denominated to the tenge. This is fairly significant since a growing share of production now stems from Kazakhstan. With some of this production allocated to the spot market, it is not surprising that downward pressure on the spot price persists.

DOE Sales

In Chapter 4, under Inventory Sales (see page **Error! Bookmark not defined.**), we have identified DOE's sales plan, but there is no certainty yet that the U.S. DOE will make many new sales in 2009. DOE has stated that it will seek the "best economic value for the U.S. government in light of DOE's identified objectives and needs." Future DOE uranium would likely be offered via both spot and term contracts, but an economic analysis may be undertaken, if appropriate. Currently, some market players are acting as if DOE will make additional sales within the next several months. As a result, some of these players are trying to get ahead of the game and are not afraid to act more aggressively from a marketing standpoint out of fear that DOE material will eventually depress price sometime this year. This pre-emptive mentality is

certainly somewhat price suppressive when DOE has yet to formalize any fluid plans to sell this year.

Producer Spot Supply/Demand

As several new uranium projects have come online over the past few years, some of this new production is finding its way to the spot market. Mid-tier producers such as Paladin Energy, Uranium One, and Mestena signed new term contracts for the majority of their production, but left some flexibility and did not commit their full production amounts in the case of potential supply disruptions as they ramped up

Table 13. 3-Month Spot Price Variance							
Current	Range						
\$47.00	\$53.00						
φ., ι ου	\$38.00						

their projects. Accordingly, some of their new production is still being sold into spot and midterm contracts as their production capacities have increased. Other primary suppliers such as Cameco, AREVA, BHP Billiton, and Rio Tinto have also sold into the spot market from time to time over the last year.

To the extent that many of the producers mentioned above, combined with new entrants such as First Uranium, have uranium in excess of their term commitments to supply into the spot market, downward price pressure could prevail over the next few months if actual or discretionary demand does not emerge.

Alternatively, declining uranium prices could curtail the production plans of some junior producers, and they may opt to purchase low-priced uranium in the spot market to meet term commitments rather than produce uranium at costs near or above the current spot price.

Outlook – 3 Months

In the previous report, we had a 3-month price range (through January) of \$45-\$65. In that outlook, we noted that the spot price would probably end the year in the \$50's, which came to fruition with the spot price ending December at \$53. One of the questions we had at that time, which is still quite relevant today, is whether demand will emerge from utilities given that few uncovered requirements exist between now and 2010. In November, we felt that some utilities would take advantage of buy and hold opportunities, and this did occur as the spot price was bid up during the final two months of the year on significant volume. However, we also warned that the majority of utilities would likely observe from the sidelines. The case for this seems even stronger today with few bidders in the spot market over the last couple of months.

At the time of this writing, demand is very weak, suggesting that the spot price could test its previous low last year of \$44, and if it breaks this price level, could go on to test \$40. While there should be some price support at \$40, the lower end of our range is slightly below this at \$38, suggesting that price could dip to this level. If the spot price does fall below \$40, it should provide a powerful incentive to buy for not only utilities, but producers, traders and investors as well. The top end of our 3-month price range is \$53, which is where the spot price resided for four straight weeks in December and early January before its most recent downward move.

The expectation over the next three months is that demand from North American utilities will be very light, as few have any uncovered requirements between now and 2010. Thus, any buying from this group would likely be discretionary in nature, and offers will have to be attractive enough to induce them into the market. Asian utilities have been aggressive in locking-in uranium supply over the last year. Although they prefer purchasing in the long-term market or through off-take agreements, such as the recent deal between Uranium One and the Japanese consortium of TEPCO and Toshiba, this buying group is still looking to acquire more uranium and build up strategic reserves for their growing nuclear programs. Both India and China have made spot purchases of uranium within the past several months.

Outlook – 12 Months

Although we see the potential for the spot price to continue lower over the next few months, we anticipate that it will rebound some by the end of 2009. The top end of our 12-month spot price

variance is \$65, which may seem high to some, but it is important to point out that in 2008 the price ranged from between \$44 and \$90, or a difference of \$46. Additionally, in our recent winter survey, nearly 20 percent of the respondents expect the spot price to end 2009 in the range of \$60 to \$65. The scenario of this top end being reached would likely be contingent on the spot price continuing to decline steeply, which would not only induce demand from utilities but investors as well. Additionally, announcements

	Month Spot Price riance
Current	Range
\$47.00	\$65.00
\$47.00	\$40.00

of further supply disruptions or production deferrals would support the steep rebound in price to this level.

The most likely scenario is that the spot price will end the year in the low \$50's, which was somewhat of an equilibrium point from November 2008 through early January 2009. We expect that if the spot price moves into the lower \$40's, some demand will likely migrate from the term to spot market, especially if the term price holds at its current level. Furthermore, the \$40 level is the point at which some new producers are at break-even if they continue to produce. Thus, hitting this price level may attract moderate demand from both utilities and producers. We also cannot discount that India and China may look to spot opportunities throughout the year to build up their strategic reserve levels. Another factor that could result in upward price pressure is if the U.S. dollar weakens, which is likely if it embarks upon a policy of printing more currency. In our winter market survey, close to 30 percent (the largest group) of the respondents felt that the spot price would end 2009 in the \$50 to \$55 price range.

The low end of our 12-month price range is \$40, which we view as a distinct possibility if demand stays low throughout the year, production problems fail to arise, and various inventories find their way to the market. The probability of ending 2009 at this price level also increases if the impact of the credit crisis leads to the devaluation of additional producer currencies, similar to what happened with the Kazakh tenge. In our winter survey, about 10 percent of the respondents believed the spot price would move to the \$40 to \$45 price range.

Medium-Term Outlook (2010-2012)

Low uranium prices in the near-term certainly have the ability to constrain the growth of new supply in the 2010-2012 period. If financing conditions worsen for new mining companies or production is delayed/deferred in the near term, this will negatively impact the availability of supply in this period. Increased demand, particularly buying from China and India, could move the spot price much higher, especially if the supply side consolidates.

Overview

The prospects for price recovery in the medium term are better than in the very near term. For one thing, demand will be higher, as existing unfilled requirements are higher for these years. Also on the demand side, you are likely to see more purchases by China and India, especially if these nuclear power programs expand at anywhere near announced plans. On the supply side, low prices and difficult financing conditions in the near term are resulting in production cutbacks and delays. Also, the industry may become more consolidated, or at least will not have as many suppliers as it might have had, in the wake of the financial crisis.

China and India

What happens to China and India's nuclear programs is a key factor as far as demand growth is concerned, especially during the medium-term period. Despite the financial crisis, both China and India have actually raised their nuclear capacity forecasts. India plans to generate 63 GWe from nuclear power by 2032, while China has said it plans to have 60 GWe of nuclear power in place by 2020. However, it may be the case that they are competing against each other with respect to which one can be deemed the most attractive market and thus receive the best reactor/fuel deals. Still, they both have the potential to dramatically add capacity and, perhaps more importantly, lock up production in places like Kazakhstan.

With this in mind, we expect both countries to be active in the medium-term, particularly as they aim to build their strategic inventory levels. Aside from competing for available supplies on the spot and term markets, both countries will also likely be active seeking ownership interests in mines globally. In fact, China Guangdong Nuclear Power Corporation (CGNPC) recently became a joint venture partner in the planned Semisbai deposit in Kazakhstan, while China National Nuclear Corporation (CNNC) became a joint venture partner in the Zhalpak deposit in Kazakhstan.

Production Cutbacks/Delays

Late last year, we witnessed a host of production stoppages as well as delays and deferrals. If the spot price continues its downward slope, this trend will likely continue into this year. Perhaps the most notable production deferral last year was the announcement in late November that AREVA's Midwest project would not come online in 2011. This is significant because upwards of 8 million pounds U_3O_8 per annum for a period of about five years will be lost. At the time of this writing, Cameco has announced that the Cigar Lake mine will not come online in 2011. To the extent that some utilities already have commitments with the Cigar Lake joint venture partners in the 2011/2012 period, they will likely have to find replacement supply from other suppliers, which most certainly would boost demand in the medium term.

Similarly, in the U.S., Uranium Resources announced that it was shutting-in operations at Kingsville Dome/Rosita as well as Vasquez, citing high production costs as the primary reason. Denison Mines also reported in the fourth quarter of 2008 that it was shutting-in operations at the Tony M mine due to the mine currently being uneconomic at current prices. Bluerock

Resources' J-Bird mine, which also fed into Denison's White Mesa mill, halted production late last year and the company stated that it had no plans to re-start production in the near-term.

In Africa, rumors have been swirling that AREVA's Trekkopje mine in Namibia may be delayed from 2010 to 2011, and AREVA's large new Imouraren mine in Niger may not commence production until 2013, instead of 2012. Also, GFI's Valencia mine in Namibia is likely to be delayed beyond 2010, as a new desalination plant must be built before the project can proceed. To date, design plans for the new desalination are being worked on, but the plant has yet to be built. While the shift in projected production start-ups are not show stoppers, the fact that significant capital expenditures will be necessary to move the projects forward in a credit tight market potentially could be. And as the spot price continues to decline, it is approaching the point at which these African projects may no longer be economic given their high production costs.

Consolidation

One of the fallouts from the financial crisis could be consolidation of the uranium industry as well as the tendency of utilities wanting to deal with companies that are financially sound such as the primary producers. Last year, it was anticipated that BHP Billiton would buy out Rio Tinto, but the sale fell through. Meanwhile, there is still some question as to whether Rio Tinto will exit the uranium business and sell-off its uranium assets altogether. In addition, it has been rumored that multiple primary producers are interested in Paladin Energy and Uranium One due to their recent production success and promising planned projects. If any of these scenarios were to occur, it certainly would give primary producers more flexibility from a contracting standpoint, but it would also give them more pricing power as utilities would have fewer options in terms of suppliers to approach over the next two to three years.

It is also still unknown what Nukem's future will be. Its parent company, Advent, was initially seeking a buyer for the company, but Nukem has become somewhat of cash generator for its parent in the midst of the credit crisis. A number of uranium sales made last year by Nukem came at inopportune times and ended up moving the market lower than what might have been had Advent not needed the cash. If a primary producer or other large trader/entity were to purchase Nukem, this could end up eliminating what some may consider a market maker in this industry. Again, this could potentially reduce the supply options to utilities with one less trader, which has sourced its supply from multiple streams – Russian HEU, Uzbekistan, and Kazakhstan.

Exchange Rates and Inflation

It is still rather difficult to project what the exact trend will be for exchange rates in the medium term. While the U.S. dollar is exhibiting strength now, it is likely to weaken again, especially if the U.S. has to print a lot of money to finance the recovery. In the medium term, this could end up placing some modest upward pressure on uranium prices. However, to the extent that the credit crisis is global in nature, other uranium-producing countries could follow Kazakhstan's recent lead and decide to devalue their currencies as well, which would mitigate some of the upward price pressure if/once the U.S. dollar declines. The potential for inflation also exists in the medium-term, especially if oil and other commodity prices rebound, which could eventually impact production costs to the upside.

Uranium Funds

There is often little discussion about the future disposition of uranium from investment funds such as Nufcor Uranium Limited (NUL) or Uranium Participation Corp. (UPC). NUL has over 2 million pounds U_3O_8e , while UPC is carrying over 9 million pounds U_3O_8e . While the funds are committed to hold uranium, one cannot rule out that a producer or utility may find value in one of these funds and buy it out completely. UPC's inventory alone is the size of large producer's

annual production. Obviously such a purchase would be subject to shareholder approval, but is not outside the realm of possibility.

Table 3 on the following page presents bullish and bearish arguments for the direction of spot prices over the next few years.

Table 15. Arguments for 2010-2012 Price Movements

Bullish Case

Double Up – In spite of the economic crisis, China and India, the world's two most populated countries, have made noises about greatly expanding their nuclear power programs, to what is close to a doubling of installed nuclear capacity by 2020 over earlier goals. China has recently raised its potential nuclear generation 2020 target to 70 GWe, while India is discussing having 32 GWe online by 2020. If this happens, these two programs together would equal that of the U.S.

Flight of the Juniors – With uranium prices dropping and credit remaining scarce, junior exploration companies are heading for the exit in droves. With them, they take not only the potential of additional production and much needed exploration finds, but also the promise for a more competitive uranium industry. In this sense, the financial crisis is giving established producers even more market power, which they are certain to use in keeping prices high.

Here comes inflation – One of the results of the stimulus packages will be much higher inflation. Governments (notably the United States) will print up money to finance the stimulus, and this additional money supply will push up prices. This may take six to 12 months or more to happen, but ultimately the government will have to resort to printing money as their won't be as much ability to take on debt by bondholders as in previous years. Uranium prices will not be immune to this, as the prices of factor inputs, etc., will also be inflated.

More projects to be deferred – In December, AREVA announced that it was deferring its Midwest project, the follow-up to McClean Lake. And more recently, Cameco announced that its flooded Cigar Lake mine will not come online by 2011, failing to give a future start-up date. To throw more fuel on the fire, BHP Billiton's Olympic Dam expansion boss has resigned and over 200 workers associated with the expansion have been laid off. Now speculation is that the expansion project could be halted altogether. In Africa, AREVA is working to bring online its new Trekkopje and Imouraren mines, but will

Bearish Case

Russia returns – With Russia now having access to the U.S. SWU/EUP market, it is picking up its sales of uranium. Also, Russia will want to market uranium as a replacement for HEU supplies, and this brings another competitor to the market. (Previously, the HEU feed was sold through Western companies.) Also, Russia's economy is struggling, and there may be more pressure to sell uranium as well as other commodities, and if Russia elects to devalue its currency, it can sell at lower prices.

Discretionary Demand down – With the credit crisis, utilities' ability to buy spot material has been greatly reduced, even if spot prices look attractive relative to term offers and even if utilities believe that adding to inventories may be prudent given the production problems that may be encountered in the future. Also, the fund demand that helped propel price over the 2005-2007 period is also expected to be muted in the face of the financial crisis. The lack of spot demand so far this year is thus a harbinger of things to come.

U.S. dollar soars – Over the past half year, the dollar has posted tremendous gains against currencies of uranium producing countries – Australia, Canada, and South Africa/Namibia. More recently, Kazakhstan has devalued its currency 20% against the dollar. The net result of all this is that producers in these countries can tolerate much lower prices in terms of U.S. dollars and remain profitable. A weakening U.S. dollar was one of the factors that contributed to a higher uranium prices, and now a strengthening dollar is contributing to lower prices.

Kazakhstan is King – Since 2004, Kazakhstan has nearly tripled production from 8.6 million pounds U_3O_8 to 22 million pounds in 2008. Next year, another 5-6 million pounds of relatively low cost production is expected to be added. Everyone that ever doubted whether Kazakhstan could even get to 20 million pounds per annum has to be shaking their heads. Well guess what, Kazakhstan has just devalued its currency, the tenge, by more than

Long-Term Outlook (2013-on)

The impact of the financial crisis on the long-term outlook will obviously not be known for a number of years. In foresight, the market will not go unscathed, as several factors noted below may affect both the supply and demand outlook beyond 2012. As we noted in the medium-term, lower prices will impact mid-term production, but could have an even more detrimental effect on the discovery of new projects with exploration expenditures being cut. And, with the likelihood of an HEU-2 deal doubtful at this point, the growth in Kazakh production and the expansion of BHP's Olympic Dam mine will become increasingly important in meeting future uranium requirements, which may be lowered due to the economic slowdown and difficulty among utilities in obtaining credit.

Overview

A key question for the longer term is the extent to which the financial crisis will impact supply versus demand. It can certainly slow down nuclear power expansion, but it can also impact (and already has impacted) supply through production cutbacks and delays (Olympic Dam is a key example here). Longer-term, the financial crisis will have an even greater impact on the discovery of new projects as exploration expenditures drop due to junior exploration companies exiting the industry. This is important because the next big wave of new reactor builds will likely come after 2020 when a number of existing and planned uranium projects have their reserves approaching depletion.

Impact of Junior Companies Exiting the Industry

As we noted in our last report, the ability of the juniors to finance new exploration has diminished as their equity prices have declined in reaction to the financial crisis. It is longer term that the impact of the juniors exiting the industry and exploration cutbacks will mainly be felt. The last wave of heavy uranium exploration was in the 1970s and 1980s, with little exploration spending up until the past few years. And even recently, much of the spending on exploration has been to confirm estimated reserves delineated back in the 70s and 80s in order to get the necessary financing from credit facilities to push some of these projects forward to production. Thus, this recent exploration cycle of only a few years is only in its infancy and few discoveries have actually been made. So while we are now beginning to utilize the pipeline of projects that were discovered in the 70's and 80s, a new pipeline of projects has not been established for when the reserves at these new projects and existing projects are depleted in 10 to 15 years. With a number of junior companies now going belly up, it appears that the recent exploration effort could be stalled. The end result is that there will likely be fewer projects in the pipeline and/or these projects in the pipeline will not be as far along from an exploration/development standpoint. This is not positive for countries and utilities that are seeking supply guarantees for their existing and planned reactors in the period beyond 2020.

Olympic Dam expansion – make or break?

We already discussed the deferral of AREVA's Midwest project and delay of Cameco's Cigar Lake project in the medium-term outlook, but looming every bit as large is the future of BHP Billiton's Olympic Dam expansion. The expansion calls for the Olympic Dam mine to expand from its current production level of about 4,000 t U_3O_8 (~8.8 million pounds U_3O_8) to 19,000 t U_3O_8 (~41.9 million pounds U_3O_8). However, it was announced in January 2009 that up to 200 positions related to the expansion project will be cut. The company said that it still expects to

release the Environmental Impact Statement for the proposed multi-billion dollar expansion for public comment by the middle of this year. This compares with a previous anticipated release scheduled for April of this year.

Perhaps more disturbing is that BHP Billiton's head of the Olympic Dam expansion, Graeme Hunt, will leave the company in March. This is leading to increased speculation that BHP may put its US\$15 billion plus expansion plan on the back burner. In addition, copper prices have fallen by 60% in the last six months. With the capital cost of the project being as high as it is, the uncertainty regarding both the copper and uranium markets may result in BHP either downsizing or cancelling the expansion altogether. It is probably safe to assume in the current economic environment that new capacity from the expansion may be delayed beyond the current 2016/2017 target. And with much of the Far East, particularly China, banking on the expansion, this certainly sets the stage for upward pressure on prices in the long-term.

Enrichment expansion

Although it will probably not impact enrichment production to the same degree as uranium, the financial crisis could also make enrichment expansion less likely. Recently, USEC announced that it is slowing its expansion due to the negative economic climate and is banking on a U.S. government loan guarantee to pull it forward. Additionally, AREVA's Eagle Rock enrichment facility in Idaho is not yet a shoe-in and must go through the stringent state and federal licensing processes that twice held up the siting of Urenco's new enrichment facility in Louisiana and Tennessee before finding a home in New Mexico. GE-Hitachi's Global Laser Enrichment is also still in the process of testing its Silex-based laser enrichment technology. To the extent that enrichment capacity is not expanded quickly, the demand for uranium will be higher than if multiple new enrichment facilities come online operating at relatively low tails assays, displacing uranium demand.

China and India

The growth in nuclear power in China and India is also critical in this period because if there is steady growth in new reactor installations, it will not only necessitate more production, but it will have consumed a lot of the inventories by then. In one sense, it is the cumulative effect of this demand growth that will take its toll on supplies – both production and inventories.

On the flipside, however, slower economic growth in China and India could ultimately result in them lowering their overall energy forecasts. The bigger question is whether the growth of nuclear power would be affected. Given climate issues in both countries, it may be safe to wager that of all future power generation sources, nuclear would be the least impacted.

Price Expectations

In looking forward five years, there are a number of scenarios that could play out in terms of price expectations. While we appear headed for a bottom in the near-term, the expectation is that price will rebound substantially in the long term. To be sure, reactor requirements are not quite as bullish as they were before the credit crisis, but nuclear power has not all of a sudden fallen off the map either – it is still a competitive energy source. And with the reduction of carbon emissions still a priority item on the agenda of many growing countries, nuclear power will remain a top candidate for future energy programs.

In preliminary results from our winter survey, the majority of respondents expect the spot price to reside within the range of \$40-\$90 in five years, which reflects the current uncertainty and volatility of the market. Only one respondent expects the spot price to be under \$40 in five years. The most popular price ranges chosen were the \$60-\$70 range and \$70-\$80 range, each accounting for 25 percent. One utility commented that the \$60-\$70 price range was an acceptable level, and high enough to encourage new production and exploration. The \$50-\$60 range was the next most popular at 20 percent.

Not surprisingly, suppliers foresee the spot price moving much higher five years out. One supplier commented that the "financial crisis and the excessively low prices for uranium in 2008 and 2009 have created a 'perfect storm' where producers are deferring or outright cancelling projects and consumption will essentially remain static or increase as new builds around the world begin to add consumption. Government stockpiles will not be reactive enough to meet the shortfall."

UxC Price Projections

Table 4 lists key factors that are taken into consideration in developing each of the scenarios, along with a description of each. The scenarios examined – Mid Price, High Price, and Low Price – have changed from what has traditionally been examined due to the evolving nature of the market. The Low Price scenario replaces the Price Spike scenario in our previous reports. Also, the key assumptions, listed in Table 4, have changed somewhat to better reflect the factors driving today's market. The price scenarios themselves along with supporting discussion start on page 23.

Table 16.	Key Factors Used to Develop Price Forecasts
Factor	Description
Utility Market Demand	The level of projected uranium requirements for utilities worldwide.
Inventory Demand	Demand associated with both utilities and producers seeking to build strategic stocks to secure against future supply problems.
Production Response	How quickly production is likely to respond to market conditions and specific assumption about major production sources.
Exchange Rates	This assumption relates to the strength of the U.S. dollar versus producer currencies since the price of uranium is expressed in U.S. dollars but most production comes from outside of the United States.
Investor Activity	Buying or selling by hedge funds and investors.
SWU Developments	This assumption encompasses such developments as expansion of enrichment capacity, restrictions on the import of Russian enrichment and their effect on operational tails assays.
HEU Feed Availability	The availability of HEU feed, both during the term of the HEU deal and after the deal expires.
Other Secondary Supply	This primarily includes sales of DOE inventories in various forms.

Price Projection Definitions

- Scenarios Four scenarios are presented: Mid, High, Low, and Composite. The scenarios produce different results both because the underlying assumptions are different and because of the way market participants are projected to react to market developments. The underlying supply/demand assumptions are given on the following pages along with the price projections.
- **Prices** The projected prices are given as annual midpoint values expressed in terms of current, year-of-delivery dollars. Underlying this forecast is the assumption that inflation will increase to moderate levels, and that costs specific to uranium production will be under greater upward

pressure than general inflation, and these costs will be passed on to consumers.

- **Probabilities** The probabilities given for the scenarios are expressed as the likelihood of one particular scenario versus the others. The fact that the probabilities sum to 100 does not mean that the scenarios cover the entire range of market outcomes.
- Price Ranges (Variance) Over the course of the year, spot prices historically have fluctuated by somewhere between \$0.50 and \$3.00 per pound, although over the past several years price volatility has increased, and price changed a total of \$146 during 2007. An estimate of the high/low range is provided for the next twelve months. For future years, prices can be expected to fluctuate around these midpoints, as illustrated by the price bands shown in the price scenario projection charts with annual variance lines.

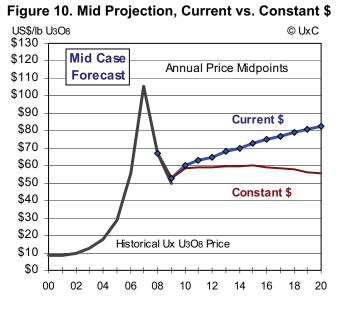
Mid Price Scenario

Table 17. K	Table 17. Key Factors Used to Develop Mid Price Scenario										
Factor	Assumption (Changes from Last Report in Italics)										
Utility Market Demand	Requirements equal the new URM Base Demand case (see page Error! Bookmark not defined.).										
Inventory Demand	Inventory demand slows due to lower uncovered requirements among Western utilities, but India and China are large buyers.										
Production Response	Production is deferred for many high-cost producers. Cigar Lake is delayed until at least 2015, while the Olympic Dam expansion is pushed off to 2020. African and Kazakh production are lower, but not by as much in the high price scenario.										
Exchange Rates	The U.S. dollar gains against producer currencies in the near-term, but then weakens in the medium-term due to high debt.										
Investor Activity	Some fund buying occurs at lower price levels, but tapers off as prices move higher.										
SWU Developments	The amended Russian Suspension Agreement gives the U.S. market access to Russian SWU and a small amount of EUP.										
HEU Feed Availability	No Russian HEU is available after the current deal expires. The U.S. continues to blend down HEU at low levels.										
Other Secondary Supply	DOE sells inventory at a moderate pace and makes it available to meet first core demands.										

- Changes Projected prices from 2009 to 2015 have been adjusted lower since the last report, with a sharper decline to prices in the nearterm, as discretionary demand has slowed and unfilled needs are low compared to the past few years. The probability of this scenario has declined by 10% to 55% in 2009, and by 5% to 55% in 2010 and 2011.
- Discussion The mid price scenario remains the most probable of our three scenarios, but as noted above, the probability of this case has declined in 2009 to 2011 at the expense of the low price scenario. We foresee unfilled needs being very low in 2009 and 2010, resulting in few utilities with actual needs coming to the market. Lower prices may induce some discretionary demand from utilities, but many of these utilities are strapped for cash following the financial crisis.

However, we still foresee the spot price rebounding sharply in 2010 and 2011, mainly as the result of lower prices that will lead to the deferral and/or delay of higher cost uranium projects. At the time of this writing, Cameco has announced that the Cigar Lake mine will not come online in 2011, and we assume here that it will not be online until late 2014. Late last year, AREVA also announced that its Midwest project would be deferred. To the extent that one or both of these mines have utility commitments in the 2011 through 2014 period will result in the affected utilities having to find alternate supply in the spot or term market over the next couple of years. And if either supplier chooses to fill these contracts, they may have to purchase material on the open market, which would certainly be price accretive. We also project that actual demand from utilities will normalize by 2011 as the HEU deal comes to an end in 2013. China and India are also expected to continue increasing their uranium holdings.

In the 2016 to 2020 timeframe, we foresee prices increasing gradually due to the high probability that the Olympic Dam expansion will be delayed until 2020 or later, or possibly even reduced in size.



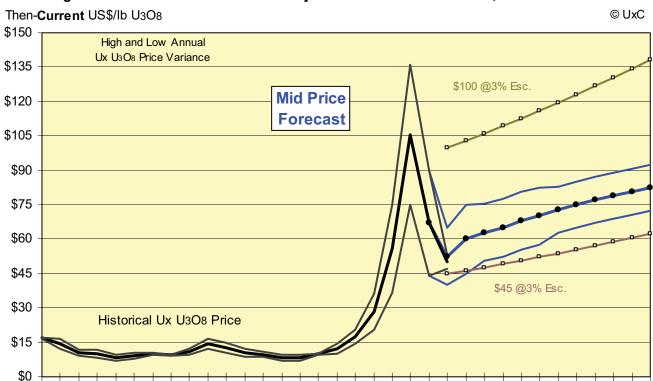


Figure 11. UxC Mid Price Scenario Projection and Annual Variance, 1987-2020

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	Table 18. UxC Annual Price Projections – Mid Price Scenario, 2008-2020 (Then-Current US\$/lb U₃O₅)														
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
High Variance	\$90.00	\$65.00	\$75.00	\$75.50	\$77.50	\$80.50	\$82.50	\$83.00	\$85.00	\$87.00	\$89.00	\$90.50	\$92.50		
Midpoint	\$67.00	\$52.50	\$60.00	\$63.00	\$65.00	\$68.00	\$70.00	\$73.00	\$75.00	\$77.00	\$79.00	\$80.50	\$82.50		
Low Variance	\$44.00	\$40.00	\$45.00	\$50.50	\$52.50	\$55.50	\$57.50	\$63.00	\$65.00	\$67.00	\$69.00	\$70.50	\$72.50		

High Price Scenario

Table 19. K	Table 19. Key Factors Used to Develop High Price Scenario											
Factor	Assumption (Changes from Last Report in Italics)											
Utility Market Demand	The new URM High Demand Case is assumed here, but is lower than our previous High Demand Case, as the financial crisis has had a net effect of reducing requirements in the 2010-2020 timeframe. (see page Error! Bookmark not defined.).											
Inventory Demand	Demand is higher than assumed in the mid-price scenario, particularly as China and India's nuclear plans are unaffected by the financial crisis.											

Production Response	Production is projected to be hit harder than previously envisioned, especially in Africa, but also in Kazakhstan. <i>Cigar Lake is delayed until 2017 and BHP decides to</i> <i>scrap the Olympic Dam expansion.</i>
Exchange Rates	U.S. dollar weakens against the new lower level of producer currencies. <i>Inflationary pressure sets in.</i>
Investor Activity	New Investor/hedge funds emerge and purchase material in anticipation of production shortages, although this response is more muted.
SWU Developments	U.S. utilities are given some access to Russian SWU, but SWU capacity is limited, resulting in large uranium needs for utilities.
HEU Feed Availability	No Russian HEU is available after the current deal expires.
Other Secondary Supply	DOE sells inventory at a slower than anticipated pace.

- Changes Prices under the high price scenario have declined in the near-term (2009 and 2010), but remain unchanged in the period from 2011 to 2020. The probability of this scenario remains the same, with the exception of a 5% increase in the scenario to 20% from 2017 to 2020.
- Discussion This scenario is not considered as likely from a demand point of view, particularly since the case for higher requirements is less now than before the fallout from the financial crisis. However, one cannot discount the projected demand from China and India going forward. While the potential exists for their requirements to be cut if growth is stunted there, both of these countries are under global pressure to reduce their carbon footprints, and nuclear power is likely

to be the last energy source displaced. Furthermore, the potential exists for new investors to emerge and purchase material if prices stay low and production disruptions occur, but in all likelihood their

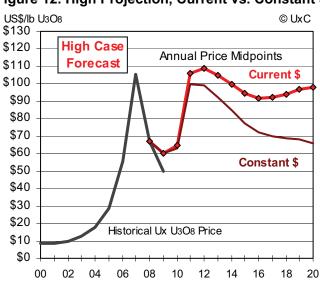


Figure 12. High Projection, Current vs. Constant \$

presence would not be as grand as before due to the innate difficulty to quickly sell-off material and exit the industry.

Perhaps the biggest arguments for this case to occur are developments on the supply side. The recent price depression is already resulting in the delay/deferral of new production, and if this holds up, more projects could be shelved over the next year or two. The start-up of Cigar Lake has been pushed out to 2017 in this case, while the expansion of Olympic Dam has been eliminated from this case altogether. African production is growing, but the potential for delays there are high, especially with the inherent political unrest in Niger where AREVA's new Imouraren mine is being developed. Kazakhstan has been the one shining star, but even here there are questions of whether it can keep up its rate of production growth. Assuming that demand returns to more moderate levels in 2010 and 2011, spurred on by utilities having to find alternate production supplies, the case for another price spike in this period is not outside of the realm of possibility.

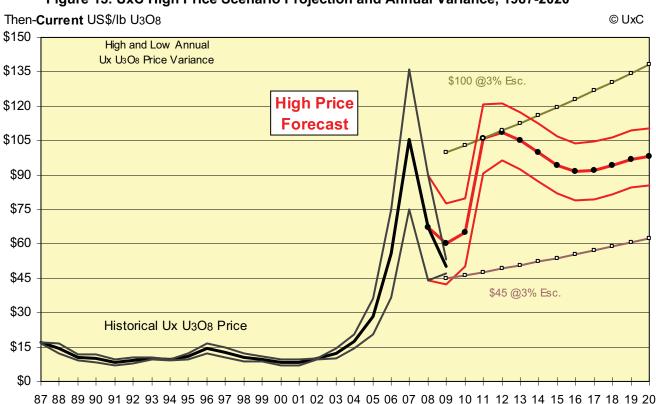


Figure 13. UxC High Price Scenario Projection and Annual Variance, 1987-2020

	Table 20. UxC Annual Price Projections – High Price Scenario, 2008-2020(Then-Current US\$/Ib U3O8)													
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
High	\$90.00	\$77.50	\$80.00	\$120.90	\$121.20	\$117.50	\$112.30	\$106.80	\$103.90	\$104.50	\$106.60	\$109.50	\$110.50	

Variance													
Midpoint	\$67.00	\$60.00	\$65.00	\$105.90	\$108.70	\$105.00	\$99.80	\$94.30	\$91.40	\$92.00	\$94.10	\$97.00	\$98.00
Low Variance	\$44.00	\$42.50	\$50.00	\$90.90	\$96.20	\$92.50	\$87.30	\$81.80	\$78.90	\$79.50	\$81.60	\$84.50	\$85.50

Low Case Scenario

Table 21. Ko	Table 21. Key Factors Used to Develop Low Price Scenario										
Factor	Assumption (Changes from Last Report in Italics)										
Utility Market Demand	This scenario utilizes the new URM Base Demand case. However, initial core demand is delayed significantly as new reactors are deferred due to the recession.										
Inventory Demand	Given strong inventory accumulation over the past few years, utilities avoid further discretionary buying. Buying by India and China is weaker than expected as they are impacted by the credit crunch as well.										
Production Response	Cigar Lake is delayed until 2013, and the Olympic Dam expansion commences in 2017. Some African production is delayed, but Rössing boosts production to 13 million pounds by 2013. <i>Kazakh production remains</i> <i>close to targets as sulfuric acid shortages are resolved.</i> <i>Deflation lowers overall production costs.</i>										
Exchange Rates	The U.S. dollar strengthens further against producer currencies.										
Investor Activity	Investors find little reason to jump back in, especially with little cash, deflation, and ample production.										
SWU Developments	Russia is given more access to the U.S. market than in the mid-price scenario, while new enrichment plants come online in the U.S. and in France. This causes tails assays and uranium demand to fall.										
HEU Feed Availability	Russia continues to blend down some HEU after the current deal expires, but at a rate much less than today.										
Other Secondary Supply	DOE elects to sell more inventories, even at lower prices, in an effort to help reduce the deficit. A small percentage of utilities with significant uranium holdings elect to sell into the market.										

 Changes – In the near-term (2009 and 2010), midpoint prices under this scenario have been lowered just slightly, mainly due to weak demand stemming from low unfilled needs. However, prices are unchanged in the period from 2011 to 2020. The probability of this scenario has increased by 10% to 30% for 2009, and by 5% to 25% for both 2010 and 2011. Near the latter part of the next decade (2017 to 2020), the probability of this scenario decreases by 5% to 30% due to the need for new production.

Discussion – Over the last couple of months, support for the low price scenario has certainly been gaining favor. The lack of discretionary demand, much less actual demand, suggests that 2009 should be relatively weak in terms of transacted spot market activity. In fact, in our recent winter survey, we asked respondents whether the recent financial crisis has affected their company's ability to purchase spot uranium in 2009. Of the utilities that responded, 35% said that the financial crisis had indeed affected their ability to purchase in 2009.

While significant inventories were liquidated by the hedge funds during the second half of 2008, uranium funds such as UPC and NUL together have over 10 million pounds of inventory. This material is not accessible at the moment, but it may not preclude a supplier or utility from buying up one of these funds. Also, utilities with cash concerns may opt to sell inventory holdings to avoid holding costs if they perceive prices will remain relatively low in the future. In terms of production, Kazakhstan's growth has been impressive and it appears to be on track to reach the 40 million pound level within three years. Meanwhile, AREVA is heavily invested in Africa and has shifted its production strategy to mining shallow, easily accessible, low grade uranium as opposed to more technically complicated high grade deposits in Saskatchewan. Even if Trekkopje in Namibia and Imouraren in Niger are slightly delayed, these projects will come online.

Figure 15. UxC Low Price Scenario Projection and Annual Variance, 1987-2020

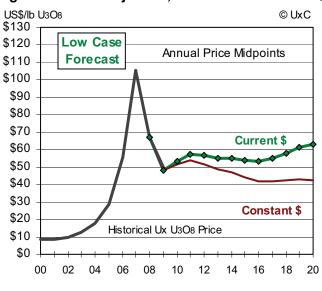


Figure 14. Low Projection, Current vs. Constant \$

Then-Current US\$/Ib U3O8



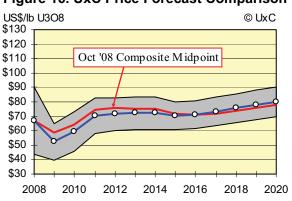
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	Table 22. UxC Annual Price Projections – Low Price Scenario, 2008-2020 (Then-Current US\$/Ib U3O8)														
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
High Variance	\$90.00	\$58.00	\$63.00	\$67.40	\$64.40	\$62.50	\$62.50	\$61.50	\$60.50	\$62.50	\$66.00	\$69.50	\$72.00		
Midpoint	\$67.00	\$48.00	\$53.00	\$57.40	\$56.90	\$55.00	\$55.00	\$54.00	\$53.00	\$55.00	\$58.00	\$61.00	\$63.00		
Low Variance	\$44.00	\$38.00	\$43.00	\$47.40	\$49.40	\$47.50	\$47.50	\$46.50	\$45.50	\$47.50	\$50.00	\$52.50	\$54.00		

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Composite Price Scenario

• Changes – As shown in Figure 7, the composite price forecast is now lower in the 2009 to 2015 period, with the variance from last quarter greater in the earlier years and narrowing in the out years. The price forecast increases



slightly in the 2017 to 2020 period due to a lower probability for the low price scenario in these years. The annual midpoint of the composite price bottoms at \$52.28 in 2009, before rebounding to a high of \$72.21 by 2014. The midpoint then declines slightly to \$70.50 in 2015, before increasing again over the 2016 to 2020 period to reach \$79.75 by 2020.

Discussion – Price projections have been lowered in all of the scenarios through 2010, pushing the composite price curve lower during this period compared to the last report. From 2011 through 2015, the composite price is also slightly lower due to lowering of the mid price scenario during this period. The decline in the composite price from 2009 to 2010 largely reflects the lack of actual and discretionary demand that is anticipated in the market over this period due to the heavy contracting levels by utilities over the past several years. This may be magnified by the fact that utilities have less available money to spend on fuel following the recent credit crisis.

The same cases holds true for investor and hedge funds that now realize it is more difficult to make a quick exit strategy in this industry.

In the period 2017 through 2020, the annual midpoint of the composite

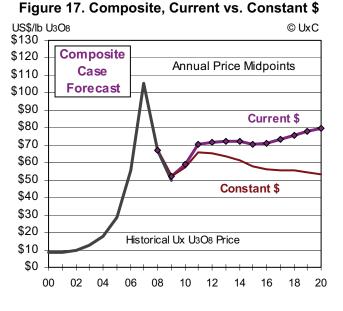


Figure 16. UxC Price Forecast Comparison

price forecast increases slightly as a result of upping the probability for the high price scenario to 20% from 15%. We anticipate that new reactor demand will be less impacted closer to 2020, which will place upward pressure on prices. Furthermore, the likelihood that the Olympic Dam expansion will have begun by 2020 is becoming less certain following the recent round of layoffs associated with the project.

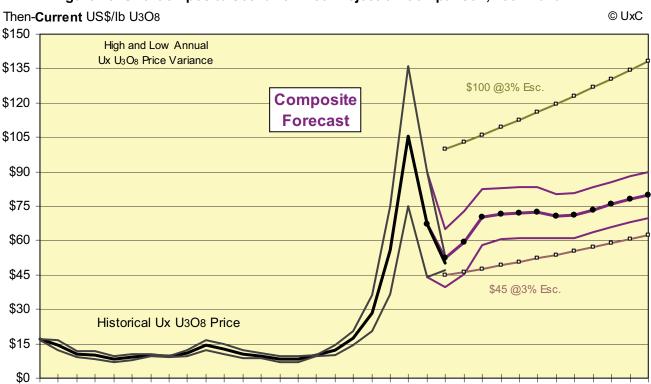


Figure 18. UxC Composite Scenario Price Projection Comparison, 1987-2020

87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20

	Table 23. UxC Annual Price Projections – Composite Price, 2008-2020 (Then-Current US\$/Ib U₃O₀)														
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
High Variance	\$90.00	\$64.78	\$73.00	\$82.56	\$82.97	\$83.40	\$83.46	\$80.12	\$80.49	\$83.15	\$85.62	\$88.00	\$89.95		
Midpoint	\$67.00	\$52.28	\$59.25	\$70.18	\$71.72	\$72.15	\$72.21	\$70.50	\$70.86	\$73.40	\$75.72	\$77.95	\$79.75		
Low Variance	\$44.00	\$39.78	\$45.50	\$57.81	\$60.47	\$60.90	\$60.96	\$60.87	\$61.24	\$63.65	\$65.82	\$67.90	\$69.55		

	Table 24. UxC Composite Price Weightings, 2008-2020 (Percentage)														
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
High Price	15%	15%	20%	20%	20%	20%	20%	15%	15%	20%	20%	20%	20%		
Mid Price	55%	55%	55%	55%	55%	55%	55%	55%	55%	50%	50%	50%	50%		
Low Price	30%	30%	25%	25%	25%	25%	25%	30%	30%	30%	30%	30%	30%		

Appendix B

Comparables & Acquisitions (Late 2007 – 2009)

AMC-BLIZZARD PROJECT

COMPARABLES & ACQUISTIONS (LATE 2007 - 2009)

AFRICA

Project: Etango (Open Pit) Owner: 100% Bannerman Location: Namibia

On September 17, 2007, Bannerman Resources Limited announced that a scoping study had been completed on the potential economic development of the Goanikontes Anomaly 'A' (now called Etango) uranium deposit in Namibia by Independent Metallurgical Operations (IMO) in conjunction with Coffey Mining. The scoping study revealed a range of possible production rates, with IMO recommending any final plant be scaled to handle the maximum per annum rate target of ~4,000 t U₃O₈ (~8.8 million pounds U₃O₈). The minimum production target is ~3,000 t U₃O₈ per annum (~6.6 million pounds U₃O₈). The company also advised that it is confident that a resource of at least 100 million pounds U₃O₈ at 0.02 – 0.03% could be established at the deposit, with a mine life of 12 to 15+ years. Operating costs (+/- 30%) are expected to range from US\$27.18 under a dry circuit to US\$30.16 under a wet circuit. This could be lowered if radiometric sorting is utilized. Capital costs are US\$363.1 million for a dry circuit and US\$399.9 million for a wet circuit.

Project: Chirundu (Open Pit) Owner: African Energy Resources Ltd. (70%) and Albidon Ltd. (30%) Location: Zambia

On May 9, 2008 African Energy Resources and Albidon Ltd. released results from a pre-feasibility study for their Chirundu uranium joint venture project. The study finds open pit uranium mining could be viable and has resulted in resource estimate upgrades for the project's Njame North and Gwabe deposits. Using a cut-off grade of 0.01%, indicated resources at Njame North are 3.4 million pounds with an average grade of 0.0388% U_3O_8 plus an additional 3.1 million pounds of inferred resources with an average grade of 0.0196% U_3O_8 . Indicated resources at Gwabe are 0.4 million pounds with an average grade of 0.0196% U_3O_8 plus an additional 2.6 million pounds of inferred resources with an average grade of 0.0303% U_3O_8 .

The study estimates uranium production at 1.3 million pounds U_3O_8 per year over a project life of five to six years. Initial mining is to take place at the Njame deposit, with mining at Gwabe commencing after the resource at Njame is exhausted. Operating costs are estimated at \$30 to \$40 per pound U_3O_8 and the study assumes a uranium price of \$65 per pound U_3O_8 . However, on November 7, 2008, the partners in the Chirundu JV decided to delay any further work on the project due to turmoil in global financial markets.

Project: Mkuju River (Open Pit) Owner: 100% Mantra Resources Ltd. Location: Tanzania

On December 12, 2009, Mantra Resources Ltd. completed a scoping study with the aid of MDM Engineering of South Africa. Recoveries of up to 91% in acid batch tests were revealed. An annual production rate of 2.5 million pounds U_3O_8 per year is estimated over a minimum tenyear mine life, however it was not until March 1, 2010 that Mantra released the Pre-Feasibility Study (PFS) for its Nyota prospect, part of the wholly owned Mkuju River Project in Tanzania. Using the current indicated mineral resource estimate of 28.5 million pounds U_3O_8 at 0.0515% U_3O_8 , plus inferred resources of 55.8 million pounds U_3O_8 at 0.0442% U_3O_8 , the Nyota prospect can support an average annual production of 3.7 million pounds U_3O_8 over a minimum 12-year mine life. This represents a 48% increase in annual production over the results of the Scoping Study reported in June 2009.

The PFS is based on a contractor mining scenario and the processing plant is based on simple acid leach and resin-in-pulp technology. The operating cost averages US\$25.05 per pound over the life of the mine, a decrease of 5% from the Scoping Study results. The capital costs (determined to a nominal accuracy of +/- 20%) for the project are estimated at US\$298 million; US\$140 million for the process plant and US\$158 million for project infrastructure. Any future increase in production rates will require minimal infrastructural capital as this is essentially sunk in the first phase of the project. The project has the capacity to generate pre-tax cash margins of about US\$115 million per annum at an average uranium price of US\$60 per pound over the life of mine.

Project: Kayelekera (Open Pit) Owner: 100% Paladin Energy Ltd. Location: Malawi

On February 28, 2007, the owner of the Kayelekera Open Pit mine in Malawi, Paladin Energy Ltd., found that total annual production for the first seven years will be 3.3 million pounds U_3O_8 over the first seven, and the last four years will see 1.17 million pounds per year. OPEX for the project was calculated at US\$19.50 per pound U_3O_8 during the first seven years to US\$23 per pound U_3O_8 over the life of the project. CAPEX was stated at US\$185 million inclusive of onsite power generation and US\$45 million in working capital.

Project: Letlhakane (Open Pit) Owner: 100% A-Cap Resources Ltd. Location: Botswana

A-Cap Resources, with the aid of SRK Consulting, completed an initial scoping study on October 17, 2008, which found the project financially viable with metallurgical recoveries between 78% and 90% within the oxide and calcrete mineralization which it believes will yield a target production rate of 2.2 million pounds U_3O_8 per year from a total resource estimate of 157.8 million pounds U_3O_8 at an average grade of 0.0154% U_3O_8 . The project is proposed as an open pit with a total daily ore extraction rate of 20,000 tonnes per day removed. SRK Found that cost estimates per pound of US\$29 per pound. OPEX and CAPEX figures were not given in this scoping study, however, an updated Bankable Feasibility is planned to be released in the near future.

Project: Husab Uranium (Open Pit)

Owner: Extract Resources Ltd. via 40.4% Kalahari Uranium Ltd., 14.7% Rio Tinto, 9.2% Polo Resources Ltd., 2.5% SGJ Investments, 2.3% Acorn Capital Location: Namibia

On September 11, 2008, Rio Tinto purchased a 10.9% interest (23.1 million shares) in Extract Resources Ltd., partly owned by Kalahari Minerals Plc, which is an Australian exploration company that operates in Namibia. Separately, Rio Tinto purchased a 14.9% interest (28.4 million shares) in Kalahari Minerals Plc as it seeks to meet rising uranium demand. Extract and Kalahari, its biggest shareholder, announced plans on September 5, 2008 to merge and create an A\$210 million group dual-listed on the UK's Alternative Investment Market. Kalahari, which holds 39.11 percent of the Australian group, said it will pay 1.6 shares for each Extract share.

Rio Tinto again increased its stake in Kalahari Minerals Ltd. on February 17, 2009. Rio Tinto International Holdings Australia Pty Ltd bought about 3.45 million shares of Kalahari Minerals Plc, raising its stake in the company to 15.8 percent. Kalahari said it would seek to remain independent from Rio Tinto to ensure that Kalahari shareholders receive maximum value from the company's interest in Extract Resources Ltd.

Project: Valencia (Open Pit) Owner: 100% Forsys Metals Corp. Location: Namibia

Forsys Metals Corp and the George Forrest International Afrique S.P.R.L. (GFI) announced in a November 14, 2008 press release that they have entered into a definitive agreement in which GFI will acquire all of the outstanding common shares of Forsys Metals Corp.

The cash transaction of the offer was expected to be about C\$579 million. This includes the purchase of all of Forsys' outstanding common stocks at the cost of C\$7.00 per share, and the amount of any options and warrants held by Forsys. The price of C\$7.00 per share realizes a 55% premium on the average closing price of Forsys common shares on the Toronto Stock Exchange. The offer is expected to close by February 2009 and will be financed by GFI through both cash-on-hand and access to credit facilities. However the acquisition of Forsys by GFI never occurred and Forsys Metals is still evaluating its next steps to advance production at Valencia.

As of December 14, 2009, the Valencia reserve totaled 49.8 million pounds U_3O_8 at 0.0194% U_3O_8 given a 0.01% cut-off and 60.5 million pounds U_3O_8 at 0.0156% U_3O_8 given a 0.0067% cut-off. Meanwhile, measured and indicated resources total 55.9 million pounds U_3O_8 at 0.016% U_3O_8 given a 0.01% cut-off and 75.5 million pounds U_3O_8 at 0.0127% U_3O_8 given a 0.006% cut-off.

Asia

Project: Saddle Hills/Gurvanbulag (Open Pit) Owner: 100% Western Prospector Location: Mongolia

On January 9, 2009, Western Prospector Group Ltd. announced positive economics from the Definitive Feasibility Study (DFS) received from Aker Metals for its 100%-owned Gurvanbulag Central uranium deposit in Mongolia. The DFS follows a Preliminary Economic Assessment of Gurvanbulag, completed in 2007 by Micon International Limited.

The DFS is based on total reserves of 17.9 million pounds U_3O_8 at 0.161% U_3O_8 , at a cut-off grade of 0.08% U_3O_8 . A radiometric sorting plant is projected to remove 620,000 tonnes of low grade rock and feed a nominal 500,000 tonnes per year to the process plant with a head grade of 0.179% U_3O_8 . With an average process recovery of 94.2%, the study indicates that the deposit can produce a yearly average of 1.85 million pounds U_3O_8 for a nine year production life. The study indicates economic viability, with an estimated pretax internal rate of return (IRR) of 9.2% based on a selling price of US\$65 per pound. However, the IRR translates to 1.3% on an aftertax basis, incorporating all taxes currently in effect in Mongolia, which is barely economic at the current long-term price.

The pre-production capital cost estimate, based on currency exchange rates prevailing during the second quarter of 2008, is US\$280.2 million with a further US\$137.5 million of sustaining capital costs during mine life. The site operating cost per tonne mined is US\$94.62, which results in an operating cost per pound of uranium at US\$29.00. In comparison with the Preliminary Assessment prepared for Western Prospector in 2007 by Micon, capital costs have

increased by US\$148.7 million (55%) due to inflation during the period. Operating costs only increased by US\$10.64 per tonne.

Western Prospector Group Ltd. said March 26, 2009 that it has agreed to be bought by a unit of Hong Kong-based CNNC International Limited for about C\$31 million. CNNC's First Development Holdings Corp. unit will pay C\$0.56 per share in cash, representing a 51% premium to Western's closing price of C\$0.37 on March 24, and a 75% premium to Western's 20-day volume weighted average price for the period ending March 24, 2009.

Project: Dornod (Open Pit/Underground) Owner: 100% Khan Resources Location: Mongolia

Khan Resources Inc. announced March 11, 2009, the results of its Definitive Feasibility Study (DFS) for its Dornod uranium project in northeastern Mongolia. The study, jointly completed by engineering consultants, Aker Metals, and resource consultants, Scott Wilson Roscoe Postle Associates Inc., was based on the National Instrument 43-101 compliant indicated resource of 25.3 million tonnes at an average grade of $0.116\% U_3O_8$ for 64.3 million pounds U_3O_8 , and an inferred mineral resource of 2.2 million tonnes at an average grade of $0.050\% U_3O_8$ for 2.4 million pounds U_3O_8 .

The 2008 probable mineral reserve, prepared by P&E Mining Consultants Inc., for the No. 2 open pit and No. 7 underground deposits is 18.0 million tonnes at an average grade of $0.133\% U_3O_8$ for 52.9 million pounds U_3O_8 out of the 64.3 million pounds of indicated resources. Khan has a 58% interest in the No. 2 deposit and two-thirds of the No. 7 deposit, plus a 100% interest in the remaining one-third of the No. 7 deposit. The ownership gives Khan an overall interest of 69% of the uranium contained in both deposits.

The DFS assumes a long-term uranium price of US\$65 per pound U_3O_8 , and a throughput of 3,500 tonnes per day over a 15-year mine life, which will generate an average annual production rate of 3.0 million pounds U_3O_8 at a cost of US\$23.22 per pound U_3O_8 or US\$58.26 per tonne of ore. The initial capital cost of the project is projected to be about US\$333 million. The after tax NPV at 10% using a uranium price of US\$70 per pound U_3O_8 is US\$339 million and the IRR after tax is 32.5%.

Australia

Project: Bigrlyi (Open Pit)

Owner: 53.7% Energy Metals, 42.1% Valhalla Uranium Ltd., and 4.2% Southern Cross Location: NT Australia

Energy Metals Ltd. announced July 18, 2008 the results of an in-house updated scoping study completed at the Bigrlyi project in the Northern Territory of Australia. Bigrlyi was identified as having an indicated and inferred resource totaling 23.4 million pounds U_3O_8 at a cut off of 500 ppm U_3O_8 . Assumptions used in the study include a U_3O_8 price of \$75 per pound, a vanadium price of US\$4 per pound and an Australian dollar range of US\$0.75.

In the study, a mine plan involving six open pits at three deposits was chosen. The open pits included deliver a total of 4.93 Mt to the Run-of-Mine (ROM) stockpiles at an average grade of 0.1537% U_3O_8 and 0.2529% V_2O_5 , recovering 15.0 million pounds U_3O_8 and 13.7 million pounds V_2O_5 over ten years. The study also assessed underground resource exploitation below conceptual pit designs using conventional decline access and stoping methodologies with a minimum of 4 meters. Utilizing these parameters, one underground mine was designed at A15, producing 0.48 Mt (ROM) at 0.1214% U_3O_8 and 0.1496% V_2O_5 to recover an additional 1.2 million pounds U_3O_8 and 0.8 million pounds V_2O_5 over two years. In total, the updated scoping study demonstrates that the Bigrlyi project is economically attractive to potentially produce 16.2 million pounds U_3O_8 and 14.5 million pounds V_2O_5 over a mine life of 12 years.

Project: Westmoreland (Open Pit) Owner: 100% Laramide Resources Ltd. Location: NT Australia

On April 23, 2009, Laramide Resources Ltd. commissioned Mining Associates of Australia to commission a NI 43-101 technical report that found the company's Westmoreland property had mineral resources totaling 36 million pounds U_3O_8 at an average grade of 0.089% U_3O_8 , and an additional 15.9 million pounds U_3O_8 at an average grade of 0.083% U_3O_8 that in the inferred category. GRD Minproc completed a scoping study shortly thereafter that estimated production of about 3 million pounds U_3O_8 annually at production costs of around US\$20 per pound with an initial mine life of 11 years, with a possibility of increasing to 15 years. Direct capital costs for the project were estimated at US\$214 million and mining would be conducted by open pit mining with processing by an acid leach circuit.

Project: Honeymoon (ISL) Owner: 51% Uranium One Inc. 49% Mitsui & Co. Ltd. Location: SA, Australia

On October 15, 2008, Uranium One stated that it reached an agreement with Japanese industrial firm, Mitsui & Co. Ltd. to create joint ventures in relation to Uranium One's Australian uranium assets. The agreement allows Mitsui to acquire a 49% interest in both the Honeymoon project in South Australia, and Uranium One's Australian uranium exploration properties. This agreement encompasses Uranium One's Goulds Dam and Billeroo projects and other potential uranium prospects like the Stuart Shelf and the Eyre Peninsula.

The joint venture between the two companies will come at the cost of A\$104 million to Mitsui for its 49% share of Uranium One's Australian mines and prospects. It is expected that Uranium One will use this cash commitment to advance the current status of the Honeymoon project to full commercial production. The Honeymoon project could potentially start commercial production near the end of 2010, with annual production of 400 t U_3O_8 (~880,000 pounds U_3O_8) for a production period of six years.

Project: Lake Way-Centipede (Open Pit) Owner: Toro Energy Ltd. Location: WA, Australia

Toro Energy Limited reported September 23, 2008, that mining and processing from its 100%owned Lake Way-Centipede project in Western Australia would be economic at current longterm uranium prices of around US\$80 per pound U₃O₈, based on results of a pre-feasibility study. Toro was targeting first production via shallow surface strip mining from Lake Way-Centipede by around 2012. The pre-feasibility study assessed four mining and processing options based on a JORC-compliant inferred and indicated uranium resource totaling 10,835 t U_3O_8 (~24 million pounds U_3O_8) at an average grade of 0.042% U_3O_8 . On a projected mine life of between 10-12 years and a likely throughput of between 1.5-2.0 million tonnes of ore per year, the study found the project would have cash costs between US\$39-\$41 per pound U_3O_8 . On the two preferred options, the study found that it would cost between A\$196 million and A\$247 million to establish the mine and mill – but generate a net present value of up to A\$78 million and, potentially, more than A\$166 million in the event of a successful optimization study. Metal recovery rates are projected to range from 70% for a heap leach operation to 83.8% for the conventional processing circuit. Project: Kintyre (Open Pit) Owner: 70% Cameco, 30% Mitsubishi Location: WA, Australia

On July 14, 2008, a joint venture comprised of Cameco (70%) and Mitsubishi Development Pty Ltd (30%) has signed an agreement to purchase the Kintyre project in Western Australia from Rio Tinto for US\$495 million through a bidding process. Cameco will operate the project and is funding its share (US\$346.5 million) of the purchase price through existing credit facilities. The transaction is expected to close in August subject to ministerial approval in Western Australia and execution of certain agreements with the Martu people who are the traditional owners of the land.

The Kintyre deposit is located in Western Australia about 1,250 kilometers northeast of Perth. Based on Cameco's due diligence, Kintyre may host potential mineral deposits ranging from 62 to 80 million pounds U_3O_8 in total, with an average grade between 0.3% and 0.4% U_3O_8 . The basis for these conceptual estimates includes 355 historical diamond drill holes totaling 70,279 meters.

Project: Lake Maitland (Open Pit) Owner: 100% Mega Uranium Ltd. Location: WA, Australia

On October 21, 2008 Mega Uranium Ltd. received a positive preliminary economic assessment of its Lake Maitland uranium resource in Western Australia. The study, conducted by Milestone Engineers and Project Managers of Perth, Australia, investigated the project economics of producing 1.65 million pounds U₃O₈ per year from an inferred resource, using cut-off grades of 100, 200 and 500 ppm U₃O₈, and at uranium prices of US\$60, US\$75, and US\$90 per pound U₃O₈.

A capital cost of US\$85.1 million was determined for the preferred development option, which is based on mining the greater than 0.02% U_3O_8 resource to produce 1.65 million pounds U_3O_8 per year and assuming a sales price of US\$75 per pound U_3O_8 . The average operating cost was calculated at US\$16.60 per pound U_3O_8 . Costs are reported at a nominal +/- 35% degree of accuracy. With a resource of 18.3 million pounds U_3O_8 at 0.05% U_3O_8 , the study assumes a mine life of 10 years.

Mega Uranium later announced on February 27, 2009 that it, JAURD (the Japan Australia Uranium Resources Development Co. Ltd.), and Itochu Corporation as 35% joint venture partners in its Lake Maitland Project in Western Australia. The Lake Maitland Project contains a NI 43-101 compliant Inferred Resource of 23.7 million pounds U₃O₈.

Mega Uranium, JAURD, and Itochu have entered into a non-binding Memorandum of Understanding for the proposed farm-in joint venture. JAURD consists of Kansai Electric Power Co., Kyushu Electric Power Co., and Shikoku Electric Power Co. The agreement initially states that JAURD and Itochu will make payments for feasible studies to Mega Uranium at the Lake Maitland Project in order to earn a 35% joint venture interest in the property. The 35% interest in the Lake Maitland Project will cost an aggregate A\$49 million to Itochu and JAURD.

Canada

Project: Elliot Lake (Underground) Owner: 100.0% Pele Mountain Resources Location: Elliot Lake, Ontario

In October 2007, Scott Wilson Roscoe Postle Associates Inc. released a NI 43-101 compliant technical report estimating that the deposit contained a total indicated resource of 6.39 million pounds U_3O_8 at 0.051% U_3O_8 and an inferred mineral resource of 36.15 million pounds U_3O_8 at 0.044% U_3O_8 .

Scott Wilson RPA estimated that the initial capital cost to develop the project is C\$195 million with additional capital costs over the 20-year mine life of C\$63 million, of which C\$31 million are scheduled at the end of the mine life for decommissioning. The mine life capital unit cost is US\$16.30 per pound U_3O_8 . The operating costs over the life of the project are estimated to average US\$55.51 per pound U_3O_8 . The average annual uranium production during operation is 826,000 pounds U_3O_8 based on the 20-year plan.

Project: Matoush (Underground) Owner: 100% Strateco Resources Inc. Location: Northern Quebec, Otish Mtns.

On December 17, 2008, Strateco realized its first economic assessment of its Matoush uranium exploration property to justify the underground uranium exploration program. The scoping study was based on the NI 43-101 compliant indicated resource of 7.4 million pounds U_3O_8 and inferred resource estimate of 20.2 million pounds U_3O_8 established by Scott Wilson RPA in its technical report dated September 16, 2008.

At the time, the mining plan assumed 15.5 million pounds U_3O_8 could be recovered over a seven-year period at an average ore grade of 0.437% U_3O_8 . Operating costs were assumed to be C\$32.15 per pound (US\$27.33 per pound). Mine life capital costs were estimated at C\$342,815,000.

Project: Michelin (Open Pit/Underground) Owner: 100% Aurora Energy Resources

Location: Central Mineral Belt, Labrador

On September 8, 2009, Aurora announced a positive Preliminary Economic Assessment (PEA) for the proposed Michelin uranium project. The study, prepared by AMEC Americas Limited, supports an open pit and underground mining operation at the Michelin and Jacques Lake deposits, and a milling facility at the Michelin site. The PEA calls for a processing plant throughput rate of 3.65 million tonnes per year, assuming 6,500 tonnes per day from underground and 3,500 tonnes per day from open pit sources. Production begins with 2.5 million pounds U_3O_8 produced in Year 1, followed by ramp up to a production rate of 7.03 million pounds U_3O_8 in Year 4. During Years 4-12, the production rate would vary between 6.3 million pounds U_3O_8 and 7.3 million pounds U_3O_8 per year (average of 6.9 million pounds U_3O_8 per year). From Years 13-17, production declines on an annual basis, with 3 million pounds U_3O_8 being produced in Year 16. The plan assumes that both the open pit and underground operations will start simultaneously at Michelin, followed by Jacques Lake, commencing in Year 12. There is an overlap in open pit production in Years 9 to 12, which allows for a production ramp up at Jacques Lake and sufficient tonnes to supplement Jacques Lake underground mining.

The capital costs of the Michelin project are expected to be US\$983.6 million, while sustaining capital would be US\$317.5 million, which would be derived from cash flow. Direct cash costs are stated at US\$28.57 per pound of U_3O_8 over the 17-year mine life. At an 8% discount rate, the project's pre-tax net present value is US\$914 million with a pre-tax internal rate of return of 19.4% on an unlevered 100% equity basis, and a pay-back period of 4.7 years.

EUROPE

Project: Salamanca I (Open Pit) Owner: 100% Berkeley Resources Ltd. Location: Iberian Peninsula, Spain

Berkeley Resources Ltd. advised February 14, 2008 that a scoping study on mining at the Salamanca I project in Spain, prepared by AMC Consultants, confirms the potential economic viability of the project. The study, which is based only upon the project's previously announced JORC inferred and indicated resources of 16.9 million pounds U₃O₈, assuming a minimum project life of 10 years and a uranium price of US\$60 per pound.

The outcome of the study reveals potential production of approximately 12.1 million pounds U_3O_8 over 10 years of production. Wisutec and AMC calculated cash operating costs of US\$25.02 per pound. Initial capital costs total \$109 million for a plant rated to process 1.5 million tons per annum of ore. The plant design has been scaled to allow for potential future additional resources.

In December 2009, the company released the results of another scoping study for the Salamanca uranium project. The study took into account five potential scenarios, two tanks and two heap leach pads. Results included cash costs in the range of US\$26 per pound U_3O_8 to US\$30 per pound U_3O_8 , with a capital cost range of US\$50 million to US\$90 million with an annual production of 2 million pounds U_3O_8 per annum. In terms of costs, the tank leach options showed lower operating and higher capital costs. The opposite was shown for the heap leach option. Using a combined heap and tank leach operation proved too expensive and has been dismissed.

U.S.

Project: Christensen Ranch/Irigaray (ISL) Owner: 100% Uranium One Location: Powder River Basin, Wyoming

Uranium One Inc. announced August 10, 2009 that it has entered into a definitive agreement to purchase 100% of the MALCO Joint Venture from wholly-owned subsidiaries of AREVA and EDF for US\$35 million in cash. The MALCO assets include the licensed and permitted Irigaray ISR (insitu recovery) central processing plant, the Christensen Ranch satellite ISR facility and associated U_3O_8 resources located in the Powder River Basin of Wyoming. Christensen Ranch reserves total 19.5 million pounds U_3O_8 at 0.11% U_3O_8 .

Project: Lost Creek (ISL) Owner: 100% Ur-Energy Location: Sweetwater County, Wyoming

On April 2, 2008, Ur-Energy released the results of a Preliminary Assessment for the Lost Creek project by Lyntek Inc. Sensitivity analyses completed as part of the study demonstrate that the project will be economically feasible at uranium prices above US\$40 per pound U_3O_8 . The operating costs in the base case are US\$23.26 per pound U_3O_8 . The capital cost to build a 2 million pound per year capacity ISR plant at Lost Creek is US\$30 million. Development of Lost Creek to the initiation of producing, including drilling, environmental permitting, engineering, construction management, disposal wells and ponds, and header houses, is projected to be US\$32.5 million. The economic analysis in the Preliminary Assessment is based on a conservative model of production starting in the fourth quarter of 2009, from six individual mine units, each containing about 1.2 to 1.4 million pounds U_3O_8 for a total of 8.1 million pounds U_3O_8 . The model does not address all of the current NI 43-101 compliant indicated resources totaling 9.8 million pounds U_3O_8 and inferred resources totaling 1.1 million pounds U_3O_8 . Also, the assessment does not consider the ability of the company to increase its resources at Lost Creek, particularly in the underlying KM horizon which, based on preliminary drilling and assessment of historic data, has the potential for resource expansion.

A proposed new processing plant is being designed and permitted to produce 2 million pounds U_3O_8 slurry per year with the capability to toll process loaded resin from other satellite ISR facilities. Instead of building a satellite plant for resin loading, as anticipated in the preliminary plans, Ur-Energy will construct a full-scale processing plant, which will be completed in stages. The first stage will produce yellowcake slurry and, at a later date, a second stage will add a drying and packaging facility.

Project: Nichols Ranch/Hank (ISL) Owner: 100% Ur-Energy Location: Sweetwater County, Wyoming

Uranerz Energy Corporation announced August 11, 2008 receipt of a positive preliminary assessment on the economics and technical viability of the company's Nichols Ranch uranium insitu recovery (ISR) project in the Powder River Basin of Wyoming, and the filing of a related NI 43-101 technical report. The central processing facility is planned for a licensed capacity of 2 million pounds U_3O_8 per year and will process uranium-bearing wellfield solutions from Nichols Ranch, as well as uranium-loaded resin transported from the Hank satellite facility, plus uranium-loaded resin from any additional satellite deposits that may be developed on the company's other Powder River Basin properties. The technical report concluded that the project is at a stage where it can be advanced to engineering design and development.

TREC, Inc. developed a cash flow valuation model for the project based on the construction of four wellfields, a central processing plant at Nichols Ranch and a satellite ion exchange plant at Hank. Initial capital expenditure is projected at US\$34.2 million, including pre-production costs of US\$0.8 million. Capital payback is estimated to be one to two years from commencement of production. Over a 5.25 year production life, the operating cost is expected to be US\$24 per pound U_3O_8 (based on 3.266 million recoverable pounds U_3O_8). Production start-up would be late 2010, subject to federal and state regulatory approval. The economic impact of additional satellite facilities (projected recoverable resources of 1.63 million pounds U_3O_8 using a 73% recovery factor) resulted in similar estimated pre-production, capital and operating costs to Hank. A toll processing fee of US\$6.70 per pound U_3O_8 was assumed.

Project: Reno Creek (ISL) Owner: 100% Bayswater Uranium Corp. Location: Powder River Basin, Wyoming

Bayswater Uranium Corporation announced today that it has signed letters of intent with Strathmore Resources (US) Ltd., a wholly owned subsidiary of Strathmore Minerals Corp., and American Uranium Corp. to acquire the Reno Creek uranium project and its holding company, AUC LLC. Reno Creek is an advanced near-surface uranium project at the permitting/feasibility stage located in the Power River Basin in northeastern Wyoming. The project comprises NI 43-101 compliant measured and indicated resources of 10.96 million pounds U₃O₈ at an average ore grade of 0.066% U₃O₈, and 4.73 million pounds U₃O₈ of inferred resources at an average grade of 0.063% U₃O₈. Additionally, Reno Creek contains about 8.41 million pounds U₃O₈ in historical resources grading approximately 0.083% U₃O₈. Reno Creek is considered highly amenable to in-situ recovery of uranium.

The aggregate purchase price for a 100% interest in the Reno Creek uranium project is US\$32 million. Of the aggregate purchase price, US\$30 million in cash is payable to Strathmore for a 100% interest in the property, AUC LLC and all related assets, and US\$2 million, payable US\$1 million in cash and US\$1 million through the issuance of common shares of Bayswater, is payable to American Uranium in exchange for its option rights to the property and large data base plus a UIC (deep well injection) permit. A non-refundable deposit of US\$250,000 in cash has been paid to Strathmore in conjunction with the signing of the letter of intent, which is credited against the US\$30 million purchase price.

Project: Sheep Mountain (ISL) Owner: 100% Titan Uranium Inc. Location: Fremont County, Wyoming

On October 1, 2009, Titan Uranium purchased 50% of the Sheep Mountain property, giving it a 100% interest in the property, which hosts an NI 43-101 inferred resource of 15.6 million pounds U_3O_8 at 0.17% U_3O_8 . Terms of the agreement included an initial cash payment of US\$850,000 for Sheep Mountain and Hollie claims; a payment of US\$2 million if the month-end spot uranium price reported by UxC exceeds US\$65.00 per pound within three years of closing; a further payment of US\$4 million if the month-end spot uranium price reported by UxC exceeds US\$85 per pound within three years of the closing date.

On April 15, 2010, Titan completed a PFS prepared by BRS Inc., an independent engineering consulting firm based in Denver, Colorado. The PFS estimates were based on capital and operating costs for a uranium mine using conventional open pit and underground mining methods and heap leach recovery, with a maximum annual capacity of 1.5 million pounds U₃O₈ based on a long-term uranium price of US\$60 per pound U₃O₈. The PFS figures an initial mine life of 11 years to exploit probable mineral reserves of 14.2 million pounds U₃O₈. Estimated

capital costs are US\$118 million including allowances for contingency and risk. Operating costs are estimated at US\$28.67 per pound recovered.

Titian Uranium plans to develop both the Sheep I and Sheep II underground mines with access from twin declines. Haulage to the surface will be conducted via a 36-inch conveyor belt system. At peak production, the underground mine will produce approximately 1.0 million pounds U_3O_8 , which will be supplemented by additional ore from the nearby 500,000 pound U_3O_8 per year Congo Pit. Recovery of the uranium will take place with heap leach pads using H_2SO_4 and a conventional recovery plant, through to yellowcake production on the site.

APPENDIX 12

EXPERT REPORT ON VALUATIONS USING DCF AND MARKET CAPITALIZATION METHODS



Private & Confidential

BLIZZARD URANIUM PROPERTY

Fair Market Value Estimate As at April 24, 2008 & March 12, 2009

Report Prepared November 4, 2010 For Government of British Columbia

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Table 1	Table 2	Table 2	Table 2	Table 2	Table 2	Table 2	Table 2	Table 2	Table 2	Table 2	Table 3	Table 3



SCHEDULES

As at April 24, 2008

Schedule 1	Summary of weighted average net present value of the Property
Schedule 2	Projected discretionary after tax cash flows based on four year approval period
Schedule 3	Projected discretionary after tax cash flows based on six year approval period
Schedule 4	Projected discretionary after tax cash flows based on eight year approval period
s at March 12, 2009	2009
Schedule 5	Summary of weighted average net present value of the Property

As a

5 Summary of weighted average net present value of the Property	Projected discretionary after tax cash flows based on four year approval period	Projected discretionary after tax cash flows based on six year approval period	Projected discretionary after tax cash flows based on eight year approval period
Schedule 5	Schedule 6	Schedule 7	Schedule 8

ISL Acid Leach Method

As at April 24, 2008

Summary of weighted average net present value - ISL Acid Leach Method	Projected discretionary after tax cash flows – seven year approval period
Schedule 9	Schedule 10

As at March 12, 2009

Summary of weighted average net present value - ISL Acid Leach Method	Projected discretionary after tax cash flows – seven year approval period
Schedule 11	Schedule 12



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ISL Alkali Leach Method

As at April 24, 2008

Schedule 13 Summary of weighted average net present value - ISL Alkali Leach Methoc	Projected discretionary after tax cash flows – five year approval period	Projected discretionary after tax cash flows – seven year approval period
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As at March 12, 2009

Summary of weighted average net present value - ISL Alkali Leach Method	Projected discretionary after tax cash flows – five year approval period
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Schedule 18 Projected discretionary after tax cash flows – seven year approval period

Schedule 19 Curriculum Vitae – Michael D. Bowie



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Ministry of Attorney General of British Columbia PO Box 9280 Stn Prov Govt Victoria, BC V8W 9J7

Attention: Mr. J. Edward Gouge

November 4, 2010

Dear Sirs/Mesdames:

You have asked us to provide an estimate of the fair market value (the Valuation) of the Blizzard Uranium Deposit (Blizzard or the Property) as at April proceeding initiated by the owner of Blizzard, Boss Power Corp (formerly Boss International Gold Corp, referred to herein as Boss or the Company), 24, 2008 and March 12, 2009 (the Valuation Dates). We understand that the Valuation has been requested in connection with an expropriation against the Province of British Columbia (the Province).

Our commentary is organized as follows:

- Summary of Our Conclusions
- Scope of Our Review
- Assumptions
- Definition of Fair Market Value
- Overview of the Property & the Company



BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE
Industry Overview
Financial Summary
Valuation Principles and Approaches
Valuation Approach – Discounted Cash Flow
Valuation Calculations – the Property
Valuation Calculations – Market Capitalization
Valuation Conclusions
Restrictions.
All monetary amounts noted in this report and in the attached schedules are expressed in Canadian dollars, unless otherwise noted.
SUMMARY OF OUR CONCLUSIONS
Based on the scope of our review and the assumptions noted herein, we estimate that the fair market value of the Property was nominal as at the Valuation Dates. In Tables 1 to 6 below, we have summarized the components of our value conclusions as at April 24, 2008 and March 12, 2009, on a base case scenario for the Open Pit (OPM), Acid In-situ Leach (ISL) and Alkali ISL mining methods described later in this report. The base case calculations reflect the weighted average net present value of the projected cash flows to be derived from the Property, based on various assumptions provided by the AMC Mining Consultants (Canada) Ltd. (AMC) and the Province, as outlined later in this report.



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PROPERTY	ESTIMATE
URANIUM	KET VALUE
BLIZZARD	FAIR MAR

Table 1 - Base Case - OPM Method - Weighted Average Net Present Value of the Projected Cash Flows from the Property - April 24, 2008

	Net Present	Probability Weighting	ility ing	Weight	Weighted Average NPV
Approval Scenario (000s)	Value	Low	High	Low	High
Scenario 1 - 4 year	\$ (94,673)	5%	15%	\$ (4,700)	(14,200)
Scenario 2 - 6 year	(79,560)	25%	30%	(19,900)	(23,900)
Scenario 3 - 8 year	(66,005)	40%	45%	(26,400)	(29,700)
Scenario 4 - No approval	(3,748)	30%	10%	(1,100)	(400)
				\$ (52,100)	(68,200)

Table 2 - Base Case - OPM Method - Weighted Average Net Present Value of the Projected Cash Flows from the Property - March 12, 2009

	Net Present	Probability Weighting	oility ting	Weighte NI	Weighted Average NPV
Approval Scenario (000s)	Value	Low	High	Low	High
Scenario 1 - 4 year	\$ (61,713)	5%	15%	\$ (3,100)	(0,300)
Scenario 2 - 6 year	(53,165)	25%	30%	(13, 300)	(15,900)
Scenario 3 - 8 year	(47,317)	40%	45%	(18,900)	(21,300)
Scenario 4 - No approval	(3,748)	30%	10%	(1,100)	(400)
				\$ (36,400)	(46,900)



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PROPERTY	ESTIMATE
D URANIUM	<i>IRKET VALUE</i>
BLIZZAR	FAIR MA

Table 3 - Base Case – ISL Acid Leach Method - Weighted Average Net Present Value of the Projected Cash Flows from the Property - April 24, 2008

	Net Present	Proba Weig	Probability Weighting		Weighted Average NPV	nted NPV
Approval Scenario (000s)	Value	Low	High		Low	High
Seven year approval period	\$ 18,669	5%	15%	\diamond	930	2,800
No approval received	(4,498)	95%	85%		(4,270)	(3,820)
				- ↔	\$ (3,340)	(1,020)

Table 4 - Base Case – ISL Acid Leach Method - Weighted Average Net Present Value of the Projected Cash Flows from the Property - March 12, 2009

		Net Present	Probability Weighting	Probability Weighting		Weighted Average NPV	ited NPV
Approval Scenario (000s)		Value	Low	High		Low	High
Seven year approval period	⇔	29,886	5%	15%	\diamond	1,490	4,480
No approval received		(4,498)	95%	85%	I	(4,270)	(3,820)
					÷	\$ (2,780)	660







PROPERTY	ESTIMATE
URANIUM	RKET VALUE
BLIZZARD	FAIR MAI

Table 5 - Base Case – ISL Alkali Leach Method - Weighted Average Net Present Value of the Projected Cash Flows from the Property - April 24, 2008

	_	Net Present	Proba Weig	Probability Weighting		Weighted Average NPV	hted و NPV
Approval Scenario		Value	Low	High		Low	High
(snnn)							
Five year approval period	\$	546	%0	10%	↔	ı	50
Seven year approval period		816	10%	20%		80	160
No approval received		(4,498)	%06	%02		(4,050)	(3,150)
					÷	\$ (3,970)	(2,940)

Table 6 - Base Case – ISL Alkali Leach Method - Weighted Average Net Present Value of the Projected Cash Flows from the Property - March 12, 2009

Approval Scenario (000s) Five year approval period	Net Present Value 7,862 8 146	Probability Weighting Low Hig 0% 10%	bility nting High 10%	÷	Weighted Average NPV Low Hig - 79 810 169	nted NPV High 790
No approval received	(4,498)	%06	20%	↔	(4,050) \$ (3,240)	(3,150)



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BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE
SCOPE OF OUR REVIEW
We have been asked to provide an estimate of the fair market value of the Property. Under the Standards of the Canadian Institute of Chartered Business Valuators there are three types of valuation reports:
Comprehensive
• Estimate
Calculation.
The conclusions reported therein differ by the level of assurance provided and the extent of analysis, investigation and corroboration performed b valuator, with a comprehensive valuation report providing the highest assurance and a calculation valuation report providing the lowest. The brea of work performed by the valuator does not differ for the three types of reports, only the depth of analysis, investigation and independent corroboration. As such, the scope of review will be inherently limited by the nature of the valuation report to be provided and, as a result, the conclusions to be expressed may be different than if a comprehensive valuation report were to be prepared.

tion performed by the lowest. The breadth

circumstances. In order for us to express our opinion as to the fair market value of the Property, additional work of a verification nature would need to professional opinion as to the fair market value of the Property. Rather, we have identified an appropriate approach to provide an estimate of value The scope of the procedures and investigations undertaken in the preparation of an estimate of value is limited. For example, we have not been and, based on that approach and the information made available to us, we have estimated a range of values we consider reasonable under the provided with, or commissioned, an independent technical assessment of the Property. Accordingly, we are not in a position to express our be carried out.

In order to complete this engagement, we have reviewed and relied upon the following information provided to us by the Province and a team of mining consultants assembled by AMC:



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BLI	Blizzard Uranium Property Fair Market Value Estimate
•	"Blizzard Project – Phase I Process Plant Capital and Operating Cost Estimates" memorandum, prepared July 30, 2010 (revised November 1, 2010) by Bruce C. Fielder, P. Eng, Melis Engineering Ltd. (the Melis Report)
•	"Blizzard Project: Phase 1 – Resource Estimate Desktop Review" memorandum, prepared August 13, 2010 by Mark Sweeney, AMC Consultants Pty Ltd. (the AMC Resource Report)
•	"Blizzard Project: Phase 1 – Open Pit Evaluation" memorandum, prepared September 15, 2010 by Greg Hollett, AMC Mining Consultants (Canada) Ltd.
•	Memorandum from AMC Consultants Pty Ltd. regarding resource to reserve issues related to non-Blizzard claims, including Cup Cake, Hydraulic Lake and Fuki deposits, prepared October, 2010 by AMC Consultants Pty. Ltd. (Non-Blizzard Claims Report)
٠	Alternative Extraction Options – In Situ Leaching, prepared October 2010 by Alan Riles (ISL Report)
•	Review of Environmental Issues Constraints and Considerations, draft Report prepared October 28, 2010, by Richard Pope of Dillon Consulting Inc. (Dillon Report)
•	"Technical Report on the Blizzard Uranium Deposit" prepared November 15, 2006 (revised February 23 & May 30, 2007) by by Dr. Peter Christopher, PhD, P.Eng, Christopher & Associates (the Christopher Report)
•	"Uranium Market Outlook" Q1 2009 and "Uranium Market Outlook" April 2008, prepared by the UX Consulting Company LLC (UxC) (collectively, the UMO Reports)



AMC Team Member Company Pat Stephenson, P. Geo AMC Mining Consultants (Canada) Ltd.	
	its (Canada) Ltd.
	its (Canada) Ltd.
Greg Hollett AMC Mining Consultants (Canada) Ltd.	its (Canada) Ltd.
	its (Canada) Ltd.
Mo Molawi AMC Mining Consultants (Canada) Ltd.	its (Canada) Ltd.
Bruce Fielder, P. Eng Melis Engineering Ltd.	
Lawrence Melis Melis Engineering Ltd.	
Richard Pope Dillon Consultants	
Nick Carter UxC	
conducted a review of published market data and research reports related to the uranium industry	uranium industry
reviewed pricing parameters and other market data for Boss and selected public companies	companies
reviewed various publicly available documents related to Boss and the Property.	
In completing this engagement, we have necessarily relied upon certain information provided to us by the AMC Team. We have reviewed and relied upon this material without undertaking any verification procedures.	orovided to us by the AMC Team. We have reviewed and relie
We are independent of the Company and are acting objectively. We have no present or contemplated interest in Boss or Blizzard, nor are we an insider or associate of the Company. Moreover, our fees for this engagement are not contingent upon our findings or any other event. This report has been prepared in conformity with the Practice Standards of the Canadian Institute of Chartered Business Valuators. Further, we certify that we are	ng objectively. We have no present or contemplated interest in Boss or Blizzard, nor are we an our fees for this engagement are not contingent upon our findings or any other event. This report ndards of the Canadian Institute of Chartered Business Valuators. Further, we certify that we are

BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE

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aware of the duty of an expert witness, as set out in Rule 11-2 (1) of the Supreme Court Civil Rules, and that we have prepared our commentary herein in conformity with that duty and will, if called on to give oral or written testimony, give that testimony in conformity with that duty.

ASSUMPTIONS

In arriving at our comments and conclusions, we have assumed that:

- the Company's reported financial position as at March 31, 2008 and December 31, 2009 is fairly stated and reflects the financial position as at the respective Valuation Dates
- the Company had no contingent assets or liabilities as at the Valuation Dates
- income tax laws in effect, or scheduled for enactment, at the Valuation Dates will continue unchanged in the foreseeable future
- assumptions related to the projected cash flows are set out in our discussions on the projected cash flows.

DEFINITION OF FAIR MARKET VALUE

For purposes of our estimate of value, fair market value is defined as the highest price available in an open and unrestricted market between informed and prudent parties, acting at arm's length and under no compulsion to act, expressed in terms of money or money's worth.

special purchasers may be willing to pay a premium to purchase a business as a result of additional benefits the acquisition is perceived to create for accordingly, the amount of such premium, if any, is not readily determinable. Based on our experience, it is only in negotiation with such a special purchaser that economies of scale can be quantified and even then, the purchaser is generally in a better position to assess the value of any special Fair market value, as defined above, is not necessarily representative of the price that could actually be realized on a sale of the Property. Certain the investor. The value attributable to these additional benefits depends upon the unique circumstances of each specific potential purchaser and benefits than is the vendor.



PROPERTY	ESTIMATE
URANIUM	GET VALUE
BLIZZARD	FAIR MAR

OVERVIEW OF THE PROPERTY AND THE COMPANY

Blizzard Uranium Deposit

The Property is located in the Greenwood Mining Division in south-central British Columbia, Canada. As at the Valuation Dates, the Property had not been developed and it is our understanding that mineral extraction had not commenced and approvals for the mine's development had not been sought or received. We understand that the Property is a "basal type", hydrogenic paliochannel deposit covering 334.837 hectares in the Okanagan Plateau, approximately 49 air kilometers southeast of Kelowna and 24 air kilometers northeast of Beaverdell, British Columbia. The deposit is situated at the divide between the Kettle and West Kettle River drainages, with runoff from the local creek systems entering the Kettle River system

resources at the Property as 2,200,00 tonnes grading 0.214% U₃O₈, using a cutoff grade of 0.025% U₃O₈. In November 2006, the Christopher Report the reporting guidelines of NI 43-101, although it should be noted that the Kilborn Report pre-dated NI 43-101. The Christopher Report discloses the used the historic reserve estimates in the Kilborn Report to convert the resource reported to historic indicated and inferred resources, consistent with venture with Ontario Hydro among others, completed over 400 reverse circulation drill holes at the property. It is our understanding that, based on Blizzard was discovered by the Lacana Mining Corporation in 1976 and was optioned by Norcen Energy Resources (Norcen), which, through a joint this information, Kilborn Engineering issued an Engineering Feasibility Study in August 1979 (the Kilborn Report) and Norcen reported historic indicated and inferred resources as follows:

Category	Tonnes	Grade % (U_3O_8)	Contained lbs (U ₃ O ₈)
Indicated	1,914,,973	0.247%	10,424,400
Inferred	4,685	0.162%	14,745

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BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE According to the Christopher Report, the uranium production was forward sold but the mineral deposit was never exploited due to a seven year moratorium in 1980 on exploration and development of uranium resources in British Columbia.

Resources and Adam Travis (collectively the Parties). The transaction was structured as a reverse takeover in which Boss issued 52.5 million shares to claims surrounding Blizzard, Hydraulic Lake, Fuki and Haynes Lake. We understand from the Non-Blizzard Claims Report that these claims have not the Parties, giving them control of Boss, with approximately 74.1% of the issued and outstanding shares, effective June 14, 2007. In addition to the Property, the Parties also transferred certain other mineral claims, or the option to purchase a significant interest in other mineral claims, including understand from the AMC Team that the historical information available is not NI43-101 compliant and therefore reserves could not be estimated been studied as extensively, and that detailed technical, engineering or feasibility studies of these claims have not been developed. We further We understand that Boss entered into an agreement on July 27, 2006 to purchase (the Purchase) the Property from Anthony Beruschi, Santoy based on available studies.

Boss Power Corporation

Canada. As at April 24, 2008, Boss had 73.2 million shares issued and outstanding, with a small number trading at a price of \$0.40 per share. As at exploration of mineral resource properties (primarily uranium) in Canada. The Company was incorporated in 1981 and is based in Vancouver, Boss is a publicly traded mineral exploration company, with shares trading on the TSX Venture Exchange. Boss engages in the acquisition and March 12, 2009, the same number of shares were issued and outstanding and a small number of shares traded at a price of \$0.08 per share.

INDUSTRY OVERVIEW

Uranium is the key fuel in producing nuclear energy. The World Nuclear Association (the WNA) estimates that the worldwide production of uranium uranium and together account for approximately 60% of world uranium production. Other uranium producing countries with volumes in excess of in 2007 was approximately 41,282 tonnes, of which 23% was mined in Canada. Kazakhstan, Canada, and Australia are the top three producers of 1,000 tonnes per year are Namibia, Russia, Niger, Uzbekistan and the United States



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PROPERTY	ESTIMATE
URANIUM	ET VALUE
3LIZZARD	FAIR MARK

Demand

proposed. Of the countries that currently operate nuclear power plants, only Canada, South Africa and Russia are uranium self-sufficient. All other around the world. As at the Valuation Dates, there were 35 reactors under construction; 91 in the planning stage and another 228 that had been As of March 2008, the WNA reported that approximately 64,215 tonnes of uranium would be required to fuel the 439 operating nuclear reactors countries require uranium imports to sustain their nuclear power programs. Canada is the 7th largest producer of nuclear power. As of March 2008, Canada had 18 reactors in three provinces, providing over 12,600 MWe of power capacity. Canada planned to expand its nuclear capacity over the next 10 years by building up to nine new reactors. The United States is the world's largest producer of nuclear power, accounting for more than 30% of worldwide generation of nuclear electricity. The country's 104 nuclear reactors produced 807 billion kWh in 2007, over 20% of total electrical output.

Highest Nuclear Electricity Generation (billion kWh)	Generation (b	illion kWh)
	2007	2006
Ca na da	88.2	92.4
China	59.3	51.8
Fra n ce	420.1	428.7
Germany	133.2	158.7
Japan	267	291.5
Korea RO (South)	136.6	141.2
Russia	148	144.3
Spain	52.7	57.4
Sweden	64.3	65.1
Ukraine	87.2	84.8
United Kingdom	57.5	69.2
USA	806.6	787.2
WNA Market Report Data		

Table 8 - Nuclear Energy Generation, per WNA in 2006 & 2007



PROPERTY	ESTIMATE
JRANIUM J	ET VALUE
BLIZZARD (FAIR MARK

Supply

Mines in 2007 supplied 41,282 tonnes of uranium, approximately 62% of utilities' annual requirements. The balance is made up from secondary sources, including stockpiled uranium held by utilities, although those civil stockpiles had been largely depleted as at the Valuation Dates.

As well as existing and likely new mines, nuclear fuel supply can also be sourced from:

- recycled uranium and plutonium from spent fuel, as mixed oxide (MOX) fuel
- re-enriched depleted uranium tails
- ex military weapons-grade uranium
- civil stockpiles
- former military weapons-grade plutonium, as MOX fuel.



BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE Table 9 - Mine Production and Known Recoverable Resources, 2007

Production from Mines 2007	Mines 2007			2 2
	Tonnes U	% of world		
Canada	9,476	23%		A
Australia	8,611	21%		Ŷ
Kazakhstan	6,637	16%		Ř
Russia	3,413	%8		Š
Niger	3,153	%8		Ö
Namibia	2,879	%L		⊃
Uzbekistan	2,320	%9		æ
USA	1,654	%†		z
Ukraine (est)	846	%2		z
China (est)	712	%2		⊃
South Africa	539	1%		Ч
Czech Republic	306	1%		⊃
Brazil	299	1%		-
India (est)	270	1%		Ο
Romania (est)	77	0.2%		2
Pakistan (est)	45	0.1%		ō
Germany	41	0.1%		Ĕ
France	4	0.0%		*
Total	41,282	100.0%		a
WNA Market Renort Data	t Data		_	F

WNA Market Report Data

100% 23% 15% 10%8% 8% %9 5% 5% 5% 4% 2% 2% 1%1%1%4% Known Recoverable Resources* of Uranium % of World 274,000 73,000 68,000 62,000 275,000 200,000 112,000 1,243,000 817,000 546,000 435,000 423,000 342,000 278,000 111,000 210,000 5,469,000 Reasonably Assured Resources **Tonnes U** outh Africa azakhstan Izbekistan **Aongolia** ustralia lamibia anada Ikraine ordan ussia razil liger hina ther ndia otal 007 ISA

olus Inferred Resources, to US\$ 130/kg U, 1/1/07, from OECD NEA & IAEA, Uranium 2007: Resources, Production and Demand ("Red Book").

from the McArthur River mine in northern Saskatchewan, the largest in the world. Canadian production is expected to increase significantly starting in In 2007, Canada was the world's largest uranium producer, accounting for approximately 23% of world output, with its production coming primarily 2013 as the new Cigar Lake mine comes into operation. With known uranium resources of 497,000 tonnes, per Cameco's 2007 Annual Information



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PROPERTY	ESTIMATE
URANIUM	KET VALUE
BLIZZARD	FAIR MAR

Filing, as well as continuing exploration, Canada is expected to have a significant role in meeting future world demand. The US was the world's 8th largest producer of uranium during 2007, with 1,654 tonnes of production. It has known uranium resources of 342,000 tonnes.

Industry Trends

Per RBC Capital Markets Q2 2008 forecast:

market deficit will help to maintain prices in the range of \$75/lb and \$115/lb. As new supply is brought to market in the coming years, this will million pounds in 2011 through 2014; however, this will likely not precipitate a severe downdraft in the spot price, as there are likely many "High uranium prices are expected to persist for many years relative to historical levels. In the near term, it is expected the continued spot be the signal for the spot price to retrace to more sustainable levels. It is anticipated the market will be in surplus by approximately 4 to 30 buyers for that material (e.g., initial cores, utility inventories, strategic inventories, etc.).

forward, most of the growth in supply is expected to come from companies that are new producers (i.e., Uranium One, Paladin, etc.) and "The supply of uranium is forecast to grow by an average of 7.9% annually until 2013. After 2015, it is forecast that uranium supply will decrease by an average of approximately 5% per year based on reserve exhaustion, down from RBC's previous forecast of 9%. Looking countries that are increasing their supply contribution significantly (i.e., Namibia and Kazakhstan). " Uranium demand is expected to grow over the next 25 years (3.9% per RBC). Government and regulatory delays will likely slow production of nuclear plants, however, the demand for uranium will precede the completion of the new reactors (as they build inventories in anticipation of nuclear energy production). Announcements continue to be made by governments and companies around the world regarding potential new nuclear plants. This trend was expected to continue as nuclear power continues to be seen as a clean alternative for baseload generation.



Industry Update – March 2009

expectations, as 2007 and 2008 were considered peak years for uranium prices. Revised forecasts have the spot price at below \$55 for the following RBC revised its Q2 2008 forecast down from 3.9% growth to 3.7% per year over the next 20 years, a marginal difference. RBC also revised its supply forecast to 6.2%, down from the Q2 2008 forecast of 7.9%. RBC anticipates the current market deficit will balance out by 2010 until 2017. From 2017 onward, there are indicators demonstrating the potential for severe and growing deficits. Revisions to forecasts are based on changes in year, and increasing thereafter.



PROPERTY	ESTIMATE
URANIUM	CET VALUE
BLIZZARD	FAIR MAR

FINANCIAL SUMMARY

Financial Position

Boss' reported financial position as at March 31, 2008 and December 31, 2008 is summarized in Table 10 below. Given the nature of the Company, its principal asset as at March 31, 2008 was its investment in the mineral property interests.

	March 31, 2008	December 31, 2008
Current assets Cash and Equivalents	\$ 3,940,220	3,049,719
Accounts Receivable	77,477	108,380
Prepaid Expenses	19,016	18,897
	4,036,713	3,176,996
Current liabilities Accounts Payable and accrued liabilities	153,037	38,383
Working capital	3,883,676	3,138,613
Equipment	1,488	2,668
Mineral Property Interests	4,121,558	I
Net assets	\$ 8,006,722	3,141,281
Shareholders equity	\$ 8,006,722	3,141,281

Table 10 - Reported Financial Position as at March 31, 2008 and as at December 31, 2008



Private & Confidential

ERTY	ATE
N PROP	ESTIM
ANIUN	VALUE
RD UR	ARKET
BLIZZA	FAIR M

The mineral property interests as at March 31, 2008 were carried on the books of Boss at the acquisition costs incurred to-date, including payment for the additional Blizzard claims and exploration costs. The cash, net working capital and acquisition costs of the mineral properties were financed by shareholders' equity, including a private placement on February 5, 2007. In the second quarter of 2008, Boss wrote-off the capitalized mineral property acquisition costs and related expenditures

VALUATION PRINCIPLES AND APPROACHES

The fair market value of a business interest with active operations is generally determined to be the greater of the value that can be substantiated based on a capitalization of the anticipated flow of future income or that which the owner would receive should the business be liquidated. The fair market value of a business interest generating a level of profitability commensurate with the assets employed should be based on an income continuing to hold the assets, and that investors would benefit more by liquidating the business than by operating it, the value to be placed on the or cash flow approach to value. If, on the other hand, it is determined that the business cannot produce a level of income sufficient to justify business should be its liquidation value.

There are three income or cash flow based approaches commonly used in determining the value of an operating company:

- capitalized earnings
- capitalized cash flow
- discounted cash flow.

historical operating results and to the prospects facing the business. The capitalization rate, or price earnings multiple, serves as a measure of the rate of return required by prospective purchasers reflecting, among other factors, the risk inherent in achieving the determined level of earnings and the capitalizing that earnings stream at an appropriate multiple of earnings. In estimating maintainable earnings, consideration is usually given to the The capitalized earnings approach involves estimating the annual earnings a business can reasonably be expected to generate in future years and value of the net tangible assets underlying the business.



Private & Confidential

PROPERTY	ESTIMATE
JRANIUM	ET VALUE
LIZZARD L	AIR MARKI

The capitalized cash flow approach involves capitalizing maintainable after-tax cash flow from operations. The cash flow approach to value assumes no capital cost allowance or depreciation but capitalizes maintainable earnings:

- before depreciation but after notionally assumed income tax on net income before depreciation a.
- b. after sustaining capital reinvestment¹ net of the related tax shield.

The present value of the tax advantage accruing as a result of capital cost allowance available (the "tax shield") at the valuation date, is added to the capitalized cash flow as previously defined.

working capital requirements, as well as the determination of an appropriate discounting factor. The residual value of the business at the conclusion of typically used in situations where cash flows are expected to vary from year to year, where cash flows are reasonably predictable and/or in situations the forecasting period must also be determined, usually using a capitalized earnings or cash flow approach. The discounted cash flow approach is The discounted cash flow approach requires a period-by-period projection of cash flow from operations, of sustaining capital reinvestment and of where there is a finite period over which the cash flows will be realized.

fair market value and, where appropriate, an allowance be made for latent disposal costs, such as sales commission and corporate income taxes. On a their net present value. This valuation approach is most commonly used in assessing the value holding companies or businesses where the underlying An adjusted net asset approach is an alternative going concern approach to value and requires that all of the assets and liabilities be restated at their going concern net asset valuation approach, it is common practice to discount disposal costs that may not be incurred until a future date, to reflect value lies in the assets rather than the operations.

their current use. The liquidation value is the net realizable value of the assets, assuming an orderly disposition carried out in a manner that minimizes An orderly liquidation approach is used if the business is not viable as a going concern or if the return on the assets does not justify a continuation of any reduction in the value of the assets, as well as any income taxes that might arise as a result of the liquidation.



Sustaining capital reinvestment is defined as the capital outlay required each year to maintain and sustain operations at existing levels.

PROPERTY	ESTIMATE
URANIUM	SKET VALUE
BLIZZARD	FAIR MAF

VALUATION APPROACH

estimate the fair market value of the Property, taking into account the probability and timing of receiving permitting and approvals for proposed mine. We understand that there would be two possible mining methods for developing the Property, open pit mining (OPM) and acid or alkali in-situ leach The Property was still in the pre-approval stages as at the Valuation Dates. Having regard to the uncertainties regarding the future prospects of the outcomes for the Property, was appropriate in the circumstances. The weighted average net present value (NPV) of the projected cash flows that (ISL). Based on this understanding, we have prepared discounted cash flow analyses for the OPM, ISL Acid Leach and ISL Alkali Leach methods. would accrue to an owner of the Property, if developed for the exploitation of the mineral deposit, was considered an appropriate approach to Property at the Valuation Dates, we concluded that a discounted cash flow approach, probability weighted for the different potential approval

Discounted Cash Flow Analysis

In preparing our DCF calculations, we have relied upon assumptions provided to us by the AMC Team and the Province. The schedules attached to this report present our DCF calculations, for both OPM and ISL, based on our "Base Case" assumptions with respect to prices and costs as at the Valuation Dates. The schedules related to the DCF calculations are organized as follows:

OPM Method

As at April 24, 2008

Summary of weighted average net present value - OPM method	Projected discretionary after tax cash flows - four year approval period	Projected discretionary after tax cash flows - six year approval period
Schedule 1	Schedule 2	Schedule 3

Projected discretionary after tax cash flows - eight year approval period

Schedule 4



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PROPERTY	ESTIMATE
URANIUM	CET VALUE
BLIZZARD	FAIR MARI

As at March 12, 2009

Schedule 5	Summary of weighted average net present value - OPM method	
Schedule 6	Projected discretionary after tax cash flows - four year approval period	
Schedule 7	Projected discretionary after tax cash flows - six year approval period	
Schedule 8	Projected discretionary after tax cash flows - eight year approval period	
d Leach Method		

ISL Acid I

As at April 24, 2008

Summary of weighted average net present value - ISL Acid Leach Method	Projected discretionary after tax cash flows - seven year approval period
Schedule 9	Schedule 10

As at March 12, 2009

Summary of weighted average net present value - ISL Acid Leach Method	Projected discretionary after tax cash flows - seven year approval period
Schedule 11	Schedule 12

ISL Alkali Leach Method

As at April 24, 2008

Projected discretionary after tax cash flows – five year approval period	Projected discretionary after tax cash flows – seven year approval period	
Schedule 14	Schedule 15	

As at March 12, 2009

Summary of weighted average net present value - ISL Alkali Leach Method Schedule 16



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Schedule 17 Projected discretionary after tax cash flows - five year approval period
Schedule 18 Projected discretionary after tax cash flows – seven year approval period
Projections by their nature are susceptible to variance from the actual results during the projection period and such differences may be material. To test the sensitivity of our conclusions to various assumptions related to future prices and costs, additional illustrative DCF calculations were prepared using various alternative assumptions. In arriving at our overall valuation conclusions, no single DCF scenario was relied upon exclusively.
Our analyses highlight the sensitivity of the value to factors that would be largely outside management's control. We have summarized the results of illustrative sensitivity tests later in our report.
Projected Discretionary Cash Flow of the Property
Our Base Case projections rely on the AMC Team's assumptions regarding the projected capital expenditures, operating costs and general and administrative costs to develop a mine on the Property and operate it. In addition, the AMC Team has provided estimates of the annual mineralized material that would likely be produced and the estimated recovery (U ₃ O ₈) that would be available for sale given the geology of the ore body. Projected uranium prices as at the Valuation Dates are based on information obtained from UxC. In addition, our calculations provide for federal and provincial income and mineral taxes.
Key revenue and expense assumptions are discussed below by category, but the overall projected results can be summarized as follows:
• significant development capital expenditures will be required to exploit the mineral deposit using the OPM method, as a processing plant would be required to convert the mined material to saleable U ₃ O ₈ .
• recovery of U ₃ O ₈ from the ore body is significantly reduced using the ISL method, resulting in a lower amount of saleable U ₃ O ₈ as compared to the OPM method
 the projected uranium prices are based on information that would have been available at the Valuation Dates. There was significant uncertainty as to the range of uranium prices that would prevail during the projection period and a large degree of variation in the price projections between the two Valuation Dates



PROPERTY	ESTIMATE
URANIUM	CET VALUE
BLIZZARD	FAIR MAR

• the projected US and Canadian dollar exchange rates over the projection period are based on projected long term exchange rates as at each of the Valuation Dates

Schedules 1 through 18 set out our discounted cash flow calculations and the weighted average net present value of the projected cash flows related to the development of the Property using the OPM and ISL methods.



PROPERTY	ESTIMATE
URANIUM	CET VALUE
BLIZZARD	FAIR MAR

Projected Discretionary Cash Flow - OPM Approach

Estimated Development Capital Expenditures

11 below. The estimated CapEx reflects the required expenditures related to the development of the mine and the development of a processing plant with a mine development, including a contingency equivalent to approximately 20% of the capital expenditures. Sustaining capital reinvestment² was The estimated development capital expenditures (CapEx) related to the OPM method have been estimated by the AMC Team and are set out in Table for milling the mined material. The AMC Team also estimated the engineering, procurement and construction management costs (EPCM) associated estimated by the AMC Team at \$1.2 million per year and has been included in the DCF calculations, net of the related tax shield.

	April 24, 2008	March 12,
	(Millions)	(Millions)
Mine Site	\$ 23.7	23.7
Processing Plant	142.2	133.9
Tailings Management Facility	20.5	20.5
Site Infrasctructure	11.0	11.0
EPCM	21.3	20.1
Contingency	28.4	26.8
Total Development Capital Expenditures	\$ 247.1	236.0

Source: Melis Report, AMC Team

Table 11 - Estimated Development Capital Expenditures

² Sustaining capital reinvestment is defined as the capital outlay required each year to maintain and sustain operations at existing levels





BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE												
Permitting and Approval Costs												
For the purposes of our analysis, we have assumed that environmental, permitting and other costs associated with obtaining approvals for the development of the Property would have commenced immediately subsequent to the respective Valuation Dates. Permitting and approval costs have been estimated by the AMC Team at approximately \$1 million dollars per year in the first two years, \$750,000 per year in years three and four and \$500,000 per year thereafter, until approval is granted. Our assumptions related to approval probabilities and time-frames are discussed below.	s, we ha ould hav am at ap ntil appı	ve assum e comm€ proximatu oval is gr	ed that er enced imr ely \$1 mi anted. Ou	nvironme mediately Ilion doll. ur assum	ental, per / subsequ ars per y ptions re	mitting a uent to th ear in the elated to a	und other ne respec e first two approval	costs as: tive Valu. years, \$ probabili	sociated w ation Date 750,000 p ties and ti	/ith obtain ss. Permit ser year in me-frame	ing approvals ting and appr years three a s are discusse	for the oval costs have nd four and d below.
Production												
Production for the Property has been projected by the AMC Team based on a milling capacity of the processing plant of 600 tonnes per day. Based on the AMC Resource Report and the Christopher Report, the AMC Team estimates that the annual ore production of the mine would be approximately 219,000 tonnes throughout the life of the mine, resulting in a ten year mine life. Given the characteristics of the ore body, the AMC Team estimates that the contained uranium grade would decline to .16% from .32% in year five of the mine life. The estimated annual mine and mill production per the AMC Team can be summarized as follows:	been pi the Chri life of tl de would ized as f	ojected b stopher R he mine, i d decline ollows:	y the AV eport, thu resulting to .16% f	NC Team e AMC Te in a ten y rom .32%	based or eam estir /ear mint 6 in year	a milling mates tha e life. Giv five of th	g capacity at the ann ven the c ie mine li	y of the β iual ore β haracteri fe. The ε	rrocessing production stics of th stimated	plant of <i>€</i> i of the mi e ore body annual mi	by the AMC Team based on a milling capacity of the processing plant of 600 tonnes per day. Based teport, the AMC Team estimates that the annual ore production of the mine would be approximately resulting in a ten year mine life. Given the characteristics of the ore body, the AMC Team estimates to .16% from .32% in year five of the mine life. The estimated annual mine and mill production per	day. Based on pproximately am estimates oduction per
Table 12 - Ore Mined, Uranium Recovery and Contained U_3O_8	n Recove	ry and Co	ontained	U₃ O₀								
	Year 1 Year 2		Year 3 '	Year 4	Pro Year 5 `	Production year 5 Year 6 Year	year Year 7 '	Year 8 '	Year 9 Y	Production year Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Year 11	ear 11	
Total Ore Mined (000s Tonnes)	55	219	219	219	219	219	219	219	219	219	182	
Uranium Recovered (000s lbs)*	375	1,499	1,499	1,499	768	768	768	768	768	768	638	
Contained U3O8 %	0.32%	0.32%	0.32%	0.32%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	
* After mill recovery (97%)												



RTY	Ë
ROPE	STIM
IUMF	LUE
URAN	ET 🗸
ARD	MARK
BLIZZ	FAIR

Selling Prices

The projected selling prices at the Valuation Dates are based on the UxC's UMO Reports. UxC's price forecasts are based on key factors, as laid out in the UMO Reports at the Valuation Dates, and the price scenarios and supporting discussion can be found in the UMO Report. Key factors are as follows:

Table 13 - Key Factors Used to Develop UxC Price Forecasts per the UMO Reports

Factor	Description
Requirements	The level of projected uranium requirements for utilities worldwide.
Inventory Demand	Demand associated with both utilities and producers seeking to build strategic stocks to secure against future supply problems.
Production Response	How quickly production is likely to respond to market conditions and specific assumption about major production sources.
Exchange Rates	This assumption relates to the strength of the U.S. dollar versus producer currencies, since the price of uranium is expressed in U.S. dollars but most production comes from outside of the United States.
Investor Activity	Buying or selling by hedge funds and investors.
SWU Developments	This assumption encompasses such developments as expansion of enrichment capacity, restrictions on the import of Russian enrichment and their effect on operational tails assays.
HEU Feed Availability	The availability of HEU feed, both during the term of the HEU deal and after the deal expires.
Other Secondary Supply	This primarily includes sales of DOE inventories in various forms.



BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE The price scenarios provided by UxC for the Valuation Dates can be summarized as follows:

Table 14 - UxC Price Forecasts, April 24, 2008

2013 2014 2015 2016 2019 <th< th=""><th>0000</th><th>100</th><th></th><th>Cale</th><th>Calendar Year</th><th>L C C</th><th>5 100</th><th></th><th></th><th></th><th></th></th<>	0000	100		Cale	Calendar Year	L C C	5 100				
117 115 112 109 105 100 95 96 97 81 82 81 70 67 65 67 69 72 64 61 59 55 52 50 50 51 53 55	7007	1107	2012	2013	2014	5102	2010	2017	2018		2020
81 82 82 81 70 67 65 67 69 72 64 61 59 55 52 50 50 51 53 55				109	105	100	95	95	96	67	98
64 61 59 55 52 50 50 51 53 55				81	70	67	65	67	69	72	75
				55	52	50	50	51	53	55	56

Table 15 - UxC Price Forecasts, March 12, 2009

	7 2018 2019 2020 2021	92 94 97 98 98	77 79 81 83 83	55 58 61 63 63
	2013 2014 2015 2016 2017	91	75	53
Calendar Year	2015	94	73	54
Cale	2014	100	70	55
) 105	5 68	7 55
	2012	6 109	3 65	57 57
	2011	65 106	0 63	53 5.
	2010		6	5
	2009	09	53	48
	(USD/pound)	High Scenario	Mid Scenario	Low Scenario





The projected prices, in a graph format, are set out below:

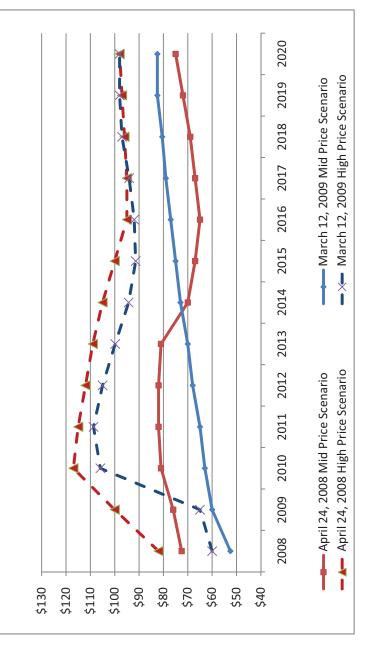


Table 16 - UxC Mid-Scenario US Dollar Price Forecasts, April 24, 2008 and March 12, 2009

20 year Bloomberg producer price index. The uranium prices, expressed in USD, were translated to Canadian Dollars at the projected long-term US to Uranium prices beyond 2020 are referenced to the 2020 projected price, adjusted for inflation. An inflation factor of 2.5% was assumed based on the Canadian dollar exchange rates as at the Valuation Dates. Our discounted cash flow calculations also reflect a royalty of \$2.00 per pound of uranium produced, based on consideration for the Property in the reverse takeover by Boss.





PROPERTY	ESTIMATE
URANIUM	GET VALUE
BLIZZARD	FAIR MAR

Estimated Operating Costs

the Property would be incurred in Canadian dollars. KPMG assumed an inflation rate of 2.5%, consistent with the rate used for the long term uranium administrative activities. These costs were estimated in Canadian dollars, as the majority of costs to be incurred in the development and operation of The operating costs related to the Property have been estimated by the AMC Team based on the expected mining, processing and general and prices.

\$58.90 per tonne of material processed as at March 12, 2009. In addition, the AMC Team estimated the fixed costs related to the processing at \$21 The projected variable costs of mining the Property include waste stripping and ore extraction costs, at approximately \$1.80 per tonne, with basalt estimated by the AMC Team at \$2.31. Variable milling costs were estimated at \$63.20 per tonne of material processed as at April 24, 2008 and waste stripping occurring in the first nine years of the mine life, at a cost of \$2.50 per tonne. The weighted average mining cost per tonne was million per annum, including salaries and general and administrative costs at the processing plant and mine.

BC Mineral Taxes

applicable. Based on the Base Case Scenario, no Net Revenues Tax would be applicable to the Property and the Net Current Proceeds Tax would be The Province's Mineral Tax Act provides for a mineral tax to be levied on operators of mines and quarries. Accordingly, we have calculated mineral taxes in accordance with the BC Mineral Tax Act, as the Property would be subject to Net Current Proceeds Tax and Net Revenue Tax, where equal to 2% of operating cash flow.

Income Taxes

depreciation for tax purposes (Capital Cost Allowance or CCA). In the medium to longer term, we have used the tax rates scheduled to be in effect for In the short term, there would be no income taxes payable, recognizing that the expected development and approval costs would result in available those future periods as at the Valuation Dates, with the full corporate tax rate projected to decline from 30.5% in 2008 to 25% in 2013 and beyond.

estimated by the AMC Team. Accordingly, income taxes have been calculated on earnings before depreciation for tax purposes, and after depletion of As detailed above, the net present value of the tax shield available from depreciation on capital expenditures has been netted against the gross CapEx the mineral interest for tax purposes. Depletion has been determined with reference to the value ascribed to the mineral interest.



Projected Discretionary Cash Flow – ISL Methods	low – ISL Methods
Estimated Development Capital Expenditures	l Expenditures
The estimated development CapEx related to the CapEx reflects the required expenditures related t capital costs in \$47.8 million Australian Dollars (A	The estimated development CapEx related to the ISL methods have been estimated by the AMC Team and are set out in the ISL Report. The estimated CapEx reflects the required expenditures related to the development of the Property, based on the Honeymoon project in Australia in 2006. The total capital costs in \$47.8 million Australian Dollars (AUS) are laid out in the ISL Report and can be summarized as follows:
Direct:	AUS \$31.1 million
Indirect:	AUS \$5.5 million
Owner's Costs:	:: AUS \$10.8 million
Based on Alan Riles' review of the project costs, he concludec and capital costs overruns and additional field trials related to appropriate for the development of the Property using the ISL converted this amount to Canadian Dollars at the projected U reinvestment ³ was estimated by the AMC Team at 1% of the t included in the DCF calculations, net of the related tax shield.	Based on Alan Riles' review of the project costs, he concluded that after scaling for flow rate differential, escalation of capital costs from 2006 to 2008 and capital costs overruns and additional field trials related to the Honeymoon project, total capital costs of approximately US\$ 60 million would be appropriate for the development of the Property using the ISL methods. For the purposes of our calculation of projected discretionary cash flows, we converted this amount to Canadian Dollars at the projected USD/CAD exchange rate prevailing as at the Valuation Dates. Sustaining capital reinvestment ³ was estimated by the AMC Team at 1% of the total development capital expenditures, approximately \$600,000 per year, and has been included in the DCF calculations, net of the related tax shield.
Permitting and Approval Costs	
For the purposes of our analysis, we have assume development of the Property using the ISL methoc method, we have assumed the costs would be inc probabilities and time-frames based on the Dillon	For the purposes of our analysis, we have assumed that environmental, permitting and other costs associated with obtaining approvals for the development of the Property using the ISL method would be 20% higher than the OPM Method, based on the Dillon Report. As with the OPM method, we have assumed the costs would be incurred immediately subsequent to the Valuation Dates. Our assumptions related to approval probabilities and time-frames based on the Dillon Report are discussed below.

BLIZZARD URANIUM PROPERTY



³ Sustaining capital reinvestment is defined as the capital outlay required each year to maintain and sustain operations at existing levels

Production
Production for the Property has been projected by the AMC Team based on the ISL Report and the Christopher Report. The ISL Report concludes that approximately 70% of the reported resource could be extracted using ISL methods, to minimize environmental impacts. The report estimates that the total U ₃ O ₈ recovery using an acid leach process would be 60% of the total reported resource, whereas recovery would range from 40% to 50% of the resource using an alkali leach. Based on the hydrology and flow rates contemplated in the ISL report, this would result in a seven year mine life, as follows:
Table 17 - Uranium Production, Acid Leach and Alkali Leach Methods
Production year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7
Uranium Produced (000s lbs), Acid Leach 705,600 705,600 705,600 705,600 705,600 705,600 103,635 Uranium Produced (000s lbs), Alkali Leach 529,200 529,200 529,200 529,200 529,200 77,726
Selling Prices
The projected selling prices at the Valuation Dates for the ISL method are the same as those used in our calculation of the projected discretionary cash flows related to the OPM method. Please see OPM section above for a discussion of the key factors set out in the UMO Reports at the Valuation Dates.
Uranium prices beyond 2020 are also referenced to the 2020 price projected by UxC, adjusted for inflation. An inflation factor of 2.5% was assumed based on the 20 year Bloomberg producer price index. The uranium prices, expressed in USD, were translated to Canadian Dollars at the projected long-term US to Canadian dollar exchange rates as at the Valuation Dates. Our discounted cash flow calculations also reflect royalty of \$2.00 per pound of uranium produced, similar to the OPM approach.

BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE

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Estimated Operating Costs	
The operating costs related to the development of the Property using the ISL methods have been estimated by the AMC Honeymoon operating cost structure for Q2 2006, and are detailed in the ISL Report. Costs were estimated as follows:	the Property using the ISL methods have been estimated by the AMC Team based on the , and are detailed in the ISL Report. Costs were estimated as follows:
Fixed Labour, Administration and Camp:	US \$5.8 million per annum
Fixed Well-field Development and Operating costs:	US \$1.7 million per annum
Variable Plant and Power costs:	US \$1 per m3 of solution flow
Total operating costs, based on the production contemplated in the ISL Report, total US \$10.7 million. As the majority of operating costs to be incurred in the development and operation of the Property would be incurred in Canadian dollars KPMG translated the operating costs at the p long-term US to Canadian dollar exchange rates as at the Valuation Dates. KPMG assumed an inflation rate of 2.5%, consistent with the rate us the long term uranium prices and costs in the OPM method analysis.	Total operating costs, based on the production contemplated in the ISL Report, total US \$10.7 million. As the majority of operating costs to be incurred in the development and operation of the Property would be incurred in Canadian dollars KPMG translated the operating costs at the projected long-term US to Canadian dollar exchange rates as at the Valuation Dates. KPMG assumed an inflation rate of 2.5%, consistent with the rate used for the long term uranium prices and costs in the OPM method analysis.
BC Mineral Taxes	
Similar to the OPM method, KPMG calculated BC Mineral Taxes based c Scenario, both Net Revenues Tax and the Net Current Proceeds Tax wou cash flow.	Similar to the OPM method, KPMG calculated BC Mineral Taxes based on the prevailing rates as at the Valuation Dates. Based on the Base Case Scenario, both Net Revenues Tax and the Net Current Proceeds Tax would be payable using the ISL methods, equal to approximately 13% of operating cash flow.
Income Taxes	
As with the OPM method discussed above, in the short term there woul approval costs would result in available CCA and loss carryforwards. In effect for those future periods as at the Valuation Dates, with the full cor beyond.	short term there would be no taxes payable, recognizing that the expected development and loss carryforwards. In the medium to longer term, we have used the tax rates scheduled to be in Dates, with the full corporate tax rate projected to decline from 30.5% in 2008 to 25% in 2013 and



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As detailed above, the net present value of the tax shield available from depreciation on capital expenditures has been netted against the gross CapEx estimated by the AMC Team. Accordingly, income taxes have been calculated on earnings before depreciation, and after depletion of the mineral interest for tax purposes. Depletion has been determined with reference to the value ascribed to the mineral interest, if any.	netted against the gross CapE er depletion of the mineral f any.
Discount Rate	
A discount rate is employed to convert future cash flows to their NPV. The discount rate is referenced to the rate of return expected by an investor and is related to the perceived risks and opportunities with respect to the investment and the underlying projections. In general, the appropriate discount rate to apply to a set of projected cash flows should reflect the risk and leverage potential of the asset.	turn expected by an investor n general, the appropriate
In determining the discount rate to apply in our analysis of both the OPM and ISL methods, we:	
 referenced the pricing assumptions relative to other market participants/analysts 	
 considered the projection risk inherent in the projections 	
 considered the mineral interests' relative stage of development 	
• considered the project risk associated with the development of the mineral interest and the execution of the project	t
• considered the relative certainty in the resources and exploration potential in conjunction with the pricing and grade assumptions.	e assumptions.
In addition, we gave consideration to a calculated industry weighted average cost of capital (WACC) that might otherwise apply to a company such as Boss as at the Valuation Dates. Our WACC calculations and our derivation of an appropriate discount rate for Boss' mineral interest are summarized below.	ise apply to a company such a interest are summarized
The Capital Asset Pricing Model (CAPM) is used to compute the cost of equity (Ke). For the April 24, 2008 valuation date, it is presented below:	ate, it is presented below:
Ke = Kf + $b(Km - Kf) + Ks + Ksp$, where:	
Kf = The risk-free rate; 3.72 % as of April 24, 2008 (10-Year Canadian Bond Yield)	

BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE
b = Beta is the measure by which a given industry segment fluctuates in relation to the overall stock market. An unlevered Beta of approximately was chosen, based on a review of publicly traded comparable companies. We then computed a re-levered beta using the comparable average capital structure. A re-levered beta of 1.7 was used in the CAPM model
Km - Kf = The equity risk premium; a range of 5.0% was considered reasonable based on KPMG's review of recently published articles, academic studies and surveys that attempt to quantify the expected equity risk premium for Canadian common stocks
Ksp = A specific company risk premium can be applied to the cost of equity calculation in instances where the subject company is exposed to additional risks to financial performance, whether external or internal, not captured elsewhere. Specific risk of approximately 3% has been assumed in computing the cost of equity of the Property. The specific risk was based on an assessment of size, geological factors, the political, cultural and social environment under with the property operates, and the stage of development of the project and related project development risk, including cost overruns and other unforeseen complications that would adversely impact the planned execution of the project. Based on our analysis, we computed the following cost of equity:
$Ke = 3.72\% + 1.5 \times (5.0\%) + 3.0\% = 14.2\%, say 14\%.$
The weighting of equity and debt was based on the industry capital structure derived from an analysis of a public company peer group. In consideration of the nature of the asset, stage of the project and the aforementioned analysis, we utilized a capital structure consisting of 100% equity. Based on the foregoing, we have assumed that the WACC rate would be equal to the cost of equity.
As at March 12, 2009 the cost of equity (Ke) was calculated as follows:
Ke = $2.72\% + 1.4 \times (5.0\%) + 4.0\% = 14.6\%$, say 14%.
For purposes of our DCF calculations, we have used a discount rate of 14% and have reflected the risks/probabilities associated with the timing and likelihood of obtaining the necessary approvals in our probability assessments.



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BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE

Approval Probabilities & Timing

uncertainties related to obtaining approvals from the various levels of government, having the support of the aboriginal peoples and meeting applicable related to obtaining the required approvals for such a project. Probabilities were provided for both the OPM and ISL Acid Leach and ISL Alkali Leach There are significant risks related to when and if permitting and approvals of a mine project would/could be obtained. To evaluate the impact of the environmental requirements associated with developing the Property, the AMC Team provided a range of probabilities and attendant time delays methods and are set out in the Dillon Report, as follows:

Scenarios	Description	Pr	Probability / Delay	lay
		WdO	ISL Acid	ISL Alkali
Approval Scenario 1 Best Case	First Nation Agreements are in place, community opposition is minimal, regulators are in agreement with the baseline programs and mining methods and design and concurrent permitting occurs.	5% - 15% 4 yrs	%0	%0
Approval Scenario 2 Middle Case	Ongoing discussions with First Nations, community opposition requiring meetings and information sessions, regulatory bodies require additional information (e.g. groundwater etc) and question proposed mining methods and design.	25% - 30% 6 yrs	%0	0% - 10% 4 – 6 yrs
Approval Scenario 3 Opposition Case	Significant opposition from First Nations, no agreements reached, ongoing requests from regulators and further studies required, regulatory authorities disagree with preliminary findings and question mine design, significant delays in environmental approval and other permits.	40% - 45% 8 yrs	5% - 15% 6 - 8 yrs	10% - 20% 6 – 8 yrs
Approval Scenario 4 No Approval Case	No approval for the project is granted, or a major impediment to the project stalls the development of the Property indefinitely. Estimated timeframe delay indefinite.	10% - 30%	85% - 95%	×0% - 90%



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For the purposes of our analysis we have assumed that a notional owner of the Property in Approval Scenario 4 would pursue development of the project for a period of ten years, after which point it would no longer commit to incurring further permitting and approval costs.

VALUATION CALCULATIONS

OPM Method

the NPVs of the projected cash flows under each of the approval scenarios, as at the respective Valuation Dates. The tables also set out the estimated cash flows from the Property at the Valuation Dates for the OPM method. The tables below summarize Schedules 1 and 5 of our report and set out valuation date. We have applied the probabilities and time frames noted above to arrive at the weighted average net present value of the projected The projected cash flows related to the Property using the OPM method, calculated on the basis of the Base Case assumptions provided by the Province and the AMC Team, are set out in Schedules 2 to 4 for the April 24, 2008 valuation date and Schedules 6 to 8 for the March 12, 2009 probabilities associated with each Scenario and the resulting weighted average NPV of the Property.

	Net Present	Probability Weighting	∑ ∞	Weighted A NPV	Weighted Average NPV
Approval Scenario (000s)	Value	Low	High	Low	High
Scenario 1 - 4 year \$	(94,673)	5%	15% \$	\$ (4,700)	(14,200)
Scenario 2 - 6 year	(79,560)	25%	30%	(19,900)	(23,900)
Scenario 3 - 8 year	(66,005)	40%	45%	(26,400)	(29,700)
Scenario 4 - No approval	(3,748)	30%	10%	(1,100)	(400)
			0,	\$ (52,100)	(68,200)

Table 18 - Weighted Average Net Present Value, April 24, 2008 - OPM Method



Net PresentProbability WeightingWeighted Average NPVApproval ScenarioVeightingNPV(000s)ValueLowHigh(000s)Scenario 1 - 4 year\$ (61,713) 5% 17% \$ (3,100)Scenario 1 - 4 year(53,165) 2% 30% (13,300)(15,900)Scenario 2 - 6 year(53,165) 25% 30% (13,300)(15,900)Scenario 3 - 8 year(3,748) 30% 10% $(1,100)$ (400) Scenario 4 - No approval(3,748) 30% 10% $(1,100)$ (400) Scenario 4 - No approvalNN 10% $(1,100)$ (400)	Approval Scenario (000s)	Net					
val ScenarioValueLowHighLowio 1 - 4 year\$ (61,713) 5% 15% \$ (3,100)io 2 - 6 year $(53,165)$ 25% 30% $(13,300)$ (io 3 - 8 year $(47,317)$ 40% 45% $(18,900)$ (io 4 - No approval $(3,748)$ 30% 10% $(1,100)$ (Approval Scenario (000s)	Present	Probab Weight	oility ting	Weighter NF	d Average vv	
io 1 - 4 year \$ (61,713) 5% 15% \$ (3,100) io 2 - 6 year (53,165) 25% 30% (13,300) (io 3 - 8 year (47,317) 40% 45% (18,900) (io 4 - No approval (3,748) 30% 10% (1,100) \$ (36,400) ((6000)	Value	Low	High			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Scenario 1 - 4 year	0	5%			(9,300)	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Scenario 2 - 6 year	(53,165)	25%	30%	(13, 300)	(15,900)	
(3,748) 30% 10% (1,100) \$ (36,400) (4	Scenario 3 - 8 year	(47,317)	40%	45%	(18,900)	(21,300)	
(36,400)	Scenario 4 - No approval	(3,748)	30%	10%	(1,100)	(400)	
				01		(46,900)	
	ISL Methods						
ISL Methods	The projected cash flows related to the Property using the ISL Acid Leach method, using the Base Case assumptions provided by the Province and the AMC Team, are set out in Schedule 10 for the April 24, 2008 valuation date and Schedules 17 and 18 for the Cash flows for the ISL Alkali Leach method are set out in Schedules 14 and 15 for the April 24, 2008 valuation date and Schedules 17 and 18 for the March 12, 2009 valuation date. We have applied the probabilities and time frames noted above to arrive at the weighted average net present value of the Property using the two ISL methods, both as at the Valuation Dates. The tables below summarize the NPV conclusions for the ISL Alkali Leach methods under each of the approval scenarios as at the respective Valuation Dates.	the Property using the IS e 10 for the April 24, 200 method are set out in Sch e have applied the probab hods, both as at the Valu ch of the approval scenari	SL Acid Leac B valuation c ledules 14 a oilities and ti ation Dates. os as at the	h method, date and So nd 15 for 1 ime frames The table respective	using the B chedule 12 1 the April 24, noted abov s below sun Valuation E	ase Case assumptions pro for the March 12, 2009 va . 2008 valuation date and /e to arrive at the weighter nmarize the NPV conclusi Dates.	using the ISL Acid Leach method, using the Base Case assumptions provided by the Province and the ril 24, 2008 valuation date and Schedule 12 for the March 12, 2009 valuation date. The projected to out in Schedules 14 and 15 for the April 24, 2008 valuation date and Schedules 17 and 18 for the the probabilities and time frames noted above to arrive at the weighted average net present value of at the Valuation Dates. The tables below summarize the NPV conclusions for the ISL Acid Leach and wal scenarios as at the respective Valuation Dates.



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PROPERTY	ESTIMATE
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Table 20 - Weighted Average Net Present Value, April 24, 2008 - ISL Acid Leach Method

	Net	Prob	Probability		Weighted	hted
	Present	Weig	Weighting		Average NPV	NPV
Approval Scenario	Value	Low	High		Low	High
(000s)						
Seven year approval period	\$ 18,669	5%	15%	↔	930	2,800
No approval received	(4,498)	95%	85%		(4,270)	(3, 820)
				\$	\$ (3,340)	(1,020)

Table 21 - Weighted Average Net Present Value, March 12, 2009 - ISL Acid Leach Method

Approval Scenario (000s)		Net Present Value	Proba Weig Low	Probability Weighting ow High		Weighted Average NPV Low Hig	nted NPV High
Seven year approval period No approval received	\diamond	29,886 (4,498)	5% 95%	15% 85%	\$ \$	\$ 1,490 (4,270) \$ (2,780)	4,480 (3,820) 660



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BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE As indicated above, the NPV of the projected cash flows using the ISL Acid Leach method is positive, assuming that method would be approved by the probability adjusted NPV is negative at April 24, 2008 and nominal at March 12, 2009 on the high scenario, recognizing the high probability of having various interested parties. However, the probability of obtaining those approvals was considered to be no more than 5% to 15%. Accordingly, the to incur the various application costs but not securing approval to develop a mine.

Leach Method
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	Net	Proba	Probability		Weighted	hted
	Present	Weig	Weighting		Average NPV	NPV
Approval Scenario	Value	Low	High		Low	High
(000s)						
Five year approval period	\$ 546	%0	10%	⇔		50
Seven year approval period	816	10%	20%		80	160
No approval received	(4,498)	%06	20%		(4,050)	(3, 150)
				÷	\$ (3,970)	(2,940)



PROPERTY	ESTIMATE
URANIUM	ET VALUE
BLIZZARD	FAIR MARK

Table 23 - Weighted Average Net Present Value, March 12, 2009 - ISL Alkali Leach Method

		Net	Proba	Probability		Weighted	nted
	4	Present	Weig	Weighting		Average NPV	NPV
Approval Scenario		Value	Low	High		Low	High
(000s)							
Five year approval period	\$	7,862	%0	10%	⇔	I	290
Seven year approval period		8,146	10%	20%		810	1,630
No approval received		(4,498)	%06	20%)	(4,050)	(3,150)
					\$ (3,240)	,240)	(730)

As indicated above, and consistent with the ISL Acid Leach method, the NPV of the projected cash flows of the ISL Alkali Leach method is positive, assuming that method would be approved, but the probability weighted NPV is negative.



PROPERTY	ESTIMATE
URANIUM	CET VALUE
BLIZZARD	FAIR MAR

SENSITIVITY ANALYSIS

Valuation Dates. Our valuation conclusions are based on various assumptions regarding the prospects for the Property, as set out earlier in this report. Based on the scope of our review and the assumptions noted herein, we estimate that the fair market value of the Property was nominal as at the Key risks, and the related implications, can be summarized as follows:

- and costs are in Canadian dollars. The high degree of variability in the price of uranium and the relative value of the Canadian and U.S. dollar over Moreover, the variability of the Canadian-U.S. exchange rate creates an exchange risk, in that selling prices would be denominated in U.S. dollars The owner of the Property would be operating in a complex environment where many of the key value drivers related to the Property would be outside their control. As a "price taker", the owner of the Property would have little ability to influence prices for the uranium it produces. the period preceding the Valuation Dates highlights the challenge confronting uranium producers in Canada and globally. •
- further understand that while the resource estimate in the most current Technical Report is NI 43-101 compliant, the drilling and samples used for the compilation of that report predate current NI 43-101 standards. Further, we understand that no mine plan has been produced by Boss or any identified as proven and probable mineral reserves under the guidelines of NI 43-101 Standard of Disclosure for Mineral Projects in Canada. We Based on the information available at the Valuation Dates, significant uncertainty existed as to the size, technical and economic feasibility of the mineral resource at the Property. It is our understanding that, as at the Valuation Dates, the mineral deposit at the Property had not been previous owner of the Property. •
- Development of the Property would be subject to significant capital costs and would present various challenges and benefits in the exploitation of the mineral resource. Accordingly, CapEx related to both the development and the ongoing operation of the Property would be subject to significant uncertainty. •
- Approvals for the exploitation of the mineral resources had not been obtained at the Valuation Dates. We understand that significant uncertainly existed as to the time-frame and the likelihood that approvals would be granted in the future. •
- Given industry trends, as well as specific characteristics of the Property, there would likely have been a limited number of prospective purchasers of the Property at the Valuation Dates.

With these risks and opportunities in mind, we prepared various sensitivity tests using the discounted cash flow models.





PROPERTY	ESTIMATE
URANIUM	CET VALUE
BLIZZARD	FAIR MAR

Sensitivity Analysis - OPM Method

The tables below summarize the impact of changing various assumptions on the weighted average NPV of the projected cash flows for the OPM method and demonstrate the sensitivity of the value conclusions to alternative assumptions as at the Valuation Dates. The sensitivity tables also highlight the risks and uncertainties related to realizing a positive value for the Property.

Table 24 -Sensitivity Test Summary as at April 24, 2008 - OPM Method - Relative to Base Case (\$52.1 million) to (\$68.2 million)

	> 2	Impa Veightec let Prese	Impact on Weighted Average Net Present Value
Description of Sensitivity Test [1]		Low	High
(millions)			
Change to UxC high price scenario	↔	24.2	\$ 33.3
Change in discount rate of +/- 1%	I	2.5	3.0
Change in operating costs of +/- 10%	I	5.1	6.8
Change in development capital costs of +/- 10%	I	6.7	9.0
Change in ore grade of $+/-10\%$	\$	7.3	\$ 9.8

[1] Sensitvities performed independently on base case scenario



PROPERTY	ESTIMATE
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Table 25 - Sensitivity Test Summary as at March 12, 2009 – OPM Method - Relative to Base Case (\$36.4 million) to (\$46.9 million)

	Impact on Weighted Average Net Present Value
Description of Sensitivity Test [1] (millions)	Low High
Change to UxC high price scenario	\$ 15.0 \$ 20.3
Change in discount rate of $+/-1\%$	1.0 \$ 1.1
Change in operating costs of $+/-10\%$	4.6 6.2
Change in development capital costs of +/- 10%	6.2 8.3
Change in ore grade of $+/-10\%$	\$ 7.7 \$ 10.3

[1] Sensitvities performed independently on base case scenario

direction. As detailed below, the Speculative Case still indicates a nominal fair market value for the Property, with the NPV of the operating cash flows the OPM Method. In the Speculative Case, we have adjusted the assumptions to reflect the high price scenario provided by UxC, reduced operating The tables below present the results of simultaneously adjusting the assumptions used in the discounted cash flow models (the Speculative Case) for and development CapEx by 10% and adjusted the ore grade by 10%, representing a more optimistic view for the Property and its prospects. There is no indication that these outcomes would occur simultaneously and in fact, the factors underlying these assumptions could move in the opposite still being less than the NPV of the required capital outlays as at April 24, 2008 and March 12, 2009.



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PROPERTY	ESTIMATE
URANIUM	CET VALUE
BLIZZARD	FAIR MAR

Table 26 - Speculative Case - OPM Method - Weighted Average Net Present Value of the Property, April 24, 2008

	Pres	Net Present	Probability Weighting	lity ing	-	Weighted Average NPV	Average /
Approval Scenario	Va	Value	Low	High		Low	High
(000s)							
Scenario 1 - 4 year	\$	1,294	5%	15%	\$	100	200
Scenario 2 - 6 year	8)	(8,910)	25%	30%		(2,200)	(2,700)
Scenario 3 - 8 year	(12	12,930)	40%	45%		(5,200)	(5,800)
Scenario 4 - No approval	(3	(3,748)	30%	10%	I	(1,100)	(400)
					÷	(8,400)	(8,700)

Table 27 - Speculative Case - OPM Method - Weighted Average Net Present Value of the Property, March 12, 2009

Approval Scenario (000s) Scenario 1 - 4 year	Pr		Probability	ility		Weighted	Neighted Average
Approval Scenario (000s) Scenario 1 - 4 year \$		Present	Weighting	ting		NPV	, ,
(000s) Scenario 1 - 4 year Scenario 2 5 see		Value	Low	High		Low	High
Scenario 1 - 4 year \$							
	÷	9,943	5%	15%	\$	500	1,500
Sceliaiu 2 - 0 year		1,987	25%	30%		500	600
Scenario 3 - 8 year		(4,097)	40%	45%		(1,600)	(1,800)
Scenario 4 - No approval		(3,748)	30%	10%		(1,100)	(400)
					÷	(1,700)	(100)



PROPERTY	ESTIMATE
URANIUM	CET VALUE
BLIZZARD	FAIR MAR

Sensitivity Analysis – ISL Methods

The tables below summarize the impact of changing various assumptions on the weighted average NPV of the projected cash flows for the ISL Methods. The sensitivity tables also highlight the risks and uncertainties related to realizing a positive value for the Property.

Table 28 -Sensitivity Test Summary as at April 24, 2008 - ISL Methods - Relative to Base Case

	Impact	on Weig	Impact on Weighted Average Net	ge Net
	ISL Acid	Leach	ISL Acid Leach ISL Alkali Leach	li Leach
Description of Sensitivity Test [1]	Low	High	Low	High
(000s)				
Change to UxC high price scenario \$	1,380 \$	4,141	<u>\$ 1,380</u> <u>\$ 4,141</u> <u>\$ 2,080</u> <u>\$ 7,131</u>	\$ 7,131
Change in discount rate of +/- 1%	44	434	49	463
Change in operating costs of +/- 10%	111	336	223	729
Change in development Capital costs of +/- 10% 130	130	391	262	855
Change in ore grade of +/- 10% \$	355 \$	1,067 \$	355 \$ 1,067 \$ 1,124 \$ 3,624	\$ 3,624
	-			

[1] Sensitvities performed independently, relative to base case scenario of (\$3.34) million to (\$1.02) million for Acid Leach method and (\$3.97) million to (\$2.93) million for the Alkali Leach method



Table 29 - Sensitivity Test Summary as at March 12, 20	12, 2009 – ISL Methods - Relative to Base Case	ods - Relat	ive to Base	Case	
	Impact on Weighted Average Net ISL Acid Leach ISL Alkali Leac	ight€	ed Average Net ISL Alkali Leach	e Net Leach	
Description of Sensitivity Test [1]	Low H		Low	High	
Change to UxC high price scenario	856 \$ 2	2,567 \$	1,290 \$	4,339	
Change in discount rate of +/- 1%	110	630	138	726	
Change in operating costs of +/- 10%	121	361	241	789	
Change in development Capital costs of +/- 10%	143	428	288	941	
Change in ore grade of $+/-10\%$	434 \$ 1	1,300 \$	1,372 \$	4,391	
[1] Sensitvities performed independently, relative to base case scenario of (\$2.78) million to - (\$.66) million for Acid Leach method and (\$3.23) million to (\$.73) million for the Alkali Leach method	ative to base case scenario of (\$2.78) million to - .23) million to (\$.73) million for the Alkali Leach	8) million 1	\$2.78) mil	lion to - li Leach	
The tables below present the results of simultaneously adjusting the assumptions used in the discounted cash flow models (the Speculative Case) for the ISL Methods. In the Speculative Case, we have adjusted the assumptions to reflect the high price scenario provided by UxC, reduced operating and development CapEx by 10% and adjusted the ore grade by 10%, representing a more optimistic view for the Property and its prospects. There is	adjusting the a justed the assu trade by 10%,	assumption umptions to representii	ns used in t o reflect the ng a more c	he discounted cash fl. e high price scenario p ptimistic view for the	ww models (the Speculative Case) for provided by UxC, reduced operating Property and its prospects. There is
no indication that these outcomes would occur simultaneously and in fact, the factors underlying these assumptions could move in the opposite directions. As detailed below, the Speculative Case indicates a NPV in the range of approximately nominal to \$5.3 million for the ISL Acid Leach method and approximately \$.15 to \$10.9 million based on the ISL Alkali Method, both as at April 24, 2008. At March 12, 2009, the Speculative Case indicates a NPV based on the ISL Alkali Method, both as at April 24, 2008. At March 12, 2009, the Speculative Case indicates a NPV based on the ISL Alkali to \$5.6 million, and approximately \$.22 to \$10.6 million for the ISL Alkali Method.	incously and in licates a NPV i lon the ISL All f nominal to \$	n fact, the i in the rang kali Metho 5.6 million	factors und e of approx d, both as a , and appro	erlying these assumpt imately nominal to \$5 t April 24, 2008. At <i>N</i> ximately \$.22 to \$10.	ions could move in the opposite .3 million for the ISL Acid Leach 4arch 12, 2009, the Speculative Case 6 million for the ISL Alkali Method.
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BLIZZARD URANIUM PROPERTY FAIR MARKET VALUE ESTIMATE

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Table 30 - Speculative Case – ISL Methods - Weighted Average Net Present Value of the Property, April 24, 2008

		Š	eighted /	Ave	Weighted Average NPV	>
		ISL Acid Leach	Leach	l	ISL Alkali Leach	li Leach
Approval Scenario [1]		Low	High		Low	High
(000s)						
Five Year Approval Scenario	⇔	ı	ı	⇔	ı	5,620
Seven Year Approval Scenario		3,050	9,140		4,200	8,390
No Approval Scenario		(4,270)	(3, 820)		(4,050)	(3, 150)
	\$	(1,220)	5,320 \$	÷	150	10,860

[1] Sensitivities performed simultaneously and approvals probability weighted based on 5%-15% for ISL Acid Leach and 0%-20% for ISL Alkali Leach Method

Table 31 - Speculative Case - ISL Methods - Weighted Average Net Present Value of the Property, March 12, 2009

		Š	eighted .	Ave	Weighted Average NPV	>
		ISL Acid Leach	Leach		ISL Alka	ISL Alkali Leach
Approval Scenario [1]		Low	High		Low	High
(000s)						
Five Year Approval Scenario	م		ı	\mathbf{S}	ı	5,210
Seven Year Approval Scenario		3,130	9,390		4,270	8,530
No Approval Scenario		(4, 270)	(4,270) (3,820)		(4,050)	(3, 148)
	ļ					
	ŝ	\$ (1,140)	5,570 \$	ŝ	220	10,592
[1] Sancitivitias nerformed cimultaneously and annovals prohability waighted	Dede	de pue visi	a alevora	4	ahility wa	iahtad

[1] Sensitivities performed simultaneously and approvals probability weighted based on 5%-15% for ISL Acid Leach and 0%-20% for ISL Alkali Leach Method



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MARKET CAPITALIZATION

capitalization as an indicator of the value of the Property. In arriving at our comments and conclusions on that, we considered the following factors In considering the estimated fair market value of the Property as at the Valuation Dates, we also considered the relevance of Boss' market amongst others:

- approximately 53.64 million being held directly by insiders and corporations and a public float of approximately 19.6 million shares (26.8% of the Throughout the period from June 14, 2007 to the Valuation Dates, Boss had approximately 73.3 million shares issued and outstanding, with total)
- trading price of the shares that traded that day) was approximately \$29.3 million, based on a share price of \$0.40. The market capitalization on The market capitalization of the Company on April 24, 2008 (measured as the product of number of issued and outstanding shares times the March 12, 2009 was approximately \$5.86 million, based on a share price of \$0.08
- During the period from June 14, 2007, the date of closing for the purchase of the Property, to April 24, 2008, the average daily trading volume was approximately 6,000 shares and the average daily trading value was approximately \$3,500. Further, it is noteworthy that the shares were not consistently traded on a daily basis and on average, only traded every second or third day. •

The market transactions involving Boss shares during the period preceding the Valuation Dates were insignificant, in terms of both the number and the value of the shares exchanged. Accordingly the calculated market capitalization would not be considered indicative of the fair market value as a whole.

VALUE CONCLUSION

Based on the scope of our review and the assumptions noted herein, we conclude that the fair market value of the Property was nominal as at the two Valuation Dates. There may have been a speculative value attributable to the Property, recognizing the potential that the outlook and circumstances for the Property at the Valuation Dates would be different at a future date. However, we would not expect that speculative value to be significant in the circumstances



PROPERTY	ESTIMATE
URANIUM	ET VALUE
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RESTRICTIONS

Province, the Company, its shareholders, its directors or any other parties as a result of the circulation, publication, reproduction or use of this report market value of the Property. This report is not intended for general circulation or publication and is not to be reproduced or used for any purpose other than that indicated above without our prior written permission. We will not assume any responsibility or liability for losses incurred by the This report has been prepared for the sole purpose of assisting the Province and the Court in connection with the legal proceedings as to the fair contrary to the provisions of this paragraph. The comments, calculations and conclusions noted or referred to herein are based on information that has been made available to us. We reserve the right to review all calculations included or referred to in this report and, if we consider it necessary, to revise our calculations and conclusions in light of information existing at the Valuation Date that becomes known to us subsequent to the date of this report.

This report was prepared by Michael D. Bowie, with the assistance of Patrick Seeton and Michael Janicki. A copy of Mr. Bowie's Curriculum Vitae is attached as Schedule 19.

Yours very truly,

Miclan D. Bm

Michael D. Bowie, CA, FCBV Partner 604-691-3553



Schedule 1

Blizzard Uranium Property Estimate of Fair Market Value - Open Pit Mine Summary of Weighted Average Net Present Value Valuation date as at April 24, 2008 (CAD 000s)

	2	Net Present	Probability	Probability Weighting	Weighted Average NPV	age NPV
Approval Scenario		Value	Low	High	Low	High
Scenario 1 - 4 year	÷	(94,673)	5%	15%	\$ (4,734)	(14,201)
Scenario 2 - 6 year		(79,560)	25%	30%	(19, 890)	(23, 868)
Scenario 3 - 8 year		(66,005)	40%	45%	(26, 402)	(29,702)
Scenario 4 - No approval	\$	(3,748)	30%	10%	(1,124)	(375)
					\$ (52,150)	(68,146)



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Schedule 2

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17
Revenue: Uranium Produced (LBS)			, ,				374,657	1,498,645	1,498,645	1,498,645	768,055	768,055	768,055	768,055	768,055	768,055	637,814
Uranium Price (CAU)	/3.98	80,00	86.17	88.1/	69.13	10.68	70.07 010 00	110 220 772	107 046 040	/4.44 111 EEE 770	/0,0/ 50 004 347	80.00	83.33	83.33 64 004 616	83.33	83.33 64 004 616	83.33
NEVELINE							46/1610/07	c///ccc/011	010/010/01	0///000/111	117/100/00	701/111/10	010/100/10	010/100/10	010/100/10	010/100/10	4.61/101/00
Royalty	•	•			•	•	(749,315)	(2,997,289)	(2,997,289)	(2,997,289)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,275,629)
Net Revenue							28,070,479	107,342,483	104,048,759	108,568,481	57,348,136	59,908,321	62,468,505	62,468,505	62,468,505	62,468,505	51,875,565
Operating expenses:																	
Mining expenses					3,114,822	7,301,435	8,364,931	8,435,249	8,173,191	9,850,850	11,430,141	12,419,334	9,712,230	9,202,123	1,480,514	1,054,108	753,467
Milling expenses G&A expenses (Redamation costs)	•	,			•	•	10,101,044	41,414,706	42,450,074	43,511,326	44,599,109	45,714,087	46,856,939	48,028,362	49,229,071	50,459,798	48,237,142 17,368,716
Total operating expenses					3,114,822	7,301,435	18,465,976	49,849,955	50,623,265	53,362,176	56,029,250	58,133,421	56,569,168	57,230,485	50,709,585	51,513,906	66,359,325
Operating income					(3,114,822)	(7,301,435)	9,604,504	57,492,528	53,425,494	55,206,305	1,318,886	1,774,900	5,899,337	5,238,021	11,758,920	10,954,599	(14,483,760)
BC Mineral Tax							207,076	1,209,796	1,128,456	1,164,072	57,100	66,220	148,709	135,483	265,901	249,814	
Income taxes				•				13,815,976	13,074,260	13,510,558	315,447	427,170	1,437,657	1,275,634	2,873,255	2,676,196	
Net operating income	•				(3,114,822)	(7,301,435)	9,397,427	42,466,756	39,222,779	40,531,675	946,340	1,281,510	4,312,971	3,826,903	8,619,765	8,028,589	(14,483,760)
Capital Expenditures: Capital expenditures (net of tax shield)	881,619	907,123	702,378	10,879,094	117,107,317	121,856,846	1,216,581	1,246,996	1,278,171	1,310,921	1,343,694	1,377,286	1,411,719	1,447,012	1,483,187	1,520,266	
Working capital change		,			,			,		,							
After-tax discretionary cash-flow	(881,619)	(907,123)	(702,378)	(10,879,094)	(120,222,139)	(129,158,280)	8,180,846	41,219,760	37,944,608	39,220,754	(397,354)	(95,777)	2,901,253	2,379,892	7,136,578	6,508,322	(14,483,760)
Discount Rate	14%																
Discounted after-tax discretionary cash-flow	(825,712)	(745,262)	(506,184)	(6,877,423)	(66,667,262)	(62,826,891)	3,490,733	15,428,336	12,458,301	11,295,874	(100,387)	(21,225)	563,995	405,828	1,067,504	853,972	(1,667,060)
Project NPV	(94,672,863)	_															

Blizzard Unatium Property Editoriane of Fabrica Valler - Open PL, Miller Projekted Otererbiany date to acted Rome based on sk year approval period Valandon often as at April 54, 2008 (COD)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19
Revenue: Uranium Produced (LBS)									374,657	1,498,645	1,498,645	1,498,645	768,055	768,055	768,055	768,055	768,055	768,055	637,814
Uranium Price (CAD)	73.98	80.00	86.17	88.17	89.13	89.01	76.92	73.63	71.43	74.44	76.67	80.00	83.33	83.33	83.33	83.33	83.33	83.33	83.33
Revenue									26,761,237	111,565,770	114,896,092	119,891,574	64,004,616	64,004,616	64,004,616	64,004,616	64,004,616	64,004,616	53,151,194
Royalty									(749,315)	(2,997,289)	(2,997,289)	(2,997,289)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,275,629)
Net Revenue									26,011,922	108,568,481	111,898,802	116,894,284	62,468,505	62,468,505	62,468,505	62,468,505	62,468,505	62,468,505	51,875,565
Operating expenses:																			
Mining expenses							3,272,510	7,671,070	8,788,406	8,862,283	8,586,959	10,349,549	12,008,792	13,048,063	10,2 03,911	9,667,980	1,555,465	1,107,473	791,611
Milling expenses									10,612,409	43,511,326	44,599,109	45,714,087	46,856,939	48,028,362	49,229,071	50,459,798	51,721,293	53,014,325	50,679,147
uoov expenses (nec ama uon costs) Total operating expenses							3,272,510	7,671,070	19,400,816	52,373,609	53,186,068	56,063,636	58,865,731	61,076,425	59,432,983	60,127,778	53,276,758	54,121,798	69,718,766
Operating income							(3,272,510)	(2,671,070)	6,611,107	56,194,872	58,712,735	60,830,648	3,602,775	1,392,080	3,035,523	2,340,727	9,191,748	8,346,707	(17,843,201)
BC mineral tax									147,208	1,183,843	1,234,200	1,276,559	102,778	58,564	91,433	77,537	214,557	197,656	•
Income taxes										12,632,837	14,369,634	14,888,522	874,999	333,379	736,023	565,798	2,244,298	2,037,263	
Net operating income							(3,272,510)	(2,671,070)	6,463,898	42,378,192	43,106,901	44,665,567	2,624,998	1,000,137	2,208,068	1,697,393	6,732,893	6,111,788	(17,843,201)
Capital Expenditures: Capital expenditures (net of tax shield)	881,619	907,123	702,378	726,689	500,111	11,237,079	123,109,037	128,025,849	1,278,171	1,310,921	1,343,694	1,377,286	1,411,719	1,447,012	1,483,187	1,520,266	1,558,273	1,597,230	
Working capital change																			
After-tax discretionary cash-flow	(881,619)	(907,123)	(702,378)	(726,689)	(500,111)	(11,237,079)	(126,381,547)	(135,696,918)	5,185,728	41,067,271	41,765,207	43,288,281	1,213,279	(446,874)	724,881	177,126	5,174,620	4,514,558	(17,843,201)
Discount Rate 1	1.4%																		
Discounted after-tax discretionary cash-flow	(825,712)	(745,262)	(506,184)	(459,390)	(277,329)	(5,466,090)	(53,926,488)	(50,790,630)	1,702,623	11,827,685	10,551,488	9,593,223	235,858	(76,203)	108,429	23,241	595,591	455,806	(1,580,276)
Project NPV	(79,559,618)																		

Schedule 3

Elizzard Umarium Property Elizzard Umarium Property Program de carteriary dans acceditions based on edgit year especial particl Architech edits as a kyrit 34, 2008. COD

Ι	Year 1	Year 2	Year3	Year 4 Ye	Year 5 Yea	Year 6 Year 7	7 Year 8		Year 9 Yo	Year 10 Y	Year 11	Year 12	Year13	Year14	Year 15 768 OFF	Year16 768 055	Year 17	Year 18 720 055	Year 19	Year 20	Year 21
	73.98	00.08	. 86.17	. 17	89.13	10.08	76.92	73.63	71.43	74.44	76.67	00'08	4, 45/0/045 8.3.33	1,430,043	83.33	83.33	83.33	83.33	83.33	83.33	83.33
I											28,723,728	119,891,574	124,887,056	124,887,056	64,004,616	64,004,616	64,004,616	64,004,616	64,004,616	64,004,616	53,151,194
											(749,315)	(2,997,289)	(2, 997, 289)	(2,997,289)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,275,629)
I											27,974,413	116,894,284	121,889,767	121,889,767	62,468,505	62,468,505	62,468,505	62,468,505	62,468,505	62,468,505	51,875,565
			,				,		101 027 2	0 0E0 410	015 5 5 0	210.024	62.9 100 0	304, 679,01	TCT 212 C1	142 002 01	10.700 48.4	CC # 231 01	010 1001	003 071 1	201100
										- -	11,149,663	45,714,087	9, uz.1,o 73	48,028,362	12/01622/64	50,459,798	51,721,293	53,014,325	1,00%, 210		63,244,779 53,244,779 19,171,812
1									3,438,181	8,059,418	20,382,982	55,025,023	55,878,612	58,901,858	61,845,808	64,168,419	62,441,777	63,171,747	\$5,973,894	56,861,714	73,248,278
								-	(3,438,181)	(8,059,418)	7,591,431	61,869,261	66,011,154	62,987,909	622,697	(1,699,914)	26,728	(703,242)	6,494,612	5,606,791	(21,372,713)
											166,815	1,297,331	1,380,169	1,319,704	43,176		31,257	16,657	160,614	142,858	
			,									14,124,737	16,157,746	15,417,051	144,880				982,711	1,365,983	
I								е) -	(3,438,181)	(8,059,418)	7,424,616	46,447,193	48,473,239	46,251,154	434,641	(1,699,914)	(4, 529)	(668'612)	5,351,287	4,097,950	(21,372,713)
	881,619	521,709	702,378	726,689	500,111 S	512,919 52	525,742 11,4	11,805,956 1.25	129,341,432	134,588,870	1,343,694	1,377,286	1,411,719	1,447,012	1,483,187	1,520,266	1,558,273	1,597,230	1,637,161	1,678,090	
14%	(881,619)	(507,123)	(702,378)	(126,689)	s) (111/005)	(512,919) (52	(525,742) (11,3	(11,805,956) (13)	(132,779,613)	(142,648,288)	6,080,922	45,069,907	47,061,521	44,804,142	(1,048,546)	(3,220,180)	(1,5 62,802)	(2, 317,129)	3,714,126	2,419,860	(21,372,713)
	(825,712)	(745, 262)	(506, 184)	(459, 390)	(277,329) (2	(249,501) (22	(224, 332) (4, 4	(4,418,906) (43	(43,595,349)	(41,083,788)	1,536,273	9,988,054	9,148,614	7,640,164	(156,844)	(422,528)	(179,876)	(233,946)	3 28,940	187,995	(1,456,499)
Ц	(66,005,404)																				

Schedule 4

Schedule 5

Blizzard Uranium Property Estimate of Fair Market Value - Open Pit Mine Summary of Weighted Average Net Present Value Valuation date as at March 12, 2009 (CAD 000s)

	Z	Net Present	Probability	Probability Weighting	Weighted Average NPV	age NPV
Approval Scenario		Value	Low	High	Low	High
Scenario 1 - 4 year	\$	(61,713)	5%	15%	\$ (3,086)	(9,257)
Scenario 2 - 6 year		(53, 165)	25%	30%	(13,291)	(15,949)
Scenario 3 - 8 year		(47,317)	40%	45%	(18,927)	(21,293)
Scenario 4 - No approval	\$	(3,748)	30%	10%	(1,124)	(375)
					\$ (36,428)	(46,874)



Estimated Learninn Protectory Estimate of Esti-Market Voites - Dyen PR Mine Projected discretionary after tax cash flows based on four year approval period Valuation date as at March 12, 2009

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17
Revenue:																	
Uranium Produced (LBS)							374,657	1,498,645	1,498,645	1,498,645	768,055	768,055	768,055	768,055	768,055	768,055	637,814
Uranium Price (CAD)	55.85	75.00	77.78	78.31	80.00	81.40	84.88	87.21	89.53	91.86	93.60	95.93	95.93	95.93	95.93	95.93	95.93
Revenue							31,802,307	130,695,756	134,180,976	137,666,197	71,893,557	73,679,733	73,679,733	73,679,733	73,679,733	73,679,733	61,185,676
Royalty							(749,315)	(2,997,289)	(2,997,289)	(2,997,289)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,275,629)
Net Revenue							31,052,993	127,698,467	131,183,687	134,668,907	70,357,446	72,143,622	72,143,622	72,143,622	72,143,622	72,143,622	59,910,048
Operating expenses:																	
Mining expenses				,	3,192,693	7,483,971	8,574,055	8,646,130	8,377,521	10,097,121	11,715,895	12,729,817	9,955,035	9,432,176	1,517,527	1,080,461	772,304
Milling expenses G&A expenses (Reclamation costs)		•			•	•	10,073,728	41,302,708	42,335,276	43,393,657	44,478,499	45,590,461	46,730,223	47,898,478	49,095,940	50,323,339	48,253,149 17,802,934
Total operating expenses					3,192,693	7,483,971	18,647,782	49,948,838	50,712,796	53,490,779	56,194,393	58,320,279	56,685,258	57,330,654	50,613,467	51,403,800	66,828,386
Operating income					(3,192,693)	(7,483,971)	12,405,210	77,749,629	80,470,891	81,178,129	14,163,053	13,823,343	15,458,364	14,812,968	21,530,155	20,739,822	(6,918,338)
BC Mineral Tax					•		263,090	1,614,938	1,669,364	1,683,508	313,983	307,189	751,446	1,973,578	2,846,812	2,744,069	(733,552)
Income taxes							366,364	19,033,673	19,700,382	19,873,655	3,462,267	3,379,038	3,676,729	3,209,847	4,670,836	4,498,938	
Net operating income			•	•	(3,192,693)	(7,483,971)	11,775,756	57,101,018	59,101,146	59,620,965	10,386,802	10,137,115	11,030,188	9,629,542	14,012,507	13,496,815	(6,184,786)
Capital Expenditures: Capital expenditures (net of tax shield)	883,531	916,052	708,355	10,538,184	112,338,004	116,824,416	1,159,859	1,188,855	1,218,577	1,249,041	1,280,267	1,312,274	1,345,081	1,378,708	1,413,175	1,448,505	,
Working capital change																	
After-tax discretionary cash-flow	(883,531)	(916,052)	(708,355)	(10,538,184)	(115,530,697)	(124,308,387)	10,615,897	55,912,163	57,882,569	58,371,924	9,106,535	8,824,842	9,685,108	8,250,835	12,599,332	12,048,310	(6,184,786)
Discount Rate 14%																	
Discounted after-tax discretionary cash-flow	(827,502)	(752,597)	(510,492)	(6,661,911)	(64,065,698)	(60,467,741)	4,529,760	20,927,623	19,004,505	16,811,556	2,300,659	1,955,695	1,882,755	1,406,962	1,884,635	1,580,887	(711,860)
Project NPV	(61,712,764)																

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Bizzard Umatum Property Estimate A work Vision - Joon Pit Mine Horizondo discretionary after ats cush filow based on aix year approval period Valuation date as at March 11, 2009 (CUD)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19
Revenue: Uranium Produced (LBS)									374,657	1,498,645	1,498,645	1,498,645	768,055	768.055	768,055	768,055	768,055	768,055	637,814
Uranium Price (CAD)	55.85	75.00	77.78	78.31	80.00	81.40	84.88	87.21	89.53	91.86	93.60	95.93	95.93	95.93	95.93	95.93	95.93	95.93	95.93
Revenue	.								33,544,899	137,666,197	140,280,112	143,765,332	73,679,733	73,679,733	73,679,733	73,679,733	73,679,733	73,679,733	61,185,676
Royalty									(749,315)	(2,997,289)	(2,997,289)	(2,997,289)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,275,629)
Net Revenue									32,795,585	134,668,907	137,282,822	140,768,043	72,1 43,622	72,143,622	72,143,622	72,143,622	72,143,622	72,143,622	59,910,048
Operating expenses:																			
Mining expenses							3,354,323	7,862,847	9,008,116	9,083,840	8,801,633	10,608,288	12,309,012	13,374,264	10,459,009	089'606'6	1,594,351	1,135,159	811,401
Milling expenses G&A expenses (Reclamation costs)									10,583,710	43,393,657	44,478,499	45,590,461	46,730,223	47,898,478	49,095,940	50,323,339	51,581,422	52,870,958	50,695,964 18,704,207
Total operating expenses							3,354,323	7,862,847	19,591,826	52,477,498	53,280,131	56,198,749	59,039,235	61,272,743	59,554,949	60,2 33,018	53,175,774	54,006,117	70,211,573
Operating income							(3,354,323)	(7,862,847)	13,203,758	82,191,409	84,002,691	84,569,293	13,104,387	10,870,879	12,588,672	11,910,603	18,967,848	18,137,504	(10,301,525)
BC mineral tax									279,061	1,703,774	1,740,000	1,751,332	292,810	2 48,140	1,074,858	1,596,271	2,513,712	2,405,768	(1,173,367)
Income taxes									426,882	20,121,909	20,565,673	20,704,490	3,2 02,894	2,655,685	2,878,454	2,578,583	4,113,534	3,932,934	
Net operating income							(3,354,323)	(7,862,847)	12,497,815	60,365,727	61,697,019	62,113,471	9,608,683	7,967,054	8,635,361	7,735,750	12,340,602	11,798,803	(9,128,159)
Capital Expenditures: Capital expenditures (net of tax shield)	883,531	916,052	708,355	731,378	502,340	10,840,343	117,945,093	122,738,652	1,218,577	1,249,041	1,280,267	1,312,274	1,345,081	1,378,708	1,413,175	1,448,505	1,484,717	1,521,835	
Working capital change																			
After-tax discretionary cash-flow	(883,531)	(916,052)	(708,355)	(731,378)	(502,340)	(10,840,343)	(121,299,416)	(130,601,499)	11,279,238	59,116,686	60,416,751	60,801,197	8,2 63,602	6,588,347	7,222,185	6,287,245	10,855,885	10,2 76,967	(9,128,159)
Discount Rate 14	496																		
Discounted after-tax discretionary cash-flow	(827,502)	(752,597)	(510,492)	(462,354)	(278,565)	(5,273,104)	(51,757,963)	(48,883,442)	3,703,297	17,026,053	15,263,581	13,474,304	1,606,419	1,123,469	1,080,310	824,964	1,249,497	1,037,600	(808,432)
Project NPV	(53,164,957)																		

Iterated Unstation Property Element of the Medical-Cyan PR Mee Desired discretizanty there are call from based on eight year approval period Volumion data are at Neuch 12, 2009

	Year 1	Year 2	Year3	Year4	Year 5	Year 6 Ye	Year 7 Y	Year 8	Year 9	Year 10	Year 11	Year 12 Y	Year13 Y	Year14 Ye	Year 15 Y	Year16 Y	Year 17	Year18 1	Year 19 Y	Year 20 Y	Year 21
Revernue: Uranium Produced (185)											374,657	1.498.645	1.498.645	1.498.645	768.055	768.055	768.055	768.055	768.055	768.055	637.8.14
Uranium Price (CAD)	55.85	75.00	77.78	78.31	80.00	81.40	84.88	87.2.1	89.53	91.86	93.60	95.33	95.93	95.93	95.33	95.93	95.33	95.93	95.33	95.93	95.93
Revenue											35,069,668	143,765,332 1	143,765,332 1	143,765,332	73,679,733	73,679,733	73,679,733	73,679,733	73,679,733	73,679,733	61,185,676
Royalty											(749,315)	(2,997,289)	(2, 997, 289)	(2,997,289)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,536,111)	(1,275,629)
Net Revenue											34,320,353	140,768,043	140,768,043 1	140,768,043	72,143,622	72,143,622	72,143,622	72,143,622	72,143,622	72,143,622	59,910,048
Op erating exp ens es:																					
Mining expenses									3,524,135	8,260,903	9,464,152	9,543,710	9,247,215	11,145,333	12, 932, 155	14,051,337	10,988,496	10,411,357	1,675,065	1,192,627	852,479
M filing expenses G&A expenses (Reclamation costs)											11,119,510	45,590,461	46,730,223	47,838,478	49, 095,940	50,323,339	51,581,422	52,870,958	54,192,732	55,547,550	53,262,447 19,651,108
Total operating expenses									3,524,135	8,260,903	20,583,663	55,134,171	55,977,438	59,043,811	62,028,096	64,374,676	62,569,919	63,282,315	55,867,797	56,740,177	73,766,034
Operating income									(3,524,135)	(8,260,903)	13,736,690	85,633,871	84,790,604	81,724,232	10, 115,526	7,768,946	9,573,703	8,861,307	16,275,825	15,403,445	(13,855,986)
BC mineral tax		•									072/682	1,772,623	1,755,758	1,694,430	233,033	186,101	22 2,196	997,775	2,163,749	2,050,340	(1,635,446)
Income takes											415,483	20,965,312	20,758,712	20,007,450	2,470,623	1,895,711	2,337,877	1,965,883	3,528,019	3,338,276	
Net operating income		•							(3, 524,135)	(8,260,903)	13,031,487	62,895,936	62,276,135	60,02 2,351	7,411,870	5,687,134	7,013,630	5,897,649	10,5 84,05 6	10,014,829 ([12,220,540]
Capital Expenditures: Capital expenditures (net of tax sheld)	883,531	916,052	708,355	731,378	502,340	514,549	527,413	11,389,135	123,916,054	128,952,296	1,280,267	1,312,274	1, 345,081	1,378,708	1,413,175	1,448,505	1,484,717	1,521,835	1,559,881	1,598,878	
Working capital change																					
After-tax discretionary cash-flow	(883,531)	(916,052)	(708,355)	(731,378)	(502, 340)	(S14,549)	(527,413) ((11,389,135) ((127,440,199)	(137,213,200)	11,751,220	61,583,662	60,931,054	58,643, 643	5,938,695	4,238,629	5,528,913	4,375,814	9,024,175	8,415,951	(12,220,540)
Discount Rate 14%	_																				
Discounted after-tax discretionary cash-flow	(827,502)	(752,597)	(510,492)	(462,354)	(278,565)	(250,294)	(225,045)	(4, 262, 892)	(41, 842, 267)	(39,518,441)	2,968,807	13,647,708	11,844,809	10,000,125	167,168	556,161	636,370	441,798	799,223	653,821	(8 32,80 0)
Project MPV	(121,131)																				

Schedule 8

Schedule 9

Blizzard Uranium Property Estimate of Fair Market Value - Acid In-Situ Leach Summary of Weighted Average NPVs Valuation date as at April 24, 2008 (CAD 000s)

	Net Pro	Present	Probability Weighti	/eighting	>	Veighted Average N	rage NPV
Approval Scenario	Val	/alue	Low	High		Low	High
Seven year approval period No approval received	\$ (4)	(4,498)	5% 95%	15% 85%	φ φ	933 (4,273) (3,339)	2,800 (3,823) (1,023)



Blizzard Uranium Property Estimate of Fair Market Value - Acid In-Situ Leach Discounted Discretionary Cash Flows Valuation date as at April 24, 2008 (CAD 000s)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13 Yi	Year 14 Ye	Year 15 Yea	Year 16 Yea	Year 17 Yea	Year 18 Year 19	19 Year 20	20 Notes
Revenues Tonnes produced per annum	,								320	320	320			320	47					
Lbs per annum			' o		' 0 0	1		1	705,600	705,600	705,600	705,600 7	705,600 70		103,635					' (
UXC Annual Price Projections - Mid		82.00	90.53	94.95	96.38	1/001	89.21	26.18	8/.03	92.97	98.14					129.9/ 13	136.55 14;	143.46 150./3	./3 198.36	26
	۰ ه								61,408	65,600	69,247	74,065	79,079 8	83,083 1	12,821					
Royalty	'	'	'	'	'	'	'	'	(1,719)	(1,762)	(1,806)	(1,852)	(1,898)	(1,945)	(293)				,	
	1								59,688	63,838	67,441	72,213	77,182 8	81,138 1	12,528	,	,	,	,	,
Costs						i														
Permitting Mining and G&A Costs	- 1,200	1,230	946	909	7.99	- 10	696	3 010	- 14 326	- 14 684	15.052	- 15.428	15 989	16 389 1	- 16 799					
0 0 0	1,200	1,230	946	696	662	619	696	3,724	14,326	14,684	15,052	15,428			16,799					•
BC Mineral Tax		'				'	'	'	942	1,018	6,642	7,623	8,202	8,670	(517)					
Operating cash flows	(1,200)	(1,230)	(946)	(696)	(662)	(629)	(969)	(3,724)	44,420	48,135	45,747	49,162	52,991 5	56,078 ((3,754)					
Taxes									7,178	11,054	10,751	11,810	12,911	13,784						
	(1,200)	(1,230)	(946)	(696)	(662)	(629)	(969)	(3,724)	37,242	37,081	34,997	37,352	40,079 4	42,294 ((3,754)					
Capital Expenditures		'	,	'	,	'	37,285	38,632			,			,	,		,	,	,	
Sustaining Capex									801	821	841	862	894	916						
Total Capex	'	'	'		'		37,285	38,632	801	821	841	862	894	916						
Present Value of Tax shield Bonding Cost							(5,975) -	(6,191) 14.326	(128)	(132)	(135)	(194)	(210)	(220)	- 1	- 14.326)				
Net capex	•	1	1				31,310	46,767	672	689	706	668	683	696	-	(14,326)				
Working capital change	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a. n	n.a. n.	n.a. n.	n.a. n.a.	n.a.	
	(1,200)	(1,230)	(946)	(696)	(662)	(629)	(32,005)	(50,491)	36,569	36,392	34,290	36,684	39,396 4	41,598 ((3,754) 14	14,326				
Discount Rate	14%																			
	(1,124)	(1,011)	(681)	(613)	(367)	(330)	(13,657)	(18,899)	12,007	10,481	8,663	8,130	7,658	7,093	(562)	1,880				•
NPV IRR	\$ 18,669 10.1%																			

Schedule 10

Schedule 11

Blizzard Uranium Property Estimate of Fair Market Value - Acid In-Situ Leach Summary of Weighted Average NPVs Valuation date as at March 12, 2009 (CAD 000s)

	Net	Present	Probability Weight	Weighting		Weighted Average NPV	erage NPV	
Approval Scenario		/alue	Low	High		Low	High	I
Seven year approval period	Ś	29,886	5%	15%	\$	1,494	4,483	
No approval received		(4,498)	95%	85%		(4,273)	(3, 823)	
					Υ	(2,779)	660	
					÷	(1)		ļ



Bitzzard Uranium Property Estimate of Fair Market Value - Acid In-Situ Leach Discounted Discretionary Cash Flows Valuation date as at March 12, 2009 (CAD 000s)

20 Notes	<u>م</u> '	1.	•		· ·		1.		.		· ·		1.		1.		.	
Year	- 186.85													n.a.				
Year 19	- - 177.85													n.a.	ľ		ľ	
Year 18	- - 169.28		•			'		,		'		'	•	n.a.	1		1	
Year 17	- - 161.12		•			'	•						•	n.a.	•		1	
Year 16	- - 153.36		•				•	,				- (15.538)	(15,538)	n.a.	15,538		2,039	
Year 15	47 103,635 145.97	15,128	(293)		18,020 18,020	(376)	(2,809)	,	(2,809)			'		n.a.	(2,809)		(420)	
Year 14 Y	320 705,600 1 138.94		(1,945)		17,580 17,580	10,459	68,049	16,635	51,413	- 040	959 959	(230)	729	n.a.	50,684		8,643	
Year 13 Y	320 705,600 70 132.24 ·		(1,898)		17,151 .	9,901	64,359 (15,552	48,808		935 935	(220)	715	n.a.	48,093 {		9,349	
Year 12 Ye	320 705,600 70 125.87 1		(1,852)		16,733	9,370	60,858 (14,446	46,412 4	' 070	912 912	(205)	707	n.a.	45,705 4		10,129	
	320 705,600 70 119.82 1		(1,806)	-	16,325 1 16,325 1	8,869	57,546 6	13,288 1	44,258 4	' 000	890	(143)	747		43,511 4		10,992 1	
0 Year 11						2,987 8				- 000	868	(139)	729	n.a.				
Year 10	320 705,600 114.72				15,927 15,927		60,271	13,499	46,772					n.a.	46,043		13,261	
Year 9	320 705,600 109.09	76,974	(1,719)	+ - - - - - - - - - - - - -	15,538 15,538	1,229	58,487	9,772	48,716	- 170	847	(136)	711	n.a.	48,004		15,761	
Year 8	- - 103.66			713	3,340 4,053		(4,053)	,	(4,053)	41,814	41,814	(6,701) 15.538	50,651	n.a.	(54,704)		(20,475)	
Year 7	- - 98.44			- 969	-		(969)	,	(969)	41,777	41.777	(6,695) -	35,082	n.a.	(35,778)		(15,266)	
Year 6	- - 92.09			- 679	-		(629)	,	(629)				•	n.a.	(629)		(330)	
Year 5	88.31			- 662	- 662		(662)	,	(662)				•	n.a.	(662)		(367)	
Year 4	84.33			- 696	- 969		(696)	,	(696)				•	n.a.	(696)		(613)	
Year 3	- - 81.72			- 946	- 946		(946)	,	(946)	,				n.a.	(946)		(681)	
Year 2	- 76.88			1,230	- 1,230		(1,230)		(1,230)					n.a.	(1,230)		(1,011)	
Year 1	55.85			1,200	1,200		(1,200)	,	(1,200)				•	n.a.	(1,200)		(1,124)	29,886 14.3%
·	Revenues Tonnes produced per annum Lbs per annum UxC Annual Price Projections - Mid	¢,	Royalty	Costs Permitting	Mining and G&A Costs	BC Mineral Tax	Operating cash flows	Taxes		Capital Expenditures	Total Capex	Present Value of Tax shield Bonding Cost	Net capex	Working capital change		Discount Rate 14%	·	NPV \$

Schedule 12

Schedule 13

Blizzard Uranium Property Estimate of Fair Market Value - Alkali In-Situ Leach Summary of Weighted Average NPVs Valuation date as at April 24, 2008 (CAD 000s)

	Ne	t Present	Probability Weigh	Weighting		Neighted Average NP	erage NPV	
Approval Scenario		Value	Low	High		Low	High	1
Five year approval period Seven year approval period No approval received	\$	546 816 (4,498)	0% 10% 90%	10% 20% 70%	မ က	- 82 (4,048) (3,966)	55 163 (3,148) (2,931)	



Blizzard Uranium Property Estimate of Fair Market Value - Alkali In-Situ Leach Discounted Discretionary Cash Flows Valuation date as at April 24, 2008 (CAD 000s)

I

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13 Y	Year 14 Ye	Year 15 Yea	Year 16 Year 17	-17 Year 18	18 Year 19	9 Year 20
Revenues Tonnes recovered per annum Luss per annum Lusc Annual Price Projections - Mid	 73 08	OO 8	90 53 -	- - 04 05	05 33 0	100 71	240 529,200 89.21	240 529,200 87 52	240 529,200 87 03	240 529,200 92.97	240 529,200 98.14	240 529,200 104 97	35 77,726 112.07			- - 120 07 136	- - 136 55 143 46	- - 46 150 73	39 ' ' 758 36
\$	-	-	'	'	'	-	47,208	46,315	46,056	49,200	51,936	55,549	8,711						
Royalty		,					(1,227)	(1,258)	(1,290)	(1,322)	(1,355)	(1,389)	(209)	ı	,	,			
							45,981	45,057	44,766	47,878	50,581	54,160	8,502						
Costs Permitting Mining and G&A Costs	1,200	1,230	946 -	- 969	662	679 2.865	- 13,636	- 13.977	- 14.326	- 14,684	- 15,219	- 15,599	-						
5	1,200	1,230	946	696	662	3,544	13,636	13,977	14,326	14,684	15,219	15,599	15,989						
BC Mineral Tax	ı			ı	,	,	671	647	870	4,487	4,773	5,193	(946)						
Operating cash flows	(1,200)	(1,230)	(946)	(696)	(662)	(3,544)	31,674	30,433	29,570	28,707	30,589	33,367	(6,541)						
Taxes						,	5,740	7,580	7,372	7,163	7,637	8,335			,				'
-	(1,200)	(1,230)	(946)	(696)	(662)	(3,544)	25,934	22,854	22,198	21,544	22,951	25,032	(6,541)		,				
Capital Expenditures Sustaining Capex					35,488 -	36,771 -	-	- 781	- 801	- 821	-	- 872							
Total Capex Present Value of Tax shield Bonding Cost					35,488 (5,687) -	36,771 (5,893) 13 636	762 (122)	781 (125)	801 (128)	821 (132)	851 (136)	872 (196)		- - (13.636)					
Net capex					29,801	44,514	640	656	672	689	714	676	-	(13,636)					
Working capital change	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a. n.	n.a. n.a.	a. n.a.	n.a.	n.a.
	(1,200)	(1,230)	(946)	(696)	(30,463)	(48,058)	25,294	22,198	21,525	20,855	22,237	24,356	(6,541)	13,636					
Discount Rate																			
	(1,124)	(1,011)	(681)	(613)	(16,893)	(23,377)	10,793	8,308	7,067	6,006	5,618	5,398	(1,272)	2,325					
NPV s	546 0.3%																		

Schedule 14

Blizzard Uranium Property Estimate of Fair Market Value - Alkali In-Situ Leach Discounted Discretionary Cash Flows Valuation date as at April 24, 2008 (CAD 000s)

I

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13 🛝	Year 14 Y	Year 15 Ye	Year 16 Yea	Year 17 Year 18	18 Year 19	19 Year 20	20
Revenues Tonnes recovered per annum Lbs per annum UxC Annual Price Projections - Mid	73.98	- - 82.00	90.53	- - 94.95	88.38	- - 100.71	- - 89.21	- - 87.52	240 529,200 87.03	240 529,200 92.97	240 529,200 98.14	240 529,200 104.97	240 529,200 112.07	240 529,200 117.75	35 77,726 123.71 1	- - 129.97 13	- - 136.55 143	- - 143.46 150.73	- - 73 158.36	30 ' '
S.									46,056	49,200	51,936		59,310		9,615					
Royalty			'	'	'				(1,290)	(1,322)	(1,355)	(1,389)	(1,423)	(1,459)	(220)					•
						ı			44,766	47,878	50,581	54,160	57,886	60,853	9,396		,			
Costs Permitting Mining and G&A Costs	1,200 -	1,230	946 -	- 696	662 -	-	-	713 3.010	- 14,326	- 14,684	- 15,052	- 15,428	- 15,989	- 16.389	- 16,799					
	1,200	1,230	946	696	662	679	969	3,724	14,326	14,684	15,052	15,428	15,989		16,799					•
BC Mineral Tax	ı			·	·			ı	635	690	899	5,216	5,632	5,970	(934)		ı	·		
Operating cash flows	(1,200)	(1,230)	(946)	(696)	(662)	(629)	(969)	(3,724)	29,805	32,504	34,630	33,516	36,265	38,494	(6,469)					ŀ
Taxes		,	,	,	,	,	,		4,864	8,083	8,628	8,358	9,052	9,613			,			
	(1,200)	(1,230)	(946)	(696)	(662)	(629)	(969)	(3,724)	24,941	24,421	26,003	25,158	27,214	28,881	(6,469)					ŀ
Capital Expenditures		,	'				37,285	38,632	- 00	' fco	- 110	- 50	- 100	- 910						
Sustanting Capes Total Capex							37.285	38.632	801	821	841	862	894	916						. .
Present Value of Tax shield					'		(5,975)	(6,191)	(128)	(132)	(135)	(194)	(210)	(220)		-	,	,		
Net capex							31,310	46,767	672	689	206	668	683	- 6969	- (1	14,326)				
Working capital change	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a. n	n.a. n.a.	ı. n.a.	п.а.	
	(1,200)	(1,230)	(946)	(696)	(662)	(629)	(32,005)	(50,491)	24,269	23,731	25,296	24,490	26,530	28,184	(6,469) 1	14,326				
Discount Rate 14%	-																			
	(1,124)	(1,011)	(681)	(613)	(367)	(330)	(13,657)	(18,899)	7,968	6,835	6,391	5,427	5,157	4,806	(898)	1,880		,		$\left \cdot \right $
NPV IRR	8 816 0.5%																			

Schedule 15

EGM-2011-00095 крис Schedule 16

Blizzard Uranium Property Estimate of Fair Market Value - Alkali In-Situ Leach Summary of Weighted Average NPVs Valuation date as at March 12, 2009 (CAD 000s)

		Ne	t Present	Probability Weight	Weighting		Neighted Average NP	erage NPV	
riod \$ 7,862 0% 10% \$ - beriod 8,146 10% 20% 815 (4,498) 90% 70% (4,048) 5 (3.233)	Approval Scenario		Value	Low	High		Low	High	I
	Five year approval period Seven year approval period No approval received	θ	7,862 8,146 (4,498)	0% 10% 90%	10% 20% 70%	မ က	- 815 (4,048) (3,233)	786 1,629 (3,148) (733)	



Blizzard Uranium Property Estimate of Fair Market Value - Alkali In-Situ Leach Discounted Discretionary Cash Flows Valuation date as at March 12, 2009 (CAD 000s)

I

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14 Ye	Year 15 Yea	Year 16 Year 17	r 17 Year 18	-18 Year19	19 Year 20
Revenues Tonnes recovered per annum Lbs per annum							240 529,200	240 529,200	240 529,200	240 529,200	240 529,200	240 529,200	35 77,726						
ce Projections - Mid	55.85	76.88	81.72	84.33	88.31	92.09	98.44	103.66	109.09	114.72	119.82	125.87	132.24	138.94 1	145.97 15	153.36 16'	161.12 169	169.28 177.85	85 186.85
\$							52,094	54,859	57,730	60,710	63,410	66,610	10,279						
Royalty	'		,				(1,227)	(1,258)	(1,290)	(1,322)	(1,355)	(1,389)	(209)		,		,	,	
							50,867	53,601	56,441	59,389	62,055	65,221	10,070						
Costs	1 200	1 230	946	QRQ	662	670													
Mining and G&A Costs				· ·	- 100	3,179	14,789	15,159	15,538	15,927	16,325	16,733	17,151						
	1,200	1,230	946	696	662	3,858	14,789	15,159	15,538	15,927	16,325	16,733	17,151		,	,	,	,	,
BC Mineral Tax	,	·	,	ı	ı	ı	746	794	2,460	5,822	6,121	6,484	(893)	ı	,	,			
Operating cash flows	(1,200)	(1,230)	(946)	(696)	(662)	(3,858)	35,331	37,648	38,443	37,640	39,609	42,004	(6,188)			,			
Taxes		,	,				6,027	8,999	9,322	9,208	9,761	10,402							
	(1,200)	(1,230)	(946)	(696)	(662)	(3,858)	29,304	28,649	29,121	28,432	29,848	31,602	(6,188)						
Capital Expenditures			,	'	39,764	39,799	'	'	,	'	,	'	,	,	,	,	,		
Sustaining Capex	•						806	827	847	868	890	912	'	'		'			
Total Capex					39,764	39,799	806	827	847	868	890	912							
Present Value of Tax shield Bonding Cost					(6,372)	(6,378) 14 789	(129)	(132)	(136)	(139)	(143)	(205)	'	-			,	,	,
Net capex					33,391	48,210	677	694	711	729	747	707		(14,789)			,		
Working capital change	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a. n	n.a. n.a.	a. n.a.	a. n.a.	n.a.
	(1,200)	(1,230)	(946)	(696)	(34,054)	(52,068)	28,627	27,955	28,409	27,703	29,101	30,895	(6,188)	14,789		,			
Discount Rate	%																		
	(1,124)	(1,011)	(681)	(613)	(18,884)	(25,328)	12,215	10,463	9,328	7,979	7,352	6,847	(1,203)	2,522	,				
NPV IRR	\$ 7,862 4.0%																		

Schedule 17

Blizzard Uranium Property Estimate of Fair Market Value - Alkali In-Situ Leach Discounted Discretionary Cash Flows Valuation date as at March 12, 2009 (CAD 000s)

I

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12 🔹	Year 13 🔹	Year 14 Y	Year 15 Ye	Year 16 Yea	Year 17 Yea	Year 18 Year 19	19 Year 20
Revenues Tonnes recovered per annum Lbs per annum UxC Annual Price Projections - Mid	- - 55.85	- - 76.88	- - 81.72	- - 84.33	- - 88.31	- - 92.09	98.44	- - 103.66	240 529,200 109.09	240 529,200 114.72	240 529,200 119.82	240 529,200 125.87	240 529,200 132.24	240 529,200 138.94	35 77,726 145.97 1	- - 153.36 16	- - 161.12 16	- - 169.28 177	177.85 186.85
θ	'	•							57,730	60,710	63,410				11,346				
									(1,290)	(1,322)	(1,355)	(1,389)	(1,423)	(1,459)	(220)		,	,	,
		•							56,441	59,389	62,055	65,221	68,558	72,066	11,126				
	1,200	1,230 -	946 -	-	662 -	679 -	-	713 3,340	- 15,538	- 15,927	- 16,325	- 16,733	- 17,151		- 18,020				
	1,200	1,230	946	696	662	679	696	4,053	15,538	15,927	16,325	16,733	17,151	17,580	18,020				
	ı	ı	ı	ı	,	,	ı		844	896	3,465	6,484	6,868	7,273	(868)	ı	,		
	(1,200)	(1,230)	(946)	(696)	(662)	(629)	(969)	(4,053)	40,059	42,566	42,265	42,004	44,539	47,213	(6,026)				
		,							6,795	10,214	10,267	10,291	10,988	11,701					
	(1,200)	(1,230)	(946)	(696)	(662)	(629)	(969)	(4,053)	33,264	32,352	31,998	31,713	33,551	35,512	(6,026)				
							41,777	41,814 -	- 847	- 868	- 068	- 912	- 935	- 959					
Total Capex Present Value of Tax shield							41,777 (6,695)	41,814 (6,701)	847 (136)	868 (139)	890 (143)	912 (205)	935 (220)	959 (230)		· · 6			
							35,082	50,651	711	729	747	707	715	- 729	-	(15,538)	,		
Working capital change	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a. n	n.a. n.	n.a. n.a.	a. n.a.						
	(1,200)	(1,230)	(946)	(696)	(662)	(629)	(35,778)	(54,704)	32,552	31,623	31,251	31,005	32,836	34,784	(6,026) 1	15,538			
14%	8																		
	(1,124)	(1,011)	(681)	(613)	(367)	(330)	(15,266)	(20,475)	10,688	9,108	7,895	6,871	6,383	5,931	(901)	2,039			
	s 8,146 4.5%																		

Schedule 18

Page 448 redacted for the following reason:

APPENDIX 13

EXPERT REPORT ON VALUATIONS USING COMPARABLE TRANSACTIONS

AMC Mining Consultants (Canada) Ltd

BC0767129

Suite 1330, 200 Granville Street Vancouver BC V6C 1S4 CANADA

- T +1 604 669 0044
- F +1 604 669 1120
- E amccanada@amcconsultants.ca



MEMORANDUM

To: Pat Stephenson

From: Bob Appleyard

cc:

Date: 8 November 2010

Subject: Valuation of Blizzard Uranium Property by Comparable Transactions

Introduction

I was asked by P R Stephenson of AMC Mining Consultants (Canada) Ltd to prepare indicative valuations of the Blizzard Uranium project in British Columbia, Canada, using Comparable Transactions and Actual Transactions as a contribution to an independent valuation of the project being undertaken by Mr. Stephenson, on behalf of the British Columbia Provincial Government. The Blizzard project is held by Boss Power Corporation and Blizzard Uranium Corporation (collectively Boss). This memo covers Comparable Transactions.

My career covers exploration, mining investment, business development and general management of exploration and mining companies. My particular expertise includes valuation and due diligence for mining and exploration projects and companies and business development strategy including identification, assessment and negotiation of acquisitions. My background includes 40 years of mineral valuation work, exploration and mining joint venture negotiation and resource and reserve estimation and review.

For this exercise, I have relied on transaction data supplied to me by AMC. It is largely derived from published reports whose accuracy and completeness can not be warranted by AMC nor by me. In several areas, important information, such as share prices at the dates of transaction, has not been provided and I have had to assume what I believe would have been a figure in the right order. While this impacts on the reliability of some of the value estimates, I believe that in most cases errors introduced in this way have not materially affected the final estimate.

I have not been part of the "AMC team" in the sense of being familiar with the technical assessments of that team. Nor have I visited the Blizzard property.

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Valuation using Comparable Transactions

Mineral projects in an exploration stage prior to resource delineation, as well as projects with resources yet inadequate to be the basis of economic viability, have a value as evidenced by transactions amongst mining and exploration entities in the "trade market" as well as in implicit "share market" values assigned to mineral assets owned by listed companies. This is because either the project owner or a potential buyer of part or all of the project considers that possible future metal price increases or enhancement of the resource by further exploration or possible future economically improved technology changes impacting on mining and/or processing could render the project viable. As well, the project owner or potential buyers may see strategic value and potential viability in adding that project to other projects in the region.

Methods in general used to value such projects involve subjective assessment. Accordingly, it is usual to estimate value using more than one method, to exclude valuation estimates which are outliers in the range of results, to round the value numbers and to express the final judgement of value within a range. Methods in general use are described in Mr Stephenson's report.

This report concerns the Comparable Transaction Method in which a database of transactions around the same time as the effective date of the valuation exercise is examined to select those concerning projects having similarities with the subject project in geology, potential mining and processing methods, tonnage and grade of resource if any exists, status of exploration / development and, usually, country or regional location. Values are estimated for 100% of each selected comparable project using the information in the database about a trade transaction for them and the value range of the subject project is subjectively assessed from the resulting data. That value applies at the date of the transaction.

Comparable transactions can not only involve the payment of cash and / or shares. Many involve conditional payments over time and/or exploration expenditure requirements over time and / or further commitments relating to completion of a feasibility study or to ongoing mining if it occurs, eg payment of a royalty from future production. These conditional elements require the valuer to include discounts for likely time of payment and for probability of the event occurring and thus add to the subjectivity of the approach.

For Blizzard, the transaction database has not been restricted to Canada in order to obtain a useful sample. The main characteristics of the Blizzard project that were considered when assessing comparability of transactions were as follows;

- Indicated or Inferred Resource of 1.9 Mt averaging 0.25% U₃O₈ at a 0.025% U₃O₈ cut-off, containing 10.4 M pounds of uranium.
- Deposit is near surface, flat-lying in several lenses, hosted in carbonaceous mudstones and sandstones and to a lesser extent in conglomerates, thought to be of paleo-channel origin.
- Advanced to a feasibility study stage in the late 1970s (probably a pre-feasibility study stage by today's standards), but not developed as an operation.

- Likely to be exploited either by open pit mining / "conventional" processing or by in-situ leach. Currently the former appears not to be economically viable on assumptions made by the AMC Team, so it is more likely to have to be developed as an ISL operation.
- Likely to face considerable political, environmental and social opposition to development either as an open pit / "convention" processing option or as an ISL option.

A notable feature of the Blizzard resource is its relatively high average grade $(0.25\% U_3O_8)$ at a fairly low cut off grade $(0.025\% U_3O_8)$. Many of the comparable transaction projects have much lower average grade while, where the information provides it, having a cut off grade similar to or not much lower. This may relate to the particular geology of Blizzard and, arguably, it is of greater importance in comparing projects to look at derived values for those at a similar status (pre-feasibility) and with similar indications of possible viability.

Unless noted as "Exploration" all of the transactions listed below have the 100% project value estimate expressed as dollars per pound U_3O_8 contained in a published resource. Some are in Canadian dollars, (C\$) some in US dollars (US\$) and some in Australian dollars (A\$) and are so noted. An occasional transaction concerns a mineral / ore reserve as mineral resource figures are not provided in the database. These are noted as are one or two transactions for which the relevant mineral resource grade is provided for U rather than U_3O_8 . One unit U is equivalent to 1.1792 units of U_3O_8 .

Consideration was given to making adjustments for C\$ / US\$ / A\$ exchange rate variations, but given the subjectivity of the estimating methodology and the consequent range of error and, further, that I would expect variation in market value for similar projects according to the country of location, it was concluded that there was little to gain from such adjustments.

The transactions are all "trade transactions" relating to all or a large part of the project. "Sharemarket" values based on what are usually volatile prices for listed companies are not utilised in this exercise except to the extent that transactions for a project may involve, in part at least, the issue of shares at a market price at the time of the transaction. It is arguable that such a part of the consideration may overstate cash value as the issued shares may be illiquid to the extent they may be escrowed for a defined period. When a project is acquired as part of a takeover deal, the implied price may contain a premium arguably unrelated to real value. The issues discussed in this paragraph have not been subject of any adjustment in the process.

The list which follows is largely for projects with stated resources but largely excludes operating mines and projects at advanced development status. The derivation of the values is shown in Appendix 1.

Selected Projects and Transactions

Property	Transaction Date	Total Mineral Resource (M pounds)	Grade (% U₃Oଃ)	Derived Project Value (\$ / pounds U₃Oଃ in Resources) Low High		Project Description and Comments			
CANADA (C\$ unless stated otherwise)									
Kamloops, BC (Rodinia)	May 2004	10.6	0.11	0.37	0.42	Fractures in sediments. Potential open pit and underground mining			
Agnew Lake, Ontario	January 2009	6.0 (reserve)	0.05	0.18	0.18	Post mining reserve. Residual mineralisation in accessible			
			DA – OTHER			underground mine			
Fond Du Lac, Sask	November 2006	1.0 (reserve)	0.25	1.40	1.80	Style N/A. Needs more info and preferably a resource figure to include			
		USA (US\$	unless stated	otherwise	e)				
Reno Creek, Wyoming	2010 (?)	15.7 (current Resource) or 24.1 (incl historic reserve)	0.065	1.33	2.04	Near surface ISL at feasibility stage with permitting			
Christianson Ranch, Wyoming	August 2009	19.5 (reserve)	0.11 (reserve)	1.75	1.75	ISL. Licensed and permitted. Includes plant			
Sheep Mountain, Wyoming	October 2009	15.6	0.17	0.32	0.41	All Inferred Resources, potential underground and open pit with heap leach, purchase price partly conditional on U price so value estimate subjective			
Centennial	October 2006	9.6	0.07	0.47	0.63	Roll front deposit in sands, probably ISL. Deal involves exploration. expenditure and large conditional royalty so value estimate subjective			
Aurora, Oregon	May 2010	18.3	0.05 (cut- off grade 0.03)	0.11	0.11	Flat lying, but mainly >200m depth.			
Workman Creek, Arizona	June 2006	8.3	0.093	0.30	0.43	Style and status N/A, possible ISL			
Hansen, Colorado	May 2010	30.0	0.08	0.65	0.81	Flat lying, up to 45m thick at 200m depth. Transaction for 51%,			

Property	Transaction Date	Total Mineral Resource (M	Grade (% U ₃ O ₈)	Derived Project Value (\$ / pounds U₃Oଃ in Resources)		Project Description and Comments	
		pounds)		Low	High	<u> </u>	
						earlier deal on separate disputed 49% interest at \$0.07 to \$0.13 per lb	
		AUSTRALIA (A	A\$ unless sta	ated otherw	/ise)		
Lake Maitland (Mega), WA	November 2005	17	N/A	0.06	0.06		
Lake Maitland (Mega), WA	October 2006	23.7	N/A				
Lake Maitland (Mega), WA	March 2009	20 (at 0.025% U₃Oଃ cut- off grade)	0.057	1.80	3.13	Positive feasibility study and proceeding to bankable feasibility, near surface calcrete deposit	
Hinkler Well, WA	April 2007	N/A, but 10.4 in 2009 estimate	$0.023 (at 0.015\% U_3O_8 cut-off grade)$	0.18 (at 10.4m pounds)	0.18 (at 10.4m pounds)	Near surface calcrete, very low grade. Elsewhere resource stated at 18.5Mlbs, 0.0163% (cutoff 0.01% U_3O_8)	
(Dawson) Hinkler Well, WA	October 2010	6.2	0.023 (at 0.015% U ₃ O ₈ cut- off grade)	1.00	1.00		
Lake Way/Centipede, WA	N/A	25.0 (at 0.02% U₃Oଃ cut- off grade).	0.06 (grade given elsewhere as 0.042)			Feasibility underway Dec 09. Near surface calcrete. Merger by share swap, indicative value very large and considered unreliable for this exercise Recent study says project is economic at US\$80 per lb,	
Napperby, NT	February 2007	1.5 (but reported in 2007/08 as 7.4)	0.036	2.90 for 1.5M lb or \$0.59 for 7.4M lb.	2.90 for 1.5M lb or \$0.59 for 7.4M lb	Ngalia Basin. Palaeo- channel, shallow, potentially low stripping ratio	
	AUST	RALIA – OTHE	ERS (A\$ unle	ss stated o	otherwise)		
Manyingee, WA	June 1998	17.6	0.12	0.18	0.18	Too early in time to relate to Blizzard but shows post early 2000s price increase	
Firestone, WA	November 2009	N/A	N/A			Deal for 100% of project \$1.0M. No resource but calcrete mineralisation historically tested over	

Property	Transaction Date	Total Mineral Resource (M	Grade (% U ₃ O ₈)	Value (\$ U₃C Reso	Project / pounds Ø ₈ in urces)	Project Description and Comments	
		pounds)		Low	High		
						2.4km strike length	
Thatchers Soak, WA	September 2006	11.0 (elsewhere 13.6)	0.029	0.33	1.05	A joint venture on ground said to contain 10% to 15% of the deposit values that part at \$0.65M to \$1.05M for say 1 to 2Mlb.	
Kintyre, WA	July 2008	80	0.3-0.4	C\$6.20 C\$6.20		Major, advanced project, currently in construction planning	
		OTI	IER COUNT	RIES			
Kayelekera, Malawi	1998	25.0	0.187	A\$0.02	A\$0.04		
Kayelekera, Malawi	2005	25.0 (no updated figure)	0.187	A\$2.15	A\$2.15	Bankable Feasibility Study stage, purchase of outstanding 10% hence strategic premium likely, planned open pit	
Corachapi, Peru	September 2006	5.3	0.15	A\$0.76	A\$0.76	Surface deposit on mesa top, no other technical information	
Corachapi, Peru	April 2009	6.9	N/A	C\$0.07	C\$0.07	Surface deposit on mesa top, no other technical information	
Valencia, Namibia	July 2005	27.6 (1979 estimate)	0.25	US\$0.12	US\$0.16	Rossing style geology	
Valencia, Namibia	November 2008	30.0	0.12			Major open pit planned. Elsewhere estimated at 56mlbs, 0.016 (Carter). Acquired as major asset in takeover for C\$579M cash suggesting very high unit value	
Danny Dalton, South Africa	July 2005	24.0	0.035	A\$0.27	A\$0.31	Historic mining. Hosted by conglomerates in channels	

N/A = not available

Discussion and Conclusions

The database is inadequate to permit a reasonably definitive value range for application to Blizzard at the effective date. However there is enough to indicate an appropriate value range for (a) projects with a resource which is sub-economic at the effective date (b) projects for which prefeasibility or feasibility work is sufficiently advanced to indicate the likelihood of viability at the uranium price projected by the owners' management.

Only one of the Canadian projects (Kamloops Rodenia) provides an arguably reasonable comparison with a unit value of C\$0.37 to C\$0.42¹ but it is some years earlier than the effective date for Blizzard and is apparently a more difficult mining proposition.

The USA data set provides two good examples of permitted and apparently viable ISL projects with unit values in the range US\$1.33 to US\$2.04. They are both a little later than the effective date. A heap leach, underground and open pit example of the same vintage provides a lower unit value of US\$0.32 to US\$0.41 even though it is at pre-feasibility stage with positive economic indication. Two 2006 transactions for projects with similar uranium resources to Blizzard, one having ISL characteristics, give unit values in the range US\$0.30 to US\$0.63. A 2010 transaction for 51% of a deeper but substantially larger deposit has a unit value of US\$0.65 to US\$0.81, but if the other 49% is included, the combined unit value could be estimated at US\$0.40 to US\$0.48.

The West Australian examples represent good comparisons for Blizzard in the sense they are shallow, flat lying deposits in a political environment which, until late 2008, was opposed to uranium mining. They are much lower in average grade. For the period from early to mid 2000, the unit values obtained cover a wide range from less than A\$0.20 for low grade deposits which seem to have little prospect of viability to greater than A\$2.00 for one which has returned strong rates of return in initial feasibility work and is proceeding to bankable feasibility status. The Ngalia Basin example (A\$0.59 in February 2007 using the higher resource figure) is a small to modest paleo-channel uranium resource of low grade but its possible economic status cannot be indicatively assessed on the information available. The major good grade and advanced Kintyre project was acquired in 2008 at a figure exceeding C\$6.00 but it is considered that this particular transaction should be excluded from consideration for Blizzard.

Of the "Other Countries" examples, one in Malawi provides a 1998 transaction representing an initial entry to a promising resource at a low unit value and a 2005 strategically valuable purchase of an outstanding project interest for more than A\$2.00 per lb at bankable feasibility stage when a large open pit was being considered. The other three projects provide unit values of A\$0.76 for a small resource for which a later transaction reduced the value to less than \$0.10; and A\$0.27 to A\$0.31 in 2005 for a larger but lower grade resource than Blizzard with less favourable mining and geology characteristics. The Valencia project near the major Rossing

¹ Unit value refers to value per pound of contained U₃O₈ in resources,

mine in Namibia and of the same style was acquired for a unit value of US\$0.12 to US\$0.16 in 2005, but terms of a corporate takeover in late 2008 suggest a very high unit value.

The transactions examined are mainly of 2005 to 2009 currency and some are outside the Blizzard effective date period. There appears to be a trend to increasing unit value after 2005 but the database is not adequate to draw any conclusion that would enable adjustment of any result to the effective date period.

The size of the resource under consideration tends to impact on unit value and, in this context, the Blizzard resource is small relative to those for which high unit values apply.

In terms of uranium permitting, the Blizzard political environment is similar to that for Australia, less so for Western Australia since a change of government in 2008, but the results discussed above are inadequate to allow a reasoned comparative estimate. The USA examples are, at least in part, ones where political and environmental restrictions are considerably less and it seems reasonable that for projects of comparable character and status, projects in BC should attract a lower value.

Average grade at Blizzard is substantially higher than most examples in the database. However the Blizzard resource is less than many and, as discussed above, relative potential economics are more important. There is enough information in the database to indicate that projects which are probably sub-economic at the time of transaction generally attract unit values most typically in the range \$0.20 to \$0.80 in any of USA, Australian or Canadian dollars while those for which studies with positive indications are valued at above \$1.00 and in some cases, above \$2.00. Much higher values can apply to major resources with obviously excellent economic potential such as Kintyre and can be inferred from one or two corporate takeovers.

Against these findings and, if the economic analysis for Blizzard shows it to be sub-economic, a Comparable Transactions value at the effective dates should be in the range \$0.20 to \$0.80, the positive bias for its good grade and mining characteristics being offset by the low probability of a permit to mine. If however analysis suggests it is marginally or a little above an acceptable economic threshold measure, a unit value toward the lower end of the \$1.00 to \$2.00 range seems appropriate with the political opposition and relatively modest resource influencing a choice nearer the bottom of that range.

APPENDIX 1

DERIVATION OF VALUES FROM COMPARABLE TRANSACTIONS

The components of purchase in a transaction can include the following:

- cash and / or shares at the time of transaction and / or signing of the agreement whose value is not discounted,
- cash and / or shares at subsequent dates which, if unconditional, are discounted for time and, if conditional, are discounted for time and probability of final payment,
- exploration expenditures, either to earn a stated percentage interest or as part of the terms to acquire 100% ownership; these are discounted for time and probability of completion,
- usually conditional, obligations to fund the other party to feasibility or to decision to mine which are discounted for both time and probability,
- the rights to royalties, usually on sales, if a mine is ultimately operated; these are discounted, usually heavily, for time and for probability.

The latter two components are the most prone to error through subjectivity. However because they represent events of relatively low probability and are usually subject to a large time discount when a project is still in the exploration stage, the error inherent is usually not of great impact to the overall valuation.

In the following summaries of transaction terms, T refers to a time discount and P a probability discount. P/T is used in cases where I have combined the two discounts.

Probability P is often expressed as a range Time is usually a single figure which is my estimate of a 10% pa discount averaged over the estimated number of applicable years.

CANADIAN TRANSACTIONS (C\$ unless noted)

Kamloops/Rodinia	Cash \$135K					
	Shares and warrants \$2,500K					
	Exploration Expenditure US\$2,000K x P/T 0.5 to 0.75 = US\$1,000K to US\$1,500K					
	Royalty Assume 5 to 7.5 Mlbs at \$40, 3% royalty, T 0.4 P0.1 = \$240K to \$360K					
	Total \$3.88M to \$4.50M or 0.37 to 0.42 per lb					

Fond Du Lac	Cash \$130K								
	Shares 300,000 (rounded) \$200	-	umed \$0.20 to \$0.30. Total cash plus shares 0K.						
	Exploration Exp	enditure \$2,000	≺ over ₄	4 years, T 1/	/1.15, P 0.55 to ().7			
	Interest acquired	149%							
	100% proje 51/49(2000x1/1.		=	100/49	(200to250)	+			
	= (rounded) \$1.4	M to \$1.8M or \$	\$1.40 tc	s \$1.80 per l	b.				
Agnew Lake	v Lake 15 M shares and 7.5M 3 year warrants exercisable at \$0.10 valued a approx \$1.1M in total					d at			
	100% project value \$1.1M or \$0.18 per lb								
USA TRANSACTIONS (US\$ unless note	d)							

USA TRANSACTIONS (US\$ unless noted)

Reno Creek	\$32M	cash	or	\$1.33	(resource	plus	historical)	to	\$2.04	per	lb
	(resou	rce on	ly)								

- **Christianson Ranch** \$35M cash for resource and plant. \$1.75 per lb but less if plant value removed.
- Sheep Mountain50% purchased for \$850K up front plus \$2M if uranium price
increases to \$65 plus in 3 years

plus \$4M if price increases to plus \$85 in 3 years.

I have discounted the \$2M by 50% and the \$4M to 25% for a total value of \$2.85M within a range of \$2.5M to \$3.2M, hence \$5M to \$6.4M for 100% or \$0.32 to \$0.41 per lb.

Centennial 100% purchased for;

- Cash \$1.0M on agreement plus \$2.0M in 8 annual equal tranches (T 1/1.4) plus \$1.5M on grant of permits (P/T 0.5) for total present value at agreement of \$3.2M (rounded).

- Minimum work commitment of \$0.2M pa until production. I have valued the work commitment at \$0.6M to \$1.4M in total with T = 1/1.2 to 1.4 and P of 0.8 for \$ 0.4M to \$0.8M

- 5 to 6 % sales royalty which I have valued at (7M lbs at \$50 and 5 to 6%) with T 1/2.75 and P 0.15 to 0.25 for a rounded \$1.0M to \$1.9M

Total \$4.5M to \$6.0M or \$0.47 to \$0.63 per lb

Aurora	100% for \$2M cash or \$0.11 per lb
Workman Creek	100% for;
	- Cash \$135K
	- 2.5M shares at assumed \$0.50 to \$0.60 or \$1,250K to \$1,500K
	- 1.5 M 5 year warrants at exercise price \$0.74 valued at \$0.05 to \$0.10 or \$75K to \$150K
	- $2M$ exploration over 4 years with T 1/1.25 and P 0.5 to 0.8 for $800K$ to $1,280K$
	- 3% royalty valued at (5Mlbs x \$50 x .03) with T 1/2.5 to 1/3.0 and P0.1 to 0.2 for rounded \$250K to \$600K
	Total (rounded) \$2.5M to \$36M or \$0.30 to \$0.43 per lb
Hansen	51% for;
	Option fee in cash and shares \$4.0M
	- Cost of feasibility study estimated at $2.5M$ to $5.0M$ with T 1/1.2 and P 0.7 to 0.8 or rounded $1.5M$ to $3.3M$
	- Exercise price in cash and shares \$9.5M, T 1/1.2, P 0.5 for \$4.0M
	- Royalty 1.5% of assumed 15M lb at \$60, T 1/2.75, P 0.1 to 0.2 for \$0.5M to \$1.0M
	Total \$10.0M to \$12.3M for 51% or \$0.65 to \$0.81 per lb.
	49% disputed interest for \$2M in cash and shares on resolution of action (T 1/1.15, P 0.5) and \$4M on commencement of mining (T1/1.7, P 0.1 to 0.2) for
	Total rounded \$1.0 to \$1.1M or \$0.07 per pound.
	The latter were terms of a pre-existing deal with a third party and, arguably, when considering the primary vendor terms from an assumption of success in the action, the total for the 49% could be increased to \$1.9M to \$2.0M or \$0.13 per lb with a 100% value of \$11.9M to \$14.3M or \$0.40 to \$0.48 per lb
AUSTRALIAN TRANSA	CTIONS (A\$ except where noted)
Lake Maitland, Nov 05	Acquisition by party holding 30% of project of outstanding interest for \$0.75M cash or \$0.06 per lb
Lake Maitland. Oct 06	Based on C\$10.5M paid for first 15.6% in a cash/share takeover, assets acquired can be valued at C\$67M. Assets include 100% Lake

Maitland plus C\$7.4M cash plus royalty on Langer Heinrich uranium operation and other exploration. I infer this could put a value on Lake Maitland's 23.7M lb resource of around \$2 per lb

Lake Maitland, Mar 09 Farm-in enabling interest of 35% to be earned by staged contributions (details N/A) of US\$49M. I assume 5 years to contribute (T 1/1.33 and P 0.4 to 0.7) for

Total Value \$15M to \$26M or \$1.80 to \$3.13 per lb

- **Hinkler Well, Apr 07** 35% acquired for \$250K cash plus 2M shares with assumed value around \$0.20. Total value \$0.65M or \$0.18 per lb.
- (Dawson) Hinkler Well \$6.2M cash plus 2% nett smelter royalty for production beyond then resource.

Valued at \$6.2M or \$1.00 per lb.

Napperby Feb 07100% acquired for \$2.3M in shares with further payment linked to
future increases in U price if any plus minimum \$0.75M exploration pa
for 3 years valued at \$2.25M x T 1/1.1 x P 1.0.

Total value \$4.4M or \$0.59 per lb using one of several then resource figures (7.4Mlb). Acquirer subsequently withdrew given impact of U price increase on terms.

Manyingee, June 98 Cash \$0.5M on signing, \$1.5M in 1 year, \$1.25M in 2 years valued at rounded \$3.0M with time discount.

1% royalty valued at (10Mlbs x \$20 x 0.01) x P/T 0.05 or \$0.1M

Total Value \$3.1M or \$0.18 per lb

Thatchers Soak Sep 06 Adjacent ground to main deposit (variously 11M lb or 13.6M lb) contains "10 to 15%" of resource, assume 1 to 2 M lbs. 65% acquired for \$163K in shares (valued at \$250K for 100%) and sole funding to bankable feasibility study ("BFS") (valued at \$5M to \$10M x P/T 0.05) or rounded \$0.4M to \$0.8M for 100%.

Total value \$0.65M to \$1.05M or \$0.33 to \$1.05 per lb.

OTHER TRANSACTIONS

Kayelekera Feb 98 80% acquired for;

- Cash A\$170K over 3 years valued with time discount at A\$160K or A\$200K for 100%

	-3 years expenditure valuing project at 20/80 of assumed A\$3M to A\$5M x T 1/1.1 x P 0.3 to 0.6
	= rounded A\$200K to A\$700K
	- funding of 10% out of the interest held by vendor to BFS valued at 10% of A\$5M to A\$10M x T 1/1.6 x P 0.1 to 0.3 or A\$30K to A\$180K
	Total Value for 100% at time of deal rounded A\$0.4M to A\$1.1M or A\$0.02 to A\$0.04 per lb
Kayelekera July 05	Outstanding 10% interest acquired for A\$5.37M in shares or A\$2.15 per lb
Corachapi Sept 06	60% acquired for
	- Cash A\$250K plus 5M Shares valued at A\$2M hence 2.25/0.6 or A\$3.8M for 100%
	- Exploration A\$500K in year 1, hence 100% value at time of deal of 40/60 x T 1 x P 0.7 to 0.8 for a rounded value of A\$250K
	Total Value for 100% A\$4.05M or A\$0.76 per lb
Corachapi Mar 09	100% together with another, assumed minor, project sold for C\$0.5M cash or C\$0.07 per lb
Valencia July 05	90% sold for US\$2M plus 5M shares and 3M warrants (price not known) plus finders fee
	Consideration valued at US\$3M to US\$4M, assuming share price (inc warrants) in range US\$0.20 - US\$0.40, or US\$0.12 to US\$0.16 per lb
Danny Dalton, July 05	100% acquired for cash A\$6M plus a royalty (unspecified). Total estimated value A\$6.5M to A\$7M or A\$0.27 to A\$0.31 per lb.

Pages 463 through 466 redacted for the following reasons: S.22 **APPENDIX 14**

EXPERT REPORT ON VALUATIONS USING ACTUAL TRANSACTIONS

AMC Mining Consultants (Canada) Ltd

BC0767129

Suite 1330, 200 Granville Street Vancouver BC V6C 1S4 CANADA

T +1 604 669 0044

- F +1 604 669 1120
- E amccanada@amcconsultants.ca



MEMORANDUM

To: Pat Stephenson

From: Bob Appleyard

cc:

Date: 8 November 2010

Subject: Valuation of Blizzard Uranium Property by Actual Transactions

INTRODUCTION

This report has been prepared by G R Appleyard, whose resume and qualifications are appended (Appendix 1), at the request of P Stephenson of AMC Canada. The report is an assessment of values for the Blizzard Project at various dates based on information about Actual Transactions concerning the project together with comments on value derived from other information noted below.

Information supplied consisted of a number of extracts from press releases made by Santoy Resources Ltd ("Santoy") in 2005 and 2006, part of an August 2005 letter from a tenement specialist concerning title to the project, copy of a 30 June 2007 financial statement by Boss Power ("Boss") and a share price chart for Boss for the period mid 2007 to mid 2010 (Appendix 2).

The purpose of the report is in part to assist in estimating values for the project at various dates using actual transactions (referred to as "the Actual Transaction Method" of mineral project valuation and described elsewhere by Mr Stephenson).

I am not able to confirm whether or not all the information material to such an assessment has been provided and nor am I able to confirm its accuracy and reliability. Indeed there are inconsistencies between some of the extracts concerning the terms of transactions and, as well, in the implied figures for issued capital in Boss between some of the extracts and also between those extracts and the financial report.

I have not been involved as a "team member" in the overall exercise, have not read the technical contributions by other AMC team members and have not visited the site.

EGM-2011-00095 Page 468 Information concerning some of the transaction elements is limited, particularly in regards to applicable share prices. Additionally, some of the elements are paid over quite long periods of time and some payments or contributions are conditional. Thus discounts for both time and for probabilities of completion of the payments need to be included. There is accordingly considerable subjectivity in the estimating process and results from these calculations using subjective inputs are therefore rounded.

The report is structured to comment on the Actual Transactions in time sequence, then to comment on implications for value derived from the financial report and the share price chart and finally to offer some concluding comments on value for the Blizzard project in the period under consideration.

JUNE 2005 TRANSACTION

The first transaction is described in Excerpts from a Santoy Press Release dated 13 June 2005. It concerns the joint acquisition by Santoy and Sparton Resources Inc ("Sparton") of 100% of the "Blizzard Claims" from an independent prospector. Other information indicates the latter was a Mr Travis who is noted as the recorded holder of "Blizzard 1" claim in the excerpt from the tenement specialist's letter dated 12 August 2005. That letter records as an apparent encumbrance, a Notice of superior right by another party which was dated May 26 2005.

The consideration for acquisition is made up of four parts which are set out below together with my assessment of their value at the time of the transaction.

1. Cash option payments totalling \$450,000 to be paid over a four year period. The initial tranche of \$50,000 was payable on signing of the Agreement. The timing of the remaining payments was not included in the Excerpts.

I have applied a time discount factor of 1/1.21 to the residual \$400,000 representing my estimate of an average time discount at 10% pa for the four years of payment. The total Present Value at the time of the transaction then calculates to around \$380,000 and, given the uncertainties in the process, I have rounded that to a range of \$350,000 to \$400,000.

2. Issues of 1 million Sparton shares and 0.25 million Santoy shares in year one and the same numbers in year two.

No share price information for either company was provided. I have assumed that, being equal parties, one Santoy share was worth four Sparton shares. Because the terms of the subsequent August 2005 agreement included warrants in Santoy priced at \$0.75 per share for exercise over a two year period, I believe that the share price of Spartan at the time would have been less than \$0.75 and I have assumed a price range of \$0.50 to \$0.60.

I have assumed these issues to be unconditional. I have not discounted the value of the first year's issue but I have discounted for time the value of the second year's issue by a factor of

1/1.05. The total value which results is \$488,000 to \$586,000 but I have rounded it up to \$500,000 to \$600,000.

3. Completion of a \$1.5 million work programme over four years with an amount of \$0.5 million to be spent in the first two years.

I have assumed that the joint acquirers would have the option to withdraw before completion of such a programme as this is normal in agreements concerning expenditure to earn an interest. I have applied two discount factors to the \$1.5 million, the first for time with an average factor of 1/1.15, and the second for probability of completion being in the range 0.55 to 0.75. The Present Value at the time of transaction which results (after rounding) is a range of \$700,000 to \$1,000,000.

- 4. An unspecified royalty on sales of which there were to be advance payments of \$50,000 per year after the fifth anniversary. A number of assumptions need to be made to estimate the value of this part.
 - a. First, the quantum of the sales royalty, which, because of indications in later transactions, I have assumed to be \$1.00 per pound of what I assume to be uranium oxide.
 - b. Second, the most likely production from any reserve which might derive from the then stated resource of approximately 10 million pounds. I have assumed that to be in the order of 7 million pounds¹.
 - c. Third, the time at which production might commence (I have assumed 7 years after the transaction) and the time period of production which I have assumed at 10 years.
 - d. Fourth the probability that a viable operation will result from ongoing work. Such a probability is typically quite low to very low before feasibility and environmental studies and permitting are complete. I have assumed a range of 0.075 to 0.15 for this exercise

To the first five years of payment of \$50,000 pa after year five, I have applied a time discount factor of 1/2 and a probability of 0.3 to 0.5 that these advance payments will be completed for a total \$38,000 to \$63,000.

To the remaining \$6.75M of assumed royalty, I have applied a time discount factor of 1/2.9 and a probability of 0.075 to 0.15 for a total \$175,000 to \$350,000. The total Present Value at time of transaction value for the royalty component is rounded to \$210,000 to \$410,000.

The total value estimate for the four components is;

¹ I was subsequently informed that the AMC Team has assumed production of 10 million pounds. Given the discounts applied to royalty calculations, I do not believe that this materially affects my findings.

- Cash \$350,000 to \$400,000
- Shares \$500,000 to \$600,000
- Work requirement \$700,000 to \$1,000,000
- Royalty \$210,000 to \$410,000

Total (rounded) \$1.8 million to \$2.4 million

AUGUST 2005 TRANSACTION

Excerpts from a Santoy press release dated 9 August 2005 state that Santoy had agreed to buy out the interest of Sparton for a cost comprised of the following four components;

- 1. 1.0 million shares in Santoy which I have assumed to be then valued at \$0.50 to \$0.60 per share. Total value at the time of transaction \$500,000 to \$600,000.
- 2. 1.0 million Santoy warrants exercisable at \$0.75 per share for a two year period.

A warrant has a value at the time of transaction which is a function of the difference between the exercise price and the then share price and depends on the time period to exercise and a volatility figure for the market. It is also likely to have a share market price at any time which might vary from nil up to a maximum of any positive difference between the then share price and the exercise price. In the absence of relevant information, I have assumed a then price or value of \$0.05 to \$0.10 per warrant for a total value at the time of transaction of \$50,000 to \$100,000.

- 3. The assumption of all of Sparton's obligations under the previous agreement which, for the additional 50% project interest acquired by Spartan, I have assumed to comprise 50% of the value of the expenditure obligation or \$350,000 to \$500,000, plus 50% of the royalty payable to Travis or \$105,000 to \$205,000.
- 4. A further royalty payable to Sparton of \$0.50 per pound produced. In a later announcement on 27 January 2006, this production royalty is stated to be \$0.30 per pound of "uranium".

For this exercise, I have applied the same time and probability discounts to an assumed production of 7 million pounds as used for the earlier agreement, without any advanced payments. The gross figure of \$3.5 million is discounted by factors of 1/2.9 and 0.075 to 0.15 for a rounded total of \$90,000 to \$180,000

The total value of the acquisition of Sparton's 50% project interest is thus;

- Shares issued \$500,000 to \$600,000
- Warrants issued \$50,000 to \$100,000

- Additional obligations \$455,000 to \$705,000
- Additional royalty \$90,000 to \$180,000

Total Value (rounded) \$1.1 million to \$1.6 million

Thus the value estimated from this Actual Transaction for 100% of the Blizzard project is \$2.2 million to \$3.0 million

JANUARY 2006 TRANSACTION

It was apparent from the 2005 tenement specialist's report, that there was at least one other claimant to part or all of the Blizzard deposit. The excerpts from 2006 press release by Santoy address the rights of other claimants who I have grouped under the name Beruschi for the following analysis.

The release of 27 January 2006 includes information on a Settlement Agreement with Beruschi as well as on a proposed sale of the Blizzard Uranium Deposit and some rights on surrounding claims to Boss. The stated terms are;

- 1. The issue to Santoy of 26.25 million Boss shares at a deemed issue price of \$2.00 per share.
- 2. The issue to Santoy of 1.0 million Boss warrants exercisable at \$0.27 per share until on or about 9 November 2006, of which Santoy proposes to transfer 0.25 million to Travis.
- 3. An entitlement for Santoy to earn 5% working interest in the property by funding \$1M in exploration, a right which either Boss or Santoy could exchange for a royalty of \$1.00 per pound uranium.
- 4. Conditional payment by Boss to Beruschi of \$1.2 million
- 5. Conditional placement to Beruschi of units (being one share plus one half of a warrant, exercisable within one year at \$0.50) in Santoy to the value of \$1.0M using a nominal value per unit of \$0.40.
- 6. The right for Beruschi to dispose of up to 2.0 million shares in Boss in the period from 6 months to two years after closing.
- 7. An exclusive option to 31 December 2007 for Boss to earn 51% of certain other claims near Blizzard and a right of refusal for Boss on sale of that interest to any third party in that period.
- 8. Assistance by all parties in Boss arranging finance of more than \$8 million at a share price which would not, without the agreement of Santoy and Beruschi, be at less than \$1.60 per share.

Separately, Santoy announced a settlement with Travis in which it would accelerate the previously agreed cash payments and deliver shares and warrants in Santoy, Sparton and Boss which I assume replace the mix of shares and warrants contained in the earlier agreements. The

royalty on Blizzard production (\$0.50 per pound of uranium oxide) and advance payments become the obligation of Boss under varied terms and Santoy had a three year option to acquire Travis's royalty rights for \$500,000.

To derive Actual Transaction value for 100% of Blizzard from this information, I have considered only the position of Santoy, which from previous agreements, purported to have a 100% interest in Blizzard, albeit apparently subject to competing claims. For that interest, Santoy was to receive;

- 26.25 million Boss shares and 0.75 million warrants (nett of the 0.25 million to be transferred to Travis) at a time when an approximately nine month warrant on a Boss share was set at \$0.27 per share. Then market prices not being provided, I assume a value per share of \$0.20 to \$0.25 and per warrant of nil to \$0.05 for a total value (rounded) of \$5.30 million to \$6.60 million.
- 2. The right to earn a 5% working interest for expenditure of \$1 million. That right could be exchanged for a \$1.00 per pound production royalty which, using the 7.0 million pounds and time and probability discounts discussed above, I value at \$180,000 to \$360,000.

I assume that the value of Santoy's new obligations to Travis is not materially different from that of its previously agreed obligations when it acquired the apparently encumbered 100% interest in Blizzard but deduct from the value of Santoy's receipts, the value (nominally \$1 million) of the placement to Beruschi.

So the value by this Actual Transaction approach of an apparently encumbered 100% of the project is estimated at \$4.5 million to \$6.0 million.

Another valuation approach inherent in this agreement's terms is the right to earn 5% in the project by spending \$1.0 million on exploration. Using the Joint Venture method (described elsewhere by Mr Stephenson), this indicates a project value at the time of transaction of $95/5 \times $1.0M$ or \$19 million less any discounts for the time taken to spend the monies and the probability of completing the expenditure. Given it is a modest amount and would likely be spent in a fairly short period, I have used a combined discount factor of 0.7 to 0.85 for a value range of \$13.3 million to \$16.2 million.

The press release makes no mention of a Boss share issue to Beruschi except indirectly in the condition giving Beruschi the right to sell up to 2.0 million shares in Boss. In stating that the issue of 26.25 million share to Santoy is approximately 45% of Boss's issued capital, the release implies a total 58.3 million shares after the issue or 32.1 million prior, a figure which is at odds with later information about Boss share capital.

JULY 2006 TRANSACTION

An excerpt from a press release by Santoy dated 27 July 2006 describes an agreement between Boss, Santoy, Travis and Beruschi which apparently supersedes the previously discussed

transactions. Under the new agreement Santoy and Beruschi sell all their interest in Blizzard and certain surrounding claims to Boss for 52.5 million Boss shares (26.25 million each) at a deemed \$2 per share and it is noted that

- 1. Santoy has agreed to spend the \$1 million to earn a 5% working interest, Boss having the right to purchase that 5% for a \$1.00 per pound uranium royalty.
- 2. Santoy has obligations to make payments to Travis as outlined above.
- 3. 50% of Travis's right to a \$0.50 per pound royalty can be purchased by Santoy for \$0.5 million.

Again I have no information on market price for Boss shares in July 2006. Using the earlier figure of \$0.20 to \$0.25, the purchase consideration would be valued at \$10.5 million to \$13.1 million but I accept that the Boss share price may have increased from that implied for January 2006. The consideration in July 2006 would apply to Blizzard plus other interests brought by Beruschi. I do not believe that the \$2.00 per share deemed value stated in the release has any relevance to real value and the financial report discussed below talks of a retroactive downward adjustment of \$102.6 million to adjust the value of Blizzard to historical values.

The Actual Transaction value estimate for this transaction is thus \$10.7 million to \$13.5 million including the royalty value for the right to farm in as before.

The farm in right to Santoy is now stated to be a firm commitment so the probability discount would no longer apply. With a modest time discount of 1/1.05 to 1/1.10, the Blizzard project could now be valued by the Joint Venture method at \$17.3 million to \$18.1 million.

FINANCIAL REPORT JUNE 2007

The Boss financial report dated 30 June 2007 states that the effective date of this agreement was 27 July 2006 and states that in addition to the shares for Blizzard, Boss paid \$1.25 million for claims outside Blizzard and that the vendors' proportion of Boss issued capital was now 74.1%. Assuming the vendors then only held 52.5 million shares, the implied total issued capital was 70.85 million shares and the pre acquisition issued capital therefore 18.35 million shares. In the accounts, opening acquisition costs are stated at \$1.7 million while payment for Hydraulic claims (\$1.25 million), shares issued (\$0.68 million) and legal fees etc are added to obtain a closing figure of \$3.70 million.

The financial report refers to a "subsequent" (presumably to 30 June 2007) placement of 8.33 million units (one share and half a warrant) at \$0.75 to raise \$6.26 million. The warrant value is stated at \$0.82 million or \$0.20 per warrant and thus the implied share unit value is \$0.65. Assuming the value of cash and other assets was in the range \$5 million to \$10 million, the implied value of Blizzard using the financial report issued capital figure and the unit value figure of \$0.75 would have been approaching \$50 million.

Issued capital at 28 November 2007 is stated at 73.3 million shares of which 54.2 million are in escrow for release between July 2007 and June 2010. Again the issued capital figure is at odds with that implied from other information above.

SHARE PRICE GRAPH

The chart provided covers the period June 2007 to June 2010. On it the Boss share price decreases from a maximum of over \$1.20 at the start of the period to \$0.40 around end 2007 then to \$0.15 to \$0.20 in first half 2008, mainly staying at lower figures thereafter. I assume that Blizzard is the main asset in this period and that the nett value of cash and other mineral assets would have been less than \$10 million. This implies a share market valuation for Blizzard which approached \$80 million in June 2007 but rapidly decreased to nearer \$20 million at end of 2007 and then to a range of less than \$10 million to not much more than \$10 million.

DISCUSSION

Using Actual Transactions, the estimated value of 100% of the Blizzard Project varied in the period July 2005 to July 2006 as follows;

- July 2005 \$1.8 million to \$2.4 million for an apparently encumbered interest
- August 2005 \$2.2 million to \$3.2 million for an apparently encumbered interest
- January 2006 \$4.5 million to \$6.0 million for an apparently still encumbered interest
- July 2006 \$10.7 million to \$13.5 million which would probably increase given share price information but includes the value of other assets.

It is reasonably arguable that the first two transactions were encumbered to the extent of around 50% given that Berluschi ultimately received the same number of shares in Boss as did Santoy and that the encumbrance, while arguably reduced because of some recognition of Berluschi, remained in the January 2006 transaction. Therefore I think it is reasonable to consider that the method implied a value for 100% of Blizzard of \$3.6 million to \$6.4 million in July/August 2005, a value in excess of \$6 million but less than \$10 million in January 2006 increasing to a value in excess of \$10 million by July 2006.

Using the Joint Venture Method the value is estimated in January 2006 at a mid point figure of nearly \$15 million to one of \$17.7 million by July 2006.

Implied share market values, based on information post June 2007, are much higher over the latter half of that year and include a value derived from a placement of nearly \$50 million for the project. However that implied value decreased very significantly over a nine month period to a

figure more consistent with the Actual Transaction and Joint Venture values which, in my experience, are referred to as Technical Values, partly to distinguish them from the usually much more volatile values implicit from share prices. In my view, factors causing that volatility include their representing often small portfolio interests in a project and often, the impact of relatively low volumes of shares traded. Accordingly, in my view, Technical Values are a much better indicator of true value while recognising that values derived from transactions for part or all of a project often include a share component.

I understand that this exercise involves an estimate of the value at April 2008 and March 2009. April 2008 is around the time at which the share price of Boss completed its rapid decline from over \$1.00 in mid 2007 to less than \$0.20 and, I understand, is also the time at which government opposition to grant of a mining permit became apparent. In this circumstance, Actual Transaction values for July 2005 to July 2006 may have limited relevance.

APPENDIX 1

GEOFFREY ROBERT APPLEYARD BSc (Hons) BA

Bob Appleyard graduated in geology from the University of Western Australia in 1961 and worked as an exploration geologist in Australia and North America until 1970, mainly in iron ore, gold base metals and nickel.

From 1970, his work increasingly included investment analysis and valuation of mining projects and companies. From 1972 to 1985 he worked with the Anglo American Corporation initially in these areas but then in general management. From 1981 he was Chief Executive for Anglo in Australia and the nearby Pacific and also served as Chairman of the De Beers subsidiary Stockdale Prospecting Limited. Throughout that time he continued his involvement with investment and valuation in the minerals industry.

After a two year period working with stockbroker Prudential Bache, he initiated exploration and acquisition activities in Australia for Pegasus Gold as Managing Director.

From 1990, he has worked in the consulting industry, initially as Managing Director of Askew Appleyard Pty Ltd before it merged with James Askew Associates, the company which developed into AMC Consultants Pty Ltd. He acted as a Director and initial Chairman until late 2009. He has been a part time employee of AMC since about 2006, gradually reducing his consulting activities.

Through most of his consulting period, he has worked in and directed AMC's "Corporate" consulting activities, much of which included assessment and valuation reports for mining companies and projects for a variety of purposes, many related to Stock Exchange and other corporate regulatory requirements.

He is a Fellow of AusIMM and a Chartered Professional, Geology. He is a former committee member and Chairman of the Melbourne Branch of AusIMM and has been a member of that organisation's Valmin Committee. He remains a member of an editorial Board of the IMM publications. He has authored a number of papers mainly related to investment in the mining industry, chaired seminars mainly under AusIMM auspices and chaired the Steering Committee for its Monograph 23 on Resource and Reserve estimation.

APPENDIX 2.

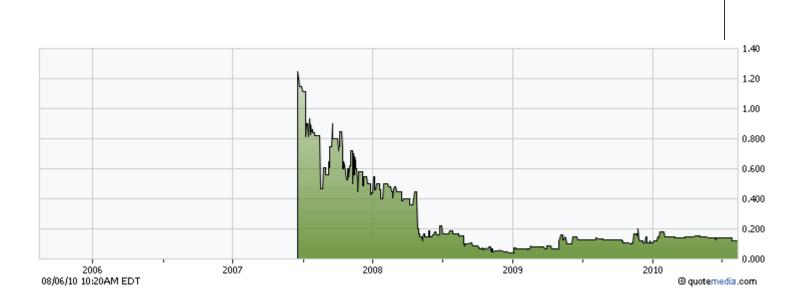
E-mail from Pat Stephenson to Bob Appleyard dated 12 August 2010

Bob,

Again assuming that you're able to work on this, I've also attached the earliest Boss Power financial statement that I could find -30 June 2007. It summarises the deals and also gives an indication of Boss's share price at the time.

This is a share price chart extracted from the TSX Venture Exchange web site:

Charting for Boss Power Corp.



Regards

Pat

E-mail from Pat Stephenson to Bob Appleyard dated 11 August 2010

Bob,

On a different matter, do you have time to look at deals done on the Blizzard uranium project in 2005/06 and assess, if it's possible, an indicative value range from the deals? We're still using NPV as the main valuation method, but comparing it against other methods where possible.

In case you do, I've copied below a number of extracts from press releases made by Santoy Resources (now renamed Virginia Energy Resources) that relate to the deals. I've also copied the text of a letter from a tenement specialist confirming title to the main property as at 12 August 2005.

Regards

Pat

Excerpt from Vector Corporate Finance Lawyers. Letter to Santoy Resources Ltd (the "Company") dated 12 August 2005.

"We have been retained as special counsel to the Company, and have on its behalf on August 3, 2005, conducted a search of the database of the B.C. Ministry of Energy, Mines and Petroleum Resources (the "Ministry") through its Mineral Titles Online website in respect of the mineral tenure (the "Mineral Tenure") set out below and have obtained and examined copies of relevant records pertaining to the Mineral Tenure. Based on and relying upon the foregoing, as at the date hereof, it is our opinion that:

"1. The following was the recorded holder of the Mineral Tenure, under the provisions of the Mineral Tenure Act (British Columbia) (the "Act").

Claim Name	Recorded Holder	Tenure ID	Expiry Date
Blizzard 1	Adam Robert Travis	512410	May 11, 2006

"The Mineral Tenure is in good standing under the Act with respect to the filing of assessment work until the applicable expiry date.

"There is a Notice dated May 26, 2005 (the "Notice") recorded with respect to the Mineral Tenure by counsel for a Renee Brickner. The Notice discloses that Renee Brickner, the recorded owner of Legacy Claim #358775, claims superior right, title and interest over any claim asserted by Adam Travis under the Mineral Tenure by virtue of section 24.1 of the Act and ss 3 and 4 of the Regulations to the Act. There are no other liens, charges or encumbrances recorded against the Mineral Tenure.

"The foregoing opinion is qualified as follows:

- a) no investigation has been made of the original on-line application for the Mineral Tenure or the existence of any interest in the Mineral Tenure, other than those that have been noted by the Ministry;
- b) no investigation has been made of the circumstances relating to the filing of the Notice, and we express no opinion on the merits of the claims made by Renee Brickner;
- c) we have assumed that the documents examined are the only documents pertaining to title to the Mineral Tenure;
- d) we have assumed that the print-outs examined are, in fact, true copies of documents in existence;
- e) there may be unrecorded interests which affect title to the Mineral Tenure"

Excerpts from Press Release by Santoy Resources Ltd dated 13 June 2005.

"Santoy Resources Ltd. (TSX.V: SAN) ("Santoy") and Sparton Resources Inc. (TSX.V: SRI) ("Sparton") ("the Companies") are pleased to announce that they have jointly entered into an agreement ("the Agreement"), with an independent prospector ("the Vendor"), to acquire the core claims covering the Blizzard uranium deposit, situated in the Greenwood Mining Division of BC. Under the terms of the agreement, Santoy and Sparton will form a 50:50, joint venture ("the Joint Venture"), to earn a 100% interest in the Blizzard claims over a 4 year period by making \$450,000 of cash option payments (\$50,000 upon signing of the Agreement), issuing shares in their respective companies (250,000 shares of Santoy and 1,000,000 shares of Sparton in year one, and 250,000 shares of Santoy and 1,000,000 in the first two years), making advanced royalty payments of \$50,000 per year after the 5th anniversary, and paying a royalty on sales. A summary of the terms of the Agreement and further details will be available on the Companies' websites and in their respective SEDAR filings".

"Notice has been filed with the Gold Commissioner, under the Mineral Title Act, by a prior property owner of the property area, claiming "superior right, title and interest" to the claims. Based on the Companies' review of the facts, the Property was properly filed for and recorded by the Vendor under the new on-line staking provisions of the Act. Based on the information in hand the Companies have agreed to support the Vendor with respect to any title disputes and to provide certain indemnities in respect thereof".

Excerpt from Press Release by Santoy Resources Ltd dated 9 August 2005.

"Santoy Resources Ltd. ("Santoy" TSX-V - SAN) and Sparton Resources Inc. ("Sparton" TSX-V - SRI) announced today a consolidation of their joint venture holdings in the Blizzard uranium deposit situated in the Greenwood Mining Division of British Columbia.

Under the terms of this agreement, Santoy will acquire the right to earn a 100% interest in the Blizzard Property in return for issuing to Sparton 1 million shares of Santoy, 1 million share purchase warrants exercisable at \$0.75 per share for a two year period, \$50,000 cash, the assumption of all of Sparton's obligations under the previously announced Option Agreement with the underlying vendor (see news release dated June 13, 2005), and a production royalty of \$0.50 per pound of uranium. The agreement is subject to regulatory approvals and certain conditions precedent".

Excerpt from Press Release by Santoy Resources Ltd dated 28 September 2005.

"Santoy Resources Ltd. ("Santoy" or the "Company") is pleased to announce that it has received TSX Venture Exchange (the "Exchange") acceptance of the Company's proposed acquisition of the Blizzard Uranium Deposit in the Greenwood Mining Division of southeast British Columbia.

The initial agreement defined the terms of the acquisition of the property from an arm's length, independent geologist by a 50:50 joint venture comprised of Santoy and Sparton Resources Inc ("Sparton") (news release June 13, 2005). The terms consisted of \$25,000 cash payable by each party (paid), the issuance of 250,000 shares of Santoy and 1 million shares of Sparton on Exchange acceptance, with a second tranche of 250,000 shares of Santoy and escalating cash payments totaling \$400,000 over 4 years. Joint Venture work commitments are \$500,000 prior to the 2nd anniversary, and an additional \$1 million before the 4th anniversary. Additionally, a \$1.00 per pound of uranium royalty will be reserved for the vendor with advance royalty payments of \$50,000 commencing on the 5th anniversary.

Notice has been filed with the Gold Commissioner, under the Mineral Title Act, by a prior property owner, claiming "superior right, title and interest" to the Blizzard claims. Negotiations toward a business settlement of this title dispute are continuing.

In a news release dated August 8, 2005 the Company announced a consolidation of 100% of the interest in the Blizzard property into Santoy, subject to all necessary approvals, including Exchange acceptance (which has now been obtained) and to a satisfactory resolution of the title dispute, by the payment to Sparton of \$50,000, the issuance of 1 million shares of Santoy and 1 million share purchase warrants (exercisable at \$0.75 per share for a period of 2 years), the reservation of a \$0.50/lb. royalty for Sparton, and the assumption by Santoy of the underlying obligations to the vendor as set out above".

Excerpt from Press Release by Santoy Resources Ltd dated 27 January 2006.

"On June 13, 2005, Santoy announced that it had acquired its initial interest in the Blizzard Uranium deposit in conjunction with Sparton Resources Inc. ("Sparton") in an option agreement with Travis. As stated in a news release August 9, 2005, this option agreement was amended and Santoy acquired all of Sparton's interest in the Blizzard Uranium deposit in return for issuing to Sparton 1 million common shares and 1 million share purchase warrants (exercisable at \$0.75) of Santoy, \$50,000 cash, the assumption of all of Sparton's obligations under the option agreement and a production royalty of \$0.30 per pound of uranium. Sparton's senior management were closely involved with the discovery and development of the Blizzard Uranium deposit and, going forward, will continue to provide advisory services to Boss.

As indicated in a news release dated September 28, 2005, notice was filed with the Gold Commissioner, under the Mineral Title Act by a previous property owner, being Beruschi, claiming superior right, title and interest to the Blizzard Uranium deposit.

Settlement Agreement with Beruschi

Under the terms of the settlement, Santoy and Beruschi have agreed to the immediate resolution of title issues relating to the Blizzard Uranium deposit and to cooperate and work together to provide for the Blizzard Uranium deposit's acquisition by Boss, the financing of Boss and the permitting and development of the Blizzard Uranium deposit.

The primary asset of Boss will be the Blizzard Uranium deposit. As part of the settlement, Boss intends to change its name to "Blizzard Uranium Corp." In addition, Santoy and Beruschi have agreed to vend a 100% interest in the Blizzard Uranium deposit and certain rights to the surrounding claims for Boss shares, cash and other considerations, resulting in Santoy receiving 26,250,000 common shares at a deemed issue price of \$2.00 per common share or approximately 45% of Boss's issued shares. Additionally, Santoy will be entitled to earn a 5% working interest in the property to be earned through the funding of \$1 million in exploration. Boss and Santoy both have the right to exchange Santoy's 5% working interest for a royalty of \$1.00/lb of uranium. It is expected that Boss's interest in the Blizzard deposit may be subject to a maximum royalty of \$3.00/lb of uranium.

Santoy and Beruschi will each appoint two directors to a new Boss Board of Directors and will vote their Boss common shares for each other's nominees for a period of 2 years. These four directors will then appoint up to two additional directors and a President.

As additional consideration for agreeing to the settlement, Santoy will receive 1,000,000 existing warrants of Boss from third parties exercisable at \$0.27 per share until on or about November 9, 2006, 250,000 of such warrants Santoy proposes to transfer to Travis as outlined below under the heading "Settlement Agreement with Travis".

As additional consideration for his rights and an option on certain other properties, Beruschi will receive from Boss \$1,200,000 on closing of the initial private placement in Boss; the right, subject to all applicable regulatory approvals, to a \$1,000,000 private placement in Santoy at \$0.40 per unit with each unit comprised of one common share of Santoy and one half of one common share purchase warrant with each whole warrant exercisable for one Santoy common share for 1 year from closing at an exercise price of \$0.50 per share; and the right to dispose of up to 2,000,000 common shares of Boss commencing six months after the closing of the transactions contemplated by this settlement agreement until 2 years thereafter.

Beruschi has also agreed, for a period of 2 years from December 31, 2005, that he will cause the owners of certain additional uranium claims (located in the vicinity of the Blizzard Uranium deposit) to not sell their interest therein other than to Boss or with Boss's written consent. Boss has the exclusive right to earn a 51% interest in these uranium claims for two years.

The parties have agreed to use their reasonable commercial efforts to assist in the financing of Boss to be completed at or before the completion of the reverse takeover. The terms of any such proposed financing greater than \$8 million, and any financing completed at a price of less than \$1.60 per share, must be acceptable to Santoy and Beruschi.

Settlement Agreement with Travis

Santoy is also pleased to announce that it has entered into an agreement with Sparton and Travis which amends and supersedes the terms of the original option agreement between Santoy and Travis. Santoy and Travis have agreed to transfer their respective interests in and to the Blizzard Uranium deposit to Boss. Santoy has agreed to accelerate a \$200,000 cash payment to Travis upon the completion of formal documentation and all necessary regulatory approvals for completion of the settlement and transfer of the claims to the Blizzard Uranium deposit to Boss and a further \$200,000 cash payment prior to December 31, 2006. In addition, Santoy has agreed to deliver to Travis 500,000 common shares of Santoy (of which half have been delivered), 1,500,000 common shares of Sparton (of which 1 million have been delivered), and, from Santoy's own holdings, 750,000 common shares of Boss and 250,000 common shares of Boss at a price of \$0.27 until on or about November 9, 2006.

As additional consideration, Travis is to receive a gross over-riding royalty interest (the "Royalty Interest") of \$0.50 per pound of uranium oxide produced from the Blizzard Uranium deposit. The Royalty Interest is payable to Travis during commercial production, provided that Boss is obligated to make advance royalty payments of \$25,000 per annum commencing on the 5th anniversary of the settlement agreement until commencement of commercial production on the property comprising the Blizzard Uranium deposit. The total amount of all such advance royalty payments paid to Travis under the settlement agreement shall be deducted from royalties payable following commencement of commercial production. Santoy shall have the option to purchase 50% of the Travis Royalty Interest for a period of three years from the signing of a formal agreement with

respect to the subject matter in the settlement agreement by the payment of \$500,000 to *Travis*.

Santoy also agreed to use its reasonable commercial efforts to allow Travis to participate in any future flow-through financings of Santoy and Boss".

Excerpt from Press Release by Santoy Resources Ltd dated 27 July 2006.

"Santoy Resources Ltd. ("Santoy") (TSX Venture Exchange -- SAN) is pleased to report that further to its news releases dated June 13, 2005, August 9, 2005, September 28, 2005 and January 27, 2006, it has entered into an agreement (the "Agreement") dated July 27, 2006 with each of Mr. Anthony Beruschi, representing his companies and trustees, ("Beruschi"), Adam Travis and his private company ("Travis") and Boss International Gold Corp. ("Boss") that upon completion, Mr. Beruschi and Santoy will sell all of their actual, or purported interest, in and to the Blizzard uranium claim (the "Blizzard Claim"), located in the Greenwood Mining Division in south-central British Columbia, and certain surrounding mineral claims (collectively, the "Properties") to Boss. The purchase price will be payable by the issuance of a total of 52,500,000 common shares by Boss at a deemed price of \$2.00 per share. 26,250,000 common shares will be issued by Boss to Santoy and 26,250,000 common shares will be issued by Boss to Mr. Beruschi and / or other parties that hold interests in the Properties. Pursuant to the Agreement, Santoy has agreed to spend \$1,000,000 in exploration expenditures on the Properties and will receive in return a 5% working interest in the Properties. Boss will have the right to purchase Santoy's 5% working interest in exchange for a \$1.00 per lb uranium royalty. In addition, Santoy has obligations to make certain payments, issue shares and transfer warrants to Travis as previously disclosed. Travis is also entitled to receive a \$0.50 per lb royalty on the Blizzard Claim of which Santoy may purchase one-half for \$500,000".

APPENDIX 15

GLOSSARY OF TECHNICAL TERMS

AAS	Atomic Absorption Spectrometry, a method of analysis.
Acid	Can be used as a general description of rock mineralogy and chemistry – similar to felsic.
Adamellite	An intrusive igneous rock.
Alluvial, alluvium	Usually unconsolidated, transported sediment.
Altered, alteration	Referring to physical or chemical change in a rock or mineral subsequent to its formation.
Alunite	A hydrated sulphate of aluminium and potassium.
Amalgamation	A process of gold recovery in which finely divided ore is passed over mercury to form a gold amalgam.
Amphibolite	A rock of medium metamorphic grade rich in the iron and magnesium silicate minerals called amphibole.
Amygdaloidal	Volcanic rock containing cavities formed from gases in the lavas.
Andesite	A volcanic rock of intermediate chemical composition.
Anhydrite	Calcium sulphate.
Ankerite	A calcium magnesium iron carbonate mineral.
Anomaly	Zone or point in the soil or underlying rock determined by exploration methods to be different from its general surroundings.
Antimony	A metallic element, often a pathfinder element for gold.
APESMA	The Association of Professional Engineers, Scientists & Managers, Australia
Aranaceous	Describes detrital sedimentary rocks, particularly sandstones, with a particle size from $^{1}/_{16}$ mm to 2 mm.
Archaean	A geological time era, older than 2400 million years.
Arenites	Sandstone like sedimentary rocks.
Argillic (alteration)	Refers to the conversion of pre-existing minerals to clay minerals (see hydrothermal alteration).
Argillite	Sedimentary rock with a sandy texture.
Assay	Test to determine the content of various chemical elements in a sample.
AusIMM	Australasian Institute of Mining and Metallurgy
Autunite	Hydrous phosphate of uranium and calcium mineral.
Bacterial leaching	See bio oxidation
Basalt	A fine-grained basic volcanic rock.
Batholith	A large, generally discordant plutonic mass that has more than 40sq mi of surface exposure and no know floor.
Bed	Refers to a layer of sedimentary rock.
Bedrock	General term for the solid rock. underlying superficial weathered rock or soil.
Block model	The term applied to the final output of a computer-based process to reflect the likely configuration of the mineralisation and the surrounding material.
Breccia	A rock composed of angular fragments of rock embedded in a matrix.
Brecciated	Describes rocks which have been broken into angular fragments by sedimentary or igneous action.
Bulk density	The in situ mass of a unit volume of material, normally expressed as tonnes per cubic metre.

Calcareous	Containing calcium carbonate minerals.
Carbonaceous	Term given to a rock containing carbon.
Carbonaceous mudstone or shale	A fine grained, dark coloured sedimentary rock containing organic material.
Carbonate	Minerals containing calcium and/or magnesium carbonate.
Carboniferous	A geological time period from 345 to 285 million years ago.
Chalcedony	An extremely fine-grained form of silica.
Chalcocite	A copper sulphide mineral, usually found in enriched zones.
Chalcopyrite	A copper iron sulphide mineral
Channel sampling	Chip samples taken in a representative channel across the mineralisation.
Chert	A cryptocrystalline siliceous rock usually of sedimentary origin.
Chlorite	A green platey iron-magnesium rich silicate mineral.
Chromite	A chromium oxide mineral.
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CIMVal	CIM Mineral Property Valuation Committee
CIM Definition Standards	Canadian standards for classifying and reporting mineral resources and mineral reserves. Adopted by CIM Council on December 11, 2005. Referenced by NI 43-101.
Cleavage	A preferred plane of breakage in a rock caused by the alignment of micaceous minerals.
Coffinite	A uranium silicate mineral.
Colluvial	Refers to broken rock, usually around hills or mountains that moves downslope mainly under the influence of gravity.
Column leach tests	A metallurgical test involving the leaching of ore in a cylinder.
Conglomerate	A coarse-grained sedimentary rock containing rounded or sub-rounded rock and mineral fragments.
Contact zone (aureole)	A zone surrounding an igneous intrusion in which contact metamorphism of the country rock has taken place.
Core recovery	The proportion of the drilled rock column recovered as core in core drilling.
Core	Cylinder of rock recovered from diamond drilling.
Craton	A large stable mass of rock, usually igneous and/or metamorphic, which forms a major structural unit of the earth's crust.
Cretaceous	A geological period from 100 to 70 million years ago.
Cross-bedding	Cross stratification in which the cross-beds are more than 1cm in thickness.
Cross-folding	A later fold structure that intersects a pre-existing fold of different orientation.
Crust	That portion of the earth from surface to a depth of 35 km.
Cultural	Refers to a magnetic anomaly due to man-made structure (e.g. metal shed).
Cumulate	A layered igneous rock formed by the accumulation of crystals of minerals precipitating from magma.
Cuprite	A copper oxide mineral.
Cut and fill	A stoping method in which the ore is excavated by successive flat or inclined slices working upward. Ore is extracted and the stope void is backfilled progressively to provide a working floor.

Cut or top cut	The statistical process of reducing all higher-grade assay values to an acceptable level for the purposes of determining the average grade of a mineral deposit or drill intersection.
Cut-off grade	The grade at or above which material is treated as ore, and below which it is treated as waste.
Dacite	The extrusive equivalent of quartz diorite.
Daughter products	In nuclear physics, a decay product, also known as a daughter product, daughter isotope or daughter nuclide, is a nuclide resulting from the radioactive decay of a parent isotope or precursor nuclide. The daughter product may be stable or it may decay to form a daughter product of its own.
Development	Mining carried out to gain access to ore.
Diamond drilling	Method of obtaining a cylindrical core of rock by drilling with a diamond impregnated bit.
Differentiated	A body of igneous rock or metamorphic which has separated into zones or layers of different textural and chemical composition during the magmatic or metamorphic process.
Diopside	A calcium-magnesium silicate mineral found in igneous and metamorphic rocks.
Diorite	A group of igneous rocks intermediate in composition between acid and basic.
Dip	The angle at which layered rocks, foliation, a fault, or other planar structures, are inclined from the horizontal.
Discounted Cash Flow (DCF)	A valuation method used to estimate the attractiveness of an investment opportunity. Discounted cash flow (DCF) analysis uses future free cash flow projections and discounts them (most often using the weighted average cost of capital) to arrive at a present value, which is used to evaluate the potential for investment.
Disseminated	Mineralisation distributed throughout a rock.
Dolerite	A medium grained basic igneous rock.
Dolomite	A calcium magnesium carbonate mineral.
Dome	A form of anticlinal folding about more than one axis so that its form is dome like rather than arch like.
Ductile	The stress response of certain minerals which undergo permanent deformation without fracturing.
Dunite	A usually medium grained ultramafic igneous rock containing the mineral olivene.
Dyke	A discordant tabular body of igneous rock that was injected into a fissure when molten.
Electrolyte	An ionised chemical, or its solution in water, which conducts an electric current.
Electromagnetic	Refers to a geophysical exploration method which measures responses to induced electromagnetic currents in rocks.
Electrowinning	Deposition of metal on an electrode from electrolysis.
Eluvial	Weathered material near to its source
EM geophysical survey	Survey in which electromagnetic pulses are induced into the earth.
En Echelon	Linear geological formations or features displaced sideways but with the same general strike.
Epidote	Calcium aluminium silicate mineral.
Epigenetic	Distant from the source.

Excavator	Open pit mining machine that mines by digging, lifting and dumping bucket loads of material into a truck; generally articulated by hydraulics.
FAIG	Fellowship of the Australian Institute of Geoscientists
Fault	A fracture in rocks along which rocks on one side have been moved relative to the rocks on the other.
Feasibility study (bankable)	A comprehensive technical and economic study of a project of sufficient accuracy to provide the basis for a decision concerning financing.
Flood basalt	Basic volcanic rock of extensive areal distribution.
FOB	Free on board - at point of shipment
Gamma ray emissions	Electromagnetic radiation of high frequency (very short wavelength)
Geochemical	Prospecting techniques which measure the content of certain metals in soils and rocks and define anomalies for further testing.
Geomechanical	Pertaining to the mechanical behaviour of rocks during excavation.
Geomorphic	Pertaining to the past, present and future land forms.
Geophysical	Prospecting techniques which measure the physical properties (magnetism, conductivity, density etc) of rocks and define anomalies for further testing.
Geostatistical resource estimation method	A computer based methodology wherein particular mathematical relationships between sample points are established and employed to project the influence of the sample points.
Geotechnical	Referring to the physical behaviour of rock under stress.
Grade control	A general term which describes the many measures required to maximise mining recovery of the valuable mineral whilst minimising dilution.
Grade	Quantity of metal per unit weight of host rock.
Graded bedding	A type of bedding in which each layer displays a gradual change in particle size.
Granite	A coarse grained igneous rock consisting largely of quartz and feldspar.
Granitoid	A granite like intrusive rock.
Granodiorite	A coarse grained intermediate igneous rock.
Grid	Rectangular pattern marked on ground, usually with wooden pegs, to provide reference points for exploration observations and measurements.
Grinding	Size reduction to relatively fine particles.
Grit	A quartz rich sediment, coarser grained than sandstone.
Haematite	An iron oxide mineral.
Heap leaching	Method of extracting metals from ore dumped on a prepared pad by applying a solution, usually by irrigation via sprinkling or by dripping.
HQ	A specific core size for diamond drilling.
Hydrogeochemical	Refers to a geochemical exploration technique where ground water is sampled and analysed.
Hydrometallurgical	Recovery of metal from ore using water-based solution of reagent.
Hydromorphic	Movement in groundwater.
Hydrothermal	A process related to the introduction of heated or superheated waters associated with igneous activity.
Igneous	A rock formed by the solidification of a mineral-rich molten liquid.

CIM Definition Standards - An 'Indicated Mineral Resource Mineral Resource for which quantity, grade or quality, den physical characteristics, can be estimated with a level of c allow the appropriate application of technical and economi support mine planning and evaluation of the economic vial The estimate is based on detailed and reliable exploration	isities, shape and confidence sufficient to
information gathered through appropriate techniques from outcrops, trenches, pits, workings and drill holes that are s for geological and grade continuity to be reasonably assur	bility of the deposit. and testing locations such as spaced closely enough med.
Inferred Mineral Resource CIM Definition Standards - An 'Inferred Mineral Resource' Mineral Resource for which quantity and grade or quality of the basis of geological evidence and limited sampling and but not verified, geological and grade continuity. The estim limited information and sampling gathered through approp locations such as outcrops, trenches, pits, workings and d	can be estimated on reasonably assumed, nate is based on oriate techniques from Irill holes.
In chemistry, the term inert is used to describe something reactive.	that is not chemically
In-Situ leach (ISL) Also called in-situ recovery (ISR) or solution mining, is a m recover minerals such as copper and uranium through bor deposit.	
Ion exchange resinA hydrocarbon-based material which allows a reversible e solution.	xchange of ions with a
Kriging A geostatistical means of projecting grades into resource to sample points.	
Laterite, lateritisedA near surface concretionary deposit or crust formed by le aluminium and enrichment in iron.	aching of silica and
Lattice The unit cell in the crystal structure of a mineral.	
Leach pad A levelled and compacted surface, prepared for the purpose with an impervious layer to direct the liquor to the collection reusable or non-reusable.	
Lenses Geological features bounded by converging surfaces.	
Limestone A sedimentary rock consisting chiefly of calcium carbonate	e mainly as calcite.
Lithostratigraphic unit A body of rock that consists dominantly of a certain lithologic combination of types, or has other unifying lithologic feature	
Lithology General descriptive term referring to the composition and present in any area.	texture of rocks
Lode Tabular body of mineralisation or ore.	
Mafic or basic Used to describe igneous rocks of low silica content (usua silicon dioxide) whose dominant mineral constituents are in silicates.	
Magma (magmatic) Molten rock material.	
Magnetic surveyA geophysical technique which measures variations in the field.	earth's magnetic
Marcasite An iron sulphide mineral	

Measured Mineral Resource	CIM Definition Standards - 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.
Metabasalts	A metamorphosed basalt.
Metamorphism, Metamorphic	Term applied to pre-existing sedimentary and igneous rocks which have been altered in composition, texture, or internal structure by processes involving pressure, heat and/or the introduction of new chemical substances.
Metasedimentary	General term used to describe sedimentary rocks which have been metamorphosed.
Metasomatism	A metamorphic change which involves the introduction (usually as fluid) of material from an external source.
Migmatite	A rock consisting of mixed igneous and metamorphic materials.
Mill	A rotating machine used for reducing the size of ore particles.
Mineragraphic	Study of polished section of rock.
Mineral Reserve	CIM Definition Standards - 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 demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.
Mineral Resource	CIM Definition Standards - 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.
Mineralisation	The process by which minerals are introduced into a rock. More generally a term applied to accumulations of economic or related minerals in quantities ranging from anomalous to economically recoverable.
Mineralised zone	A volume of rock which contains anomalous to economically recoverable quantities of mineral.
Mudstone	A fine, more or less sandy, clayey rock.

National Instrument – 43- 101	National Instrument 43-101 is an instrument enforced by securities regulators in Canada that establishes standards for disclosure of scientific and technical information regarding mineral projects and requires that the disclosure be based on a technical report or other information prepared by or under the supervision of a "Qualified Person". The Instrument incorporates by reference the definitions and categories of mineral resources and mineral reserves as set out in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards on Mineral Resources and Mineral Reserves (CIM Definition Standards) adopted by the CIM Council on November 14, 2004, as amended. NI 43-10 came into force in 2001
Neutron activation	The process in which neutron radiation induces radioactivity in materials, and occurs when atomic nuclei capture free neutrons, becoming heavier and entering excited states.
Ningyoite	a calcium uranium phosphate
Olivine	A silicate mineral of magnesium and iron.
Open cut	Mine excavation produced by quarrying or other surface earthmoving equipment.
Open pit	Mine excavation produced by removing all material overlying and including the extracted ore. No underground caverns are created.
Ore	Mineral bearing rock which can be mined and treated profitably under current or immediately foreseeable economic conditions.
Orebody	A physically discrete body of rock comprising ore.
Orthocumulate	A layered igneous rock formed by the accumulation of crystals of minerals precipitating from magma where the intercumulus liquid has crystallised into one or more minerals which enclose the original cumulate crystals.
Orthopyroxenite	A basic to ultramafic intrusive rock or differentiate.
Outcrop	Expression of rock unit at surface.
Oxidation	The process by which minerals are altered by the addition of oxygen in the crystal structures.
Oxide mineralisation	Derived from alteration of primary sulphide minerals by oxidation in the weathered zone.
Oxide ore	Ore that has been oxidised by exposure to air and circulating groundwaters. During this process, sulphide minerals break down to iron and other metal oxide minerals.
Pelitic	Descriptive term for fine-grained sediments such as shale and siltstone.
Percussion drilling	Drilling method which utilises a hammering action under rotation to penetrate rock while the cuttings are forced to the surface by compressed air.
Peridotite	An ultramafic intrusive rock.
Photogeological	Refers to a geological map based on interpretation of aerial photographs.
Photolineament	Refers to a linear feature on the surface of the earth as seen on an aerial photograph.
Phreatomagmatic	A volcanic eruption resulting from the contact of ground water and a heat source.
Pitchblende	Also called Uraninite. Uranium oxide mineral.
Plasma	A state of matter similar to gas in which a certain portion of the particles are ionized.

Plunge	The angle from the horizontal of a geological feature viewed in a vertical plane parallel to its strike.
Polygons, polygonal	The derived shape of the mineralisation on a particular cross-section which provides the basis for projecting the mineralisation to the next section and thus establishing the tonnage.
Porphyry, porphyritic	A rock composed of relatively large mineral grains (phenocrysts) in a fine- grained groundmass.
Preliminary Feasibility Study	CIM Definition Standards - A Preliminary Feasibility Study is a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, has been established and an effective method of mineral processing has been determined, and includes a financial analysis based on reasonable assumptions of technical, engineering, legal, operating, economic, social, and environmental factors and the evaluation of other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve.
Pressure oxidation	The use of elevated temperature and pressure to promote the oxidation of sulphides.
Pre-stripping	Removal of waste rock before mining of ore in an open pit.
Primary	In this context the original mineralisation before it has been subject to secondary processes.
Probable Mineral Reserve	CIM Definition Standards - 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.
Prograde	E.g. prograding shoreline A shoreline that is being built forward or outward into a sea or lake by deposition and accumulation.
Propylitic	A style of hydrothermal alteration dominated by a characteristic mineral assemblage (e.g. epidote, calcite, chlorite, pyrite).
Proterozoic	A geological era from 2,400 million years to 570 million years.
Proven Mineral Reserve	CIM Definition Standards - 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.
Psammitic	Term used to describe a metamorphised sandstone, arkose or quartzite rich in the mineral quartz.
Pyrite	An iron sulphide mineral.
Pyroclastic	Produced by explosive or aerial ejection of material from a volcanic vent
Pyrometallurgical	Processes for wining and refining metals using heat, as in roasting and smelting.

Qualified Person	CIM Definition standards - A "Qualified Person" means an individual who 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; has experience relevant to the subject matter of the mineral project and the technical report; and is a member or licensee in good standing of a professional association.
Quartz	Mineral species composed of crystalline silica (SiO ₂).
Quartzite	A metasedimentary rock derived from sandstone.
Quaternary	A geological period from two million years ago to the present.
Radioactive decay	Process by which an unstable atomic nucleus loses energy by emitting ionizing particles or radiation.
Radiometric	Measurement of radioactivity useful in mapping rock formation.
Recovery	The percentage of metal in an ore extracted by the metallurgical process.
Reserve	See "Mineral Reserve"
Resource	See "Mineral Resource"
Reverse circulation (RC) drilling	Variant of percussion drilling in which cuttings are raised to surface by a stream of compressed air inside a metal tube.
Reverse fault	A fault in which one block moves in a relative sense over the other.
Rhyodacite	Fine grained acid to intermediate volcanic rock.
Rhyolite	Fine grained acid volcanic rock.
Rift	A zone of the Earth's crust which ruptures under extensional forces.
Rock chip sampling	Refers to collecting a representative sample comprising numerous small chips of rock.
Rotary air blast (RAB) drilling	A shallow rotary drilling method used to penetrate soil and the upper weathered part of the bedrock.
Saleeite	A secondary uranium mineral occurring in the oxidized zones of uranium deposits, or as disseminations in carnotite-bearing sandstones
Sandstone	A medium grained sedimentary rock with a high content of quartz.
Saprolite	A soft, clay rich near surface horizon in the weathering profile in which certain minerals and metals can be enriched, others depleted.
Schist	Fine grained micaceous metamorphic rock with laminated fabric.
Scintillometer	A scientific device used to measure small fluctuations of the refractive index of air caused by variations in temperature, humidity, and pressure.
Sedimentary	Rocks formed of particles deposited from suspension in water, wind or ice.
Sericite	A member of the mica mineral group; an aluminium silicate often derived from alteration.
Serpentinite	A metamorphic rock derived from ultramafic rocks.
Shaft	A nearly vertical passage from the surface by which a mine is entered and through which ore is transported.
Shale	A sedimentary rock of silt to clay grain size with well marked bedding plane fissility.
Shale Shear	
	fissility. Zone in which rocks have been deformed by lateral movement along parallel

	A general term describing lens-like bodies of mineralisation defined by
Shoot	grade/thickness parameters.
Shrinkage, shrink stoping	Method of ore extraction whereby the ore is broken in successive flat or inclined slices working upward. The broken ore forms the working surface, with enough drawn off from below to provide a working space.
Silicified	Referring to rocks in which a significant proportion of the original constituent minerals have been replaced by silica.
Sill	An intrusion which is parallel to (conformable with) the stratigraphy of the enclosing rocks.
Sill pillar	A horizontal block left unmined to support ongoing mining.
Siltstone	A fine-grained sedimentary rock.
Silurian	A geological time period from 435 to 395 million years ago.
Sinter	Silica deposited by hot springs.
Sirotem	A method of geophysical exploration relying on the use of transient electromagnetic fields.
Size reduction	Refers to the process of crushing a sample and then splitting off a representative sub-sample for assaying.
Slate	A fine-grained fissile metamorphic rock derived from shales and similar sediments.
Solution mining	The extraction of metals by dissolving them in solution pumped into and recovered from the host rock through bore holes.
Spectrometer	An instrument used to measure properties of light over a specific portion of the electromagnetic spectrum, typically used in spectroscopic analysis to identify materials.
Strata	Layers of rock.
Stratabound	Confined within a particular strata.
Stratiform	Parallel to sedimentary bedding.
Stratigraphy	Refers to the classification of a series of layered rock or strata.
Strike	The direction of bearing of a bed or layer of rock in the horizontal plane.
Structural corridor/zones/trends	Refers to processes of fracturing and folding of rocks.
Structural feature	Used in this report to refer to a significant fracture, fault or shear in which mineralisation may be concentrated.
Structural targets	Zones of deformation interpreted to be favourable to the localisation of mineralisation.
Structural	In this report refers to processes of fracturing and folding of rocks.
Sub-outcrop	Expression of rock unit near surface.
Supergene	Concentration of minerals by secondary processes.
Syenite	A plutonic igneous rock consisting principally of alkali feldspar with one or more mafic minerals.
Syncline	A fold in rock strata which is concave upwards.
Tailings	Material rejected from a treatment plant after the recoverable valuable minerals have been extracted.
Talc	A member of the mineral group, micas, usually occurring in metamorphic rocks.

	Forces in the Earth's crust which result in movements of sections of the crust
Tectonics	and produce deformation of rock bodies.
Tellurides	A mineral compound of tellurium, often rich in gold and silver.
Terrace	Refers to a sheet of alluvial sediments (usually sand or gravel) lying at an elevation above the current river in a valley.
Terrane	An obsolescent term applied to a rock or group of rocks and to the area in which they crop out. General term.
Tertiary	A geological time period from 70 to two million years ago.
Tetrahedrite	A copper and silver ore mineral.
Tholeiitic	A variant of basalt containing little or no olivine.
Thorium	A chemical element with the symbol Th and atomic number 90. Thorium is a naturally occurring, slightly radioactive metal.
Thrust	A low angle fault.
Top cut	An upper assay limit to which all abnormally high assays in a population are reduced to restrict their influence on the average grade of the resource.
Torbernite	Hydrated copper uranium phosphate mineral.
Trace elements	Minor elemental constituents often significant in geochemical exploration.
Triassic	A geological time period from 225 to 195 million years.
True thickness	The thickness of a lens or shoot normal to its plane of maximum elongation as opposed to the thickness indicated by a drill hole intercept which may cut the lens obliquely giving a large apparent thickness.
Tuff	Rock which contains fragments of other rocks and minerals sourced from eruptive volcanic action.
Tuffaceous sandstone or siltstone	Indurated sedimentary rock composed of sand grains derived from explosive volcanic activity.
Turbidite	A sediment formed from a slurry moving at high speeds down a basin slope.
U3O8	Triuranium octoxide (U3O8) is a compound of uranium. It is present as an olive green to black, odorless solid. In spite of its color, it is one of the more popular forms of yellowcake and is shipped between mills and refineries in this form.
Ultrabasic or ultramafic	Used to describe igneous rocks of very low silica content (usually < 45% SiO ₂ ,) consisting essentially of iron and magnesium silicates to the virtual exclusion of quartz and feldspar.
Unconformity	A contact between rock units that represents a time break in rock deposition or formation.
Unconstrained model	Refer also geostatistical methods. Means an interpreted geological boundary has not been used finitely to limit the influence of statistically projected sample grades.
Underground methods	Methods used for underground mining as opposed to open pit methods.
Uranium	A very heavy metal which can be used as an abundant source of concentrated energy.
Uranium Oxide	A radioactive mineral made up of black, grey, or brown crystals that are generally opaque and have a greasy luster. It is also known as uraninite.
VALMIN	Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets & Securities for Independent Expert Reports.

Vein	A tabular form mineral filling of a rock fracture.
Vertical	A historic mining term used in parts of the Victorian goldfields to describe steeply dipping veins.
Violarite	A violet-grey sulphide mineral of nickel and iron.
Volcanic	Rocks formed from the solidification of lava extruded on or erupted at the Earth's surface. Also includes pyroclastic rocks.
Volcanoclastic	Descriptive of a clastic sediment containing material of volcanic origin.
Volcanogenic	Refers to rocks of volcanic derivation.
Wavelength	In this report, refers to the distance between the crests of adjacent anticlines.
Yellow Cake	A kind of uranium concentrate powder obtained from leach solutions, in an intermediate step in the processing of uranium ores.