

# BLACK RANGE TRANSFORMS INTO USA'S NEW FULLY INTEGRATED NEAR-TERM URANIUM PRODUCER

# **ASX ANNOUNCEMENT**

30 October 2013

# **Highlights**

- Transformational, fully-funded acquisition of Uranium One's "conventional" uranium assets in the USA, including:
  - 100% of the Shootaring Mill together with surface ore stockpiles, for US\$10m (which includes replacing ~US\$8.5m of government reclamation bonds)
  - A JV to earn up to 100% of exploration and development projects including deposits containing 8.9m
     lbs of U<sub>3</sub>O<sub>8</sub>, including the previously operating 5.3m lb Velvet-Wood Deposit
- Key benefits to Black Range are:
  - Creates a fully integrated uranium business
    - Ownership of the Shootaring Mill, one of only three licenced mills in the USA, assures control
      of production all the way from mining to finished yellowcake
    - Risk of entering into 'tolling' agreements for third-party processing of Hansen/Taylor Ranch ore is eliminated
    - Significant production cost savings expected
  - <u>Pulls forward production and earnings</u> Black Range can now generate significant cash-flow as early as 2014, by:
    - Immediately moving to Ablate surface ore stockpiles that contain ~415,000 lbs of U<sub>3</sub>O<sub>8</sub> that could be sold prior to commissioning the Shootaring Mill
    - Re-commissioning the Velvet-Wood mine, where the ore grade averages 0.26% U<sub>3</sub>O<sub>8</sub>;
       potentially within 12 months
  - Enhances resource base size and grade
    - Mineral resource base increased by 10% to 100m lbs of U<sub>3</sub>O<sub>8</sub>
    - Average grade of mineral resource base increased 7% to 0.064% U<sub>3</sub>O<sub>8</sub>
- Acquisition and ongoing working capital is fully funded:
  - \$11.5m convertible note at \$0.017 per share a 35% premium to the 30-day VWAP
  - \$6.0m fully underwritten equity raising at \$0.014 per share a 15% premium to the 30-day VWAP

#### TRANSACTION OVERVIEW

Black Range Minerals Limited ("Black Range" or the "Company") (ASX:BLR) is pleased to announce it has entered into binding agreements to acquire Uranium One Inc's ("Uranium One") conventional (i) Shootaring Canyon Mill and related assets in the USA (the "Mill Acquisition"); and (ii) exploration and development projects in the USA (the "JV Acquisition"; and collectively the "Acquisition"). Completion of the Acquisition is subject to regulatory approvals.



The Mill Acquisition gives Black Range the exclusive right, on Completion, to take 100% ownership of the Shootaring Canyon uranium processing facility in Utah (the "**Mill**"), which is one of only three licensed conventional uranium mills in the USA, together with surface stockpiles of uranium ore, with a historic mineral resource estimate of approximately 250,000 lbs of  $U_3O_8$  at a grade of 0.13%  $U_3O_8$ .

The JV Acquisition provides the Company the right to earn up to 100% interest in all of Uranium One's other "conventional mining" assets in the USA, comprising a highly prospective portfolio of exploration and development projects in the USA that encompasses approximately 77,000 acres (the "JV Assets"). This includes mineral resource estimates, prepared in accordance with Canadian National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"), of 8.9 million pounds of  $U_3O_8$  at a grade of 0.19%  $U_3O_8$  and surface stockpiles of uranium ore with a historic mineral resource estimate of approximately 165,000 lbs of  $U_3O_8$  at a grade of 0.09%  $U_3O_8$ . The most advanced of these assets is the Velvet-Wood Deposit, from which approximately 4 million pounds of  $U_3O_8$  have been produced previously. The NI 43-101 estimate for remaining mineral resources at Velvet-Wood is 5.3 million pounds of  $U_3O_8$  at a grade of 0.26%  $U_3O_8$ .

The strategic benefits of the Acquisition include:

- Removes the need to permit and build a conventional processing facility at the Company's 100%-controlled Hansen/Taylor Ranch Uranium Project in Colorado (the "Hansen Project"), that could otherwise take up to 5-8 years – thereby potentially fast-tracking the development of the Hansen Project;
- The cost of acquiring, refurbishing and restarting the Mill is expected to be significantly less than the cost of building a new processing facility;
- Considerable operational cost savings are expected if ore from any of the Company's assets is processed at the Mill rather than a third party mill, because additional "toll-treating" costs won't be incurred;
- It is anticipated that Black Range will customise the Mill so it can preferentially receive high-grade concentrates from multiple projects across the US where it anticipates its proprietary Ablation mineral concentration technology will be utilised – thereby providing Black Range further leverage into opportunities that are amenable to Ablation;
- Considerable underground mining infrastructure is in place at the previously operational Velvet-Wood Deposit, which provides a low-cost, high-grade, near-term production opportunity;
- The mineral resources and exploration potential of the JV Assets complements the Company's substantial, high-quality uranium resource base; and these assets are all potentially amenable to Ablation as well as being located in jurisdictions that are favourable to development, hence they can rapidly add to the Company's production profile; and
- It is anticipated that the surface ore stockpiles can be treated with Ablation in the near term to generate significant cash flow.

The Acquisition is considered to be transformational, as it will enable Black Range to become a vertically-integrated uranium company; to fast-track production; while adding further diversity to its quality asset base; allowing it to create a pre-eminent USA uranium exploration and development company.

Commenting on the Acquisition, Black Range's Managing Director, Mr Mike Haynes said:

"We are thrilled to have reached agreement to acquire Uranium One's conventional mining assets in the USA and to have secured financing for the transaction. This acquisition complements our quality mineral resource base and our interest in the rapidly emerging Ablation beneficiation technology by providing us ownership of additional high-quality mineral resources together with one of very few licensed uranium processing facilities in the USA; providing



the Company an accelerated path to uranium production. This vertically integrated model places Black Range in a very enviable position of strength; substantially differentiating us from our global peers."



Shootaring Mill, Utah, USA

#### **COMMERCIAL TERMS**

The Mill Acquisition is being undertaken pursuant to an asset purchase agreement ("APA"). Under the APA, Black Range is required to pay US\$10 million ("Upfront Consideration") on Completion, which is to be within 140 days of the date of execution of the APA. Approximately US\$8.5 million of this amount will be used to replace long-term government reclamation bonds that are currently in place over the Mill. The remainder will be paid in cash to Uranium One. Black Range will assume ownership of 100% of the Mill and the ore stockpiles and other assets at the Mill. Completion is subject to receipt of requisite regulatory and shareholder approvals.

The JV Acquisition is being undertaken pursuant to an exploration, development and mine operating agreement ("JV Agreement"). Implementation of the JV Agreement is contingent upon Completion of the Mill Acquisition. Under the JV Agreement, Black Range shall have the exclusive right to:

- i) initially earn a 51% interest in the JV Assets by spending US\$10 million on the exploration, development and operation of these assets and by paying Uranium One US\$3 million within 5 years of Completion ("Initial Contribution"); then
- ii) increase its equity interest in the JV Assets to 80% by spending a further US\$10 million on exploration, development and operations within 5 years of completing its Initial Contribution ("Phase 2 Contribution"); and
- iii) move to 100% ownership of the JV Assets by spending a further US\$10 million on exploration, development and operations within 5 years of completing the Phase 2 Contribution.



Once Black Range has earned a 51% interest in the JV Assets, if it elects not to move to 80% and/or 100% ownership, both Black Range and Uranium One will contribute to agreed expenditures proportionately to their interests in the joint venture. Black Range will be the manager of the joint venture.

# **SHOOTARING CANYON PROCESSING FACILITY AND ORE STOCKPILE**

#### **Location and History**

The Mill is located 77 km south of Hanksville in central Utah, USA. The town of Ticaboo is located 5.6 km south of the Mill site. Access is provided by a sealed road to within 1.5 km of the Mill. There is rail access to within ~175km of the Mill.

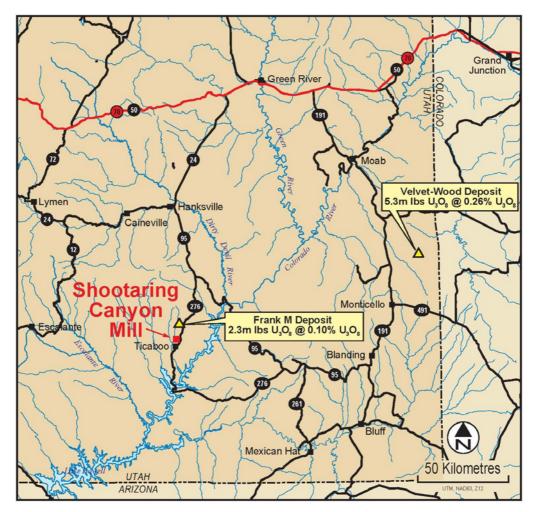


Figure 1. Location of the Shootaring Mill and the Velvet-Wood and Frank M Uranium Deposits in Utah, USA.

The Mill was built in 1980. It operated between April and August 1982, treating only 28,000t of ore, containing 30,000lbs of  $U_3O_8$ , before operations were suspended. Metallurgical recoveries of +90% were achieved. These activities were primarily to commission the Mill following completion of its construction, as by the time the Mill was operable the global uranium price had collapsed and it was uneconomic to subsequently continue operations at the Mill. The Mill has since been kept on care and maintenance.



#### **Current Condition and Refurbishment of the Mill**

The Mill is a conventional acid-leach facility with nominal capacity of 750-1,000 tpd (250,000-350,000 tpa).

The ore processing stream consists of a single stage grinding circuit followed by sulfuric acid leach and counter current decantation (CCD) systems. (In 2002 the CCD system was removed and sold). The washed solids from the CCD are pumped to a tailings pond while the leachate is sent to a solvent extraction (SX) circuit where uranium is recovered from the leachate. The uranium is precipitated from the SX strip solution with ammonia and recovered as dry yellowcake.

There is considerable capacity for on-site storage of more than 3 million cubic metres of tailings.

Following its closure in 1982, the Mill has been maintained in good condition. As such it is anticipated that the Mill can be refurbished quickly and at very low cost compared to building a new processing facility. Prior to refurbishing the Mill, Black Range intends assessing the merits of reconfiguring it specifically to accept only (or primarily) concentrates produced from its 50%-owned proprietary Ablation technology. This may circumvent the need to refurbish the crushing and grinding circuits. Furthermore, smaller tanks and pumps may initially be optimal, and less tailings storage may be required to produce a comparable amount of yellowcake if processing non-Ablated ore, hence the initial refurbishment cost may be lower than if the entire Mill was to be refurbished.



**Shootaring Mill** 





**Shootaring Mill** 



**Shootaring Mill** 





**Shootaring Mill** 

# Permits to Recommence Operations at the Mill

Although the Mill is one of only three <u>licensed</u> conventional uranium processing facilities in the US, because it hasn't been in operation since 1982 additional <u>permits</u> will be required to recommence operations. It is anticipated that it will take approximately 18 months to secure all such permits.

# Ore Stockpiles at the Mill

There are currently approximately 85,000 tonnes of unprocessed surface stockpiles of uranium ore at the Mill. The historic mineral resource estimate for these stockpiles is approximately 250,000 lbs of  $U_3O_8$  at a grade of 0.13%. These provide the Company potential for near-term cash flow.

Table 1. Historic mineral resource estimate for the ore stockpiles at the Shootaring Canyon Mill

	Historic Resource Estimate			
Stockpile	Tonnes	Grade (%U₃O <sub>8</sub> )	lbs U₃O <sub>8</sub>	
Shootaring Canyon Mill	85,400	0.13	250,000	

# Notes:

- 1. This historic mineral resource estimate is reported in this announcement as a "historic estimate" under ASX Listing Rule 5.12.
- 2. The historic estimate is not reported in accordance with the JORC Code.
- 3. A Competent Person has not yet undertaken sufficient work to classify the historic estimate as mineral resources or ore reserves in accordance with the JORC Code.
- 4. It is uncertain that, following evaluation and/or further exploration work, it will be possible to report this historic estimate as mineral resources or ore reserves in accordance with the JORC Code.
- 5. ASX Listing Rule 5.12 specifies the additional information that must be provided in a market announcement that contains historic estimates. This information is contained in Schedule D together with further details on the historic mineral resource estimate.



#### Mill Restart Payments

In addition to the Upfront Consideration, Black Range has agreed to assume Uranium One's contingent obligations to make certain payments to the previous owner of the Mill, US Energy Corp ("US Energy"). These payments comprise:

- i) US\$20 million payable upon the Mill reaching commercial scale production, being when the Mill has been operating at 60% or more of its design capacity of 750 short tons per day for 60 consecutive days;
- ii) an additional US\$7.5 million on first delivery to the Mill, after commercial production, of ore from any of the properties formerly owned by US Energy that were purchased by Uranium One; and
- iii) a 5% gross royalty on production from the Mill, to a maximum of US\$12.5 million.

The Company has determined that the cost to acquire and refurbish the Mill, together with the potential payments due to US Energy, are likely to be significantly less than the cost of building a new processing facility and/or additional "toll-treating" costs that would otherwise be incurred to process ore from: (i) its Hansen Project; (ii) the surface stockpiles it is acquiring from Uranium One; (iii) the JV Assets; (iv) high-grade ore generated when Ablating ore from third parties' deposits; and (v) other potential acquisitions.

#### **Forward Plans**

Immediately following Completion of the Acquisition, Black Range intends undertaking detailed studies into the economics of recommencing operations at the Mill. This will include a full evaluation of optimising the flowsheet for the Mill to accept, maybe exclusively, high-grade ore generated from the use of the Company's proprietary Ablation pre-concentration technology.

#### **JV ASSETS**

On Completion of the Mill Acquisition, the JV Agreement will take effect, providing Black Range the right to earn up to a 100% interest in the JV Assets, comprising a highly prospective portfolio of exploration and development projects that encompass approximately 77,000 acres. This portfolio includes mineral resource estimates prepared in accordance with NI 43-101 totalling approximately 8.9 million pounds of  $U_3O_8$  at a grade of 0.19% across several deposits. The mineral resource estimates are presented in Table 2 below:

Table 2. NI 43-101 mineral resource estimates attributable to the JV Assets

	Measured		Indicated		Inferred			Total				
Deposit	Tonnes	Grade (%U₃O <sub>8</sub> )	lbs U₃O <sub>8</sub>	Tonnes	Grade (%U₃O <sub>8</sub> )	lbs U₃O <sub>8</sub>	Tonnes	Grade (%U₃O <sub>8</sub> )	lbs U₃O <sub>8</sub>	Tonnes	Grade (%U₃O <sub>8</sub> )	lbs U <sub>3</sub> O <sub>8</sub>
Velvet	329,308	0.27	1,966,000 <sup>5</sup>	64,410	0.38	548,000 <sup>6</sup>	157,850	0.17	604,000 <sup>5</sup>	551,568	0.26	3,118,000
Wood				342,009	0.28	2,113,000 <sup>5</sup>	9,979	0.16	34,500 <sup>5</sup>	351,988	0.28	2,147,500
Frank M				993,368	0.10	2,210,000 <sup>5</sup>	38,102	0.09	75,000⁵	1,031,469	0.10	2,285,000
Findlay Tank							191,416	0.23	954,000 <sup>6</sup>	191,416	0.23	954,000
50% of Wate Breccia Pipe							29,000	0.76	443,000 <sup>7</sup>	26,308	0.76	443,000
TOTAL	329,308	0.27	1,966,000	1,399,786	0.16	4,871,000	423,655	0.23	2,111,500	1,944,329	0.19	8,947,500

# Notes:

- 1. These mineral resource estimates are reported in this announcement as "foreign estimates" under ASX Listing Rule 5.10.
- 2. The foreign estimates are not reported in accordance with the JORC Code.



- 3. A Competent Person has not yet undertaken sufficient work to classify the foreign estimates as mineral resources or ore reserves in accordance with the JORC Code.
- 4. It is uncertain that, following evaluation and/or further exploration work, it will be possible to report these foreign estimates as mineral resources or ore reserves in accordance with the JORC Code.
- 5. A cut-off of 0.25GT has been applied. GT is Grade ( $\%U_3O_8$ ) x Thickness (feet) a common analytical tool in the USA, for example 1 foot @ 0.25% has a GT of 0.25.
- 6. A cut-off of 0.50GT has been applied.
- 7. A cut-off of 0.15% GT has been applied. Uranium One holds a 50% interest in the Wate Breccia Pipe assets. These assets are subject to a pre-emptive right held by the party owning the remaining 50% interest. In the event that this pre-emptive right is exercised by the third party, there will be a reduction of US\$4,000,000 to the expenditure required by the Company to complete the Initial Contribution under the JV Agreement.
- 8. ASX Listing Rule 5.12 specifies the additional information that must be provided in a market announcement that contains foreign estimates. This information is contained in Schedule C together with further details on the mineral resource estimates.

# Velvet-Wood Deposit, Utah

The Velvet-Wood Deposit in eastern Utah (see Figure 1) provides the Company a low-cost, near-term mining opportunity.

Between 1979 and 1984 approximately 400,000 tons of ore were mined from the Velvet Deposit at grades of 0.46%  $U_3O_8$  and 0.64%  $V_2O_5$  (recovering approximately 4 million lbs of  $U_3O_8$  and 5 million lbs of  $V_2O_5$ ). As such considerable underground infrastructure, including a 12' x 9' decline to the ore body, is in place.

The remaining mineral resources have been estimated under NI 43-10 to comprise 5.3 million pounds of  $U_3O_8$  at a grade of 0.26%  $U_3O_8$  (see Table 2).

Previous mining studies suggest that mining operations could recommence at the Velvet Deposit with very low upfront and sustaining capital costs (less than \$10 million up-front capital). Production rates averaging approximately 700,000 lbs of  $U_3O_8$  were anticipated, with estimated operating costs <US\$30/lb  $U_3O_8$ .

It is anticipated that all permits required to recommence mining at the Velvet-Wood Deposit could be secured within 12 months.

With limited work undertaken at the Velvet-Wood Deposit since 1984, considerable potential remains to delineate additional mineral resources.

Immediately following Completion of the Acquisition, Black Range intends commissioning a detailed study into the economics of recommencing mining at the Velvet-Wood Deposit. This study will, for the first time, include an evaluation of utilising Ablation, which is expected to significantly reduce transport and processing costs.



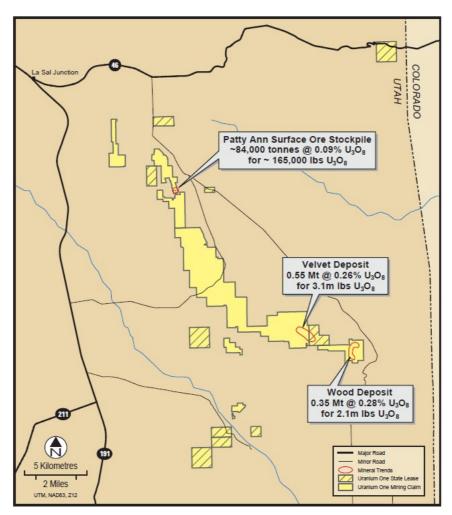


Figure 2. Location of the Velvet-Wood Deposit and Patty Ann Surface Ore Stockpile and surrounding land holdings.

#### Frank M Deposit, Utah

The Frank M Deposit is located approximately 12 km north of the Mill (see Figure 1). It contains a NI 43-101 mineral resource estimate of approximately 2.3 million pounds of  $U_3O_8$  at a grade of 0.10%  $U_3O_8$  (see Table 2). It was discovered in 1977 and subsequently defined with drilling on 45 metre centres. Permits for underground mining operations were obtained, and initial development of a decline began. However in 1983 the project was abandoned and the decline reclaimed.

Sandstone-hosted mineralisation at Frank M occurs in a 2,500 metre long corridor that is up to 700 metres wide. The mineralised zone varies in depth from 70 to 160 metres.

The Frank M Deposit is located immediately adjacent to Energy Fuels Inc.'s Tony M mine and Copper Bench-Indian Bench Deposits (see Figure 3), which host combined NI 43-101 mineral resource estimates of some 20 million pounds of  $U_3O_8$ , illustrating the considerable prospectivity of this district. The close proximity of this deposit to the Mill significantly simplifies the logistics of developing the Frank M Deposit and any additional mineral resources discovered in its vicinity.



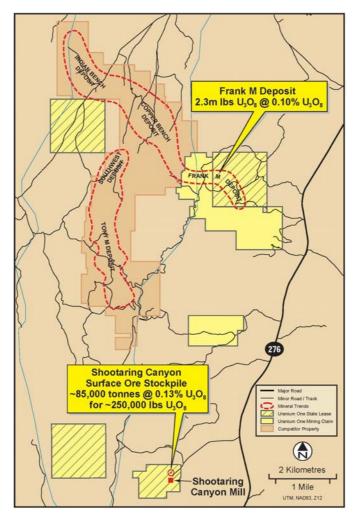


Figure 3. Location of the Frank M Deposit, Shootaring Canyon Mill and Shootaring Ore Stockpile, surrounding landholdings and other known deposits.

#### Wate and Findlay Tank Breccia Pipes, Arizona

The JV Assets include considerable landholdings in Arizona that are highly prospective for the discovery of high-grade breccia-pipe type uranium deposits. Much of this area is subject to a 50:50 joint venture with Vane Minerals plc ("Vane") (subsequently renamed Rose Petroleum plc).

Approximately 1.4 million pounds of the NI 43-101 mineral resource estimates are attributable to Uranium One's interest in two of these breccia pipes, Wate and Findlay Tank (see Table 2). Importantly the grade of mineralisation at these breccia pipe deposits is typically high (in this case  $0.76\% \ U_3O_8$  and  $0.23\% \ U_3O_8$  respectively).

There is considerable potential to discover more high-grade mineralisation in this area, although the US federal government has recently deemed some of this area to be "withdrawn" from future exploration and development activity (see Figure 4). This decision is being legally challenged by Vane, but it may negatively impact the Company's ability to undertake further work within the "withdrawn" areas.

Black Range's involvement in the breccia pipe assets in Arizona (with the exception of Findlay Tank) will be subject to Vane electing not to exercise a pre-emptive right it holds over the sale to a third party. If Vane elects to exercise its pre-emptive right over the Wate Breccia Pipe, Black Range's Initial Contribution under the JV Agreement will be



reduced to expenditure of US\$6 million (from US\$10 million) on the JV Assets; with the cash payment to Uranium One remaining at US\$3million. In addition, if Vane elects to exercise its pre-emptive right over the other Vane-Uranium One joint venture assets in Arizona, Black Range's expenditure obligation under the Initial Contribution will be reduced by a further US\$1 million.

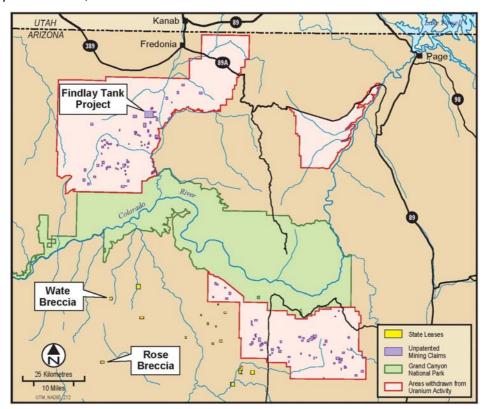


Figure 4. Location of the Findlay Tank, Wate and Rose Breccia Pipes, together with other JV Assets in Arizona.

# Patty Ann Surface Ore Stockpile, Utah

The JV Assets include the Patty Ann surface ore stockpile in eastern Utah (see Figure 2). A historic mineral resource estimate for these stockpiles is approximately 165,000 lbs of  $U_3O_8$  at a grade of 0.09%  $U_3O_8$  (see Table 3).

Under the terms of the JV Agreement Black Range has the right to purchase a 100% interest in this stockpile for US\$75,000, with a corresponding reduction in the expenditure required to complete the Initial Contribution under the JV Agreement. This opportunity provides the Company additional potential to generate significant cash flow in the near term.

Following Completion of the Acquisition, Black Range intends undertaking testwork to evaluate the economics of Ablating this ore stockpile in the near term, potentially as soon as 2014.

Table 3. Historic mineral resource estimate for the ore stockpiles at Patty Ann, Utah

	Historic Resource Estimate			
Stockpile	Tonnes	Grade (%U₃O <sub>8</sub> )	lbs U₃O <sub>8</sub>	
Patty Ann	84,000	0.09	165,000	

#### Notes:

1. This historic mineral resource estimate is reported in this announcement as a "historic estimate" under ASX Listing Rule 5.12.



- 2. The historic estimate is not reported in accordance with the JORC Code.
- 3. A Competent Person has not yet undertaken sufficient work to classify the historic estimate as mineral resources or ore reserves in accordance with the JORC Code.
- 4. It is uncertain that, following evaluation and/or further exploration work, it will be possible to report this historic estimate as mineral resources or ore reserves in accordance with the JORC Code.
- 5. ASX Listing Rule 5.12 specifies the additional information that must be provided in a market announcement that contains historic estimates. This information is contained in Schedule D together with further details on the historic mineral resource estimate.

#### **Exploration Potential**

The JV Assets comprise a highly prospective portfolio of exploration and development projects that encompass approximately 77,000 acres. Aside from the deposits referred to above, this portfolio includes numerous advanced projects where mineral resources are yet to be defined. There is considerable potential to delineate additional mineral resources at the deposits as well as elsewhere within this portfolio.

# **SYNERGIES WITH BLACK RANGE'S CURRENT ASSETS**

# Hansen/Taylor Ranch Uranium Project, Colorado

Black Range currently holds a 100% interest in the advanced Hansen/Taylor Ranch Uranium Project in Colorado, USA, where a mineral resource estimate of 90.9 million pounds of  $U_3O_8$  at a grade of 0.06%  $U_3O_8$  has been delineated across five deposits. The largest of these deposits, the Hansen Deposit, was fully permitted for mining in 1981. However due to the dramatic decline in the prevailing global uranium price, mining never eventuated.

A scoping study, completed in the first half of 2012, indicated that an initial mining operation can potentially be developed at the Hansen Deposit at an estimated capital cost of less than \$80 million to produce 2 million pounds of  $U_3O_8$  per annum at an estimated operating cost of approximately \$30/lb  $U_3O_8$ . To achieve this a development approach comprising the following was selected: (i) underground borehole mining, with (ii) on-site treatment with Ablation to produce a low-volume, high value concentrate that could be (iii) transported off-site for toll-milling at a conventional processing facility for production of yellow-cake.

The Company is now advancing the Hansen Project to production; targeting receipt of all mining permits by 2016 and commencement of production shortly thereafter.

The acquisition of the Mill means that the Company now controls all components necessary to implement its preferred development strategy. Rather than taking the time and going to the considerable expense of permitting and building a new processing facility, Black Range now controls a licensed and constructed processing facility through which ore from the Hansen Project can be processed. Furthermore, by eliminating "toll-treating" processing fees, considerable operational cost savings are expected to be realised.

#### **Ablation Joint Venture**

While completing its scoping study on the Hansen Deposit, Black Range identified the considerable benefits that the emerging Ablation process is likely to offer the conventional uranium mining industry.

Ablation is a low cost method of concentrating uranium mineralisation by applying a physical, grain-size separation process to ore slurries. No chemicals are added in the process, yet very high mineral recoveries can be achieved with considerable mass reduction, separating a high-grade, high-value mineral concentrate from a barren waste product. Extensive testwork has shown that, from amenable sandstone-hosted uranium ore types, more than 90% of the uranium mineralisation can be recovered into 10-20% of the initial sample mass. Recent development work on a secondary upgrade circuit has seen recoveries in test work exceed 99%.



In mid-2012, shortly after determining that the optimal way to develop the Hansen Deposit is to utilise Ablation, while also recognising the potential to apply this process elsewhere, Black Range reached agreement with the pioneers of Ablation, Ablation Technologies LLC ("ABT"), to jointly commercialise the Ablation process. Black Range and ABT agreed to establish a 50:50 joint venture (the "Ablation JV"), with Black Range agreeing to fund commercialisation by way of a loan that will be repaid in full from the Ablation JV's first profits. The Ablation JV holds the rights to utilise Ablation at all mineral deposits (not just uranium deposits), globally.

Ablation has been shown to improve the economics and logistics of developing the Hansen Deposit. Recent testwork has confirmed that it should also be possible to realise the same benefits at many other sandstone-hosted uranium deposits around the world, because Ablation is likely to significantly reduce both the capital and operating costs for many projects; while timelines to obtain mine permits may also be reduced.

Test work has shown that Ablation is likely to have applications to numerous and substantial uranium deposits across the USA (and indeed globally). Black Range recognises that by owning one of very few conventional uranium processing facilities in the USA it will have opportunities to offer potential clients of the Ablation JV attractive commercial terms to not only Ablate ore from their deposits but also to offer toll-milling terms whereby clients can utilise a processing facility that can accept the resultant concentrated product, so they can realise full-value by converting concentrate to yellowcake.

By accepting concentrate from third parties at the Mill, Black Range believes all parties can benefit through process optimisation as well as economies of scale.

By offering a vertically integrated processing solution to deposit owners who don't have either an interest in Ablation or access to a processing facility, the Company believes it can maximise its return on investment in both Ablation and the Mill (and in the Hansen Project).

Furthermore the Company anticipates that its interests in Ablation and the Mill will provide it significant leverage into the acquisition of additional growth opportunities that will enable it to continue to expand its production profile.

# **FUNDING THE MILL ACQUISITION AND ONGOING WORKING CAPITAL**

Black Range's cornerstone investor, Azarga Resources Limited ("Azarga") is extremely supportive of the Acquisition and has agreed to ensure the Mill Acquisition is fully funded and that Black Range has sufficient working capital both prior to Completion and thereafter to continue to aggressively grow its business. Accordingly agreements are in place for the financing structure summarised below.

#### **Acquisition Financing**

- 1. Azarga will provide a \$11.5 million secured convertible note facility ("Note Facility"), with an interest rate of 10% per annum and convertible to shares at \$0.017, being a 35% premium to the 30-day VWAP immediately preceding the announcement of the Acquisition. Refer Schedule A for further details on the Note Facility.
- 2. Azarga will fully underwrite an equity raising of \$6.0 million ("**Equity Financing**") at an issue price of \$0.014, being a 15% premium to the 30-day VWAP immediately preceding the announcement of the Acquisition. Refer Schedule A for further details on the Equity Financing.

(collectively the "Financing")

The Financing is subject to Completion of the Mill Acquisition and receipt of requisite shareholder approvals, which are expected to be sought at a general meeting in February 2014.



Additionally, Black Range is advancing discussions with a US surety bond provider whom has expressed interest in providing finance terms to partially cover the US\$8.5 million reclamation bond over the Mill.

#### **Convertible Loan Facilities**

In order to ensure that the Company has sufficient working capital in the period prior to Completion of the Mill Acquisition, the Company has agreed to restructure its existing convertible loan facility with Azarga ("CL Facility") and enter into a new facility ("Bridging Facility") as follows:

- 1. CL Facility will be amended such that, following execution of the Bridging Facility agreement, the Company will issue Azarga 63.8 million new shares, representing conversion of \$638,000 of the outstanding CL Facility loan balance of \$2.2 million (inclusive of a 10% redemption premium). Further, automatic redemption of the remaining CL Facility balance will now be triggered when the Company raises an aggregate of more than \$13 million in new equity and debt. The remaining CL Facility balance will continue in accordance with the terms announced to ASX on 4 July 2013; and
- 2. The Bridging Facility will provide additional funding of up to \$1.5 million by way of an unsecured convertible loan facility, repayable in cash or shares at \$0.012. The term of the loan is 24 months and it is only convertible to shares at maturity, if not redeemed prior. However, Bridging Facility will automatically redeem in the event the Company raises an aggregate of more than \$11.5 million in new equity and debt. Further Bridging Facility details are provided in the attached Schedule B.

It is anticipated that both the CL Facility and the Bridging Facility will be redeemed on completion of the Financing.

# **INDICATIVE TIMETABLE**

The anticipated timetable for completion of the Mill Acquisition and the Financing is set out below:

Event	Date
Announcement of Acquisition and Financing	30 Oct 2013
Despatch Notice of Meeting seeking Shareholder approvals	Jan 2014
General Meeting	Feb 2014
Complete Financing and Completion of the Acquisition	Feb/Mar 2014

Note: The above dates are indicative only and represent the current intentions of the Company. They are subject to change.

For further information please contact:

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# **Competent Person's Statement**

The information in this announcement that relates to Mineral Resources at the Hansen/Taylor Ranch Uranium Project is based on information compiled by Mr Rex Bryan who is a member of the American Institute of Professional Geologists. The American Institute of Professional Geologists is a "Recognised Overseas Professional Organisation". Mr Rex Bryan compiled this information in his capacity as a Principal Geologist of Tetra Tech. Mr Rex Bryan has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Rex Bryan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to the reporting of foreign mineral resource estimates is provided under ASX listing rule 5.12 and is an accurate representation of the available data and studies for the Velvet, Wood, Frank M, Findlay Tank and Wate Breccia Uranium Deposits and is based on information reviewed by Mr Ben Vallerine.

The information in this announcement that relates to the reporting of historical mineral estimates for the ores stockpiles is provided under ASX listing rule 5.12 and is an accurate representation of the available data and studies for the Shootaring Canyon and Patty Ann uranium stockpiles and is based on information reviewed by Mr Ben Vallerine.

Mr Vallerine is a former full time employee and current director of Black Range Minerals Limited who provides ongoing technical support on an as needs basis. Mr Vallerine is a member of The Australasian Institute of Mining and Metallurgy. Mr Vallerine has sufficient experience that is relevant to the style of mineralisation under consideration as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting on Exploration Results, Mineral resources and Ore Reserves". Mr Vallerine consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Caution Regarding Forward Looking Statements**

This announcement contains forward looking statements which involve a number of risks and uncertainties. These forward looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. The forward looking statements are made as at the date of this announcement and the Company disclaims any intent or obligation to update publicly such forward looking statements, whether as the result of new information, future events or results or otherwise.



# **SCHEDULE A – KEY FINANCING TERMS**

# **Note Facility**

Principal	\$11,500,000
Conversion Price	\$0.017 per share.  Azarga is entitled, at its sole election, to convert the Note (or part thereof) at any time.  The Company is entitled, at its sole election, to convert the Note (or part thereof) at any time on and from the date which is 3 years after receipt of the Principal.
Maturity Date	10 years after receipt of the Principal.
Interest Rate	10% per annum.
Redemption	At any time before a conversion date, the Company is entitled, at its sole election, to redeem up to \$2 million of the Principal and accrued interest. A redemption premium will be payable, being 15% of the amount of Principal redeemed and interest accrued.
Conditions Precedent	<ul> <li>i) Completion of the Mill Acquisition; and</li> <li>ii) Receipt of requisite shareholder, regulatory and 3<sup>rd</sup> party approvals, including for any increase in the relevant interest of Azarga as a result of the acquisition of additional Shares by Azarga pursuant to the Equity Financing and the Note Facility.</li> </ul>



# **Equity Financing**

Underwritten Amount	\$6,000,000		
Issue Price	\$0.014 per share.		
Structure	To be determined by the Company and Azarga.		
	i) Completion of the Mill Acquisition; and		
Conditions Precedent	ii) Receipt of requisite shareholder, regulatory and 3 <sup>rd</sup> party approvals, including for any increase in the relevant interest of Azarga as a result of the acquisition of additional Shares by Azarga pursuant to the Equity Financing and the Note Facility.		
Underwriting Fee	8% of the underwritten amount with Azarga solely responsible for all costs and expenses of and incidental to marketing the equity raising.		



# **SCHEDULE B – BRIDGING LOAN FACILITY KEY TERMS**

Principal	\$1,500,000
Maturity Date	24 months from date of first advance.
Redemption	At the election of Black Range, but subject to automatic redemption in the event the Company raises an aggregate of more than \$11,500,000 in new debt and equity.
Interest Rate / Redemption Amount	If the loan is repaid at any time (from the date of the advance) (i) up to but not including 6 months - 110% of the drawn amount needs to be repaid; (ii) not less than 6 months and not more than 12 months - 115% of the drawn amount needs to be repaid; or (iii) after 12 months - 130% of the drawn amount must be repaid.
Conversion	If the loan has not been repaid by the Maturity Date, then 130% of the drawn amount will convert to Black Range shares at a conversion price of \$0.012 per share. Such conversion will be subject to receipt of requisite shareholder and regulatory approvals.



#### SCHEDULE C – ACCOMPANYING NOTES TO FOREIGN MINERAL RESOURCE ESTIMATE

#### 1. ASX Listing Rule 5.12.1 – Provide the source and date of the foreign estimates.

The 5 foreign mineral resource estimates are based on official geological reports completed for Uranium One between June 2008 and November 2010. These reports were authored to comply with NI 43-101. Geological reports comprise:

# **Velvet**

Velvet Mine Uranium Project, San Juan County, Utah, USA, 43-101 Mineral Reserve and Resource Report, prepared for Uranium One by D.L Beahm & A. C. Anderson of BRS, Inc., December 10, 2008

#### Wood

Wood Uranium Project, San Juan County, Utah, USA, 43-101 Mineral Reserve and Resource Report, prepared for Uranium One by D.L Beahm & A. C. Anderson of BRS, Inc., December 10, 2008

#### Frank M

Frank M Uranium Project, 43-101 Mineral Resource Report, Garfield County, Utah, USA, prepared for Uranium One Americas' by D.L Beahm & A. C. Anderson of BRS, Inc., June 10, 2008

#### **Findlay Tank**

Findlay Tank SE Breccia Pipe Uranium Project, 43-101 Mineral Resource Report, D.L Beahm October 2, 2008

#### **Wate Breccia**

Updated NI 43-101 Technical Report on Resources, Wate Uranium Breccia Pipe, Prepared for Vane Minerals (US) LLC, and Uranium One, Effective Date August 18, 2010, Report Date November 4, 2010, Qualified Persons, A. V. Moran & F. A. Davies of SRK Consulting, Tucson, Arizona.

2. ASX Listing Rule 5.12.2 - If the foreign estimates use categories of mineralisation other than those defined in Appendix 5A (JORC Code) provide an explanation of the differences.

The system of classification of mineral resources in Canada, NI 43-101 uses similar categories of mineralisation to those in the JORC code.

3. ASX Listing Rule 5.12.3 – Provide the relevance and materiality of the foreign estimates to the entity.

The addition of the cumulative mineral resources subject to the foreign estimates outlined in this document will result in a 10% increase in the Company's total mineral resource base which the Company considers a material amount requiring disclosure. In addition some of the mineral resources, particularly Velvet-Wood could represent a nearer term production scenario.

4. ASX Listing Rule 5.12.4 – Detail the reliability of the foreign estimates, including by reference to any of the criteria in Table 1 of Appendix 5A (JORC Code) which are relevant to understanding the reliability of the foreign estimates.

The person who authored the 43-101 reports for Velvet, Wood, Frank M and Findlay Tank is known to the Foreign Estimate Competent Person who has previously reviewed this author's work on other projects. The author is well known in the uranium industry in the USA and is very well respected and is himself considered a competent person in accordance with the JORC code. The author of the report on the Wate Breccia was conducting the work on behalf of SRK Consulting a well known and respected multinational mining consultancy. The mineral resource calculations are all less than 5 years old and the geological practices and criteria used to calculate both 43-101 and JORC resources are similar, therefore the quality and reliability of the foreign resources is expected to be high.

All 5 projects have had both conventional core and rotary air/mud drilling completed with the majority of drilling using rotary methods. All sample intervals have been calculated using calibrated downhole gamma techniques, a determination of radioactivity used to calculate uranium content, therefore resources are equivalent  $U_3O_8$ , true values are obtained from



direct chemical analysis. Chemical analysis has been carried out at all deposits except Wood and the equivalent values are considered representative.

Velvet-Wood and Frank M are sandstone hosted uranium deposits whilst both Findlay Tank and Wate are breccia pipe hosted deposits. Both types have been studied extensively in the USA and their geological genesis is well understood.

Uranium One only controls 50% of the Wate Breccia Pipe and the mineral resources reported herein only represent those attributable to Uranium One's interest.

The databases for all projects consisted of a combination historic data and recent data. Data was acquired from various sources including maps, assay sheets, drill logs and historic databases. In many cases data was manually transcribed from hardcopies into digital format, the data entry was checked and confirmed by the authors. In most cases locations were checked by overlaying new and historic maps of the same scale to compare collar locations. In all cases modern drilling has been completed in the form of twin holes that have confirmed that the historic data is reliable.

A site visit is required under NI 43-101, therefore although the Competent Person has not visited each site the appropriate author of each the NI 43-101 would have visited the relevant site.

The amount of drilling used in the mineral resource calculations is addressed in the following question. In all cases the drilling spacing and data density was sufficient to warrant the calculation of a mineral resource of an "inferred" or greater level of confidence.

The method of mineral resource calculation varied from project to project. 3 separate methods were used for cross referencing at both Velvet and Frank M with the final numbers quoted using the GT (grade x thickness) contour method with ordinary kriging and inverse distance squared methods used as a check. GT contouring was also used to calculate the mineral resources at Wood. The final mineral resources at Findlay Tank were also calculated using the GT method with kriging used a check. At Wate Breccia grade was calculated using an inverse distance squared methodology.

5. ASX Listing Rule 5.12.5 - To the extent known provide a summary of the work programs on which the foreign estimates are based and a summary of the key assumptions, mining and processing parameters, and methods used to prepare the foreign estimates.

#### **Velvet**

- Initial drill program 1970's by Gulf Minerals.
- Atlas Minerals commenced operations at the Velvet Mine in 1979.
- Minerals Resource Company (MRC) completed additional drilling programs in 1981 and 1984 and completed a feasibility study adjacent to the operating mine.
- Atlas Minerals closed the operation in 1984.
- Underground sampling data was captured on level plans and incorporated into the database.
- In 2007/2008 Uranium One drilled an additional 15 verification and exploratory holes.
- Data for in excess of 300 drill holes was used in the compilation of the mineral resource estimate.
- Metallurgical and mining factors were considered in detail in preparing both the Mineral Reserves and Resources report and also in a Feasibility Study conducted on the combined mineral resources of Velvet and Wood.
- As Velvet is a previously producing mine there was sufficient information on mining methods and metallurgical recoveries to determine there were reasonable prospects for eventual economic extraction.

# Wood

- Uranerz USA, Inc drilled 120 holes between 1985 and 1991.
- Uranium One drilled 2 core holes and 7 rotary holes in 2008; the holes were for confirmation of historic drilling and metallurgical sampling.
- Metallurgical and mining factors were considered in detail when preparing both the Mineral Reserves and Resources report and also in a Feasibility Study conducted on the combined mineral resources of Velvet and Wood.
- With the proximity of Wood to the past producing Velvet mine and the similar geological characteristics, and with review of the Feasibility Study it was determined there were reasonable prospects for eventual economic extraction.



#### Frank M

- Plateau Resources drilled the discovery hole in 1977, with the resource drilled out on 45m centres and fully permitted for underground mining. Initial decline development had commenced before the project was abandoned in 1983.
- In 1987 a non-compliant mineral resource was calculated using 666 holes.
- The data available for the calculation of the reported resource includes 838 rotary drill holes and 26 core holes.
- In 2007 Uranium One completed 9 twin core holes to confirm historic data and acquire samples for metallurgical testing.
- Frank M is adjacent to the Tony M mine that was in operation at the time of the reporting (2008), Tony M is currently on care and maintenance.
- The initiation of development activities at Frank M previously along with the proximity to the recently operating Tony M mine and the Shootaring Canyon mill indicate that the mineral resources have a reasonable prospect for eventual economic extraction.

#### **Findlay Tank**

- Breccia Pipes were identified in the early 1980's via aerial photography.
- Shallow stratigraphic drilling confirmed the pipe existed in 1984.
- Deep drilling in 1986 encountered the first mineralization at Findlay Tank NW.
- Findlay Tank SE was identified in Thermal Infrared Imagery.
- Findlay Tank SE was discovered by drilling in 1987.
- 16 deep holes were drilled between 1986 and 1994.
- Geophysical surveys including VLFR and ground magnetics were conducted in 1994.
- The first resource was calculated in 1994.
- No metallurgical or mining studies have been conducted but nearby deposits have been extracted and processed.
- The Pigeon and Hack mines located 10 miles from Findlay Tank produced 13 million pounds whilst the Kanab North mine is located only 2 miles east of Findlay Tank. The resource and grade in conjunction with the proximity to existing mines indicate that reasonable prospects for eventual economic extraction were considered sufficient for an inferred resource.

#### **Wate Breccia**

- Rocky Mountain Energy discovered the Wate Breccia Pipe in the mid 1980s and completed 23 drill holes.
- An internal mineral resource was calculated in 1991.
- Between 2008 and 2010 Vane Minerals drilled 6 holes and re-entered and re-surveyed 4 drill holes.
- A total of 29 drill holes were used to calculate the inferred mineral resource.
- No metallurgical or mining studies have been conducted at Wate Breccia.
- The resource and particularly the high grade (0.76% eU308) indicate the potential for eventual economic extraction is sufficient for an inferred mineral resource.

# 6. ASX Listing Rule 5.12.6 – Are there any more recent estimates or data relevant to the reported mineralisation available to the entity.

The Company is not aware of any more recent estimates or more recent data relevant to the reported mineralisation at any of the projects.

# 7. ASX Listing Rule 5.12.7 – Detail the evaluation and/or exploration work that needs to be completed to verify the foreign estimates as mineral resources or ore reserves in accordance with Appendix 5A (JORC Code).

The Company plans to develop a detailed program of exploration and evaluation in order to convert the foreign estimates to resources/reserves under the JORC code. The programme will involve:

- Additional review and validation of the existing database and any recommendations from the review by Uranium
  One in 2007/08 or others.
- Additional review of the confirmatory drilling programs and all results obtained in 2007/08 and their consistency with the historic drilling.
- Additional review of the Feasibility Study completed at Velvet-Wood.
- Determine whether any further ground exploration, metallurgical testing or mining studies are needed to verify



the existing mineral resource.

- Complete any field programmes or reports recommended.
- If required, recalculate the mineral resources under the JORC code.
- 8. ASX Listing Rule 5.12.8 Explain the proposed timing of any evaluation and/or exploration work the entity intends to undertake and how the entity intends to undertake that work.

The data review has already commenced and the work will be ongoing, it is anticipated that the mineral resources will be JORC compliant prior to filing the 2014 Annual Report.



#### SCHEDULE D - ACCOMPANYING NOTES TO HISTORIC MINERAL RESOURCE ESTIMATES

The disclosure of the historic mineral resource estimates for (i) the Shootaring Canyon mill ore stockpile; and (ii) Patty Ann surface ore stockpile (the "Stockpiles"), are covered by clause 41 of the JORC Code - Reporting of Mineralised Fill, Remnants, Pillars, Low Grade Mineralisation, Stockpiles, Dumps and Tailings. Further, ASX listing rule 5.12 sets out the parameters whereby historic mineral resource estimates can be reported on the ASX.

1. ASX Listing Rule 5.12.1 – Provide the source and date of the historical estimates.

The Stockpiles are outlined in the following reports:

#### **Shootaring Canvon Stockpile**

Internal Memo – Weight vs Volume Test to Determine Factor for Stockpile Tonnage Calculations, April 20, 1983, Plateau Resources Limited, from K.D. Hrabe to K.E. May.

Internal Memo – Tony M Mine and Mill – Surveyed Ore Stockpiles and Bin Reserves – September 30, 1984, Plateau Resources Limited, From K.D. Hrabe to K. E. May.

Mill Stockpiles by Grade Increments, Shootaring Canyon, September 24, 1986.

Stockpile Calculations – Internal Memo received from Uranium One without date or author, summarising the first 3 documents.

#### Patty Ann Stockpile

Technical Report on the Lisbon Valley Uranium Properties, Utah, Prepared for US Energy Corp, Report for NI 43-101, September 14, 2005, Roscoe Postle and Associates.

2. ASX Listing Rule 5.12.2 - If the historical estimates use categories of mineralisation other than those defined in Appendix 5A (JORC Code) provide an explanation of the differences.

The estimates are historical in nature and were calculated before the introduction of both NI 43-101 and the JORC Code and therefore have not been classified into a mineral resource category. The historical mineral resource estimates were calculated as part of internal company operations in accordance with accepted geological methodologies at the time and were not given a mineral resource category, although in accordance with current standards they would be considered inferred mineral resources.

3. ASX Listing Rule 5.12.3 – Provide the relevance and materiality of the historical mineral resource estimates to the entity.

The Company believes that the  $^{\sim}415,000$  pounds of  $U_3O_8$  contained in the Stockpiles is material because the ore has already been extracted and represents a potential near term cash flow opportunity.

4. ASX Listing Rule 5.12.4 – Detail the reliability of the historical estimates, including by reference to any of the criteria in Table 1 of Appendix 5A (JORC Code) which are relevant to understanding the reliability of the historical estimates.

The historical estimates were calculated prior to the introduction of JORC and NI 43-101 guidelines and minimal data is available to ascertain how the estimates were calculated. However the company that completed the calculations was, or had recently been, producing from uranium mines in the area, and the calculations were completed to satisfy their internal production requirements. The fact the material was actually removed from producing uranium mines in the district, and in the case of the Shootaring Canyon stockpiles, transported to the mill site, presumably in preparation for processing and recovery of yellowcake, indicates there is an inherent level of confidence that the Stockpiles comprise mineralised material.

These historical mineral resources were believed to be reliable at the time of calculation and prepared to industry standards in place at the time, and are considered relevant today, therefore it is anticipated the grade and tonnage figures are reliable.



5. ASX Listing Rule 5.12.5 - To the extent known provide a summary of the work programs on which the historical estimates are based and a summary of the key assumptions, mining and processing parameters, and methods used to prepare the historical estimates.

**Shootaring Canyon Stockpile** 

- Mined and transported to the Shootaring Canyon mill facility from the Tony M district prior to 1983
- Tonnage calculations 1983
- Surveyed 1984
- Grade review and sampling 1986

#### Patty Ann Stockpile

- Atlas closed the Patty Ann mine in 1981
- A broad overview of historic operations was prepared by Roscoe Postle and Associates in 2005
- In 2008, Bluerock entered into a purchase agreement and commenced a uranium grade distribution analysis and a test sample was provisionally deemed acceptable for treatment at the White Mesa Mill.
- In 2008, Argus Metal Corp (related party to Bluerock) submitted permits for processing the stockpile

# 6. ASX Listing Rule 5.12.6 – Are there any more recent estimates or data relevant to the reported mineralisation available to the entity.

The Company is not aware of any more recent estimates or more recent data relevant to the reported mineralisation at any of the projects.

7. ASX Listing Rule 5.12.7 – Detail the evaluation and/or exploration work that needs to be completed to verify the foreign estimates as mineral resources or ore reserves in accordance with Appendix 5A (JORC Code).

Prior to processing or Ablating the Stockpiles, the Company plans to undertake a sampling programme to ascertain the grade and tonnage of the Stockpiles. It is anticipated that the programme will be completed to a level that would provide the Company with enough confidence to process the Stockpiles to recover contained  $U_3O_8$ .

8. ASX Listing Rule 5.12.8 – Explain the proposed timing of any evaluation and/or exploration work the entity intends to undertake and how the entity intends to undertake that work.

The data review has already commenced. A sampling program is not currently scheduled, however it is anticipated this will commence within 12 months.