



ASX Release

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BLACK RANGE MINERALS LIMITED

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Issued Capital:

840.9 million shares
23.6 million unlisted options

Australian Stock Exchange

Symbol: BLR

**POSITIVE PRELIMINARY
EVALUATION OF BOREHOLE MINING
AT THE HANSEN URANIUM DEPOSIT**

Highlights

- **Positive preliminary evaluation of the use of Borehole Mining at the Hansen Uranium Deposit**
- **Preliminary mining cost estimate of approximately US\$27/lb of U₃O₈**
- **Potential for a small surface imprint with mobile Borehole Mining equipment**
- **Selective and environmentally protective mining method**

Black Range Minerals Limited (ASX: BLR; "Black Range" and the "Company") recently engaged Kinley Exploration LLC (Kinley) in Kansas, USA, to complete a detailed preliminary technical and economic evaluation of mining the Hansen Uranium Deposit using an engineered hydraulic borehole mining technology. Kinley's study indicates that Borehole Mining could be a low cost method of mining the Hansen Uranium Deposit. Probable mine operating costs have been estimated at US\$27/lb U₃O₈ including cemented backfill but excluding processing costs (See Table 1).

Kinley's evaluation included the assessment of the Hansen Deposit's geotechnical and geological parameters, to develop a suitable approach for extracting the mineralised material. This work indicated that a single borehole mining unit could produce approximately 500,000lbs of U₃O₈ per annum. Production rates could be readily increased by concurrently operating multiple borehole mining units. This methodology could provide the Company with an environmentally protective and economically feasible approach to mining without the need for large infrastructure or open excavation (see Figure 1).

"The result of this preliminary evaluation indicates that Borehole Mining could be an alternative method of mining the Hansen Deposit" Mr Simpson, Managing Director of Black Range, stated. "Previous feasibility studies for both open pit and underground mining methods are currently being updated. However these results are very encouraging and the Borehole Mining technique has many advantages over conventional mining methods. These advantages include:

- environmentally protective;
- low capital requirements;
- low operating costs;
- small surface impact;
- selective, high-grade mining if required; and
- high mining recoveries."

Mr Simpson concluded.

Following receipt of these very encouraging initial results, Black Range will further evaluate the use of Borehole Mining in conjunction with Kinley, who are experts and pioneers in this method of mining.

Simpson went on to say: "Borehole Mining could make a good fit with ablation technology and we will continue to evaluate this combination. Ablation could also be applied to any conventional mining method. But the combination of these two technologies could result in a very economic and environmentally friendly alternative for Black Range."

Anthony (Tony) Simpson
Managing Director

Table 1. Economic parameters for Borehole Mining in a Single Well at the Hansen Uranium Deposit (US Dollars).


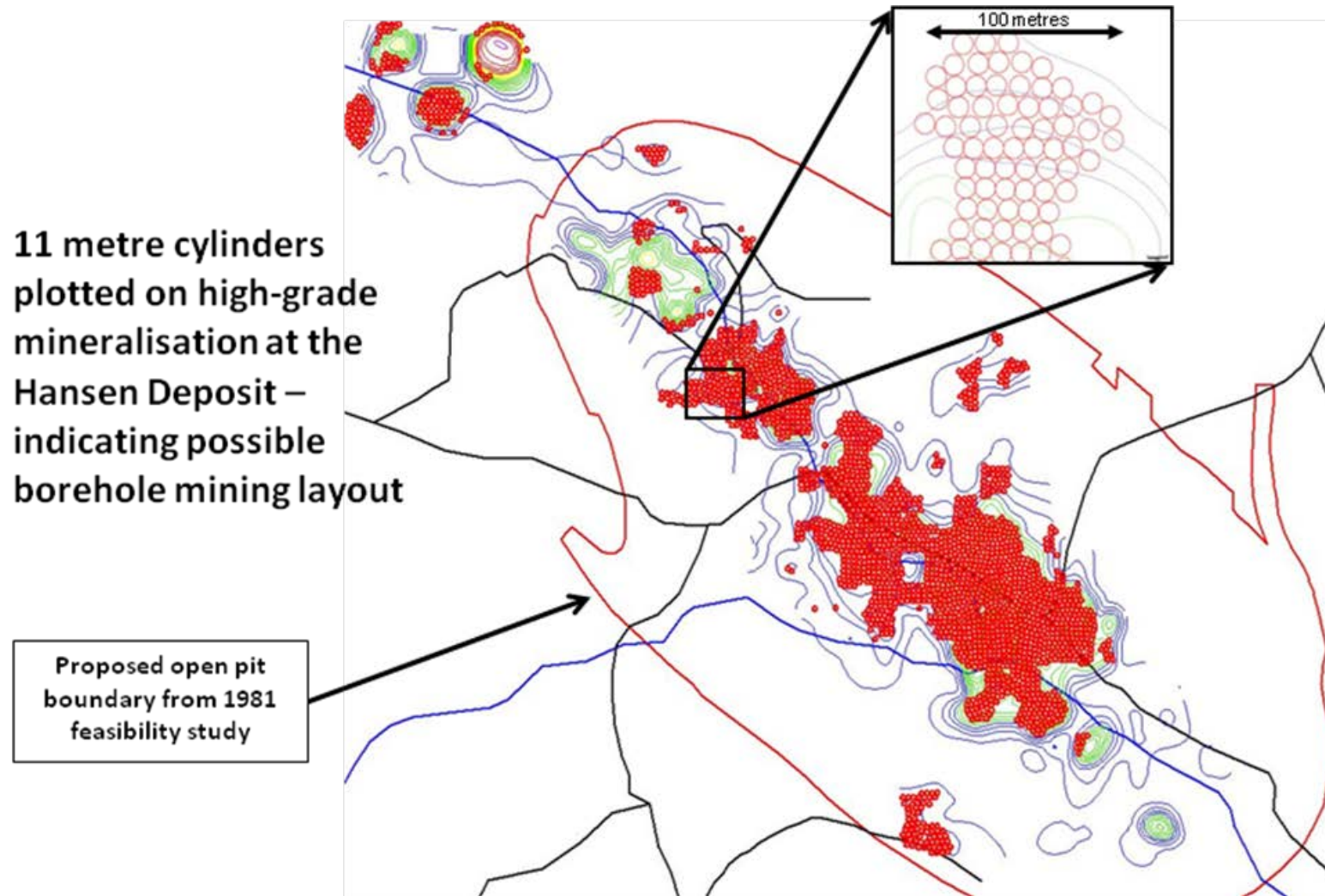
		Project Name:	Hansen Ore Body
		Project Owner:	Black Range Minerals
Average Well Economics			
Operating Costs		Well Completion Time	
Overburden Drilling	\$ 40,113 Per well	Drilling Time	64 hrs
Casing Costs	\$ 14,575 Per well	Jetting time	121 hrs
Production Mining Costs	\$ 49,411 Per well	Contingency Time	9 hrs
Production Mining Labor	\$ 56,220 Per well	Backfilling Time	6 hrs
Backfilling Cost	\$ 18,757 Per well	Total Time	200 hrs
Price Of Ore	\$ 145 Per Ton	Revenue/Well	\$ 509,091
Cap Costs	\$ 22,787 Per well	Total OPEX Cost/Well	\$ 179,076
Recovered Pounds U3O8	6,788 Per well	Margin	\$ 330,015
Recovered Pounds Ore	7,727,996 Per well	Margin w/ CAPEX	\$ 307,228
Recovered Tonnes Ore	3,512.73 Per well		
Ore Body Thickness	17.6015 m	Revenue/lb U3O8	\$ 75.00
Grade U3O8	0.088 %	OPEX Cost/lb U3O8	\$ 26.38
Number of Overburden Rigs	3	Cost/tonne ore	\$ 50.98
Number of Production Rigs	6	Cost/lb U3O8 w/CAPEX	\$ 29.74
		Margin w/CAPEX/lb	\$ 45.26

Figure 1. Possible Borehole Mining Layout at the Hansen Uranium Deposit – selectively targeting thicker and higher grade portions of the Deposit.



Background – Borehole Mining and the involvement of Kinley.

Hydraulic Borehole Mining (HBHM) has been utilized in several applications in varying geological conditions since the 1970's when the United States Bureau of Mines (USBM) developed an experimental mining system to research this mining technology. Remote mining from a borehole by cutting the target ore with water and slurring it to surface is a compilation of proven technologies. Several major pilot programs and mining projects have been completed, including:

- Agrico Mining Company utilized HBHM to mine phosphate in Florida.
- Rocky Mountain Energy utilized HBHM to mine the uraniumiferous Teapot sandstone at Bear Creek in Converse County, Wyoming.
- HBHM is currently being utilized by Crow Foot Energy in Emily, Minnesota for Manganese development.
- HBHM was used to prove feasibility of mining Coal on the Gregg River Coal Mine in Alberta. Coal was also mined in Wilson, Washington by the USBM.
- Heavy Oil Sands have been mined for Century Oil utilizing HBHM technology in Taft County, California and in Fort McMurray, Canada.
- Cogema (Areva) mined Uranium at Cluff Lake Mine in Saskatchewan, Canada utilizing "Kinley" designed HBHM rig and mining system.
- Kinley engineered a set of HBHM equipment for Areva and partners at its McLean Lake, Saskatchewan Uranium asset.
- Cameco is utilizing a modified HBHM system on its Cigar Lake Uranium Mine in Northern Saskatchewan.

The earliest United States patent for a borehole mining tool was issued to Clayton in 1932. This tool used a water jet to fragment rock adjacent to a borehole, and a down hole slurry pump to lift the ore slurry to the surface. Patents on similar borehole mining tools were issued to Ashton in 1950, Quick in 1955, Fly in 1964, Pfefferle in 1965, Wenneborg in 1973, Archibald in 1974 and Brunelle in 1978. The apparatus patented by Fly was built and used until the early 1970's to excavate cavities in sandstones and shale to a depth of 360 feet. In 1970 the Reynolds Metals Company funded a three-month test of the Fly apparatus at an open bauxite mine in Benton, Arkansas. The test was unsuccessful because of a low production rate. The apparatus patented by Wenneborg was built by FMC and tested in phosphate ore in eastern North Carolina. A novel aspect of this tool was that it provided a method for drilling the borehole as well as mining the ore adjacent to the borehole. All other borehole mining tools prior to this had required a predrilled and cased borehole. The apparatus patented by Archibald was built by Marconaflo and used to mine uranium ore in Wyoming and tar sands in California.

The US Bureau of Mines built an experimental borehole mining tool in the 1970's. This tool was successfully used to mine uraniumiferous sandstone in cooperation with Rocky Mountain Energy in Wyoming, oil sands in cooperation with Century Oil in California, and phosphate ore in cooperation with Agrico in Florida. Rocky Mountain Energy, in response to the successful experiment with the Bureau of Mines, built a commercial-scale borehole mining tool incorporating some improvements over the earlier Bureau of Mines tool's. This tool was tested at the Bear Creek mine in Converse County, Wyoming. It was not put into full production because of the precipitous drop in the selling price of uranium in the early 1980's resulting in the cessation of uranium activities globally.

The Rocky Mountain Energy tool was used by the Agrico Mining Company in a pilot scale borehole phosphate mining venture in St John's County, Florida in the mid 1980's. Between 1990 and 2003, Kinley's engineering and operating team in Canada conducted Kimberlite Bulk Samples on all of Canada's current operating Diamond Mines and several new mines that are yet to come online. A fleet of hydraulic top drive rigs were engineered and custom built to enable large drilling diameters (24" to 36"). The team developed techniques and equipment to provide continuous large tonnage samples with controlled minimum breakage of diamonds in highly productive operations in extreme remote climate conditions. Development of the airlift technology during this period, now standardized by several major diamond companies, led to the

understanding of lifting capacities, water separation plants, solids removal, rock jetting and flow conditions in several types of rock.

Development of this technology on the diamond side of the business let Kinley apply the same lifting and solids handling technologies to the uranium business. In 1996, Kinley built a small diameter hydraulic mining system for mining deep vertical coals on the Gregg River Coal Mine in Alberta, Canada. This project, completed in conjunction with Cominco Engineering, proved successful and was able to confirm the ability to have coal flow to the bit during continuous mining operations. Tested rates proved production as high as 40 tonnes per hour.

Background – Hansen/Taylor Ranch Uranium Project

The Hansen Uranium Deposit was discovered in 1977 and fully permitted for mining in 1981. The global uranium market subsequently collapsed and mining never eventuated.

More than 1,000 holes were drilled and three feasibility studies completed to evaluate the Hansen Deposit previously.

The Company now holds a direct 24.5% equity interest in the Hansen Uranium Project that covers approximately 3,500 acres and includes the Hansen and Picnic Tree Uranium Deposits. It also holds the exclusive right to secure the remaining 75.5% interest in this Project area, together with the exclusive right to acquire a 100% interest in an additional 9,500 acres at the Taylor Ranch Uranium Project, which is located immediately adjacent to, and north of, the Hansen Project.

When applying a 0.025% cut-off grade, the JORC Code compliant Indicated and Inferred resource for the combined Hansen/Taylor Ranch Uranium Project comprises:

68.9 Mt at 0.060% U₃O₈ for 90.9 million pounds of U₃O₈

The high-grade and robust nature of the mineralisation at the Hansen/Taylor Ranch Project is demonstrated when applying a 0.075% cut-off grade to the resource calculation. The JORC Code compliant Indicated and Inferred resource for the combined Hansen/Taylor Ranch Uranium Project then comprises:

16.6 Mt at 0.120% U₃O₈ for 43.8 million pounds of U₃O₈

The combined Hansen/Taylor Ranch Uranium Project is one of the largest uranium projects within the USA – which as a nation is the largest consumer of uranium in the world. With domestic mines within the USA producing less than 10% of the uranium consumed in the country on an annual basis, the development of such a large and strategic asset would help reduce the supply shortage.

Black Range continues to advance feasibility and environmental studies at the Hansen/Taylor Ranch Uranium Project as quickly as possible.

Figure 2. Location of Black Range Minerals' Hansen/Taylor Ranch Uranium Project in Colorado, USA.

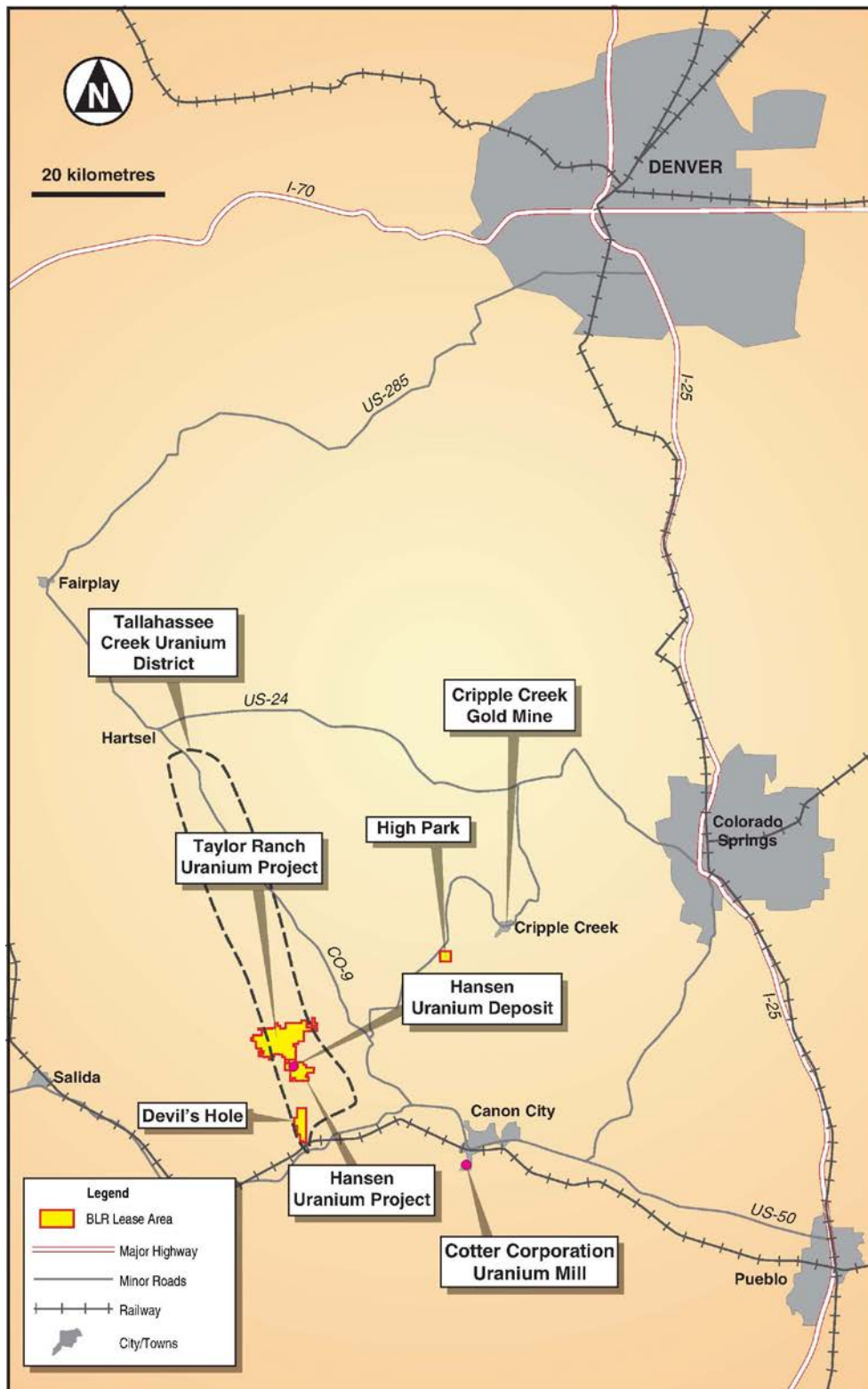


Figure 3. Location of uranium deposits within Black Range Minerals' Hansen/Taylor Ranch Uranium Project.

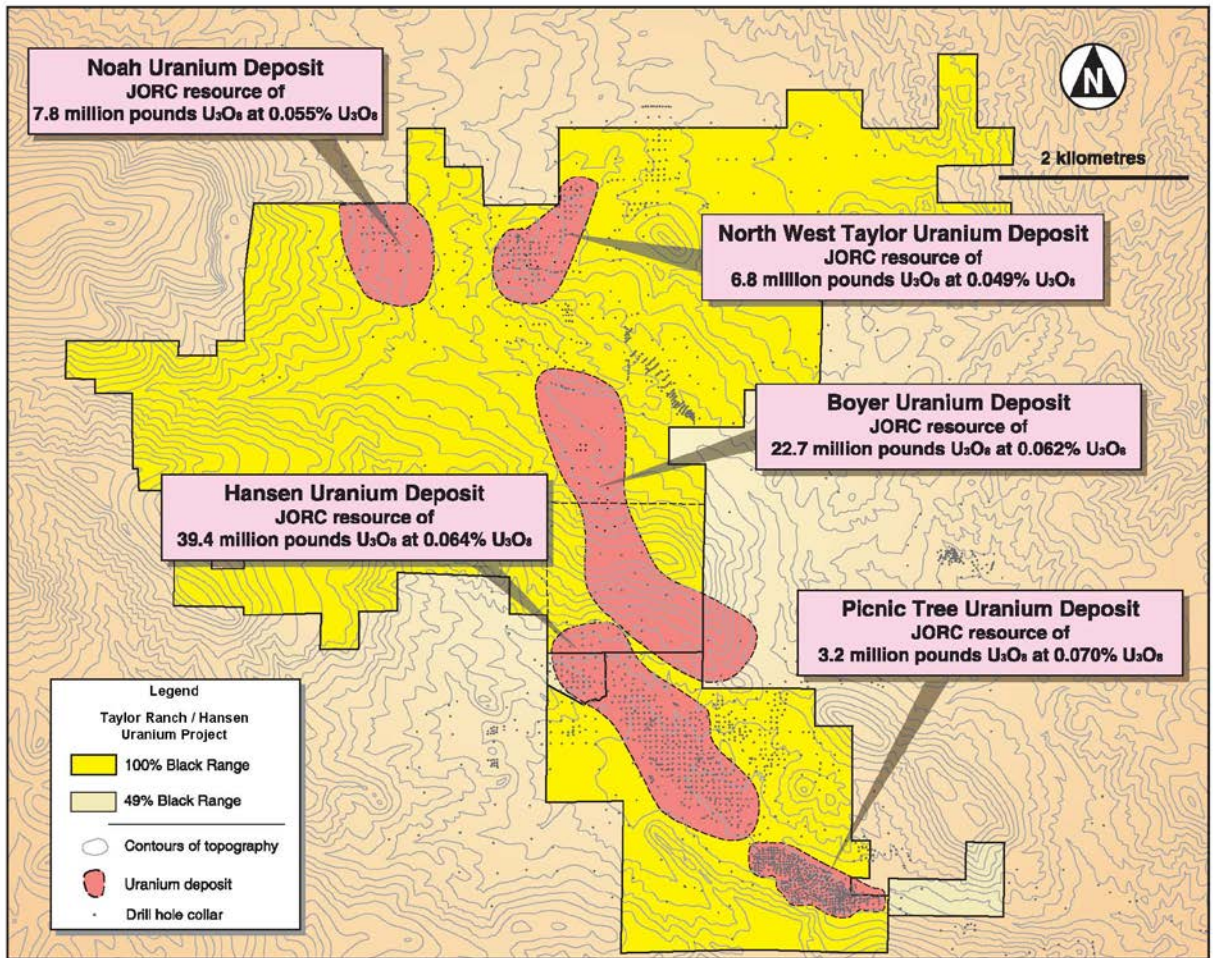


Table 2. JORC Code compliant resources for the Company's 100% controlled Hansen/Taylor Ranch Uranium Project at different cut-off grades.

Using a cut-off grade of 0.025% U₃O₈:

Deposit	Indicated (0.025% Cut-Off)				Inferred (0.025% Cut-Off)				Total (0.025% Cut-Off)			
	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈
Hansen	11,600,262	0.067	7,768	17,124,620	16,399,487	0.062	10,101	22,269,792	27,999,749	0.064	17,869	39,394,412
Boyer	9,102,294	0.059	5,403	11,912,352	7,577,863	0.064	4,871	10,737,856	16,680,157	0.062	10,274	22,650,208
Picnic Tree	1,703,693	0.073	1,248	2,750,840	337,473	0.054	183	403,308	2,041,166	0.070	1,431	3,154,148
NW Taylor	2,385,649	0.058	1,388	3,061,003	3,940,027	0.043	1,710	3,769,842	6,325,676	0.049	3,098	6,830,845
Noah	1,438,200	0.055	784	1,728,025	4,956,582	0.055	2,736	6,031,920	6,394,782	0.055	3,520	7,759,945
High Park	1,954,983	0.053	1,028	2,267,000	433,634	0.077	333	734,000	2,388,617	0.057	1,361	3,001,000
Other (Taylor)	409,627	0.031	126	278,146	4,398,939	0.039	1,729	3,811,314	4,808,565	0.039	1,855	4,089,460
Other (Hansen Area)	333,771	0.085	285	627,955	2,020,228	0.077	1,552	3,421,397	2,353,999	0.078	1,837	4,049,351
Total	28,928,480	0.062	18,030	39,749,941	40,064,232	0.058	23,215	51,179,428	68,992,711	0.060	41,244	90,929,369

Or using a 0.075% U₃O₈ cut-off grade:

Deposit	Indicated (0.075% Cut-Off)				Inferred (0.075% Cut-Off)				Total (0.075% Cut-Off)			
	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈
Hansen	3,126,521	0.129	4,041	8,908,599	3,909,667	0.125	4,904	10,811,979	7,036,188	0.127	8,945	19,720,578
Boyer	3,010,039	0.103	3,097	6,828,444	2,951,979	0.100	2,964	6,534,032	5,962,018	0.102	6,061	13,362,476
Picnic Tree	532,517	0.141	749	1,650,994	55,338	0.123	68	149,744	587,856	0.139	817	1,800,738
NW Taylor	373,571	0.154	574	1,265,849	346,530	0.098	338	745,633	720,101	0.127	912	2,011,481
Noah	259,397	0.114	295	649,647	806,233	0.125	1,010	2,227,132	1,065,630	0.122	1,305	2,876,779
High Park	326,587	0.114	372	820,000	130,635	0.163	212	468,000	457,221	0.128	584	1,288,000
Other (Taylor)	-	-	-	-	234,961	0.105	246	542,864	234,961	0.105	246	542,864
Other (Hansen Area)	84,368	0.213	180	396,180	428,191	0.196	839	1,849,296	512,559	0.199	1,019	2,245,476
Total	7,713,001	0.121	9,308	20,519,713	8,863,534	0.119	10,581	23,328,680	16,576,535	0.120	19,889	43,848,392

Competent Person Statement:

The information in this report that relates to Mineral Resources at the Hansen and Taylor Ranch Uranium Projects is based on information compiled by Mr John Rozelle who is a member of the American Institute of Professional Geologists. Mr John Rozelle compiled this information in his capacity as a Principal Geologist of Tetra Tech. Mr John Rozelle 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 John Rozelle 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 report that relates to Exploration Results is based on information compiled by Mr Ben Vallerine, who is a member of The Australian Institute of Mining and Metallurgy. Mr Vallerine is the Exploration Manager, USA and an Executive Director of Black Range Minerals Limited. Mr Vallerine has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which 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 Vallerine consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.