



**TECHNICAL REPORT ON THE GEOLOGY OF, AND DRILLING
RESULTS FROM, THE HORSESHOE AND RAVEN URANIUM
DEPOSITS, HIDDEN BAY PROPERTY, NORTHERN
SASKATCHEWAN**



Prepared for UEX Corporation

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SUMMARY

The report was prepared to provide a review of significant recent exploration results at the Horseshoe and Raven uranium deposits on UEX Corporation's 100% owned Hidden Bay property in northern Saskatchewan to allow filing of a current Form 43-101 F1 technical report. The report also provides supporting documentation for a N.I. 43-101 compliant resource estimate on the Horseshoe deposit (reported in Palmer et al., 2008) and a resource estimate which is currently underway for the Raven deposit.

The Hidden Bay property is in the eastern Athabasca uranium district, adjacent to, and surrounding several current and past producing uranium deposits on the Rabbit Lake property of Cameco Corporation, and the McClean Lake property operated by Areva Resources Canada. The property is accessible year round by Highway 905, a maintained all weather gravel road, and by maintained access and mine roads to the Rabbit Lake and McClean Lake mining operations, which pass through the property. Infrastructure is well developed in the local area, with two operating uranium ore processing facilities, Rabbit Lake operated by Cameco Corporation, and McClean Lake, operated by Areva Resources Canada, located 4 km northeast and 22 km northwest of the Horseshoe-Raven deposits, respectively. The principal hydroelectric transmission lines that service both of these facilities also pass 3 km to the north of the deposits.

Exploration chronology

The Horseshoe and Raven deposits were first discovered in the early 1970's by Gulf Minerals Canada ("Gulf"), a previous owner of the property, during follow up drilling of an EM conductor located up-ice from a radioactive boulder train in till. Subsequent drilling by Gulf between 1972 and 1978 comprised a total of 53,329 m of diamond drilling in 212 holes. On the basis of this drilling, Gulf estimated resources of 3,063,000 tonnes grading 0.14% U_3O_8 in the Raven deposit, and 3,617,287 tonnes grading 0.17% U_3O_8 in the Horseshoe deposit at cutoff grades of 0.03% U_3O_8 containing a combined total of 23 million lbs (10,387 tonnes) U_3O_8 . Since these resources are of a historical nature which were estimated before N.I. 43-101 standards of disclosure for mineral projects came into effect, and since complete supporting documentation of exploration and analytical methodologies is unavailable, these resources are non-N.I 43-101 compliant, and should not be relied upon. Although non-compliant, the historical resources demonstrated the presence of a large mineralizing system.

On the basis of the historical drilling results, subsequent definition and stepout drilling in the area was undertaken by UEX Corporation ("UEX") commencing in 2005 to test the deposit areas with the objective of providing new N.I. 43-101 compliant resources for both deposits. Between 2005 and September 1, 2008, UEX completed 268 diamond drill holes totaling 85,302 m in the Horseshoe deposit area at 15-30 m drill spacing, which form the basis of the Golder Associates Ltd. resource estimation which is reported in Palmer et al. (2008). In addition, 188 drill holes totaling 48,722 m were drilled in the Raven deposit during that period, also at 15-30 m spacing through that deposit; a resource estimate is currently underway. The drilling results successfully met the principal objectives of the programs, which was to verify the position and continuity of mineralization in the historical areas of the Gulf resources, in addition to identifying areas of higher grade mineralization within the deposit areas, and expanding the overall footprint of mineralization in the system.

During the drilling programs at the Horseshoe and Raven deposits, all industry standards were followed regarding core handling, drill hole surveying and data verification. All samples were

analyzed geochemically for uranium and other elements at the Saskatchewan Research Council Geoanalytical Laboratories, an ISO/IEC 17025:2005 accredited facility. UEX has a well established series of protocols regarding sampling, core logging, core handling, quality assurance and control and data validation, which includes the regular submission of check samples to other laboratories as well as the use of radiometric probe and hand held scintillometer data to verify the position and grade of mineralization in drill holes. Drill core is stored on site at the Raven Camp for future inspection and review if necessary. In the opinion of the authors, the acquisition, analysis and interpretation of the data has been completed to industry standards, and is reliable.

Deposit geology and mineralization distribution

Uranium mineralization in the Horseshoe and Raven deposits is hosted by folded arkosic quartzite, quartzite and calc-arkosic gneisses of the Proterozoic Hidden Bay Assemblage. It is developed along the southeastern limb of the Raven syncline over a 2.5 km strike, within which currently defined mineralization occurs over strike lengths of 600-700 m at each deposit. Within this area, mineralization occurs mainly on the margins of an east-northeast trending, probably fault-controlled, zone of illite–Mg-chlorite clay alteration. The deposits lie just southeast of the limits of the Athabasca Basin, and the flat-lying Athabasca sandstone is eroded from the local area.

Within each deposit, mineralization surrounds, or is developed along, the generally southeast dipping clay alteration zone in multiple, generally shallow dipping lenses of disseminated, nodular and vein-like uranium mineralization that occur within areas of red-brown hematite alteration. The principal, and most abundant uranium-bearing mineral is pitchblende, which may be locally overprinted by secondary uranium minerals that include the yellow-green colored uranium silicates boltwoodite and uranophane, and less frequently coffinite and carnotite. Precipitation of uranium mineralization may have been directly coupled with hematite formation, occurring at a deposit scale in redox fronts with the mineralization located at the interface between oxidized fluid channelways in clay alteration zones with illite-sudoite dominant alteration, and surrounding reduced wallrock which contains sulphide-bearing assemblages.

At the Horseshoe deposit, drilling conducted by UEX has defined continuous mineralization over a strike length of approximately 600 m. Mineralization plunges shallowly to the northeast from 130 to 220 m depths in the southwestern parts of the deposit to depths of 250 to 450 m below surface in the northeast. It occurs in several stacked, linear and shallow dipping, east-northeast plunging zones which are planar to lenticular in cross section, and in plan view are generally elongate in an east-northeast trend. The mineralization is developed on both sides of, but principally in the hangingwall of the main northeast trending, southeast dipping clay alteration zone that passes continuously through and between the deposits, and preferentially where the clay alteration zone passes obliquely across the arkosic gneiss unit. Principal zones which host most of the mineralization in the deposit include the A, A2, B East and B West zones, the B West zone being the largest, traceable over much of the length of the deposit. Dominant mineralization style in B West and the B East zone is disseminated pitchblende in competent hematitic arkosic quartzite, which typically grades between 0.1% and 0.3% U_3O_8 . The A zones, which are developed in the upper, southeastern portions of the deposit are typically the highest grade, comprising dominantly nodular, internally stacked lenses that locally contain intercepts of >10 m at grades of 0.5% to 1% U_3O_8 and local grades exceeding 4% over several meters. Mineralization style varies across the deposit from shallow dipping lenses that mimic the geometry of the folded arkosic quartzite unit in the core of the Raven syncline in the western portion of the deposit, to wider, more extensive and abundant zones of mineralization to the east which dip shallowly southeast and crosscut the gneiss

sequence where the controlling clay alteration zone is most structurally focused and shallower dipping.

The Raven deposit, which lies approximately 0.5 km to the west of the Horseshoe deposit, has been defined over a strike length of approximately 700 m. Mineralization is developed mainly at depths of between 100 and 300 m below surface with no significant plunge, defining an overall elongate and east-northeast trending zone of mineralization that is localized along the trace of the Raven syncline. The mineralization at Raven occurs over a broader range of lithologies than at Horseshoe, with significant parts of the deposit also present in quartzite and overlying calc-arkose adjacent to the southeast-dipping fault controlled clay alteration zone where it passes through the folded gneiss sequence. Two zones of mineralization comprise the Raven deposit, the Lower and Upper zones, each of which may split into sub-zones. The Lower zone, composed mainly of the L01 sub-zone, generally comprises a tabular, steep to moderate southeast dipping zone of mineralization which occurs along the footwall of, and parallel to the clay alteration zone over vertical dip lengths of 100-200 m. The L01 zone may occur over widths up to 20 m, but is generally a few meters wide, with grades typically between 0.05% and 0.1% U_3O_8 comprising mainly disseminated and stringer mineralization styles. The Raven Upper zone, composed mainly of the U01 sub-zone, is more complex in geometry, and forms several shallow dipping lobes at depths typically between 100-220 m below surface that are developed in the hangingwall of the clay alteration zone. The Upper zone straddles the quartzite unit, extending both into basal portions of the calc-arkose unit, and upper parts of the underlying calc-arkose, with mineralization on many sections forming approximately stratabound lenses which are elongate and northeast-trending. The Raven Upper zone is highly variable in grade, with highest grades occurring in central parts of the deposit over an approximately 200 m strike length in the thickest and most extensive parts of the U01 zone. Higher grade areas of the U01 zone are locally developed and may grade 0.3% to 0.8% U_3O_8 over several tens of meters, comprising nodular and veinlet styles of mineralization, forming probably sinuous alteration fronts along zones of hematization. Overall, grades of both zones are generally lower, however, and comprised of broad intervals of 0.05-0.1% U_3O_8 .

Mineralization at the Horseshoe and Raven deposits is a variation in style of the basement-hosted unconformity-type uranium deposit. Discontinuity of lithologies across the clay alteration zone that is spatially associated with mineralization suggest that it is fault controlled, possibly along a pre-or syn Athabasca normal fault. The fault trace is often obscured by alteration and locally mineralization, suggesting that the mineralization occurred late during activity along it. The consistently shallow dipping nature of mineralized lenses adjacent to and within the clay zones suggest that they may have formed in extensional replacement and fracture networks in response to a late phase of reverse displacement along the fault. Map patterns suggest that the now eroded Athabasca sandstone may have been present not far above the current erosional level, allowing the potential for incursion of oxidized, potentially uranium-bearing diagenetic basinal fluid down the probable fault zone which cores potentially mixing with reduced basement fluid along the fault, as has been suggested for the fluid ingress model for basement-hosted uranium deposits in the region. The nearby clay-hematite altered Dragon Lake Fault, which occurs just to the east of the Horseshoe deposit, contains extensive near-surface hematite-clay alteration oxidized alteration near surface, and reduced Fe-chlorite assemblages at depth. This may have also enhanced fluid incursion and potentially, as it is linked to the east to the main clay zones hosting mineralization there. Since no graphitic gneiss units are present in the immediate vicinity of the Horseshoe and Raven deposits, it is likely that that fluid mixing of oxidized basin with reduced basement fluids, either of which may have been uranium-bearing, along more permeable fault and fringing shallow dipping extensional fracture networks may have been a principal mechanism for the deposition of uranium in the deposits, and not wallrock reaction mechanisms. The overall morphology of the system, comprising

a clay alteration core fringed by hematization with lenses of uranium mineralization, resembles the morphology of roll front-type uranium deposits.

The Horseshoe and Raven deposits lie in overall competent and impermeable quartzite, arkosic quartzite and calc-arkosic gneiss host rocks, with no overlying Athabasca sandstone cover. Apart from localized areas of more intense clay alteration that occur along the main clay zone adjacent to mineralization, lithologies are generally competent even in mineralized areas, since framework quartz grains are largely preserved in moderate to weakly clay altered areas. The competent host rocks provide more options for potential mining than are often available in other deposits in the region. These deposits unlike Horseshoe and Raven, commonly lie under permeable and often friable ground conditions beneath overlying Athabasca sandstone, the latter which may require ground freezing to enable development.

Resource estimation and metallurgical results

Based on UEX's definition drilling conducted at 15-30 m spacing throughout the Horseshoe deposit, a subsequent resource estimation reported in Palmer et al. (2008) has estimated a resource of 3.578 million tonnes grading 0.237% U_3O_8 in the Indicated category containing 18.693 million pounds of U_3O_8 , and 0.311 million tonnes grading 0.208% U_3O_8 in the Inferred category containing 1.426 million pounds of U_3O_8 at a cut-off of 0.05% U_3O_8 . This N.I. 43-101 compliant mineral resource represents a substantial increase in quantity of contained uranium, grade, and resource confidence level over the non-compliant historical mineral resources of 13.6 million pounds of U_3O_8 at grades of 0.17% U_3O_8 which were estimated in the non-N.I 43-101 compliant 1970's resource estimation at Horseshoe by Gulf. The improvements represent expansion of the total known area of the deposit well beyond the deposit limits interpreted by Gulf, establishment of greater continuity of mineralization between the widely-spaced historical Gulf drill holes, and identification of areas of higher grade mineralization within the deposit which were not tested by the historical drilling. No historical Gulf drill holes were utilized in the resource estimation.

While mineralization outlines at the Horseshoe and Raven deposits are locally complex geologically, at 15-30 m spacing, drilling density is considered of sufficient density, and geological patterns of sufficient continuity and regularity to support the geological interpretations. In addition to the uranium mineralization itself, additional geological parameters which increase the confidence in the geological interpretation of the mineralization include similar patterns in hematite alteration distribution, local control by lithologies, and presence of vein or banded nodular mineralization in many high grade areas which based on core axis angles and relationships to foliation in drill core support the interpretation of the morphology of mineralized zones. Further infill drilling will be required in some areas currently classified as Inferred status at Horseshoe (Palmer, 2008), and is anticipated to be required in some areas at Raven, to validate local parts to the mineralization models and establish higher confidence in grade distribution.

Metallurgical testwork at both the Horseshoe and Raven Deposits is currently underway and being supervised by Melis Engineering Ltd. of Saskatoon, Saskatchewan. Initial results are positive, and indicate that uranium in both deposits is easily leached under relatively mild atmospheric leach conditions, producing leach extractions of 98%, and lacking any significant concentrations of deleterious elements.

Recommendations and future activities

With the high proportion of the Horseshoe resource base in the Indicated category, it is recommended that scoping level evaluations which are currently underway internally be advanced to feasibility level to assess the potential economics and viability of mining the Horseshoe deposit, and if sufficient resources of Indicated status are defined, the Raven deposit. These studies should examine the most efficient methods and procedures for extracting the defined uranium resource, including the most appropriate road access and support infrastructure, mining methods, operating plans, cash flow analyses and projections in order to determine net present values and internal rates of return for Horseshoe at various uranium price levels. Budgets and timelines for feasibility work would be determined in consultation with the lead engineering contractor and are beyond the scope of this report. In anticipation of a potential future feasibility study on the Horseshoe and Raven Deposits, environmental baseline studies were commenced by Golder Associates Ltd., of Saskatoon, Saskatchewan during 2006 and are ongoing. Additional metallurgical studies are also underway, and geotechnical studies of the area of the deposits have also commenced.

Additional exploration drilling in 2009 is recommended to define additional areas of mineralization which were historically intersected by Gulf, and to drill geological and geophysical targets in the local area. In order of priority, recommended exploration targets for future testing include a) definition of the extent and grade of historically intercepted mineralization in the Horseshoe Northeast target area which lies northeast of the current Horseshoe resource model, b) testing of open areas of Raven mineralization on both the west and east sides of that deposit, c) test the area between the two deposits for additional mineralization, and d) test down dip extent of the alteration zones. Additional outlying exploration targets include areas where clay alteration intersected by historical drilling is coincident with combined resistivity and gravity anomalies that suggest additional zones of clay alteration lie to the north and south of the deposits, and structural targets where projections of known faults may extend across potentially favorable lithologic hosts to mineralization.

In total, 88 holes totaling approximately 29,100 m are proposed to test all of these areas. Since drilling at Horseshoe northeast is currently underway, and much of the proposed drilling is anticipated to be complete by the end of 2008, a remaining approximately 63 drill holes and 20,100 m of drilling is recommended in the area for 2009, exclusive of any additional infill drilling in the Horseshoe and Raven deposits. At established all-in costs of drilling, on site camp/accommodation, transportation, assaying/sampling, salaries/contractors fees, supplies, expediting and management, based on UEX's ongoing exploration in the area, this equates to a cost of approximately \$4 million. Recommended infill holes to upgrade Inferred portions of the recent Horseshoe and upcoming Raven resources to indicated status that will be reported by Palmer (2008) and in the future Raven resource report, and any further drilling required to define resources in the Horseshoe Northeast area after the 2008 drilling program, would be additional to the drilling costs proposed above.

1.0 INTRODUCTION (*form 43-101 F1 item 4*)

This report provides a technical review of the geology and exploration results received from exploration of the Horseshoe and Raven deposits within the Hidden Bay property of UEX Corporation (“UEX”). The report was prepared for UEX to provide a) a review of, and supporting information for, significant recent exploration results at the Horseshoe and Raven deposits to allow filing of a current Form 43-101 F1 technical report in accordance with National Instrument 43-101 (“N.I. 43-101”) requirements, and b) to provide supporting documentation for N.I. 43-101 compliant resource estimates on both deposits which are currently being conducted by Golder Associates (Palmer, 2008). This report documents results received up to September 1, 2008.

1.1 Sources of information

The area of the Hidden Bay property, which contains the Horseshoe and Raven deposits, has been subject to numerous exploration programs conducted since 1968. Details of historical exploration activities on the property are outlined in numerous exploration reports by previous project operators, including Gulf Minerals Canada, Eldorado Resources Limited, and Cameco Corporation. References to these activities are provided in the historical sections below, and summarized in a previous N.I. 43-101 compliant report on the property by Rhys (2002). The most relevant reports document discovery and drilling of the Raven and Horseshoe deposits by Gulf Minerals between in the 1970’s by Bagnell (1978), and geological evaluation and petrography of the deposits documented by Hubregtse and Duncan (1991), Quirt (1990), and Rhys and Ross (1999). Exploration activities in the Horseshoe and Raven area during the period when the Hidden Bay project was managed by Cameco Corporation under a contractual arrangement with UEX from 2002 and 2005, are documented in Lemaitre and Herman (2003, 2006), and in Lemaitre et al. (2004).

Much of the information concerning the geology and exploration results at the Horseshoe and Raven deposits that is reported here was collected, interpreted, or compiled directly by the authors during ongoing exploration. Additional studies which were conducted during this period on the Horseshoe and Raven deposits include petrographic and alteration studies of mineralization and host rocks by Ross (2008a, b), DiPrisco (2008), and Halley (2008). Results of metallurgical tests are documented by Fielder (2008) and Nunes et al. (2008).

Regional geological setting and context of the Horseshoe and Raven deposits is outlined in regional mapping and syntheses by Lewry and Sibbald (1980), Sibbald (1983), Wallis (1971), Rhys and Ross (1999), Annesley et al. (2005), and Ramaekers et al. (2007). Metallogenic setting of the region is reviewed by Jefferson et al. (2007), and many other sources that are referenced therein.

1.2 Scope of involvement of the authors

All of the authors have visited the Horseshoe and Raven project area on multiple occasions. The report is based on the direct knowledge of the deposits by the authors that has been gained during ongoing involvement in the exploration of the Horseshoe and Raven deposits in 2006, 2007 and 2008, during which regular trips to site were made to (i) supervise and design exploration activities, (ii) perform on site evaluation of drill core, outcrop exposures, and exploration results, and (iii) to conduct follow-up data evaluation and interpretation both on site in the field and in the Vancouver office of UEX Corporation. The senior author (Rhys) was also involved in the evaluation of the geology and exploration potential of the Horseshoe and Raven deposits through

an on site study conducted for Cameco Corporation, the previous operator, in 1998 (see Rhys and Ross, 1999). Responsibility for the writing of individual sections of this report is as follows: Rhys and Eriks, Sections 1-5 and 14-19; Rhys and Horn, Sections 6-9; and Baldwin and Rhys, Sections 10-13.

2.0 RELIANCE ON OTHER EXPERTS (*form 43-101 F1 item 5*)

Additional technical information that is beyond the scope, or expertise, of the authors' work is largely the work of other qualified persons, and is referred through citations and referenced quotes in the text below. Information concerning claim status, ownership, and assessment requirements which are presented in Section 3 below, Figure 2 and in Table 3.1 have been provided to the authors by UEX Corporation, and have not been independently verified by the authors. However, the authors have no reason to doubt that the title situation is other than that which is presented here.

3.0 PROPERTY DESCRIPTION AND LOCATION (*form 43-101 F1 item 6*)

3.1 Property location

The Hidden Bay property is located in the Wollaston Lake area of northern Saskatchewan approximately 740 km north of the city of Saskatoon (Figure 1.1) and immediately west of Wollaston Lake. The property crosses the boundary between, and is located within, both, the Reindeer and La Ronge mining divisions of northern Saskatchewan. Approximate limits of the property are latitude 57°52'N to 58°27'N (UTM NAD 83 6,414,000N – 6,480,000N) and longitude 103°35'W to 104°10'W (UTM NAD 83 552,000E – 584,000E). Portions of the property lie within 1:50,000 scale topographic map sheets 64L/5, 64L/4, 74I/1, and 74H/16 of the Canadian National Topographic system.

3.2 Concession descriptions and title

The Hidden Bay property consists of 57,321 hectares (573 km²) in 43 mineral dispositions (Table 3.1, Figure 1.2). All of these mineral dispositions are owned 100% by UEX Corporation except for 297 hectares in disposition ML 5424, which is currently owned 76.729% by UEX Corporation, 8.525% by ENUSA Industrias Avanzadas, 7.680% by Nordostschweizerische Kraftwerke AG, and 7.066% by Encana. Disposition ML5424 is in southernmost portions of the Hidden Bay property, distal to the Horseshoe and Raven deposits. With the current disposition boundaries as described above and shown in Figure 1.2, the Hidden Bay property comprises one contiguous main block totaling 46,376 hectares (26 dispositions) in the north, and one outlying disposition group to the south in the West Bear area (West Bear and Rhino Claims, Figure 1.2) totaling 10,945 hectares (16 dispositions). The Horseshoe and Raven deposits are in the larger northern block, entirely within disposition S-106962 (Figure 1.2).

Mineral dispositions are located in the field by corner and boundary claim posts which lie along blazed boundary lines. Post locations and blaze lines for the S106962 claim, which contains the Horseshoe and Raven deposits, were refurbished and checked by GPS survey in October 2008.

None of the dispositions are subject to any royalties, back in rights or encumbrances. No mining or waste disposal has occurred on the Hidden Bay property, and consequently the property is not subject to any liabilities due to previous mining activities.

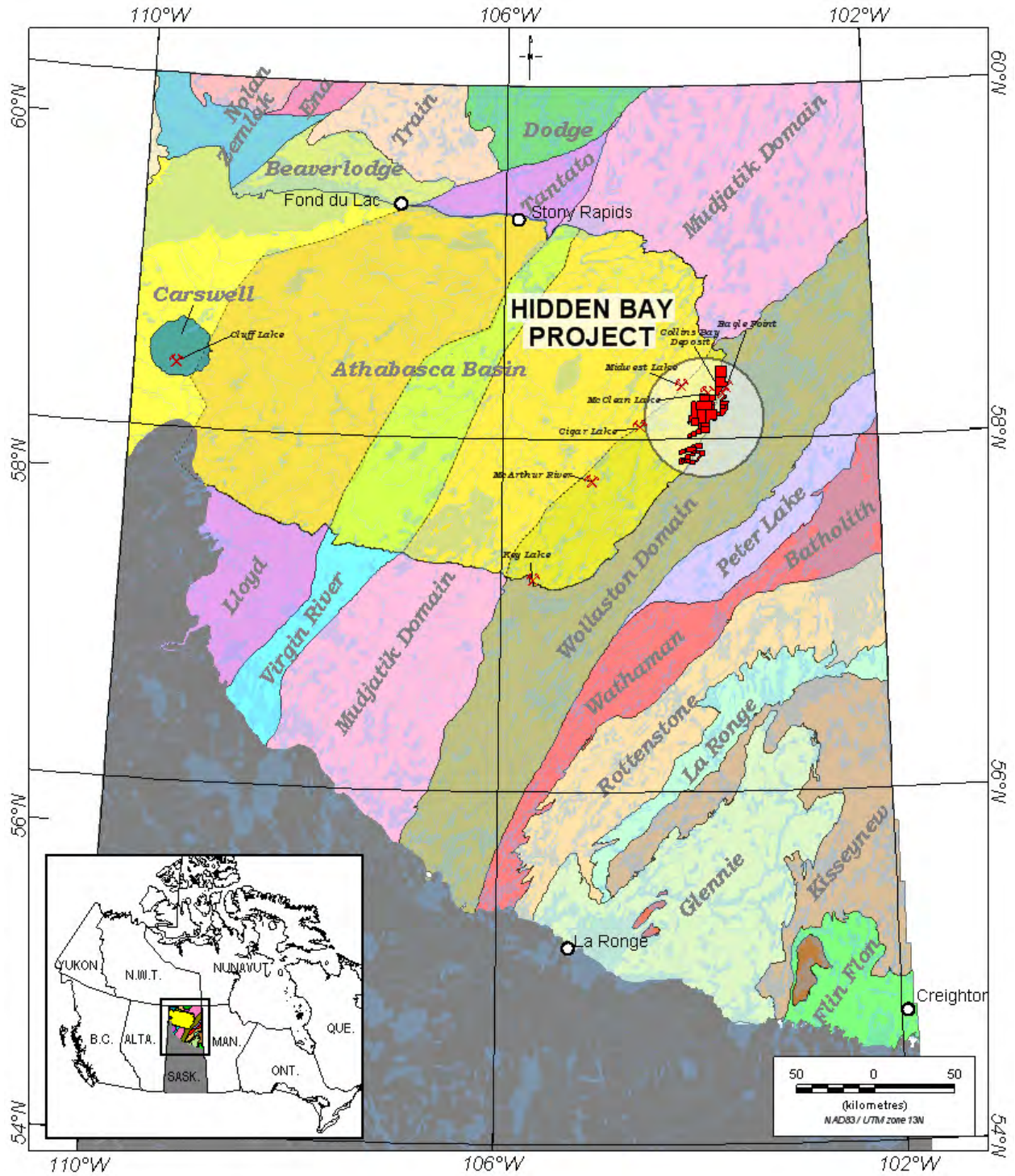
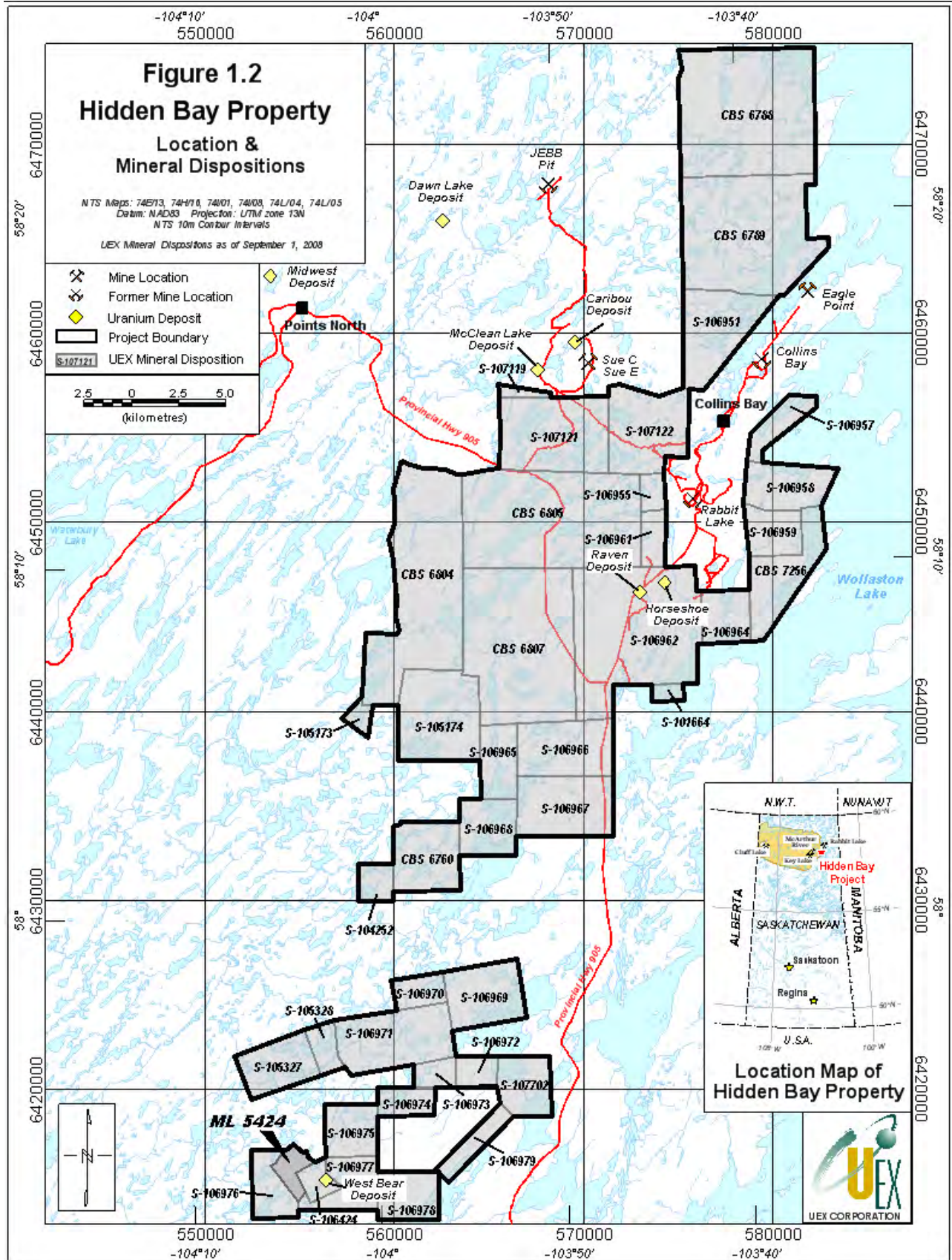


Figure 1.1: Regional geological setting of the Hidden Bay project. Major lithostratigraphic domains and the extent of the Athabasca Basin are illustrated. The project is located at the far eastern margin of the Athabasca Basin, above the western margin of the Wollaston Domain, and southeast of the Mudjatik Domain.



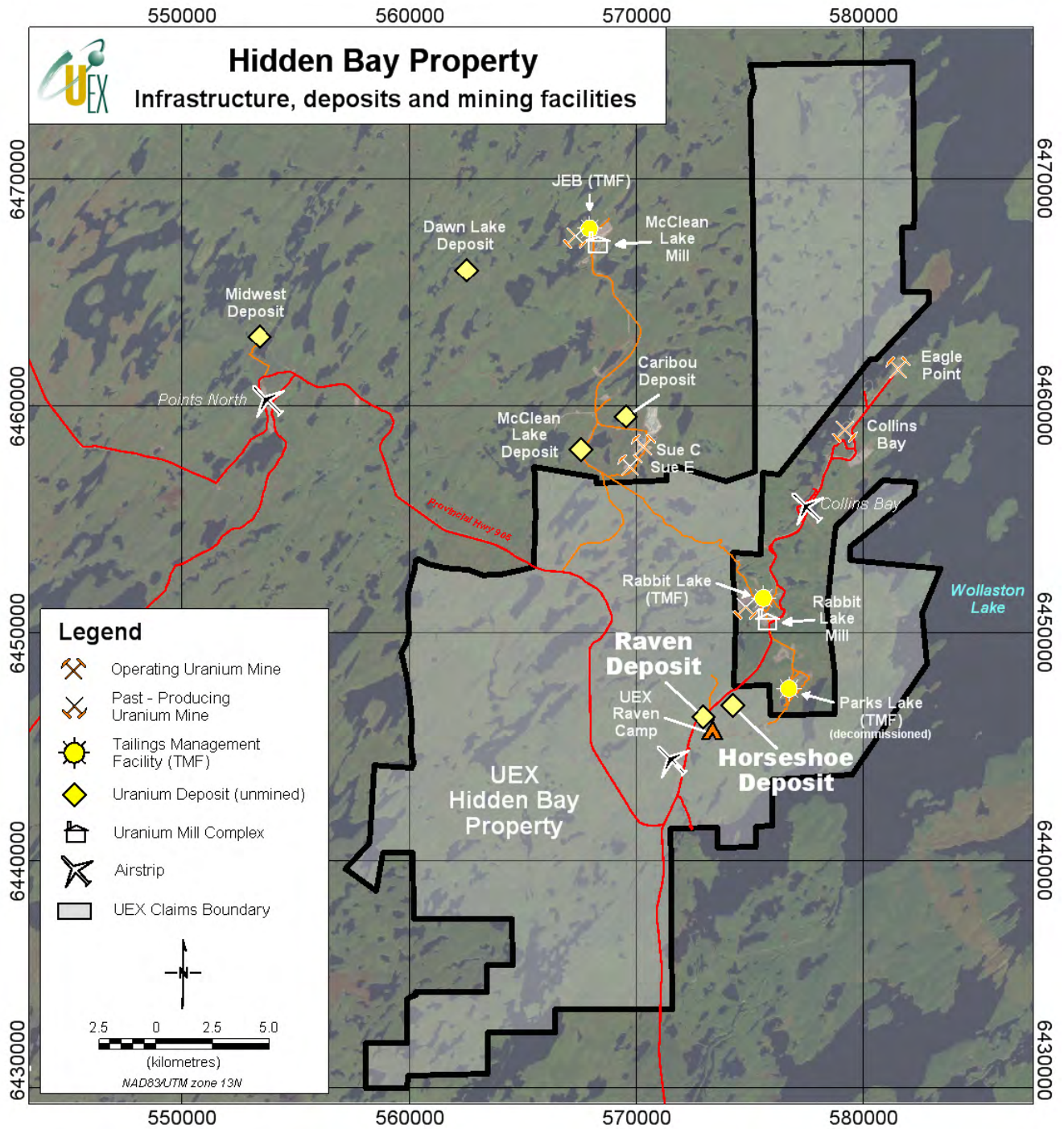


Figure 1.3: Infrastructure, deposits, and mining facilities on and adjacent to the north and central portions of the Hidden Bay property. Grid is NAD83 UTM.

Table 3.1: List of mineral dispositions comprising the Hidden Bay property as of September 1, 2008. Data was provided by UEX Corporation, and has not been independently verified by the authors.

Grouping Number	Claim Number	Record Date	Area (Hectares)	Annual Assessment	
Ungrouped Claims	S-107119	Dec. 1, 1977	128	\$3,200	
	S-107122	Dec. 1, 1977	1,754	\$43,850	
	S-105327	Aug. 21, 1995	988	\$24,700	
	S-105328	Aug. 21, 1995	332	\$8,300	
	S-106969	Feb. 5, 2002	1,270	\$15,240	
	S-106970	Feb. 5, 2002	444	\$5,328	
	S-106971	Feb. 5, 2002	1,806	\$21,672	
	S-106972	Feb. 5, 2002	361	\$4,332	
	S-106973	Feb. 5, 2002	327	\$3,924	
	S-106974	Feb. 5, 2002	450	\$5,400	
	S-106975	Feb. 5, 2002	770	\$9,240	
	S-107702	Dec. 30, 2004	853	\$10,236	
	S-106957	Dec. 1, 1977	529	\$13,225	
	S-106958	Dec. 1, 1977	1,050	\$26,250	
	S-106959	Dec. 1, 1977	722	\$18,050	
	S-106967	Feb. 5, 2002	1622	\$19,464	
	S-101664	Oct. 8, 2004	153	\$1,836	
	CBS 7256	May 8, 1987	1,369	\$34,225	
	S-106964	Dec. 1, 1977	713	\$17,825	
	S-106955	Dec. 1, 1977	258	\$6,450	
	S-106961	Dec. 1, 1977	398	\$9,950	
	S-105174	May 28, 1996	1,932	\$48,300	
	CBS 6788	Dec. 1, 1977	4,755	\$118,875	
	CBS 6789	Dec. 1, 1977	4,125	\$103,125	
	S-106951	Dec. 1, 1977	1,615	\$40,375	
	ML 5424	Mar. 21, 2005	297	\$22,275	
	GC 45886	S-106962	Dec. 1, 1977	4,486	\$112,150
		S-106966	Feb. 5, 2002	1,483	\$17,796
		CBS 6760	Dec. 1, 1977	1,242	\$31,050
S-104252		Apr. 11, 1994	380	\$9,500	
S-106965		Feb. 5, 2002	758	\$9,096	
S-106968		Feb. 5, 2002	888	\$10,656	
GC 45885	CBS 6804	Dec. 1, 1977	4,345	\$108,625	
	CBS 6807	Dec. 1, 1977	4,510	\$112,750	
	S-105173	May 28, 1996	178	\$4,450	
GC 45884	CBS 6805	Dec. 1, 1977	4,710	\$117,750	
	S-107121	Dec. 1, 1977	2,273	\$56,825	
GC 45755	S-106424	Dec. 1, 1977	300	\$7,500	
	S-106976	Feb. 5, 2002	660	\$7,920	
	S-106977	Feb. 5, 2002	797	\$9,564	
	S-106978	Feb. 5, 2002	800	\$9,600	
	S-106979	Feb. 5, 2002	490	\$5,880	
TOTALS			57,321	\$1,266,759	

3.3 Annual expenditures

Annual expenditures of \$12.00 per hectare are required for the first 10 years after staking of a claim to retain each disposition. This rate increases to \$25.00 per hectare annually after 10 years; a rate which currently applies to most of the dispositions comprising the Hidden Bay property. Required assessment work for each mineral disposition in 2008 is listed in Table 3.1. Total annual assessment expenditure requirements for the entire Hidden Bay property are \$1,266,759. Many of the dispositions on the Hidden Bay property have substantial exploration credits that reduce the overall required annual expenditures that are currently required.

3.4 Permits for exploration

Permits for timber removal, work authorization, shoreland alteration, and road construction are required for most exploration programs from the Saskatchewan Ministry of Environment and Resource Management. Apart from camp permits, fees for these generally total less than \$200 per exploration program annually. Camp permit fees are assessed on total man day use per hectare, with a minimum camp size of one hectare assessed. These range from \$750 per hectare for more than 500 man days to \$175 per hectare for less than 100 man days.

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY (*form 43-101 F1 item 7*)

4.1 Accessibility and Infrastructure

The Hidden Bay property is in the eastern Athabasca uranium district, adjacent to, and surrounding several current and past producing uranium deposits on the Rabbit Lake property of Cameco Corporation, and the McClean Lake property operated by Areva Resources Canada (Figure 1.3). The property is accessible year round by Highway 905, a maintained all weather gravel road, and by maintained access and mine roads to the Rabbit Lake and McClean Lake mining operations, which pass through the property (Figures 1.2, 1.3). Two airstrips in the area, the Rabbit Lake airstrip, 9km to the north and the Points North Landing airstrip 10 km to the west (Figure 1.3), are serviced by several air carriers which provide scheduled flights to major population centers in Saskatchewan for mining operations, fishing and hunting lodges, and road maintenance crews. Float and ski-equipped aircraft can land on most of the larger lakes that are abundant within the property year round. Power and telephone lines to the mine sites link the property area to the Saskatchewan power grid and telephone system. Abundant water is available from the numerous lakes and rivers in the area.

Since 2006, UEX has run all of its exploration activities in the Hidden Bay area from the Raven Camp, a currently permitted exploration camp which is located 0.8 km south of the Raven deposit (Figures 1.3, 5.1). Local accommodation is also available at Points North Landing to the west.

The Rabbit Lake mill facility, located on the adjacent Rabbit Lake property, is a fully functional uranium ore processing facility owned and operated by Cameco Corporation that is located 4 km northeast of the Raven and Horseshoe deposits (Figure 1.3). A second mill facility, the Jeb Mill operated by Areva Resources Canada, is located 22 km to the northwest of the Horseshoe and Raven deposits. Road access along Highway 905 and power transmission lines to the Rabbit Lake Mill facility pass over the western portions of the Raven deposit (Figure 1.3). The principal hydroelectric transmission lines that service both the McClean Lake and Rabbit Lake mines also pass 3 km to the north of the deposits. Drilling access roads to both Horseshoe and Raven are easily accessible year round from Highway 905.

4.2 Climate, vegetation and physiography

Physiography of the Hidden Bay property is typical of Canadian shield terrain, comprising low rolling hills separated by abundant lakes and areas of muskeg. Relief varies from a base elevation of approximately 396 m above sea level on Wollaston Lake to the east, to approximately 520 m above sea level near the Rabbit Lake mill site on the adjacent Rabbit Lake property. Hills are typically covered in a mixed boreal jack pine, spruce and aspen forest, separated by low lying, swampy areas and muskeg fringed by stunted spruce stands. The geomorphology is dominated by glacial and periglacial sediments that were produced during at least three ice advances (Fortuna, 1984). Outcrop is most common, but not abundant, in southeastern parts of the property underlain by metamorphic rocks outside the Athabasca Basin, particularly near Wollaston Lake, and to the north and south of the Raven and Horseshoe deposits. The remainder of the property is mainly covered by glacial sediments. The occurrence of the Raven and Horseshoe deposits beneath a low ridge above adjacent swampy areas allows year round access to drilling roads above the deposits.

Average daily temperature in the region ranges from a high of 15° C at the peak of July, with extremes to 30° C, to lows of -24° C in winter, with extremes as low as -45° C. Annual precipitation are 55 cm, divided equally between rain and snow and distributed roughly equally throughout the year. Average annual peak snow depth is 53 cm (Environment Canada Website, 2008).

5.0 HISTORY (form 43-101 FI item 8)

5.1 Ownership history

The Hidden Bay property forms part of the original exploration permits acquired by Gulf Minerals Canada Limited (“Gulf”) in 1968 during early phases of exploration in the eastern Athabasca Basin. Commencing in 1976, parts of the property were subject to a joint venture agreement between Gulf, Saskatchewan Mining Development Corporation (“SMDC”) and Noranda Exploration Company Ltd., with Gulf as the operator. In 1983, the interests of Gulf in the property were acquired by Eldorado Resources Limited (“Eldorado”), and subsequently, with the amalgamation of Eldorado and SMDC in 1988 to form Cameco Corporation (“Cameco”), full ownership was transferred to Cameco.

In 2002, an agreement was entered into between UEX and Cameco providing for the transfer of the dispositions now comprising the Hidden Bay property which were held by Cameco, as well as Cameco’s interest in disposition ML 5424, to UEX following completion of a plan of arrangement proposed by Pioneer Metals Corporation and UEX, and subject to the fulfillment of certain other conditions. The reader is referred to the November 27, 2001 management information circular of Pioneer Metals Corporation for further details of the transaction. As per the agreement between UEX and Cameco, 14 of Cameco’s dispositions were transferred into UEX in their entirety, while five dispositions (CBS-6803, CBS-6806, S-104653, CBS-6802, and CBS-6808) were subdivided by restaking in January-February 2002, and portions of these renumbered dispositions were incorporated into the Hidden Bay property. Cameco retained the remaining portions of these subdivided dispositions not included in the Hidden Bay property, which cover mine infrastructure and disturbance on their Rabbit Lake property, lying adjacent to and partially surrounded by the northeastern portions of the Hidden Bay property (Figures 1.2, 1.3). Cameco acquired an initial 40% interest in UEX through this transaction (see Pioneer Metals October 24, 2001 news release), and with subsequent dilution currently holds a 21.3% ownership

in the company. Additional claims (S10976-S10979) were acquired directly through staking by UEX in 2002.

5.2 Exploration history

5.2.1 Exploration of the eastern Athabasca uranium district

The Hidden Bay property occurs within the eastern Athabasca Basin uranium district, which contains several world class uranium deposits. Adjacent properties host seven current and past producing mines, and consequently the property has been extensively explored since initial discoveries were made in the area in the 1960's. The exploration history outlined below is compiled from several sources, including Jones (1980), Craigie (1971), Andrade (1983a, 1983b), Studer (1984), Ward (1988) and Baudemont et al. (1993).

Attention was first focused on the uranium potential of the region in 1967 when the New Continental Oil Group flew an airborne radiometric survey over the Wollaston Lake area. Numerous anomalies identified within this survey led New Continental to acquire several exploration permits in the area. These permits were subsequently optioned to British Oil American Company in 1968; the company was later renamed Gulf Minerals Canada Limited ("Gulf"). Follow-up work consisted of prospecting, mapping and diamond drilling. In October 1968, on the third and last hole of the diamond drilling program, a 50 m section of uranium mineralization was intersected beneath the shore of Rabbit Lake. Between 1969 and 1971, delineation drilling of this discovery in approximately 220 drill holes outlined the Rabbit Lake orebody on the adjacent Rabbit Lake property (Figure 1.2).

As a result of the Rabbit Lake discovery, extensive exploration of the eastern Athabasca Basin commenced. Between 1969 and 1980, several deposits, including the Collins Bay zones and Eagle Point on the Rabbit Lake property (Figure 1.3), the Raven-Horseshoe and West Bear deposits on the Hidden Bay property, and the McClean Lake and Sue deposits on the McClean Lake property immediately to the north, were discovered using a variety of geophysical techniques, geochemical methods, prospecting, and systematic drilling of prospective targets. Other significant discoveries in the area on adjacent properties include McClean Lake, by Canadian Occidental Petroleum in 1979, Midwest Lake by Esso Minerals in 1978, Dawn Lake by Asamera Inc. in 1978, and the Jeb and Sue deposits on the McClean Lake property between 1985 and 1990 by Total Minatco Ltd. (Figure 1.3).

Gulf commissioned a mill facility and commenced open pit mining at the Rabbit Lake deposit in 1975. After the Rabbit Lake orebody was exhausted in 1984, mining operations moved progressively to the Collins Bay B-zone (1985-1991), D- zone (1995-1996) and A- zone (1997) deposits, and the Eagle Point deposit (1993-1999). Eldorado Resources Limited acquired the mining assets of Gulf in 1983, which in turn were subsequently acquired by Cameco in 1988, through the creation of that company by the amalgamation of Eldorado and Saskatchewan Mining and Development Corporation (SMDC). Since 1997, the Jeb and Sue deposits on the McClean Lake project have been exploited by Areva Resources Canada ("Areva", formerly named Cogema Resources), the current operator of that project. Total combined production from these deposits, and the deposits on the Rabbit Lake property, is more than 200 million lbs U₃O₈ to date (see Jefferson et al., 2007).

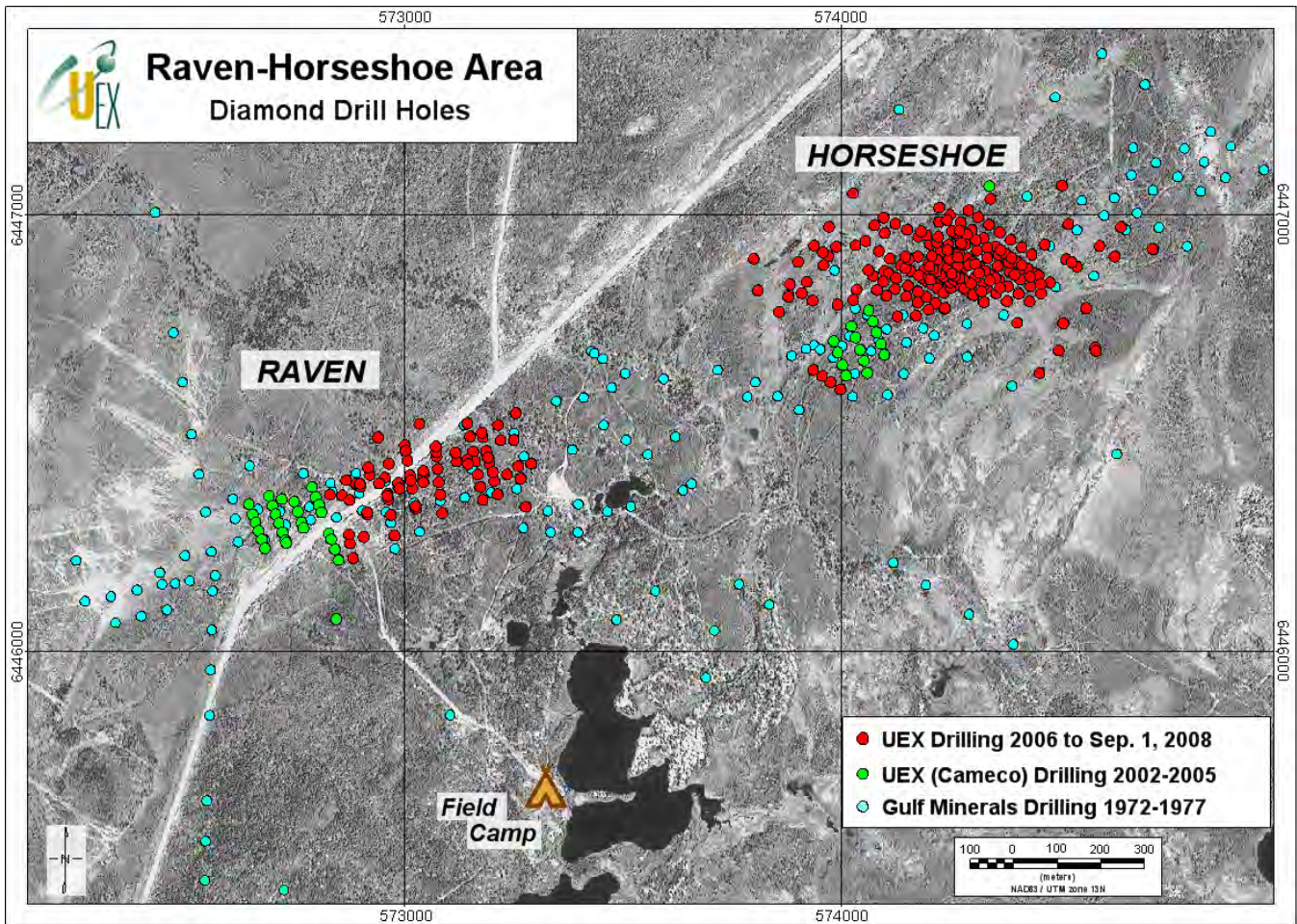


Figure 5.1: Plan map with air photo base illustrating the distribution of drill hole collars in the Horseshoe and Raven deposit area. Areas of highest drilling density reflect the outlines of the Horseshoe and Raven deposits. UEX's Raven field camp lies approximately 0.7 km south of the Raven deposit. The road extending from lower left to upper center is the main access road to the Rabbit Lake mine. Raven Lake is at lower center.

5.2.2 Property exploration history prior to UEX ownership (pre-2002)

Due to its proximity to producing mines and the identification of several deposits on the property, the Hidden Bay property has been subject to numerous exploration programs since discovery of the Rabbit Lake deposit in 1969. A review of the details of all of the numerous programs conducted on the area of the property would be too exhaustive to be relevant to this report, so instead, the methods employed, significant discoveries made, and summary details of the different types of programs that were completed are outlined below. The reader is referred to compilation reports by Andrade (1983a, 1983b), and Studer (1984) for further details on work completed up until 1983 on the property, and references to earlier work. Reports by Studer and Gudjurgis (1985), Studer (1986, 1987, 1989), Studer and Nimeck (1989), Ogryzlo (1984-1988), Forand and Nimeck (1992), Forand, Nimeck and Wasyluik (1994), Forand (1995, 1999), Powell (1996), and Foster, Wasyluik and Powell (1997) document work programs conducted between 1983 and 1998, and provide references to further work also conducted during those years. No exploration was carried out on the property between 1998 and 2002. Exploration since 2002, when UEX acquired the Hidden Bay property, is summarized in Section 9.0 of this report.

The location and methods of exploration applied on the Hidden Bay property have varied with the differing geological models, exploration priorities, and the new technologies developed since discovery of the Rabbit Lake deposit in 1968. Initial exploration programs in the area were based on the basement-hosted Rabbit Lake deposit model, which involved the search for the coincidence of gravity and magnetic lows associated with the large, intense alteration zones and associated faulting at that deposit. These programs employed a multiple parameter search methodology (Whitford, 1971), utilizing (i) initial airborne gamma ray spectrometric, electromagnetic, gravity and magnetic surveys conducted in the late 1960's, (ii) ground geological and geophysical checks of the airborne radiometric anomalies, (iii) surface prospecting, scintillometer and geochemical reconnaissance surveys, including radon-in-water surveys, and (iv) follow-up overburden and diamond drilling. Most of the Hidden Bay property was subject to methods above during the initial years of exploration, particularly in areas of exposed basement rocks to the southeast, where the potential for basement-hosted Rabbit Lake type deposits was deemed greatest. These methods were used extensively by Gulf up until 1976, when discoveries elsewhere in the Athabasca Basin, particularly at the Key Lake deposit, recognized a spatial association between a string of deposits developed at the intersection between the sub-Athabasca unconformity with graphitic gneiss-hosted faults. With the recognition of the probable genetic role of graphitic gneiss and associated faults in deposit localization, emphasis shifted to the use of ground based electromagnetic ("EM") surveys such as horizontal loop ("HLEM"). These first pass EM geophysical surveys were utilized in target areas, to detect the presence of prospective, conductive graphitic lithologies beneath overburden and the Athabasca sandstone. EM surveys still form the principal geophysical exploration tool employed today, although the technologies currently used differ from the initial programs (e.g. Fixed and Moving Loop Time Domain EM). These surveys have led to the targeting of many programs that have ultimately resulted in many new discoveries in the region during follow up drilling of anomalies.

Prior to the transfer of the Hidden Bay property claims from Cameco to UEX in 2002, more than 1381 diamond drill holes totaling approximately 205,000 m in cumulative length had been completed on the Hidden Bay property, since commencement of uranium exploration on the property in the early 1970's (Rhys, 2002). Principal target areas for diamond drilling included systematic drilling of major faults with known associated mineralization, including the Rabbit Lake, Telephone, Seal, and Wolf Lake Faults, delineation drilling of deposits (Raven-Horseshoe and West Bear), and concentrated areas of drilling in geologically and geochemically prospective areas (e.g. Vixen Lake-Dragon Lake). Most diamond drilling campaigns were initially targeted on the basis of ground geophysical surveys, and locally, follow up to reverse circulation drilling anomalies. The reader is referred to Rhys (2002) for further information on the location and quantity of drilling, as well as a review of historical results outside of the immediate vicinity of the Horseshoe and Raven deposits. These exploration programs following up of ground geophysical anomalies and prospecting lead to the discovery of the Horseshoe and Raven deposits (see further details below) and the West Bear deposit by Gulf in the 1970's, for which historical resources were estimated.

Reverse circulation drilling in 929 drill holes (16,818 meters total) was also conducted in several programs completed principally between 1976 and 1981 as a grid-based testing of overburden and sandstone covered portions of central and northern parts of the property. These programs aided in the definition of the location and depth of the Athabasca unconformity and allowed evaluation of geological and geochemical environments, as well as locating uranium anomalies in overburden and bedrock.

5.2.3 Discovery and historical exploration of the Horseshoe and Raven deposits

The Raven deposit was discovered by Gulf in 1972 during follow up drilling of an EM conductor located up-ice from a radioactive boulder train in till that was discovered by prospecting (Bagnell, 1978). An EM-16 geophysical survey was subsequently performed over the area and several anomalies were identified. Follow-up drilling located the Raven deposit in 1972. Delineation drilling was carried out between 1972 and 1974, during which 22,571 m of diamond drilling were completed on the deposit in 98 drill holes (Bagnell, 1978). During the final year of the Raven drilling, mineralization was intersected several hundred meters to the east of the Raven zone on the western flank of a combined gravity and magnetic low similar to that detected over the Raven deposit. This new mineralized area, which was subsequently named the Horseshoe deposit, was tested by 23,173 m of drilling in 73 holes completed during 1974 and 1975. Additional drilling was completed in 1976-1978 to test for mineralization between the deposits, and to further delineate the zones. A total of 53,329 m of diamond drilling in 212 holes was completed over the Horseshoe and Raven deposit area by Gulf (Figure 5.1), which lead to the estimation of historical resources.

5.3 Historical Resources

Historical resources on the Hidden Bay property were estimated by Gulf for the Horseshoe, Raven and West Bear deposits. West Bear is subject to recent N.I. 43-101 compliant resource estimates that are documented by Lemaitre (2006) and Palmer (2007) which supercede the historical estimation. The reader is referred to these sources for further details.

5.3.1 Historical resource estimations at the Horseshoe and Raven deposits

Gulf estimated resources for both the Horseshoe and Raven deposits in the late 1970's, which were subsequently reported in Healey and Ward (1988) and Eldorado Resources (1986). Resources are summarized in Table 5.1. The resources are based on drilling results from 212 diamond drill holes in both deposits which were spaced at intervals of 30-80 m on grid lines spaced approximately 200 feet (61 m) apart in mineralized areas using BQ diameter drill core. Based on these resources, total uranium contained in both deposits reported by Healey and Ward (1988) is approximately 23 million lbs (10,387 tonnes) U_3O_8 , with most contained in the Horseshoe deposit (59% or approximately 13.6 million lbs U_3O_8 ; Table 5.1). These resources are reported to have been estimated by cross sectional methods using a cutoff of 0.03% U_3O_8 , but no details describing estimation methodology or other parameters are provided. Due to the historical nature of these estimates, the use of cutoff grades that do not necessarily reflect current economic conditions, the need for an updated geological model, uncertainties regarding estimation methodology, and uncertainties regarding downhole survey locations and assay quality control, these resources are non-N.I. 43-101 compliant, and should not be relied upon.

Although the historical Horseshoe and Raven resources are non-compliant, the resources and distribution of mineralization outlined by the Gulf drill holes demonstrated that large mineralizing systems are present at both deposits. On the basis of the historical drilling results, subsequent definition and stepout drilling in the deposit area was undertaken by UEX, which has confirmed the presence of the historical Gulf drilling results, and in many areas has significantly expanded the footprint of the mineralization (Figure 5.1). This new drilling information is currently the basis of a N.I. 43-101 resource estimate on the Horseshoe deposit which is documented in Palmer (2008) and summarized in Section 16 of this report. A resource estimate on the Raven deposit is currently being estimated by Golder Associates and will be reported when

it is completed. A description of the geological setting, mineralization style, drilling and sampling methodologies, and a summary of the drilling results that form the basis of these new resource estimates are outlined in Sections 8 and 10-13 of this report.

Table 5.1: Summary of historical resources estimated at the Horseshoe and Raven deposits by Gulf Minerals Canada Ltd. (Healey and Ward, 1988; Eldorado Resources, 1986). These historical resources were not estimated in conformity with categories outlined in Sections 1.2 and 1.3 of National Instrument 43-101, and should not be relied upon. A new resource estimation for Horseshoe is reported in Palmer (2008) and summarized in Section 16 of this report below. A second estimate is currently underway for Raven.

Deposit	Tonnes	Grade U ₃ O ₈	Cutoff grade U ₃ O ₈
Raven	3,063,000	0.14%	0.03%
Horseshoe	3,617,287	0.17%	0.03%

5.4 Production

No uranium mining has occurred on the Hidden Bay property, and no other forms of metallic mineral production are reported.

6.0 GEOLOGICAL SETTING (form 43-101 F1 item 9)

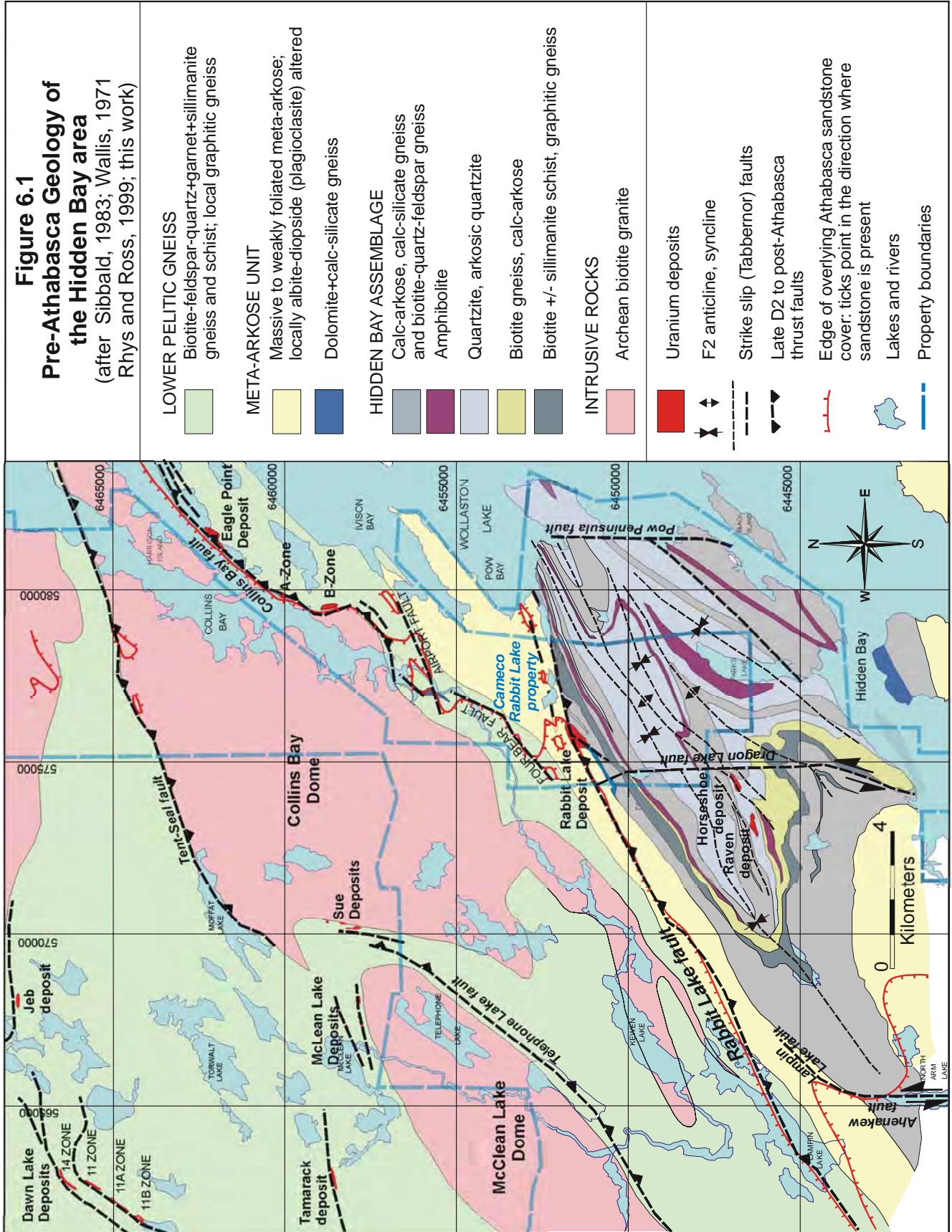
6.1 Regional Geological Setting

The Hidden Bay property is at the eastern margin of the Athabasca Basin. The property is underlain by two dominant lithologic elements: (i) polydeformed metamorphic basement rocks of Proterozoic age, which are overlain by (ii) flat lying to shallow dipping, post-metamorphic quartz sandstone of the late Proterozoic Athabasca Group.

Basement rocks in the area are within the Cree Lake zone (Hearne Province) of the Early Proterozoic Trans-Hudson orogenic belt. The Cree Lake zone is composed of Archean gneiss and overlying Early Proterozoic or Archean supracrustal rocks (Bickford et al., 1994), both of which are affected by amphibolite to locally, granulite facies metamorphism. The Cree Lake zone is further subdivided into three transitional lithotectonic domains, of which the Hidden Bay property straddles the gradational boundary between the central Mudjatik and eastern Wollaston domains (Figure 1.1). The central belt, the Mudjatik Domain is composed primarily of Archean granitic gneiss, often as domal bodies, which are separated by discontinuous zones of migmatitic, pelitic gneiss and mafic granulite (Lewry and Sibbald, 1980; Sibbald, 1983).

The transition from the Mudjatik to Wollaston lithostructural domains is represented at a regional scale by the rapid increase in the frequency of granite and quartzo-feldspathic gneiss domes in the Mudjatik Domain that profoundly influence the structural style and magnetic signature of the area. At a property scale (Figure 6.1), the boundary is gradational and indistinct. Sibbald (1983) places the domain boundary along the south side of the Collins Bay Dome from north of the Eagle Point mine to the Rabbit Lake deposit, and to the southwest from there, through Lampin Lake along the Rabbit Lake Fault (Figure 6.1). Since the lower pelitic gneisses of the Wollaston Group rocks are continuous with gneiss present west and north of the proposed Wollaston-Mudjatik boundary in the Mudjatik Domain, gneiss sequences on the property that straddle the boundary are collectively described below as basal portions of the Wollaston Group.

Figure 6.1
Pre-Athabasca Geology of
the Hidden Bay area
 (after Sibbald, 1983; Wallis, 1971
 Rhys and Ross, 1999; this work)



The age of the Daly Lake and Geike groups, which are probably correlative with the major gneiss sequences of the Wollaston Domain on the Hidden Bay property, is constrained between the 1,920-1,880 Ma age of detrital zircons (Yeo and Delaney, 2007), and minimum U-Pb zircon ages of 1,840-1,850 Ma of granitic sills and bodies that intrude the sequence in the Hidden Bay area (Annesley et al., 2005). Archean granitic paragneiss units that occur in the western Wollaston and Mudjatic domains yield ages of between 2,550-2,700 Ma (Annesley et al., 2005), forming local basement to the Wollaston Supergroup that is exposed in domal antiformal fold cores.

6.1.1 Wollaston Domain geology on the Hidden Bay property

Most of the Hidden Bay property is within the Wollaston Domain, which on the property comprises one of the type sequences through the Wollaston Supergroup. The domain is composed of a basal biotite-quartz-feldspar +/- graphite pelitic gneiss unit, which is contiguous with, and overlies domes of Archean granitoid gneiss, and is contiguous with pelitic gneiss sequences in the Mudjatic Domain (Wallis, 1971). On the Hidden Bay property, the lower pelitic gneiss underlies much of the northern and northwestern portions of the property, surrounding the McClean Lake and Collins Bay granitic domes (Figure 6.1). Lowermost portions of the gneiss sequence, generally within a few tens to hundreds of meters of the granitic domes, contain graphite-rich pelitic gneiss. Pre- and post-Athabasca faults are developed along these graphite-rich pelitic gneisses are localized and are associated with uranium mineralization. This lower graphitic unit is probably correlative with the Karin Lake Formation that is broadly present in basal portions of the Wollaston Domain regionally (Yeo and Delaney, 2007).

The pelitic gneiss is overlain to the southeast by a massive to weakly foliated, grey meta-arkose unit, which near and northeast of the Rabbit Lake deposit is often affected by peak metamorphic albite-pyroxene alteration assemblages termed “plagioclase” by previous workers (Appleyard, 1984). The meta-arkose unit extends east-northeast through the north-central portions of the Hidden Bay property from Lampin Lake to Pow Bay on Wollaston Lake (Figure 6.1), and is also widespread in southern portions of the property near the West Bear deposit. Discontinuous marble and calc-silicate units occur along the southeastern margins of the meta-arkose unit, at its contact with the Hidden Bay Assemblage to the southeast, and form an important host rock to mineralization at the Rabbit Lake uranium deposit (Figure 6.1). Similar, potentially correlative dolomite units occur along the southern shores of Hidden Bay (Wallis, 1971). Collectively, the lower pelitic gneiss, meta-arkose, and potentially the marble units probably form the local manifestation of the Daly River Group, which Yeo and Delaney (2007) define as comprising much of the central and lower portions of the Wollaston Supergroup regionally.

Quartzite with interlayered amphibolite and calcareous meta-arkose, which define the Hidden Bay Assemblage of Wallis (1971) and Sibbald (1983), occur to the southeast of the meta-arkose unit in the central Hidden Bay property, and are host to the Horseshoe and Raven deposits (Figure 6.1). The assemblage is dominated by psammitic gneiss comprising mainly quartzite, quartz-rich meta-arkose, and calc-silicate bearing meta-arkose (calc-arkose), but also includes bands of amphibolite and biotite-sillimanite +/- graphite bearing pelitic and semi-pelitic gneiss. These lithologies are described further in Section 6.2, since they are the principal host rocks to the Horseshoe and Raven deposits. The Hidden Bay Assemblage may be regionally correlative with the Geike River Group, the uppermost lithologic sequence comprising the Wollaston Supergroup, which is extensive through much of the Wollaston Domain (Yeo and Delaney, 2007).

Igneous rocks in the region include probable Archean domes and several generations of granite and pegmatite sills, dykes and stocks that intrude the Wollaston Group. Northern parts of the

Hidden Bay property are underlain by the McClean Lake and Collins Bay domes, which mark the transition from the Wollaston to the Mudjatik domains (Figure 6.1). They are composed of massive, medium- to fine-grained grey biotite granite to tonalite, possibly of more than one phase. Annesley et al. (2005) report Archean U-Pb zircon ages for tonalitic gneiss on the margins of the McClean Lake dome.

6.1.2 Proterozoic deformation and metamorphism

Rocks on the Hidden Bay property are affected by at least two significant phases of Hudsonian age syn-metamorphic penetrative deformation, D1 and D2, that are manifested as widespread penetrative tectonic fabrics and folds. Younger features include at least one or more generations of phases of open folds (D3, D4?) and semi-brittle to brittle faults. Lithologies and foliation trend northeast with predominantly moderate to steep southeast dips, although northwest dips occur in some areas. Although predating uranium mineralization, these phases of deformation have created a complex lithologic architecture which has influenced the distribution of later brittle faults associated with uranium deposits, and affect the position and morphology of uranium mineralization. Principal deformation events are as follows:

D1 deformation: The earliest recognizable deformation is manifested by ubiquitous gneissic compositional layering (S1) and a parallel shape fabric defined by alignment of peak metamorphic minerals (Wallis, 1971; Sibbald, 1983). S1 foliation strikes northeast with moderate southeast dips, and is parallel to, and in part defined by lithologies including compositional layers and granitic leucosomes. S1 is defined by unstrained peak metamorphic minerals, but is also overgrown by porphyroblasts of garnet and cordierite, which contain inclusion trails aligned parallel to S1 (Wallis, 1971; Rhys and Ross, 1999). These relationships suggest that M1 peak metamorphism was synchronous with, but outlasted, D1 deformation and the formation of S1 foliation (Wallis, 1971). No associated major folds have been identified with this event however (Sibbald, 1983), although rare rootless F1 folds are locally observable in drill core.

D2 deformation: D2 deformation is manifested by megascopic and minor folds (F2 folds), which have significantly influenced the map patterns of lithologies in the area, and by the development of S2 foliation, which is axial planar to F2 folds of S1/gneissosity and lithologies. S2 is inhomogeneously developed, and varies from an intense foliation that overprints and transposes S1 to a spaced cleavage that is only developed in the hinge zones of F2 folds. Where it is intense, S2 transposes S1. In some units, S2 also forms a spaced crenulation cleavage that is defined by re-oriented domains of S1 and by the alignment of new unstrained metamorphic minerals. The superposition of S2 foliation on peak metamorphic mineral assemblages which define S1, and the evidence for new amphibolite-grade mineral growth during S2, suggest that D2 was accompanied by a second pulse of probable amphibolite-grade metamorphism (M2). A mineral lineation (L2) may be developed at the intersection of S1 and S2; it is often parallel to F2 fold axes.

At a regional scale, D2 folds are non-cylindrical and exhibit domal outlines and fold axes that have variable northeast and southwest plunges. Elliptical D2 folds are in part localized around granite domes, but variable fold axis plunges also occur in other areas. The parallelism of L2 elongation lineation with D2 fold axes suggests that significant stretching was accomplished parallel to the fold axes during folding, indicating that the D2 folds may be sheath-like in geometry. The Raven-Horseshoe area is dominated by a series of inclined to upright megascopic D2 folds with southeasterly dipping axial planes that have wavelengths of 0.3-2 km and shallow northeast plunging fold axes that form the major map patterns in the Hidden Bay Assemblage (Figure 6.1).

At least two generations of late open folds with shallow dipping (F3), and steep (F4), northwesterly trending axial planes also affect lithologies in the area (Rhys and Ross, 1999). F3 folds are open folds with local shallow dipping axial planar cleavage that result in alternating northwest and southeast dips of gneissosity, complicating interpretation of drill core due to repetition of lithologies. Regionally, these folds may contribute to re-orientation of older folds, and accentuate the domal map patterns that F2 folds define.

The Mudjatik and Wollaston domains are affected by amphibolite to locally granulite facies metamorphism that accompanied D1 deformation, defining the main thermotectonic pulse of the Hudsonian orogeny. U-Pb zircon and monazite age dating indicates Hudsonian peak metamorphism occurred between approximately 1,830 and 1,800 Ma in the Wollaston and Mudjatik domains (Annesley et al., 2005). It was accompanied by the intrusion of grey, commonly porphyritic granite sills, and by subsequent anatectic K-feldspar-quartz-biotite pegmatite sills (Annesley et al., 2005). A second metamorphic pulse may have accompanied D2 deformation between 1,775-1,795 Ma.

6.1.3 Post-metamorphic Athabasca sandstone

The folded Archean to Early Proterozoic metamorphic sequence is unconformably overlain by flat-lying to gently inclined quartz-rich sandstone of the Athabasca Group which dips gently to the west as the basin thickens. The eastern boundary of the basin is erosional, but is in part influenced by post-Athabasca faulting. The sandstone is eroded from eastern and southeastern parts of the Hidden Bay property, and is absent from the area of the Raven and Horseshoe deposits where the underlying gneissic basement is exposed. U-Pb dating of apatite cement and dating of tuff units in upper portions of the Athabasca Group, as well as regional constraints on deposition by earlier Hudsonian age granites and Hudsonian deformation that the sub-Athabasca unconformity truncates, suggest progressive deposition of the Athabasca Group between 1,769 and 1,500 Ma (Ramaekers et al., 2007; Cumming and Krstic, 1992).

Widespread argillic alteration occurs in basement metamorphic rocks beneath the Athabasca sandstone to depths of several tens of meters below the sub-Athabasca unconformity. The alteration is similar in geochemistry, mineralogy and zoning to that observed today in lateritic profiles, and consequently has been commonly interpreted as a saprolitic (paleoweathering) profile related to pre-Athabasca erosion of the gneiss sequence (e.g. Hoeve and Sibbald, 1978). Alternatively, it could be related to the reaction of oxidized diagenetic fluids in the Athabasca sandstone with underlying basement rocks, or a superposition of both processes. Argillic alteration associated with uranium mineralization is superimposed on this alteration.

6.1.4 Regional faulting and uranium deposits

Two dominant, post-metamorphic fault orientations occur in the region (Wallis, 1971; Rhys and Ross, 1999): a) concordant northeast-trending semi-brittle and brittle reverse faults, and b) north-south trending, sinistral strike slip faults which represent western splays and parallel structures of the major Tabernor fault system. Both types of faults are spatially associated with uranium deposits in the region.

Northeast-trending, generally graphitic or carbonaceous, reverse faults with moderate to steep southeasterly dips form the dominant fault type in the area. These faults trend subparallel to, or acutely oblique to lithologies and the dominant foliation, and are frequently localized along

graphitic gneiss units. In basement rocks beneath the Athabasca sandstone, these structures are composed of zones of cataclasis and low temperature semi-brittle (pressure solution) foliation development, and clay gouge indicative of variations in structural style during deformation and/or multiple phases of displacement. Fault fabrics and associated low temperature alteration are superimposed on earlier high temperature metamorphic fabrics. Deformation style and associated alteration are compatible with retrograde low temperature (<250⁰ C), low pressure conditions during fault activity. Shear fabrics and the reverse displacement of the Athabasca unconformity indicate a dominantly reverse shear sense on these structures with varying strike slip components, depending on fault orientation.

The overthrusting of basement onto Athabasca sandstone occurred during brittle, and at least in part, during the semi-brittle phase of displacement on these structures since in the latter case, displacement occurs even where faults lack clay gouge. However, evidence for significant pre-Athabasca, but post-Hudsonian displacement is also apparent on many of these structures where there is no displacement at the unconformity, and fault fabrics are overprinted by the paleoweathering profile. Although regionally extensive and important controlling structures to uranium deposits, post-Athabasca reverse displacement on these structures which offsets the unconformity is not high and generally only reaches a maximum of a few tens of meters on these structures, with the Rabbit Lake Fault having the largest reverse displacement (Rhys and Ross, 1999). Displacement is generally southeast-side up. Northeast trending faults are strongly influenced in their morphology by pre-Athabasca basement geology, and are arcuate where they pass around granitic domes and D2 folds, forming favorable structural sites for the formation of uranium deposits.

The most economically significant northeast-trending faults in the Hidden Bay area include:

- a) *The Collins Bay Fault*, an arcuate, northeast-trending fault which is developed to the northeast of the property, on the adjacent Rabbit Lake property. It is a graphitic semi-brittle shear zone up to 15 m wide, often in 2-3 parallel splays with locally >70 m of reverse displacement that has been traced continuously by drilling for nearly 11 kilometers from 3 km southwest of the Collins Bay B-zone to 2 km northeast of the Eagle Point mine (Figure 6.1). At its southwestern end, the fault terminates in a series of en echelon steps, that may represent en echelon linking faults that join the Rabbit Lake Fault zone.
- b) *The Rabbit Lake Fault* (Sibbald, 1977) is the dominant, and most continuous northeast-trending fault in the area, with drilling indicating a minimum 40 km strike length. The Rabbit Lake Fault varies from concordant and localized in graphitic gneiss near the top of the Wollaston lower pelite unit southwest of Lampin Lake, to obliquely crossing lithologies and striking 5-15 degrees more southeasterly (clockwise) than the lithologic trends near the Rabbit Lake deposit (Figure 6.1), 4 km north of the Horseshoe and Raven deposits. Approximately 100-150 m of apparent reverse, southeast side up vertical displacement of the Athabasca sandstone is apparent on this structure at the western margin of the Hidden Bay property.
- c) *The Telephone Lake Fault* is developed 5-10 km north of the Rabbit Lake Fault in northwestern parts of the Hidden Bay property (Figure 6.1). It dips moderately to steeply southeast, and is developed primarily in graphitic gneiss units several tens of meters above the McClean Lake granite dome. The fault has approximately 60-90 m of reverse displacement distributed over a 20-70 m wide fault zone containing multiple minor faults.

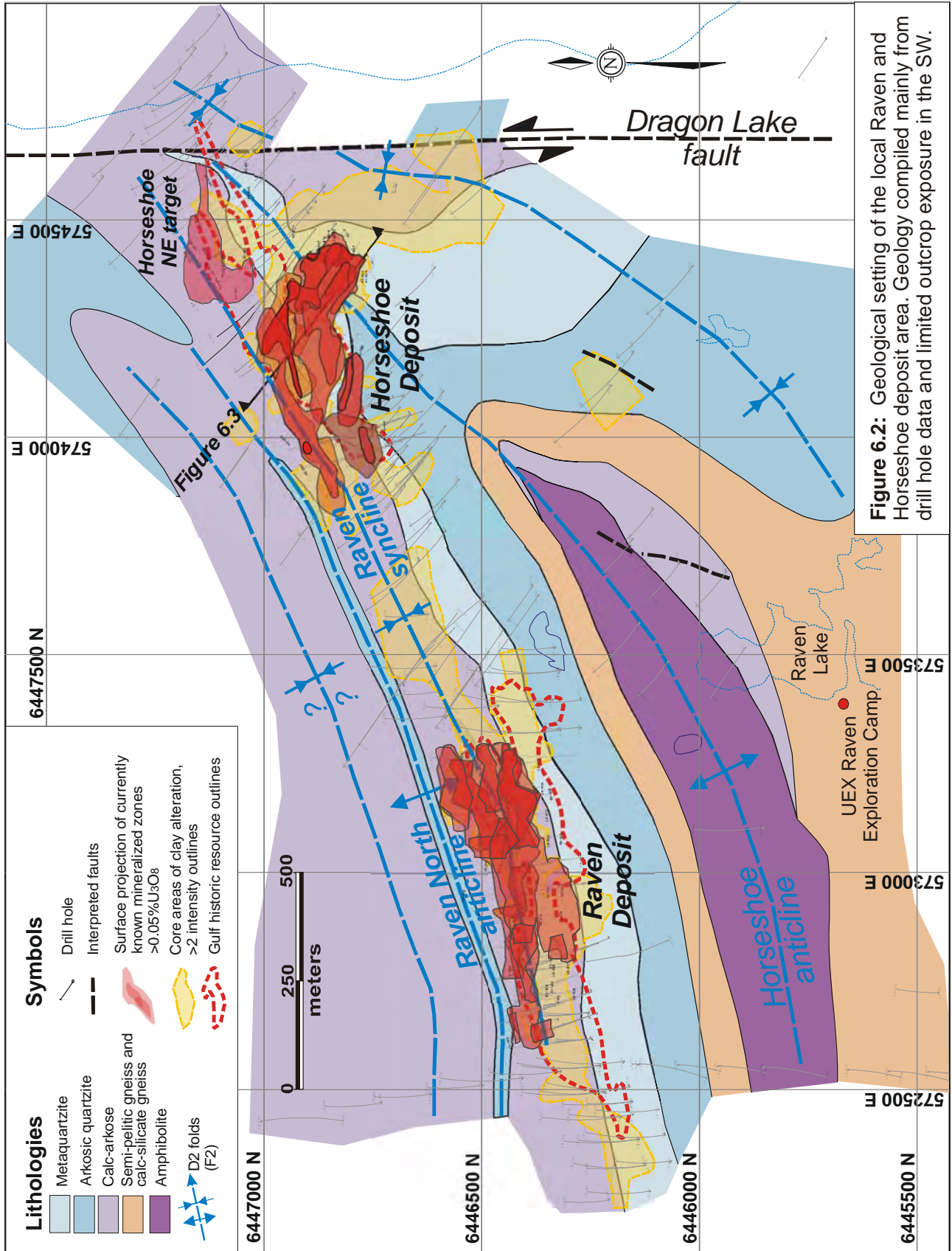
Other significant northeast-trending faults include the Tent-Seal Fault, which occurs in northeast parts of the Hidden Bay property along the northern margin of the Collins Bay Dome (Figure 6.1). This structure, which may represent a continuation of displacement along the nearby

Telephone Lake Fault, is localized in graphitic gneiss and accommodates several tens of meters of reverse displacement.

The second major fault type in the Hidden Bay area comprises north trending, steeply dipping strike-slip faults (“Tabbernor” faults) with dominantly strike slip (sinistral) displacements. The Tabbernor Fault system is a major sinistral north-south trending fault system that is developed to the east of the Athabasca Basin with a strike length of >600 km (Wilcox, 1990). Although the main fault system passes to the east of the property, several branches and parallel faults related to the Tabbernor Fault system extend into the local area. The fault system is a long lived structural feature with early ductile and younger brittle and semi-brittle displacement history and a predominantly sinistral, strike slip shear sense (Elliot, 1994). Fabrics in this structure are post-metamorphic since they deflect and offset metamorphic foliation (Elliot, 1995). Younger brittle faults composed of gouge and cataclaste are superimposed on the ductile fault (Wilcox, 1990).

Several probable Tabbernor-type north-trending faults occur in eastern parts of the property, beyond the limits of the Athabasca Basin. These include the Ahenakew, Dragon Lake, Pow Peninsula, Hungry Bay and Otter Bay Faults (Wallis, 1971; Figure 6.1). The faults form topographic lineaments and low swampy areas in many lithologies. Where exposed in outcrop, the faults form steep west-dipping fault zones with clay matrix cataclastic breccias, associated clay-hematitic alteration envelopes, which are surrounded by sets of northwest-trending quartz veinlets. The closest of these Tabbernor faults to the Horseshoe and Raven deposits is the Dragon Lake Fault, which passes immediately to the east of the Horseshoe deposit (Figure 6.1). Hoeve and Sibbald (1978) document approximately 200 m of sinistral displacement on the Dragon Lake Fault.

The long history of Tabbernor faults regionally suggests that these structures existed, and potentially were active, at the same time that the northeast-trending faults were active. Where drilling and outcrop information is sufficient to trace both fault types in the Hidden Bay property area, the best exposed Tabbernor faults, the Ahenakew and Dragon Lake Faults, do not cross or displace the northeast-trending Rabbit Lake thrust fault. Instead, both of these faults bend into northeast-trending structures where they approach the Rabbit Lake Fault and the meta-arkose unit of the Wollaston Group (Figure 6.1). In the Rabbit Lake mine area, the North-South Fault, a northeast-trending splay off the Dragon Lake Fault, links it to the Rabbit Lake Fault (Figure 6.1). Similarly, mapping by Wallis (1971) and drilling indicates that the Ahenakew Fault terminates where it intersects the meta-arkose unit in a northeast-trending structure, the Lampin Lake Fault (Figure 6.1). The Tabbernor faults may thus feed into the northeast trending faults. Their dominantly sinistral/east side up displacement sense is compatible with the predominantly reverse displacement apparent on the northeast-trending structures, and suggests that they both were active in response to northwest-southeast-directed shortening. These linking points form highly prospective areas for uranium deposits, as illustrated by the Rabbit Lake deposit.



6.2 Local geology of the Horseshoe-Raven area

6.2.1 Host lithologies to the Horseshoe and Raven deposits

The Raven and Horseshoe deposits are hosted by the Hidden Bay Assemblage, which occurs within a complex northeast-trending D2 synclinorium that sits structurally above and south of the underlying meta-arkose unit of the Daly River subgroup. The synclinorium is cored by quartzite that is succeeded outward concentrically from the core of the folds by other components of the Hidden Bay Assemblage which include a mixed sequence of calc-arkose, additional quartzite, locally graphitic sillimanite-bearing pelitic schist, and amphibolite (Figure 6.1). While no Athabasca Sandstone is present above the Horseshoe and Raven deposits since it has been eroded from the local area, sandstone outliers that occur to the southeast of the deposits across Hidden Bay, and the local presence of paleoweathering in some drill holes south of the deposit area suggest that the sub-Athabasca unconformity was present just above the current surface.

A geological map of the deposits is presented in Figure 6.2 and it is based largely on drill hole information that was augmented by geophysical work since outcrop exposure is poor or lacking in most of the deposit area. A representative cross section is shown in Figure 6.3. Descriptions of principal lithologies below are augmented by petrography of representative samples in Ross (2008a), Hubregtse and Duncan (1991) and Quirt (1990).

Five dominant lithologic units occur in the deposit area and define a distinct metamorphic stratigraphy. Overall stratigraphy comprises from structurally highest to lowest: amphibolites, semi-pelitic and calc-silicate gneiss, arkosic quartzite, quartzite and calc-arkose. In addition, graphite-bearing biotite-quartz-feldspar gneiss is present west and southwest of the deposit area, but was not intersected by any of the drill holes in the immediate area of the deposits. Principal lithologic units are as follows, listed from structurally lowest to highest in the area of the deposits (see also Table 10.3 for a summary of core logging codes):

1) *Amphibolite (drill logging code = AMPH)*: This unit occurs as an east-northeast trending lens that in plan view reaches a thickness of up to 300 m, which subcrops 300-600 m south of the Raven deposit (Figure 6.2) in the core of the Horseshoe anticline. Amphibolite is dark green grey, massive and coarse-grained, and is dominantly comprised of semi-prismatic, interlocking olive green hornblende (50%), intergrown with biotite (10-13%), plagioclase, minor amounts of K-feldspar, accessory apatite, and locally up to 10% pyroxene (Ross, 2008a). The distribution of the minerals is irregular, giving the rock a mottled texture (Photo 1D). The hornblende crystals range up to 2 mm in length, and commonly occur in clots up to 1.5cm. This rock type is only observed structurally below and south of the Raven deposit.

2) *Semi-pelitic and calc-silicate gneiss (includes lithocodes SPL0, CALC, CARK and ARKS)*: This lithologically variable unit comprises interlayered semi-pelitic biotite-quartz-feldspar gneiss (code SPL0), calc-silicate (code CALC) and calc-arkosic (CARK) gneiss, and local bands of arkosic gneiss (ARKS). It surrounds the amphibolites in map view (Figure 6.2), and ranges from several tens of meters thick adjacent to the amphibolites to more than 270 m in apparent thickness within one hole drilled beneath the Horseshoe deposit (HU-028). The unit has a highly variable thickness probably due to folding. Calc-arkosic gneiss predominates beneath the Horseshoe deposit and is interlayered with semi-pelitic biotite-quartz-feldspar gneiss and pyroxene-amphibole bearing green-grey calc-silicate gneiss that may contain medium to coarse-grained pale green pyroxene-rich bands. The calc-arkose is typically feldspar-pyroxene-biotite-amphibole bearing, fine- to medium-grained, and weakly foliated. Bands of arkosic quartzite are also commonly present. Biotite-quartz-feldspar gneiss also may be abundant and locally dominant in drill holes southwest of the Horseshoe deposit near Raven Lake. Compositionally homogeneous

and feldspar porphyroclastic biotite-quartz-feldspar gneiss (Photo 1D) which occurs locally in this mixed unit has possible myrmekitic intergrowths, suggesting that parts of it may represent metamorphosed, feldspar porphyritic intrusion of intermediate composition (Ross, 2008a).

3) *Arkosic quartzite (lithocode ARKQ)*: This unit is the principal host to mineralization at the Horseshoe deposit (Figure 6.3), and also hosts a significant proportion of the mineralization at Raven. It structurally overlies the mixed semi-pelitic and calc-silicate gneiss unit. Arkosic quartzite varies in thickness from 60 m to more than 300 m in apparent thickness at the Horseshoe deposit where it is thickest, averaging approximately 150 m, to typical true thickness of between 40 m and 100 m at Raven. This unit is typically pale grey colored and varies from massive to locally banded (Photo 1A), with banding defined by grain size and local compositional layering that may represent modified relict primary bedding (S0). The unit varies from fine to medium-grained (1-2 mm grains), comprising 40-65% quartz, 10-35% K-feldspar, 10-20% albitic plagioclase, and typically 3-5% biotite when fresh, with local accessory rutile, titanite, pyrite, apatite and zircon (Ross, 2008a).

4) *Quartzite (lithocode QZIT)*: Quartzite lies structurally above the arkosic quartzite, and is often gradational through a transition zone over a few meters with that unit, in areas characterized by gradational changes in quartz and feldspar content, and alternating quartzite and arkosic quartzite layering. It is generally coarser grained than the underlying arkosic quartzite, and contains lower total feldspar content. Quartzite hosts a significant proportion of mineralization at the Raven deposit, and parts of the Horseshoe deposit extend into it (Figure 6.3). Quartzite has a highly variable thickness, and like the arkosic quartzite is thickest at the Horseshoe deposit, where it generally ranges exceeds 50 m in thickness, ranging locally from 20 m to more than 150 m thick, the latter on both limbs of the Horseshoe anticline in northeastern portions of the deposit (e.g. Figure 6.3). At Raven, the quartzite unit typically ranges from 20-70 m in thickness. In both deposits it is thinnest on the northwest limb of the Raven syncline, where it is often <25 m thick and may be tectonically thinned by faulting that is spatially associated with uranium mineralization; it rapidly thickens to the southeast at Horseshoe. Quartzite is generally medium- to coarse-grained, and composed of translucent pale grey quartz which forms medium to coarse grains. The rock varies from weakly foliated with alignment of lenticular quartz grains and biotite, and weak compositional layering, to massive textured (Photo 1B). Quartzite is characterized by a high quartz content (83-88%) and a hard, massive, coarse grained crystalline texture with crystals up to 8 mm. The unit contains up to 10% K-feldspar that is often altered to clay and sericite in or near mineralized areas. Biotite content is typically between 5% and 10%. Disseminated pyrite occurs locally and may be abundant (up to 3%), commonly associated with biotite or as hairline stringers. Other accessory phases observed are tourmaline, zircon and monazite. The quartzite often contains thin foliation parallel K-feldspar-quartz pegmatite lenses that range from <1 cm up to a few tens of centimeters thick.

5) *Upper calc-arkose (lithocode CARK)*: The calc-arkose unit forms the structurally highest portion of the metamorphic stratigraphy in the Horseshoe-Raven deposit area. The unit cores the Raven syncline, and is preserved in the upper northwestern portions of the deposits within the synclinal trough, extending from surface to depths of approximately 150 m below surface in both deposit areas (Figure 6.3). The unit is also present further north, in a second synclinal trough across the Raven North anticline (Figure 6.2). Since the unit is only preserved in synclines, and its top is eroded, its true thickness is unknown, but is a minimum of approximately 100 m. Mineralization at Horseshoe does not extend into this unit, but it contains a significant proportion of uranium mineralization at the Raven deposit. The calc-arkose unit is typically green-grey in colour, and composed of massive to compositionally banded medium- to coarse-grained

plagioclase (25-50%), K-feldspar (1-10%), pyroxene (10-25%), biotite (8-10%) and amphibole (2-10%), often with accessory disseminated pyrite or pyrrhotite. The unit ranges from near massive when pyroxene and plagioclase are most abundant within it, to well foliated where compositional layering and alignment of biotite and amphiboles occur, containing 0.2 - 4 cm wide pyroxene-plagioclase and biotite rich compositional layers that define a gneissosity (Photo 1C). North of the Raven deposit, well banded and layered portions of this unit are locally developed, with alternating pale green pyroxene and pale grey feldspar or dark green amphibole bands. The texture and mineralogy of this upper unit is comparable to some parts of the lower mixed semi-pelitic and calc-silicate gneiss (unit 2, above), which also contains calc-arkose and calc-silicate components, but which are interlayered with biotite-quartz feldspar gneiss.

In addition to the units described above, two volumetrically minor types of intrusions are also present in the deposit area: granitic pegmatite and fine-grained intermediate dykes. Isolated pegmatite (lithocode PEGM) dykes and/or sills intrude all lithologies in the Raven-Horseshoe area. They are generally less than 5 m thick and form only a minor part of the host lithologies. However, areas of intense pegmatite "segregations" often coincide with areas of significant alteration and/or mineralization. More than one generation of pegmatite dykes are present: early dykes which are affected by D1 strain and transposed into S1 foliation, and a late set of shallow dipping planar dykes which are probably late or post D2 in timing as they cut across F2 folds and are unaffected by foliation development or strain. A single, fine-grained biotite-rich intermediate dyke (unit DIAB) that is present in multiple drill holes in northeastern parts of the Horseshoe area is also structurally late, planar and traceable across D2 folds, although does contain internal S2 foliation. It has been most consistently intersected in the Horseshoe northeast area, where it is several meters thick, dips shallowly to the northwest, and is intimately associated with pegmatite dykes that are parallel to it. It is overprinted by alteration and associated uranium mineralization.

6.2.2 Structural Setting - Metamorphic structural architecture

Lithologies in the Horseshoe and Raven areas outline several significant, upright open D2 (F2) folds in the local area (Figure 6.2). These folds have steep to moderate, southeasterly dipping axial planes, and horizontal to shallow northeast plunging fold axes. A D2 timing is indicated since the folds affect both primary lithologic layering as well as lithology parallel S1 penetrative foliation. A spaced, vertical to southeast dipping S2 foliation is axial planar to the folds and locally crenulates older S1 foliation (Photo 2). No older, D1 folds were identified, and if they are present they are likely to be isoclinal and difficult to recognize, but could have caused lateral and vertical thickness variations in host lithologies.

Principal folds in the immediate deposit areas include the Horseshoe anticline and adjacent Raven syncline. The Horseshoe anticline is cored by amphibolites south of the Raven deposit, and plunges to the northeast, where arkosic quartzite occurs in the hinge area in the Horseshoe deposit (Figure 6.2). Like other D2 folds in the area, this fold is non-cylindrical, and varies in plunge, shallowing to the northeast, where it plunges very shallowly to subhorizontally to the northeast in the Horseshoe deposit area. The adjacent Raven syncline, with its axial trace 250-550 m northwest of the Horseshoe anticline, has a nearly horizontal fold axis, and is cored along its length by arkosic quartzite forming the top of the local metamorphic stratigraphy. Uranium mineralization in both the Horseshoe and Raven deposits is elongate parallel to the trend and plunge of these folds, and at Raven preferentially exploits the core of the syncline, while at Horseshoe, mineralization extends between these two folds obliquely crossing the folded sequence.



A: Arkosic quartzite unit: Left: HS-48, 348 ft
Center: HS-17A, 867 ft; Right: HS-17A, 473 ft; Note
pegmatite stringer parallel to foliation



B: Quartzite unit: Left: LB-039, 640 ft (oxidized
sample in alteration); Center: HS-053, 339 ft; Right:
HS-059, 275 ft



C: Upper calc-arkosic gneiss: Top photo: Left: HS-
070A, 276 ft; center: FX-04, 46 ft Right: FX-05, 198 ft



D: Semipelitic biotite-feldspar-quartz gneiss: Note
deformed feldspar aggregates that may represent relict
porphyritic textures. Left: HU-117, 414.6 m; Center:
LB-048, 961 ft; Right: HS-089, 945 ft

Photo 1: Principal host lithologies to the Horseshoe and Raven deposits. See text for descriptions of each unit. Core is mainly BQ diameter from Gulf minerals drill holes. **A and B:** Note the finer grain size and more banded texture of the arkosic quartzite in A than the quartzite in B. The more abundant feldspars are visible as the paler grains in the matrix in A. **C:** Typical calc-arkose textures, which varies from well banded (left) to foliated but more compositionally homogenous. Dark grains and bands are mainly pyroxene-amphibole-biotite. **D:** Examples of semi-pelitic gneiss from lower parts of the sequence at Horseshoe and Raven, showing crudely banded biotite-quartz-feldspar gneiss. Note coarser grained feldspar aggregates. **E:** Typical amphibolite from south of the Raven deposit.



E: Amphibolite unit: Top: HS-02, 153 ft; Bottom: LB-
52, 717 ft

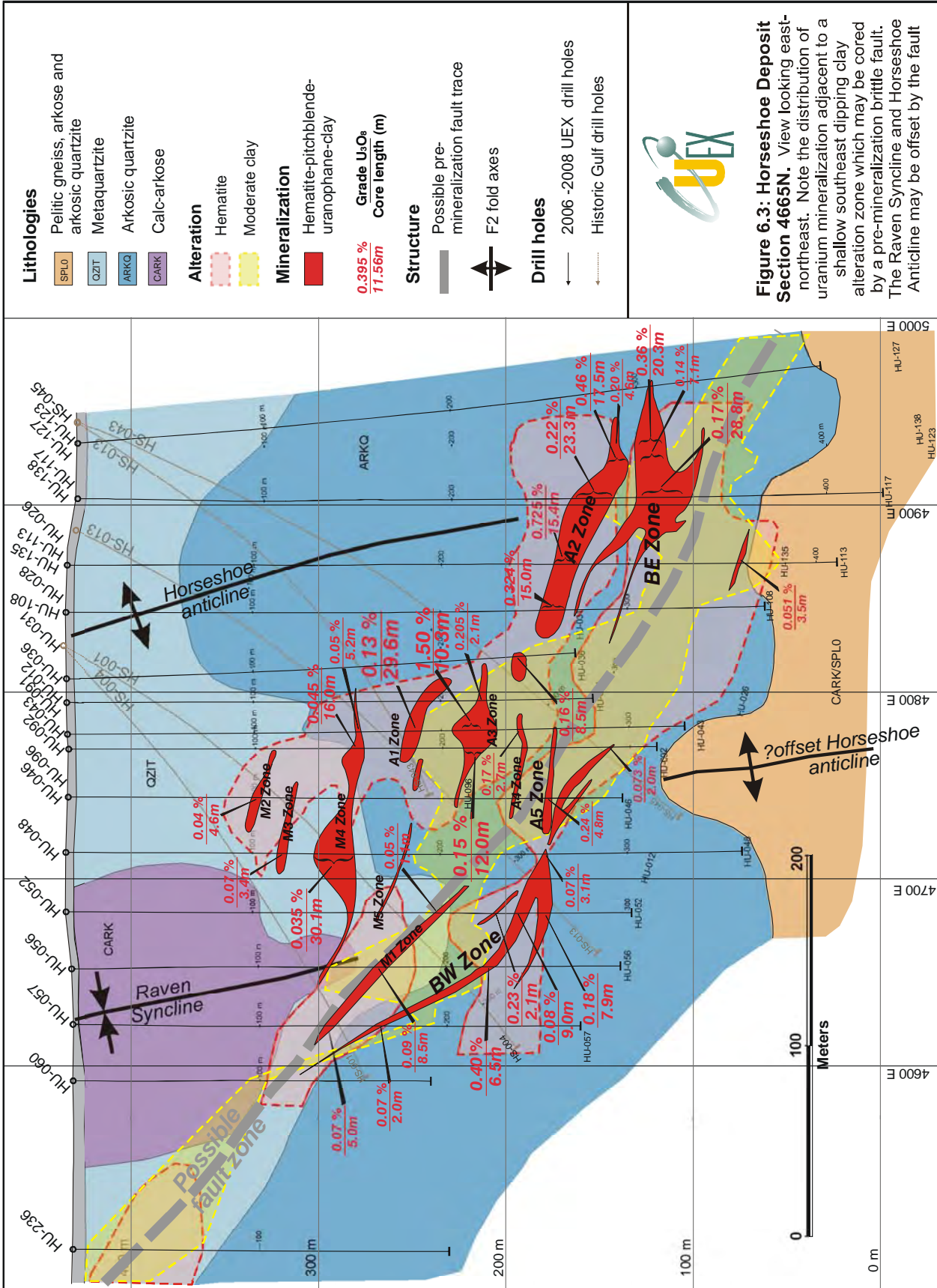




Photo 2: Structural style of folded gneiss units in the Raven-Horseshoe area. Photo looking downward and to the northeast of folded biotite-quartz feldspar gneiss, comprising part of the semi-pelitic gneiss unit which lies to the south of the amphibolite in Figure 6.2. The photo was taken on outcrops immediately west of the UEX Raven exploration camp (Figure 6.2). S1 foliation is parallel to gneissosity and is affected by minor, open D2 (F2) folds to which the hammer is aligned parallel to the trace of the F2 axial planes. A weak, spaced S2 foliation is axial planar to the folds. Note the overall style of these minor folds is very similar to the larger scale folding seen in the cross sections in the Horseshoe and Raven deposits (e.g. Figure 6.3). Fold axes plunge shallowly to the northeast. A late pegmatite dyke which is unaffected by folding runs across the lower part of the photo below the hammer.

6.2.3 Post-Hudsonian faulting in the Horseshoe-Raven area

Few significant offsets of lithologies occur in the Horseshoe and Raven deposit areas, and outside of clay alteration zones associated with uranium mineralization, lithologies are competent and generally lack any significant faulting.

The most significant fault in the local area is the Dragon Lake Fault, a north-south trending Tabernor fault which passes east of the Horseshoe deposit (Figure 6.2). As discussed above, Hoeve and Sibbald (1978) document approximately 200 m of apparent sinistral displacement on the Dragon Lake Fault, based on displacement of lithologies. Where exposed in outcrop near the Rabbit Lake mine road and observed in core, the Dragon Lake Fault forms a steep west-dipping fault zone. From surface to depths of approximately 200 m, the fault comprises strands of silicified hematitic cataclastic breccias (Photo 3) which are separated by variably clay-hematite altered and silicified host rocks. Local clay gouge seams are also present. Abundant milky white drusy quartz

veinlets are common along the trace of the fault in these clay-hematite altered areas and coincide with areas of most intense alteration. These trend northwest in outcrop exposures on the adjacent Rabbit Lake property (Rhys and Ross, 1999), indicating significant hydrothermal fluid flow has occurred along this structure. Alteration and brecciation collectively defines a fault and fault damage zone that ranges from several meters up to more than 20 m wide, with alteration locally extending tens of meters further beyond the fault in some areas. Deeper, southeastern intercepts of the fault immediately to the southeast of the Horseshoe deposit, such as in drill holes HU-233 (329-333 m) and HU-064 (463.5-477.7 m), comprise chlorite-matrix breccias with variable hematite content, and with sparse quartz veins. Overall patterns are for decreasing quartz vein density and hematite-illite abundance, and for increasing chlorite abundance with depth and to the southeast along the fault. These changes may reflect differences in oxidation state and fluid type down the fault during a significant period of hydrothermal fluid flow along it.

The Dragon Lake Fault may represent a fluid pathway for oxidized hydrothermal fluids possibly originating from the pre-existing Athabasca Sandstone which may have overlain the Horseshoe-Raven area close to the present surface prior to erosion. No mineralization has been intersected on the Dragon Lake Fault to date, but the occurrence of the Rabbit Lake deposit at the intersection between the Rabbit Lake Fault and the North-South Fault, a major splay of the Dragon Lake Fault to the north, suggests that this structure has the potential to host or control uranium mineralization.



A: HS-053, 1161-1178 feet (354-359 m)



B: FX-01, 575-594 ft (175-181 m)

Photo 3: Style of the Dragon Lake Fault in drill core. A: Silicified and hematite-clay altered arkosic quartzite is overprinted by dark reddish-purple hematite-matrix cataclastic breccias. **B:** Intense network of cream to pink colored quartz veinlets and breccias veins in silicified and hematite-clay altered arkosic quartzite. Note hematite-matrix cataclastic breccia in top row. Quartz veinlets and breccias veins are most abundant in drill holes closer to surface, and diminish in abundance at depth in deeper intercepts. **C:** Chlorite-matrix breccia in the lower row defines the trace of the Dragon Lake fault at depth southeast of the eastern Horseshoe deposit. Note hematization of some fragments. The breccia is surrounded by chlorite-hematite altered gneiss in its footwall (upper core) which contains quartz veinlets, and locally minor pyrite. This more reduced alteration is comparable to that associated with deep alteration along the Rabbit Lake Fault beneath the Rabbit Lake uranium deposit.



C: HU-233, 231 m (below) and 360 m (top)

As is discussed below, uranium mineralization in the Horseshoe and Raven deposits is associated with areas of clay alteration which become locally intense between some mineralized zones. At the Horseshoe deposit, mineralization occurs both above and below a shallow southeast dipping, tabular zone of clay alteration which is locally intense, particularly in northeastern portions of the deposit (Figure 6.2). The intensity of clay alteration makes identification of potential clay gouge strands, which could occur through this area, difficult. It is permissible that a fault zone may be present through the core of these altered areas. Similarly, a steep southeast dipping tabular zone of clay alteration underlies the Raven deposit, and if localized along a fault, may represent the same structure which could control alteration at Horseshoe. Also suggestive of a fault zone are changes in thickness and orientation of lithologies across this structure, which include (i) the abrupt thinning of the quartzite unit to typically less than 30 m in both deposits along the southwest dipping northwest limb of the Raven syncline where the clay alteration passes through it, and (ii) the difficulty in tracing the Horseshoe anticline downward into the mixed calc-arkose/semi-pelitic gneiss beneath the alteration zone, suggesting it is offset. The fault strands now may be overprinted by clay alteration and mineralization, consistent with the timing of other uranium deposits in the region, where mineralization is late in the faulting history. Interaction of oxidized hydrothermal fluids along this potential fault with fluid flow along the adjacent Dragon Lake Fault may have contributed to the formation of hydrothermal fluid cells, and to the localization of uranium mineralization in the deposit area, as is further elaborated on in Section 8 of this report.

7.0 DEPOSIT TYPES (*form 43-101 F1 item 10*)

The Hidden Bay property is within the eastern Athabasca uranium district, one of the most prolific uranium producing districts in the world. Deposits within the local area, within 0.5 to 8 km of the property boundaries, have combined production and resources of more than 320 million pounds of U_3O_8 (123,000 tonnes U). Five past or currently producing mines on the adjacent Rabbit Lake property (Rabbit Lake, A-zone, B-zone, D-zone and Eagle Point) have together produced nearly 200 million pounds of U_3O_8 since 1975, and approximately 40 million pounds have also been produced from the Sue and Jeb deposits on the adjacent McClean Lake property (Jefferson et al., 2007). Production continues at both the Rabbit Lake and McClean Lake operations, and several deposits nearby are in advanced exploration or permitting phases, including the Midwest Lake deposit located 12 km northwest of the property.

These deposits collectively comprise different varieties of the unconformity-associated uranium deposit type described by Jefferson et al. (2007), Ruzicka (1996) and previous workers. All are spatially related to the sub-Athabasca unconformity in the region, and are generally interpreted to result from interaction of oxidized diagenetic-hydrothermal fluids with either reduced basement rocks, and/or with reduced hydrothermal fluids along faults extending upward toward the unconformity in underlying basement rocks beneath the unconformity (e.g. Hoeve and Quirt, 1985). The common occurrence of mineralization in, and associated alteration overprinting Athabasca sandstone, indicates a post-Athabasca (<1,700 Ma) timing for uranium mineralization in the region. U-Pb age dates obtained from uraninite mineralization in deposits throughout the Athabasca Basin support a principal phase of mineralization between 1,600-1,500 Ma with a potential second event between 1,460-1,350 Ma, and potential later periods of reworking indicated by younger ages (Fayek et al., 2002; Alexandre et al., 2003; Cumming and Krstic, 1992).

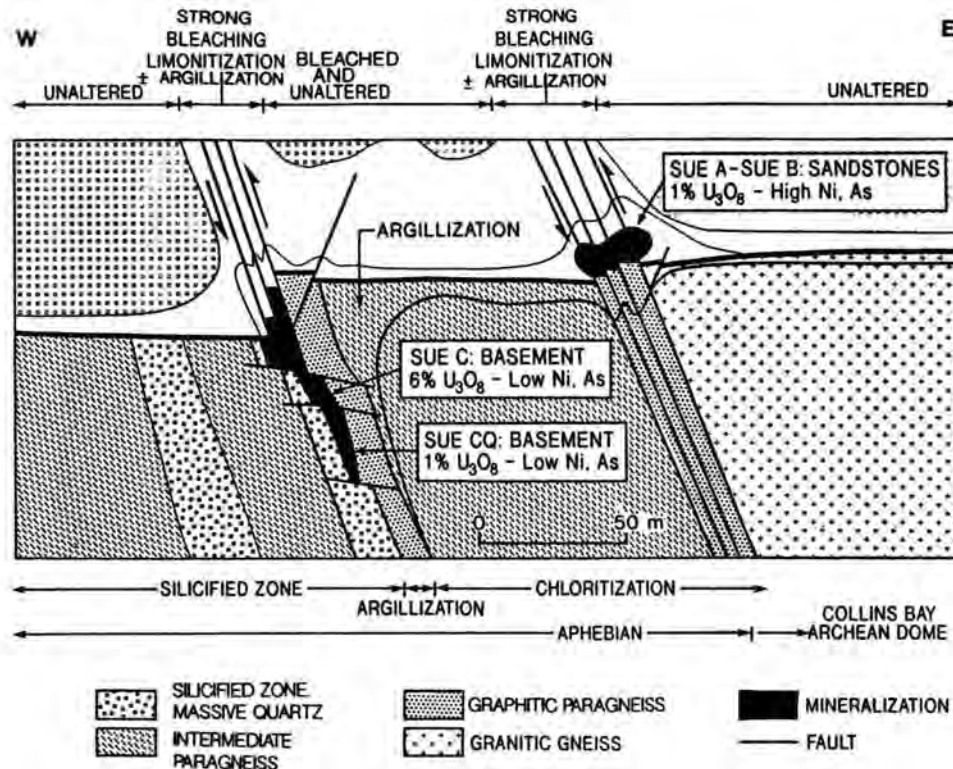


Figure 7.1: Schematic cross section through the Sue zones, McClean Lake property showing two different styles of uranium mineralization. View is to the north, from Baudemont et al., (1993). The diagram illustrates the spatial association of basement (B-type) and unconformity (A-type) mineralization on parallel mineralized trends, and the distribution of associated argillic alteration. Mineralization is developed in graphitic gneiss units that contain concordant faults. Mineralization at Horseshoe and Raven is a variant of B-type mineralization, comprising basement-hosted zones of disseminated and veinlet pitchblende-dominant mineralization associated with clay-hematite alteration around a probable fault zone.

Uranium deposits in the area form three different, although commonly spatially related, types of unconformity type uranium deposits (e.g. Figure 7.1):

A. Deposits developed at, or just above, the Athabasca unconformity in Athabasca sandstone along the trace of northeast-trending faults. These deposits occur in sandstone in the footwall wedge to graphite-bearing graphitic gneiss overthrust on Athabasca sandstone (e.g. Collins Bay A, B and D-zones), or in gradational drops/humps in the unconformity above graphite-rich lithologies and faults (e.g. Sue A/B, Figure 7.1; West Bear, McClean Lake). They are generally associated with non-calcareous graphitic and biotite gneiss. Mineralization occurs in pods and disseminations in intense hematite-clay-chlorite alteration, locally overprinting spatially associated breccias and zones of intense clay alteration that sit directly above mineralization in sandstone. Common structural sites include bends and steps in fault systems, or 5-20 m humps in the unconformity that may reflect the interaction of graphitic shear zones with faults of different orientations. These deposits are characterized by assemblages of Ni and Ni-Co arsenides and sulpharsenides that accompany uranium mineralization.

B. Basement-hosted deposits within or surrounding fault zones in predominantly non-calcareous gneiss. These deposits are exemplified by Eagle Point and Sue C/CQ, which are composed of veins, disseminations and pods that link, or replace faults in or near graphitic-

bearing gneiss. Veins frequently occur in extensional fractures that may link individual faults (Sue CQ, Figure 7.1; Telephone zone), or occur in an echelon steps in faults (Eagle Point). Unlike deposits of type A, above, these deposits lack arsenide and sulpharsenide minerals in mineralized zones. Mineralization is composed of discrete pitchblende veins, planar replacements of fine-grained nodular pitchblende + clays, or undulating pitchblende/uraninite-bearing redox fronts surrounding clay veins and faults. A variation on this deposit type occurs at Raven and Horseshoe, where mineralization occurs in hematitic redox fronts and veins surrounding large, semi-tabular clay alteration zones that are cored by probable faults. Horseshoe and Raven differ however, from other basement deposits in the region in that they lack spatially associated graphitic gneiss units or carbonaceous fault zones.

- C. Basement-hosted deposits associated with hydrothermal breccias in calcareous gneiss adjacent to northeast-trending faults. The only example of an orebody of this type in the area is the Rabbit Lake deposit, although several local prospects are of similar style, and the largest basement-hosted unconformity deposits in the Alligator River district of northern Australia are closely comparable. The Rabbit Lake deposit occurs perched above the Rabbit Lake Fault at its intersection with the North-South Fault, which is part of the Dragon Lake Tabernor-type fault system. Mineralization occurs on the margins of a large hydrothermal, chlorite-matrix breccia body that affects dolomitic marble and adjacent lithologies, and that may have formed during dissolution collapse of the carbonate, forming a highly permeable zone. High-grade mineralization is superimposed on the northeastern margins of the breccia and associated silicification/dravitzation along the trace of the North-South Fault.

Uranium deposits in the district frequently occur in deposit clusters that comprise one or more deposit types. For example, four major uranium deposits, the Collins Bay zones (type A deposits) and the Eagle Point mine (type B), occur along a 5.5 km strike length of the Collins Bay Fault system on the Rabbit Lake property (Figure 6.1). Other deposit clusters include the Sue, McClean Lake, and Dawn Lake deposits (Figure 6.1), where deposits occur in at least two parallel trends, along which deposits may be strung out along parallel faulted graphite-bearing or calc-silicate units and spaced 100-700 m apart. The position of mineralization may also vary systematically with respect to the Athabasca unconformity across deposit groups in these areas, varying progressively from deposits of type A developed at, or perched above the Athabasca unconformity, to deposits of type B, developed in basement rocks 10-200 m below the unconformity that may occur along strike from the unconformity hosted mineralization (e.g. Sue C and Sue A/B; Eagle Point and the Collins Bay zones), accompanied by the disappearance of Ni-As-Co minerals in the basement-hosted mineralized zones. The spatial coincidence of unconformity and basement-hosted deposits emphasizes the importance of testing both the unconformity and basement rocks where mineralization has only been historically discovered at the unconformity.

Deposits of all the styles described above are associated with, and generally enveloped by, intense zones of argillic alteration that are composed predominantly of illite, chlorite and kaolinite. The influence of alteration extends over a far greater area than the dimensions of the deposits themselves, and consequently the tracking of alteration distribution, mineral zonation and associated lithogeochemical changes is an important tool in vectoring exploration (Sopuck et al., 1983). In the Athabasca sandstone, alteration plumes may extend hundreds of meters above the unconformity-hosted uranium deposits, while in basement rocks alteration is generally more restricted to the vicinity of associated faults. Mineralization frequently occurs at redox fronts marked by zones of hematization, and a change from sulphide to oxide accessory mineral assemblages.

Uranium deposits in the area are generally associated with east and northeast trending, southerly dipping fault zones that are localized within, or cross graphitic gneiss and carbonate/calc-silicate units. Mineralization occurs in areas of enhanced structural permeability and/or low stress (dilatancy) along faults including fault junctions (e.g. Rabbit Lake), beneath brecciated sandstone under overthrust wedges (e.g. Collins Bay zones; McArthur River), at bends and en echelon steps in the faults (e.g. B-zone), and at dilational jogs (e.g. Eagle Point). These structural sites are in turn influenced at a broader scale by the occurrence of pre-Athabasca bends and lobes in the granitic domes and their mantling gneiss units, and folds within the metamorphic sequence, both of which have controlled the distribution, continuity and morphology of the faults. Mineralization is generally structurally late in the faulting history, and while basement-hosted mineralization is frequently localized along or adjacent to faults, both mineralization and its associated alteration may overprint fault rocks. The common position of deposits in fault zones and the morphology and orientation of vein systems suggest that mineralization occurred late during a period of northwest-southeast shortening and fault activity in the region. The occurrence of the Rabbit Lake deposit at the intersection of a northerly trending Dragon Lake Tabbernor-type fault with the northeast trending Rabbit Lake Fault, and the development of clay-hematite alteration with local anomalous radioactivity along the Tabbernor faults in the local region, suggest that these faults may have also been active during the formation of deposits and contributed to fluid flow and localization of uranium deposits in the district.

8.0 MINERALIZATION (*form 43-101 F1 item 11*)

Uranium mineralization in the Horseshoe and Raven deposits occurs along an east-northeast trending zone of illite-Mg-chlorite clay alteration that is developed over at least a 2.5 km strike length extending along the southeast flank of the Raven syncline (Figure 6.2). Along this clay alteration zone, mineralization that has been defined by both current and historical drilling over strike lengths of approximately 1 km at each deposit, within which multiple mineralized zones are developed internally in each deposit (Figures 6.2, 8.01, 8.12). The two deposits are separated by approximately 0.5 km between which clay alteration is continuous and often intense, but in which to date widely spaced historical holes have intersected only anomalous radioactivity. Further drilling is planned in this area to test for additional potential mineralization between the deposits. The clay alteration zone may be cored by, and potentially overprint a southeast dipping fault zone, which may have focused fluid flow and controlled the formation of dilational vein and disseminated replacement-style mineralization in the deposits.

Mineralization at the Horseshoe and Raven deposits is hosted entirely by folded arkosic quartzite, quartzite and calc-arkosic gneisses of the Hidden Bay Assemblage, and occurs at depths ranging from a few tens of meters up to 460 m below surface. It is locally open at depth. As is discussed in Section 6, the Athabasca sandstone is eroded from and absent in the area of the deposits, but local sandstone outliers that occur to the southeast of Hidden Bay and sub-Athabasca paleoweathering that is preserved in the near surface of some nearby drill holes suggest that the current surface is just below the elevation of the original sub-Athabasca unconformity in the deposit area, prior to its erosion.

Within each deposit, mineralization surrounds, or is developed along, the generally southeast dipping clay alteration zone in multiple, generally shallow dipping lenses of disseminated and vein-like pitchblende-uranophane-boltwoodite mineralization that are associated with red-brown hematite alteration. Details regarding the morphology, dimensions and nature of mineralization in each deposit are discussed below.



A: HU-016: entire mineralized A zone intercept, 194-219.5 m



B: HU-063, 211-233 m, typical fresh arkosic quartzite

Photo 4: Nature of alteration and ground conditions in the Horseshoe deposit. **A:** Photo of six NQ core boxes which contain the entire high grade intercept in hole HU-016 (4.53% U_3O_8 over 12.35 m). Host rock is entirely arkosic quartzite with patchy hematite-clay alteration. Despite the high grade nature of the intercept, core recoveries are extremely high, even in the higher grade portions of the intercept at center. Wallrocks are competent, except over local intervals within the mineralization (center) where some blocky ground is present. **B:** Intersection of typical fresh arkosic quartzite outside areas of mineralization and alteration. Note competent nature of core. **C:** Interval from the central parts of the most intense clay alteration below the BE zone in the northeastern Horseshoe deposit. The arkosic quartzite is altered to dominantly greenish illite-sudite, and core is friable despite good core recoveries. Upper rows are also hematized.



C: HU-090, 277-287 m, clay altered arkosic quartzite

8.1 Alteration associated with uranium mineralization

The most prominent and continuous feature associated with uranium mineralization in both the Horseshoe and Raven deposits is the continuous, generally southeast dipping zone of clay +/- hematite alteration which extends through, and between the deposits. The alteration zone may be manifested as a single, semi-tabular or lobate zone of moderate to steeply dipping alteration, or as multiple lenses and branching lobes of alteration which extend outward, often along individual rock units. In the latter case, alteration may extend upward or laterally off a narrow more steeply dipping tabular alteration zone that may be centered on a southeast dipping fault. Thickness of clay alteration is variable, but generally ranges from 20-130 m depending on geometry. Alteration is developed with variable intensity, and is most intense in the very thickest parts of the arkosic quartzite (ARKQ) unit at Horseshoe and upper parts of the calc-arkose (CARK) unit at Raven. Alteration at the Horseshoe deposit often terminates abruptly upward at the base of the calc-arkose unit, but this pattern differs at Raven, where basal portions of the upper calc-arkose may

be strongly clay altered. In the Raven deposit, alteration locally varies from focused to more broadly distributed zones where patchy, weak to intense clays may affect intervals of quartzite up to 250 m wide.

8.1.1 Clay alteration

The clay alteration zone at Horseshoe becomes progressively more tabular to the northeast, where it dips shallowly to the southeast. In southern parts of the deposit, alteration widens upwards into multiple lobes and shallow dipping zones which extend off a master, moderate to steep southeast dipping clay alteration zone. At both deposits the alteration is overall discordant to lithologies and dip more shallowly to the southeast than F2 fold axes, obliquely crossing F2 fold hinges. The shallower dipping areas of alteration at Horseshoe extend down dip to the east at the northeastern end of the Horseshoe deposit where strong clay alteration may widen up to 175 m in vertical thickness in a broad shallow dipping alteration zone which extends east and southeast and merges with clay alteration surrounding the northerly trending, steep westerly dipping Dragon Lake Fault.

Clay alteration is composed of pervasive fine-grained pale grey or greenish clay, which preferentially affects feldspars and mafic minerals (biotite, amphibole, pyroxene). Consequently, units with the highest feldspar content (e.g. arkosic quartzite, calc-arkose, semi-pelitic gneiss, pegmatite) often are most intensely altered, while quartzite, with its low feldspar content, may exhibit less. More restricted areas of alteration locally form a cap to larger areas of alteration beneath it within the arkosic quartzite in western parts of the Horseshoe deposit (Figures 8.02-8.04). Loss of coherence due to destruction of framework silicates and bleaching or destruction of ferro-magnesium minerals occurs locally where alteration is most intense and quartz is completely altered to clay. However, in most areas, alteration in the quartzite and arkosic quartzite retains primary quartz and even altered rocks where feldspars are dominantly clay altered remain competent, and have excellent core recoveries during drilling (Photo 4A). Within the most intensely altered areas, intervals of intense clay often alternate with competent, moderately to strongly altered host rocks in which feldspars and biotite are clay altered and quartz may be pitted (Photo 4C). Drusy quartz veins and irregular euhedral quartz-lined vugs occur particularly in areas of less clay altered arkosic quartzite and quartzite at the periphery of the clay alteration zones, possibly reflecting redeposition of quartz outside the most intense quartz destructive areas of alteration.

To track and model areas of clay alteration, UEX records relative clay alteration intensity from 0 to 4, with areas of intense, texturally destructive clay coded 4. Areas with clay alteration of intensity 3 and higher are shown in yellow on cross sections in Figures 8.02-8.10 and 8.13-8.15, which illustrates areas where at least 50% of the core is altered to clay. Some minor internal zones may be less intensely altered.

Areas of intense clay alteration defined by drilling coincide well with geophysical gravity and resistivity lows. Geophysical anomalies coincident with clay alteration zones extend beyond the limits of closely spaced drilling, outlining several prospective exploration target areas. Resistivity profiles also mirror the morphology of alteration on individual drilling cross sections, allowing alteration and associated targets to be modeled three dimensionally, and greatly enhancing drill targeting. The area of intense clay alteration is continuous for 2.5 km extending from the Raven deposit trending northeast past the end of recently defined Horseshoe mineralization (Figure 6.2).

8.1.2 Hematite alteration

Areas of clay alteration at the Horseshoe and Raven deposits are often enveloped by 2-100 m wide domains of brick red to brown hematite that occur on the margins of clay alteration (Photo 4C) or are separated from the clays by several meters of less altered wallrock. Fe-oxides in the hematite alteration comprise mainly hematite with varying abundance of more amorphous Fe-oxy-hydroxide species (Ross, 2008b), which collectively are reddish brown to purple in hand sample. These hematite-altered areas are host to, or spatially associated with much of the uranium mineralization in both deposits. Like the clay alteration, UEX personnel systematically record hematite alteration intensity during drill core logging. The intensity is recorded as a qualitative range from 0 to 4 with intense hematization coded 4. Areas with a hematite alteration intensity of 2 or more are shown in cross sections in Figures 8.02-8.10 and 8.13 to 8.15. Hematization generally comprises fine-grained hematite which replaces mafic sites, and to varying degrees, feldspars in gneissic units, and is generally accompanied by weak clay or chlorite alteration. It may be patchy, with alternating intensity, or form a more intense pervasive wash throughout the host rock, imparting a pervasive purple-red tint (Photo 5A). As clay alteration is generally not intense in hematized areas, the host rock is generally competent, although hematization can also extend into more intensely clay altered areas, tinting the clays

In the Horseshoe deposit, hematization forms lenses of generally shallow dipping alteration. These occur both above and below the main clay alteration zone in the central and eastern Horseshoe deposit, where they are most abundant and may extend for up to 100 m above the clay alteration (Figures 8.07 to 8.10). In the western Horseshoe deposit, as the clay alteration becomes less planar, hematite occurs as lenses mainly developed in arkosic quartzite that surrounds the clay alteration (Figures 8.02 to 8.04). In this area, hematite alteration coalesces into a 100 m high by 150 m wide broadly hematized area that lies mainly above the clay alteration zone between sections 4500 and 4600 N (Figures 8.05 and 8.06). This broader zone of hematization corresponds with the western end of the Horseshoe A zone, extending eastward where it separates into smaller zones that envelop or are spatially associated with the principal areas of uranium mineralization in the eastern Horseshoe deposit. Up dip to the northwest, along the length of the Horseshoe deposit, hematization is poorly developed or absent, tapering and diminishing upward at the base of the calc-arkose unit along the trace of the Raven syncline, although the associated clay alteration locally continues upward as a thin, potentially fault controlled band.

Similar to the hematite-altered areas at Horseshoe, hematite alteration at Raven also occurs peripheral to, and surrounding the principal clay alteration zone. Hematization often forms a continuous shell to the clay alteration, enveloping and overlapping it in a broadly tabular southeast dipping zone, particularly in lower parts of the deposit in the arkosic quartzite and underlying semi-pelitic gneiss/arkosic quartzite units (Figures 8.13-8.14). Areas of hematization widen upward into the quartzite unit, particularly in the hangingwall of the clay alteration zone, broadening upward with a geometry that mimics the folded outline of the quartzite on some sections (Figure 8.15). Uranium mineralization typically occurs as lenses within these hematitic areas. Hematite alteration extends higher upward than at Horseshoe, and may reach the current surface on some sections in calc-arkose (Figure 8.15), corresponding with local near-surface development of uranium mineralization.

8.1.3 Outer alteration

Distal to clay and hematite alteration, host gneissic units are typically fresh, with mafic minerals preserved. However, within a few meters to tens of meters, mafic minerals (biotite in quartzite

and arkosic quartzite, pyroxene, amphibole and biotite in calc-arkose, and calc-silicate units) are often chlorite altered and incipient chlorite or clay alteration may affect feldspars. In addition, pyrite and locally pyrrhotite may be present, either as primary disseminated minerals locally associated with mafic mineral grains, or as secondary concentrations locally up to 2% disseminated and as stringers within a few meters of hematite alteration zones. These define an outer reduced envelope to the hematite alteration. Drusy quartz veinlets locally occur peripheral to the clay alteration zones in these areas, which may contain pyrite, and more rarely chalcopyrite, galena and pyrrhotite.

8.1.4 Mineralogical and geochemical patterns in alteration zones

During drilling, UEX has systematically collected representative samples approximately every 5 m for clay mineral analysis using an infrared analytical spectral device (Terraspec unit). Outside of mineralized or highly altered areas where extensive geochemical sampling was not conducted, 10-15 cm long core intervals from the Terraspec samples were also sent for multi-element geochemical analysis to form complete cross sectional geochemical and mineralogical profiles on selected sections through, and beyond, the Horseshoe deposit. The data was recently reviewed by Halley (2008), augmenting previous work by the authors, Rhys and Ross (1999) and Quirt (1990). Overall patterns determined are as follows:

- Clay minerals within the core of the clay alteration zones at both Horseshoe and Raven proximal to the centre of the clay plume are dominated by assemblages of pale colored illite and sudoite (Mg-Fe chlorite), with trace dravitic tourmaline (Quirt, 1990). Pale apple green possible palygorskite, and locally talc or serpentine (lizardite), occur locally in some of the more intense clay zones (Raudsepp, 2007). Hematite is locally present, but as discussed above is generally peripheral to the main clay zones. Overall, mineral assemblages in the clay alteration zones are consistent with an oxidized and moderately acidic hydrothermal fluid (Halley, 2008).
- In addition to illite and sudoite, mineralized areas near zones of hematization also contain illite, minor amounts of mixed layer illite-smectite, and locally kaolinite or smectite (Quirt, 1990; Rhys and Ross, 1999). Carbonate, replacing plagioclase in extremely altered rocks, is also often associated with mineralization in hematized areas peripheral to the main clay zone (Quirt, 1990).
- A zonation in the spectral infrared absorption signature of illite varying from shorter wavelengths in cores of the clay zones near orebodies to longer wavelengths more distally also supports increasingly acidic conditions in the core of the alteration zones (Halley, 2008).
- Geochemically, the clay alteration zones are associated with Mg and K enrichment of the hosting quartzite and arkosic quartzite units, which may be marked in areas of most intense alteration. In addition, geochemical markers which can aid in the mapping of the alteration zone also include enrichment V, V/Sc ratio, and Li (which occurs in sudoite), which track the overall footprint of the oxidized alteration zone at Horseshoe (Halley, 2008). As, Bi and Pb also track the core of the alteration zone around the uranium mineralization but are more proximal to the mineralization itself, while anomalous Cu and Mo occur in some areas of hematization mainly above the mineralization in eastern parts of the Horseshoe deposit (Halley, 2008).
- Outer parts of alteration zones are depleted in Ca and Na, associated with plagioclase alteration and depletion (Halley, 2008).
- Outside of the clay and hematite alteration zones, peripheral alteration is much weaker and comprises darker green more Fe-rich chlorites than in the core of the alteration zone. These peripheral zones are generally restricted to alteration of primary metamorphic

mafic minerals. These more Fe-chlorite-rich areas may also contain trace kaolinite and local areas of disseminated pyrite, suggesting that they are reduced.

Note that although forming above-background pathfinders for prospective clay and hematite alteration, the As, Pb, Cu, Bi, Mo and V concentrations in mineralization and wallrocks are not sufficiently high to form potential disposal or contamination problems, as is further documented in Section 15.1.

The mineralogical and geochemical patterns described above will be utilized by UEX in ongoing exploration of the Horseshoe and Raven deposit area. Their significance in the overall evolution of the deposit and its controls are discussed below.

8.1.5 Faults in alteration zones: potential controls to uranium mineralization

Clay alteration may overprint, and be focused along a pre- to syn-mineralization, moderate to steep southeast dipping brittle fault zone, which may run along the central axis of the clay alteration zone. As is discussed in Section 6.2.3 above, evidence of a fault coring the clay alteration zone includes abrupt changes in the thickness of the quartzite unit and difficulty in tracing D2 fold hinges across the clay alteration zone, as well as local occurrence of clay gouge seams and focused clay matrix breccia along the up dip projection of the clay alteration zone at Horseshoe. However, individual fault strands are often not identifiable in clay alteration zones, which can be explained in most intensely altered areas by alteration overprinting. In addition, in areas of weaker clay alteration where primary textures are visible and the host rock more competent, individual fault strands often cannot be identified along the projected fault trace. If a continuous fault is present, mineralization and alteration may have occurred late during activity of the fault, or exploited an earlier structure, locally potentially healing earlier fault surfaces.

The interpreted position of a controlling fault to both the Horseshoe and Raven deposits is shown on Figures 8.02-8.10 and 8.13-15, based on the position of lithologic thickness changes and discordances, alteration intensity, and overall morphology of alteration. A discrete, clearly recognizable fault however, is often not always identifiable at this position. As discussed by Rhys and Ross (1999), discontinuity of potential fault strands could suggest that the fault zone is comprised of individually discontinuous, but en echelon fault surfaces which collectively define a more continuous fault zone. The often shallow dipping to subhorizontal nature of hematite alteration and uranium mineralization suggest that they may have formed in shallow dipping, extensional fracture or replacements zones in response to late reverse displacement on the fault. Earlier, apparent normal displacement would however be suggested by the apparent offset of lithologies and folds.

8.1.6 Geotechnical considerations

Although extensive, areas of clay alteration often are not associated with any decreases in core recovery during drilling, since in most areas framework quartz grains in the quartzite and arkosic quartzite are unaffected and retain rock strength. This is supported by initial geotechnical studies, which include Rock Quality Designation (“RQD”) and point load testing studies. Hence, it is anticipated that clay altered areas with only the most intense alteration (clay intensity of 3 or 4), with broader zones of more friable alteration may consistently affect rock quality and provide problems to ground support during mine development. The most consistent intensely altered areas lie between the BW and A zones in northeastern portions of the Horseshoe deposit. Friable areas do occur within some higher grade portions of the A zone, but these are closely restricted to the

mineralization, and the surrounding wallrock usually becomes rapidly fresh and competent adjacent to these areas. The alteration intensity recorded during core logging, in conjunction with core recovery data that has also been collected, may consequently provide important engineering constraints on local ground conditions. Few faults were identified during core logging, and no discrete corridors of fault development were recognized in or near mineralized zones, apart from potential faulting along the central axis of the clay alteration zone, as discussed above.

8.2 Uranium mineralization

Uranium mineralization in both the Horseshoe and Raven deposits is located mainly within zones of hematite alteration which occur peripheral to the zones of clay alteration. Five principal uranium-bearing minerals have been identified in the two deposits by Quirt (1990), DiPrisco (2008) and Ross (2008b). The principal, and most abundant uranium-bearing mineral is uraninite (variety pitchblende - UO_2), which is also generally the paragenetically earliest uranium mineral. Secondary uranium minerals, which are generally formed here by alteration and remobilization of uranium in uraninite, are comprised of the yellow-green colored uranium silicates boltwoodite $\text{HK}(\text{UO}_2)(\text{SiO}_4) \cdot 1.5\text{H}_2\text{O}$, and uranophane $\text{Ca}[(\text{UO}_2)\text{SiO}_3(\text{OH})]_2 \cdot 2\text{H}_2\text{O}$, which are locally accompanied by coffinite $\text{U}(\text{SiO}_4)_{1-x}(\text{OH})_{4x}$ and minor amounts of carnotite $\text{K}_2(\text{UO}_2)_2\text{V}_2\text{O}_8 \cdot 3\text{H}_2\text{O}$ and possibly autunite $[\text{Ca}(\text{UO}_2)(\text{PO}_4)(\text{H}_2\text{O})]_{10-12}$. There are locally other complex, unidentified U-minerals present, but these are volumetrically minor. Nickel arsenide and cobalt minerals, which are typically associated with unconformity uranium deposits that occur at the base of the Athabasca sandstone (type A in Section 7) are absent at Horseshoe and Raven. The relatively simple pitchblende dominant metallic mineral assemblage at the deposits is typical of other basement-hosted uranium deposits in the region, such as Eagle Point (Quirt, 1990).

Within mineralized zones, uranium mineralization occurs with three dominant gradational variations in style, which may either occur together, or occur as the only style within individual drilling intercepts or mineralized lenses:

- a) *Disseminated pitchblende-dominant mineralization*: Typically occurring in competent, hematite-rich arkosic quartzite (Photo 5), this style comprises disseminated pitchblende and coffinite grains which replace mafic sites and with increasing abundance, feldspar sites. Chlorite-dominant varieties of this alteration may also occur locally, where instead of hematite, dark green chlorite occurs in the same habit, probably reflecting local variations to more reduced conditions or overprinting alteration (Photo 5C). In disseminated mineralization, pitchblende may occur as individual disseminated grains or aggregates, often intergrown with hematite, clays and chlorite. Much of the BE zone, A2 to A4 zones, and BW zone at Horseshoe are composed of this style of mineralization, which is often associated with broad zones of consistent 0.1-0.3% U_3O_8 grade that comprise some of the thickest drill intercepts in the Horseshoe deposit. Higher grade areas of this style may also have disseminated boltwoodite and uranophane.
- b) *“Nodular” or redox front style mineralization*: The highest grade areas of mineralization in both deposits typically are associated with this mineralization style, which comprises much of the A, A2 and S2 zones at Horseshoe, and higher grade portions of the U1 zone in the Raven deposit. It typically comprises pervasively disseminated nodules, blebs and lenses of pitchblende, which occur either disseminated or as lenses through bands of hematite, or as uraniferous envelopes to lenses and bands of red to pinkish hematite + clay alteration (Photos 6, 7, 8). In the latter case, the mineralization may form along redox fronts, extending outward from the hematite as pervasive grey, fine-grained pitchblende mineralization which diminishes in intensity a few centimeters from the hematite bands (Photo 6E; 8A, B, D). In some wider drilling intercepts which contain this

mineralization style, hematitic bands with associated higher grade uranium mineralization ranging from a few tens of centimeters to a few meters thick may be separated from additional uraniferous hematite bands, by several meters of relatively unaltered or weakly altered, locally pyrite-bearing wallrock, defining alternating high and low grade intervals (Photo 6A). In the highest grade areas, where mineralization occurs with hematite, nodules and coarse anhedral clots of dull grey to black U-minerals (pitchblende +/- coffinite) may be present (Photo 7A-C; 8C, E). These clots are often surrounded by small-scale reduction spots as well as distinctive pink (hematite) and yellow (uranophane) alteration (Photo 6B; 7A-C)). Fine-grained U-minerals also occur in microfractures within quartz grains (DiPrisco, 2007; Ross 2008b). These fine-grained U-minerals are more pervasively disseminated as envelopes to hematite bands and interstitial to or intergrown with clays. Secondary U-minerals, principally uranophane and boltwoodite, are most abundant in higher grade portions of the nodular mineralization and result in characteristic yellow alteration seen in this mineralization style. These secondary minerals occur as irregular veinlets (Photo 7D), or disseminated pervasively, often surrounding pitchblende clots, or replacing it in the groundmass. A characteristic pale pinkish colour of oxidized clay altered domains in high-grade portions of the nodular mineralized areas at Horseshoe is due to hematite, or more amorphous Fe-hydroxides (Ross, 2008b).

- c) *Veinlet mineralization:* Pitchblende-bearing veinlets are locally developed in both deposits. These are most abundant where mineralization is developed in competent, but variably (patchy) hematite altered quartzite. The difference in style with respect to other lithologies probably reflects the more rheologically competent and less permeable nature of the quartzite, which is less susceptible to secondary permeability associated with alteration than other lithologies that contain more disseminated styles (e.g. as seen in the more easily altered arkosic quartzite). Pitchblende veinlets (fracture fillings) in quartzite may occur spaced a few centimeters to tens of centimeters apart, and comprise stringers usually <3 mm thick of patchy pitchblende + chlorite +/- clay. They generally cut across dominant gneissosity at high angles. Fine-grained disseminated pitchblende may occur interstitial to quartz grains in veinlet envelopes. They may have bleached envelopes in otherwise hematite-altered quartzite. Thicker pitchblende veinlets up to 2 cm thick which are discordant to foliation also occur. These are mainly observed at Raven, where they form irregular chains of pitchblende grains and aggregates, often with yellow uranium silicates (Photo 7F).

In all mineralization styles, in addition to the coarser-grained U-minerals, primary uraninite is commonly observed occurs in networks of thin fractures that occur in quartz grains, whereas secondary uranium-bearing minerals form tight intergrowths with hydrothermal alteration assemblages that have overprinted the matrix of the host rock (DiPrisco, 2007). In areas of the hematite-rich alteration, aggregates of secondary uranium minerals are intergrown predominately with Fe-oxi-hydroxides and form medium-to very coarse-grained aggregates. Local replacement of micas in the matrix has resulted in extremely fine-grained textures of secondary uranium minerals tightly intergrown with chlorite and Fe-oxi-hydroxides. U-minerals (mainly pitchblende and coffinite) also locally rim sulphide minerals that may occur in fractures or disseminated in the altered groundmass, in both disseminated and nodular textured mineralization (Ross, 2008b). Sulphide content is generally low, typically less than 2% even in high-grade samples, consisting dominantly of pyrite, pyrrhotite and locally chalcopyrite. These sulphide minerals occur in microfractures and disseminated in the mica/clay minerals. Galena and chalcopyrite are also present in trace amounts in micro-fractures, and in amorphous U-mineral clots in nodular mineralization.



A: HU-063, 348-357 m, typical core from intercept of 0.18% over 60.90 m



B: HU-109: core from 289-291 m (from 0.18 % over 50.1 m); samples here are from intervals grading 0.42-0.77%



C: Left: HU-085, 306.85 m (in interval grading 0.51%); right HU-050, 308.3 m (in interval grading 0.403%)



D: HU-134, 276 m; from interval grading 3.63%

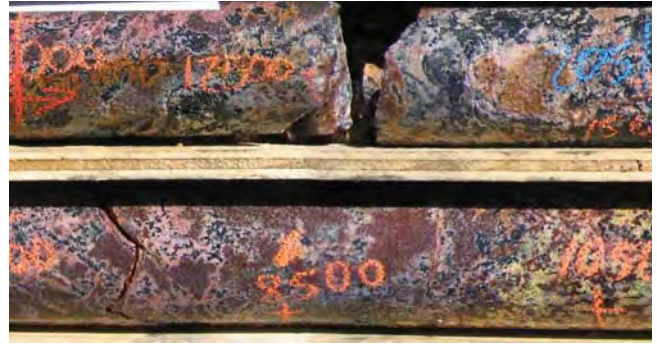


E: HU-088, 324.2 m (from interval grading 1.46% U₃O₈). Field of view is 4 cm.

Photo 5: Horseshoe: Disseminated style mineralization. This mineralization style hosts the bulk of mineralization in the BE zone, and in central and eastern parts of the deposit much of the mineralization in the BW and A3 to A5 zones. **A:** Typical view of an intercept of disseminated mineralization in arkosic quartzite. Note purple-grey hematite throughout, and competent nature of the core. **B:** Detail showing hematitic disseminated mineralization in arkosic quartzite. Very fine grained dark speckles are U-minerals. Mineralization is locally concentrated in aggregates. **C:** Disseminated mineralization style where chlorite-dominant. Black speckles are largely U-minerals. **D and E:** Details of higher grade hematitic disseminated mineralization, with disseminated pitchblende +/- coffinite grains (black, left), and aggregates (dark spots, right) replacing the feldspathic matrix.



A: HU-016, 211.7-215 m; center row = 12.31%



B: HU-016, 204.8-206.3 m; top interval 22.2% U₃O₈; bottom interval = 8.14%



C: HU-045, 183.4-189.5 m; 185-185.2 = 5.43%; top rows = 0.01 to 0.44%; second row from bottom (187.6-188.1 m) = 0.913%



D: HU-028, 192.7-193 m. Center core = 5.31% U₃O₈

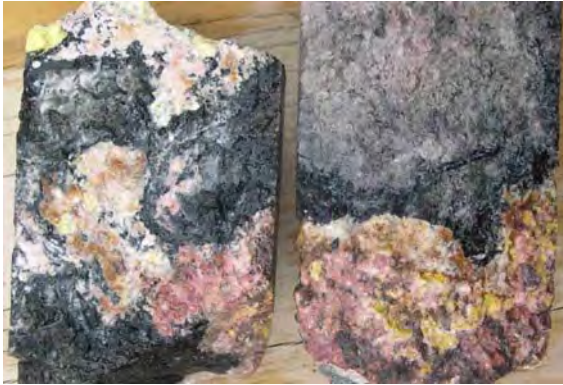


E: HU-028, 195.4 m: 1.23% U₃O₈ interval



F: HU-028, 195-198.5 m. Top core = 1.23%; bottom core row = 0.055 to 0.22 % U₃O₈

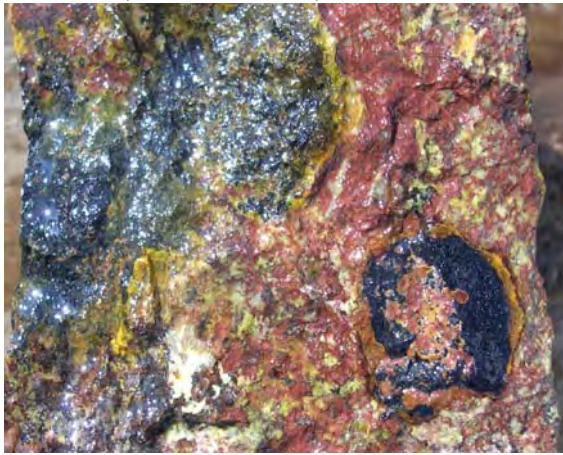
Photo 6: Horseshoe deposit: areas of higher grade nodular style mineralization in the Horseshoe A zone. All drill core is NQ diameter. **A:** Dark grey/black pitchblende with yellow uranophane-boltwoodite occurs in red-brown hematite in the central row. The row above is nearly fresh arkosic quartzite, and lower row is hematite-clay altered. **B:** Very high grade mineralization, showing nodular pitchblende in red-brown hematite. Pale pinkish reduction spots surround the pitchblende nodules and associated yellow U-silicates at lower right. **C to F:** This series of photos illustrates the distribution and morphology of the nodular-redox front style mineralization. In photos C and F, bands of hematite-pitchblende (dark reddish purple-grey) occur in competent, fresh to weakly clay altered arkosic quartzite (pale to moderate grey), with banding and margins of these higher grade intervals developed at high core axis angles. Photo D is a detail of a high grade banded core to one of these zones showing black pitchblende-bearing bands which alternate with intensely purple hematite altered wallrocks; banding is at high core axis indicating shallow dips to the mineralization in this steep drill hole. Photo E illustrates occurrences of black pitchblende as a thin margin to the immediate right of a hematite band (at left), which together cut across gneissosity in arkosic gneiss at a high angle (gneissosity parallel to core axis at right). A similar relationship occurs in F, where gneissosity is at a shallow core axis angle (center core row), while banding in the hematite-pitchblende mineralization is at high core axis angles.



A: HU-100, 171.7 – 171.8 m; from 2.17% interval



B: HU-016: 202 m



C: HU-016, 205.9 m. Field of view = 4 cm



D: HU-016, 207.5 m

Photo 7: Details of high grade mineralization in the Horseshoe A zone illustrating paragenesis and uranium mineralization style. **A:** High grade pitchblende mineralization forms as envelopes to pink clay-hematite. Note U-silicates in pink hematite-clay domain in lower right core. **B:** Pitchblende aggregates (black) occur in intense hematite, and at left are partially surrounded and replaced by domains of yellow-green U-silicates. **C:** Elliptical pitchblende nodules occur in intensely hematite altered arkosic quartzite. Yellow-green U-silicates (uranophane or boltwoodite) envelop nodules and occur in the adjacent hematitic matrix. **D:** Veinlets of paragenetically late yellow U-silicates cut hematite alteration which contains pitchblende aggregates.

Precipitation of uranium mineralization may have been directly coupled with hematite formation (Quirt, 1990), occurring at a deposit scale in redox fronts with the mineralization located at the interface between oxidized fluid channelways in clay alteration zones with illite-sudoite dominant alteration, and surrounding reduced wallrock which contains sulphide-bearing assemblages. These patterns also repeat at the local scale: in areas of higher grade nodular style mineralization, the alternating hematite-related higher grade mineralization alternates with adjacent reduced fresher wallrocks, with mineralization often forming higher grade seams at the redox transition. The deposit scale occurrence of mineralization in hematized fronts surrounding oxidized fluid channelways is reminiscent in style to the geometry of roll front uranium deposits.



A: RU-002, 106.3-106.6 m center (interval = 1.25 % U3O8)



B: RU-118, 117 m (top = 0.06%) and 135 m (bottom = 0.36%)



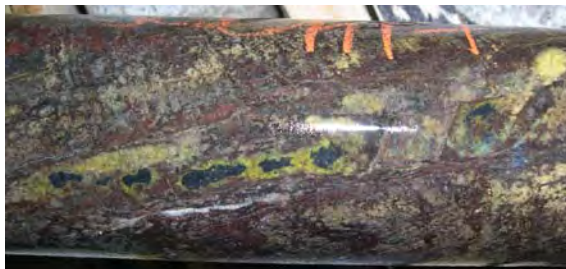
C: RU-026, 115.5-119 m (center 117.2-117.5 = 1.52%; bottom = 118.5-118.9 = 2.29%)



D: RU-095. 148.7 m; 0.46% interval



E: RU-118, 118.2 m; from interval grading 0.63% U3O8



F: RU-002, 90.1 m, from interval grading 4.2%

Photo 8: Raven mineralization style in higher grade areas. **A** and **C**: Bands of nodular style hematite-pitchblende mineralization occur at high core axis angles in these two images, and discordant to the moderate core axis angles of gneissosity in these examples. In photo **A**, mineralization occurs mainly in the center row of core, where highest concentrations of pitchblende occur as an envelope to the hematite band, at left, while disseminated yellow U-silicates occur disseminated in the hematite band. In **photo C**, dark pitchblende occurs as bands and clots crossing the core axis within the hematite in the lower two core rows, with late yellow U-silicates at center right. **Photos B, D and E** show red-brown hematitic domains which occur with sinuous margins overprinting, and cutting across gneissosity in, foliated calc-arkose. Dark pitchblende occurs on the outer, leading edge of the hematite in all three examples, at the advancing edge of hematitic redox fronts. Dark pitchblende also occurs as aggregates and clots in the hematite at right in photo **E**. Note the foliation parallel pegmatite in photo **B** (lower core at left), which is overprinted by a mineralized redox front behind which the rock is hematized. Photo **F**: Veinlet of nodular pitchblende + yellow U-silicates developed at a shallow angle to core axis occurs in hematized calc-arkose. The veinlet cuts across the gneissosity (here seen at upper left) at high angles.

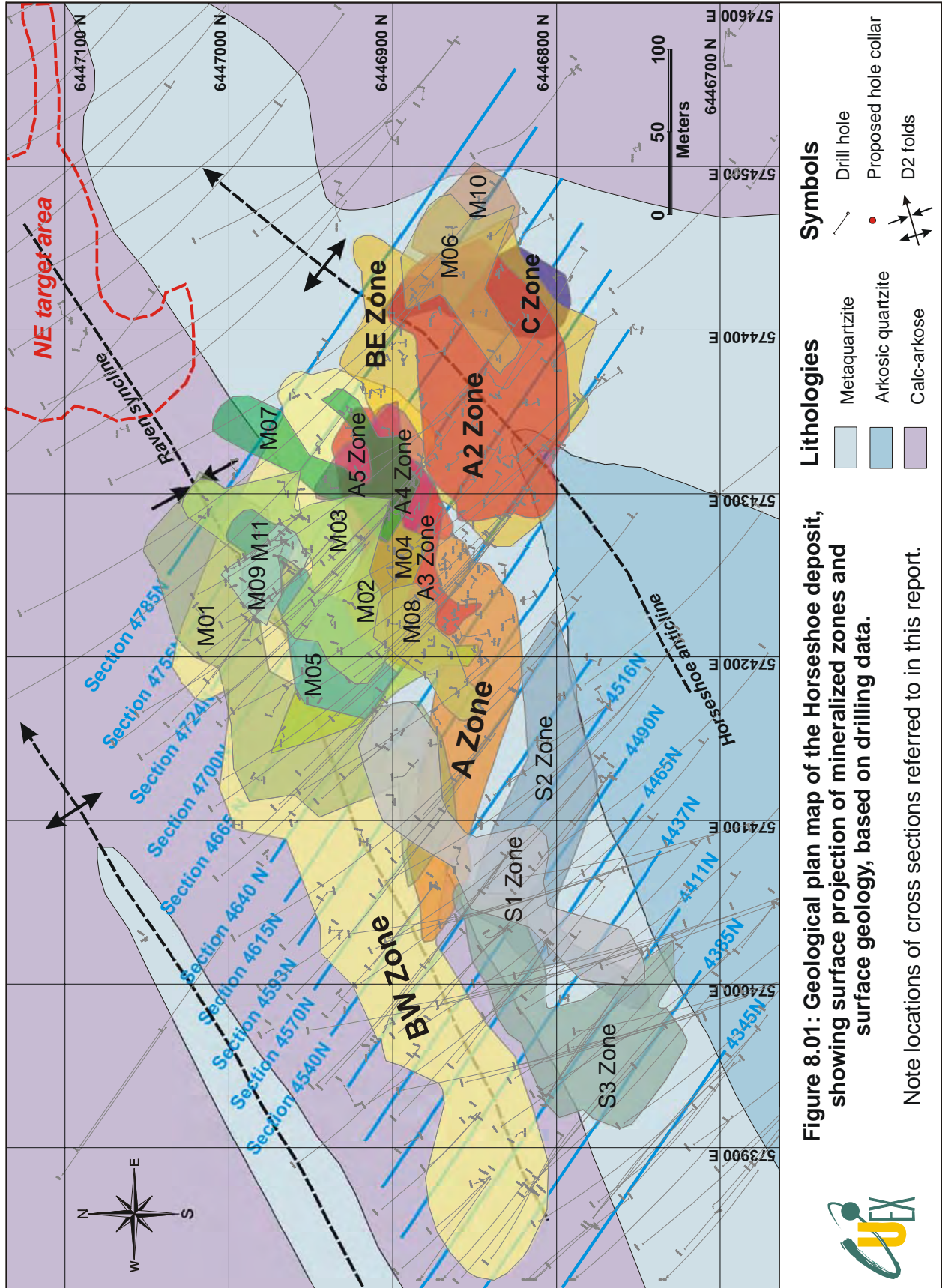


Figure 8.01: Geological plan map of the Horseshoe deposit, showing surface projection of mineralized zones and surface geology, based on drilling data.

Note locations of cross sections referred to in this report.

Lithologies	Symbols
Metaquartzite	Drill hole
Arkosic quartzite	Proposed hole collar
Calc-arkose	D2 folds



8.3 Horseshoe deposit: distribution of uranium mineralization

The Horseshoe deposit is consistently higher in uranium grade than Raven, and by contained uranium is the larger of the two deposits. Drilling conducted by UEX has defined continuous mineralization in the Horseshoe deposit over a strike length of approximately 600 m. Throughout this area, mineralization occurs in several stacked, linear and shallow dipping, east-northeast plunging zones which follow, and are developed peripheral to the main northeast trending, southeast dipping clay alteration zone that passes continuously through and between the deposits. The largest zones of mineralization at Horseshoe occur at depths of between 120 and 450 m below surface. Mineralization depths increase as the deposit plunges to the northeast, ranging in vertical depth below surface from 130 to 220 m in the southwestern parts of the A zone between sections 4540-4650N, to depths of 250 to 450 m below surface along sections 4690-4750N (Figure 8.11). The principal zones in the southwestern portions of the deposit, the S2, S3 and B West zones, occur at depths of 120-230 m below surface. Principal mineralized zones at Horseshoe are planar to lenticular in cross section, and in plan view generally elongate in an east-northeast trend (Figure 8.01).

8.3.1 Geometry and distribution of mineralization across the deposit

The geometry and extent of mineralized zones varies across the Horseshoe deposit. In the western parts of the deposit, between sections 4385N (Figure 8.02), where mineralization first commences, and section 4540N (Figure 8.05), mineralization occurs in a series of lenses that are developed mainly in arkosic quartzite within approximately 80 m of the overlying quartzite contact. Several lenses which occur here mimic the geometry of the folded arkosic quartzite unit in the core of the Raven syncline, varying in dip from shallow to the southeast to shallow to the northwest, and surround an irregular lobe of clay alteration (Figures 8.02 to 8.04). Where clay alteration can be traced to depth, it is steeply southeast dipping in this area (Figure 8.05), suggesting that any controlling structure here may dip steeply along the clay alteration zone. This western part of the Horseshoe deposit is comparable in style to the mineralization distribution and setting seen through much of the Raven deposit.

Morphology and extent of the Horseshoe mineralization begins to change between sections 4540N and 4640N (Figure 8.07). In this transitional area, the clay alteration zone associated with mineralization becomes increasingly more focused and tabular, and increasingly shallowly dipping. The mineralized zones which dip to the northwest in western parts of the deposit (the S2 and S3 zones) dissipate, and mineralized lenses become more consistently shallow southeast-dipping parallel to, or slightly shallower in dip than the clay alteration zone (Figures 8.05-8.07). Mineralization occurs both on the fringes above and below the clay alteration zone. It is in this transitional area between the western and eastern parts of the Horseshoe deposit that the A zone is best developed above the clay alteration zone, and is the highest grade, containing well developed nodular style mineralization.

Eastern parts of the Horseshoe deposit contain the widest, most extensive and most abundant zones of mineralization. This area coincides with the well developed planar and shallow southeast dipping nature of the clay alteration zone, which cuts obliquely across the folded gneiss sequence. Mineralization occurs in multiple shallow southeast dipping to subhorizontal lenses of mineralization that are developed mainly within 100 m of the hangingwall of the clay alteration zone, but also below it in the B West ("BW") and C zones (Figures 8.08-8.10). As with other parts of the deposit, the dominant host rock is arkosic quartzite. The longer dip length of the

mineralized zones in this area compared to the west results in an overall bend in the dominant trend of the deposit in plan view to southeasterly trending (Figure 8.01).

The overall changes in mineralization distribution across the deposit may correspond with increasing structural control and intensity of pre-mineralization controlling faulting along the clay alteration zone, as well as an overall shallowing of the controlling clay/fault zone. This change in orientation could reflect interaction with the nearby steeply dipping and northerly trending Dragon Lake Fault, which lies just to the southeast of sections 4682 to 4755 E (Figures 8.08-8.10), and which has been intersected by recent drilling in that area. The Dragon Lake Fault is enveloped by a broad clay-hematite alteration zone into which the main Horseshoe zone of alteration and potential faulting merges.

In addition to the close spacing of drill holes which support the shallow dipping orientations of mineralized zones and higher grade within them (Figures 8.06-8.08), further verification of the morphology of mineralization is the high core axis angles of banded hematite-pitchblende mineralization in higher grade areas, such as in the A zone (Photo 6D). In these areas, banded mineralization also is commonly observed cutting across the folded, steeply dipping gneissosity at a high angle (Photo 6E, F). The broad coincidence of hematite alteration and its often high concentration with mineralization also displays similar patterns to the mineralization when modeled, providing an additional geological parameter to support the interpreted distribution of mineralization. These patterns suggest that the vertical to steep orientations of most diamond drill holes intersect the shallow-dipping mineralized zones at a high angle, which is close to true thickness.

Drilling has bounded the mineralized zones shown in Figure 8.01 and which are summarized below. At the eastern end of the deposit, the main mineralized zones defined by drilling terminate at section 4785 N (Figure 8.01), but historic Gulf drilling indicates that additional mineralization in separate zones is also present to the northeast, which is currently being defined by drilling (Figure 6.2). This and other areas proximal to the Horseshoe deposit that are prospective for additional mineralization are discussed in Section 19.3 under recommendations for exploration.

8.3.2 Principal mineralized zones

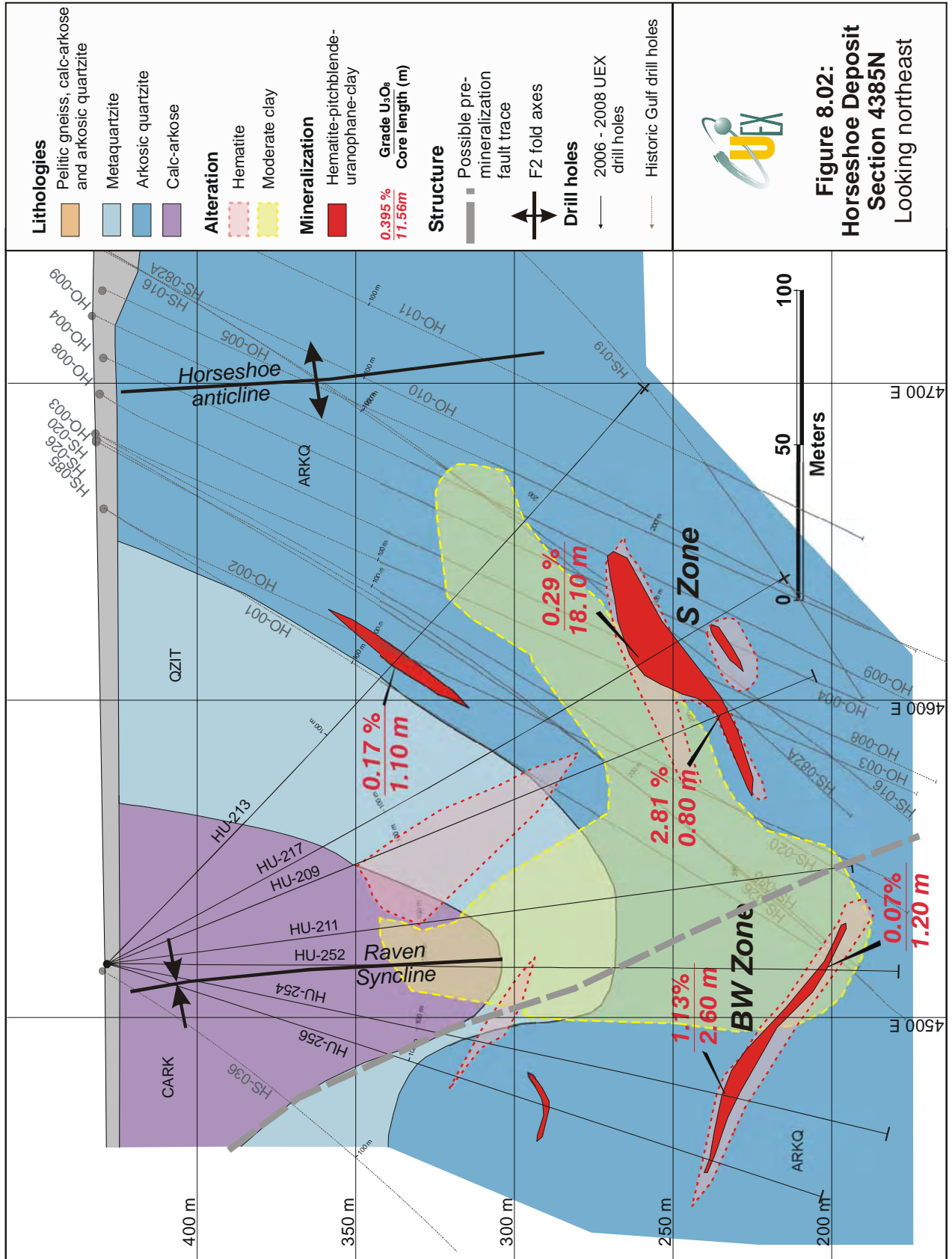
Wireframe modeling of the Horseshoe deposit has defined twenty-two individual mineralized zones which have been utilized in the Horseshoe resource estimation by Palmer (2008). The dimensions of these zones are summarized below in Table 8.1. Principal zones in the Horseshoe deposit are as follows:

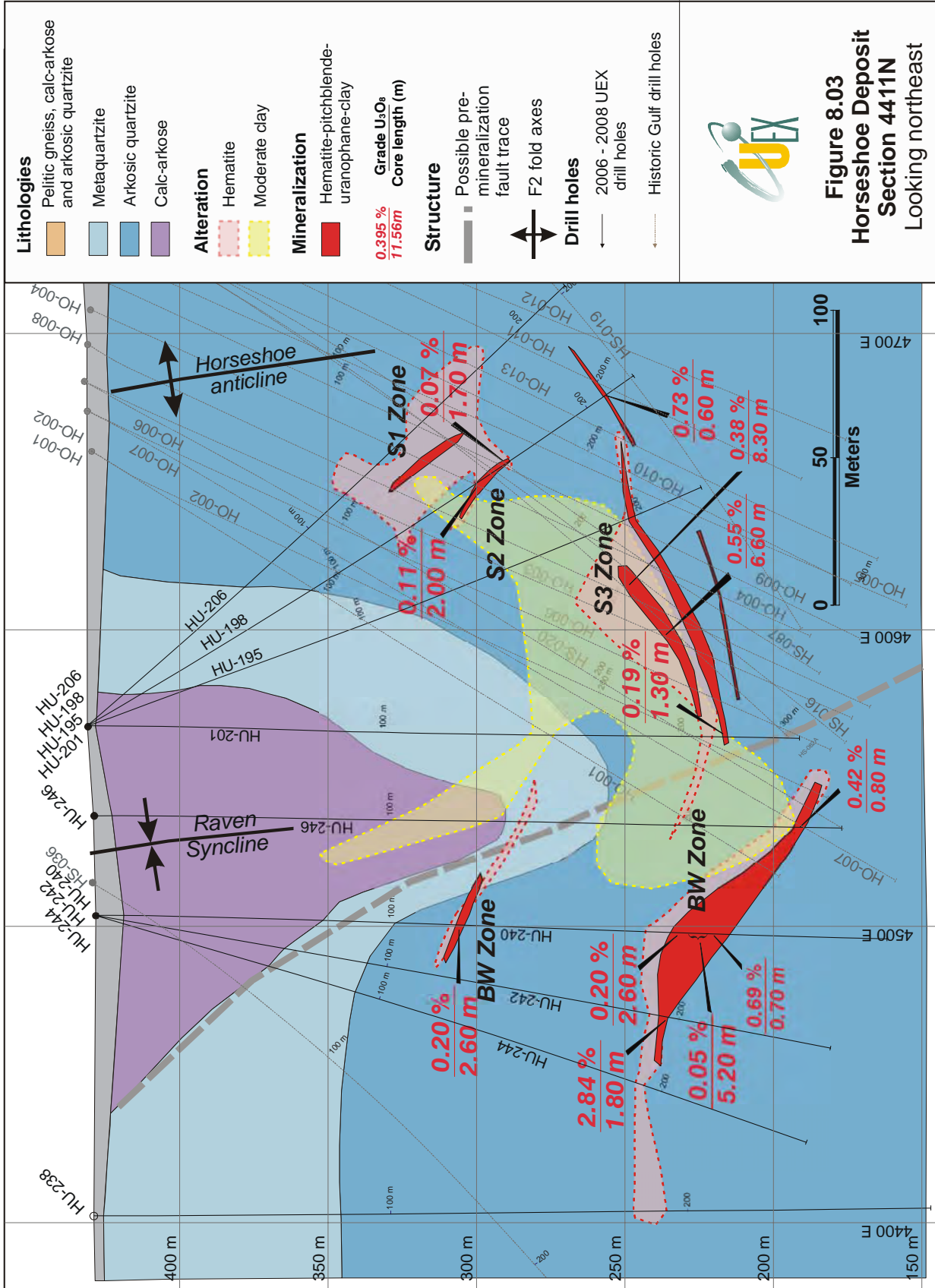
- a) *The A zone:* Occurring in central parts of the deposit at depths of 120-180 m below surface above the clay alteration zone, this is the highest grade of the Horseshoe zones, being composed mainly of the higher grade nodular style mineralization. Mineralization is best developed along the southeasterly margin of the zone where it locally rolls from a shallow to a steeper southeasterly dip. A best intersection of 4.54% U_3O_8 over 12.35 m was obtained in this area in hole HU-016 (Figure 8.07). Two or more stacked high-grade shallow dipping mineralized lenses can occur internally within the A zone.
 - b) *The A2 zone:* This shallow dipping zone lies just beneath the northeastern projection of the A zone. Similar to the main A zone, it also contains a significant portion of nodular style mineralization.
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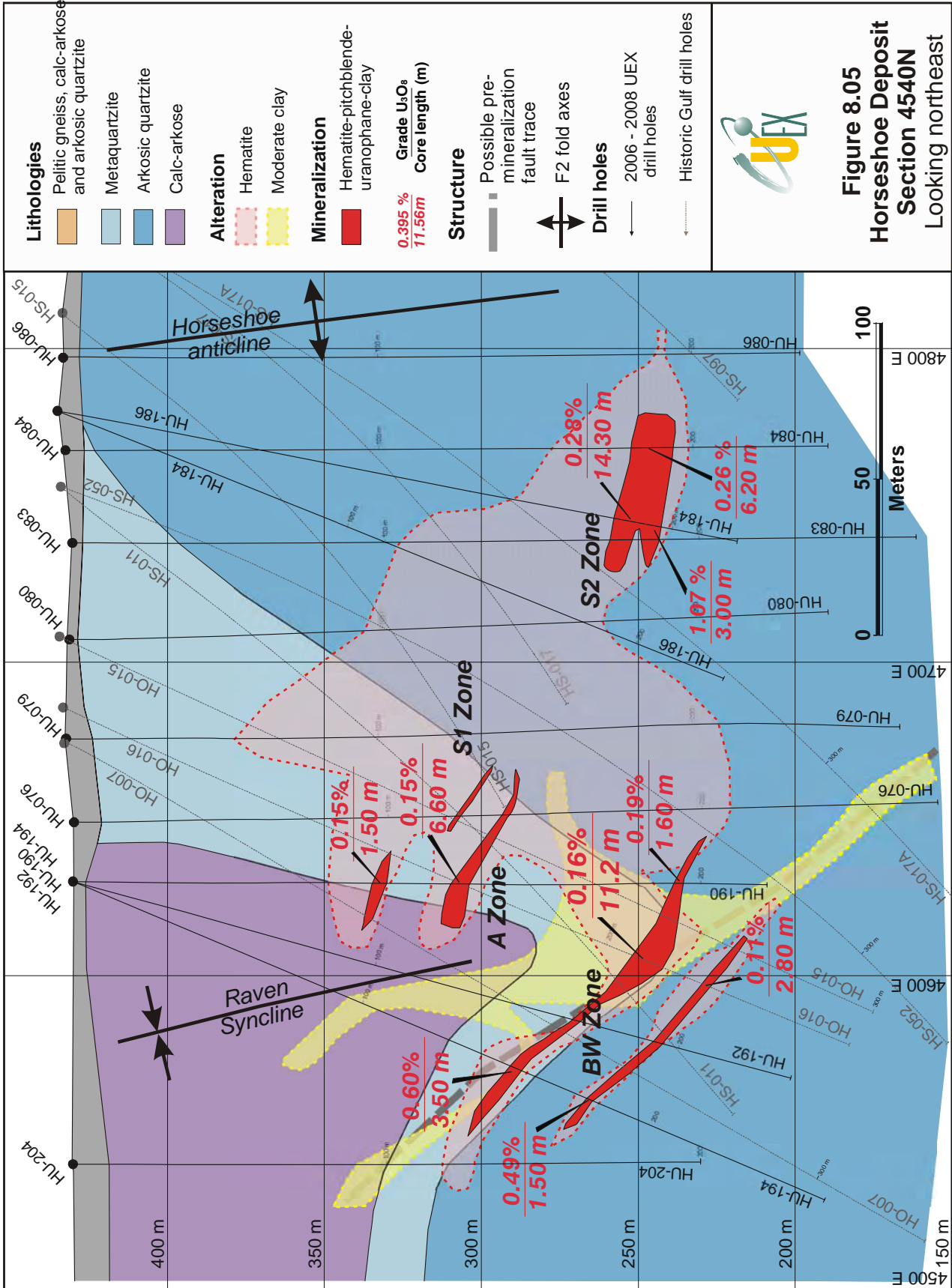
- c) *The B West (BW) zone*: This is by volume the largest, and most laterally extensive of the mineralized zones at Horseshoe. Unlike most other zones, it occurs immediately below the clay alteration zone, dipping moderately to shallowly southeast and generally parallel to the clay alteration. This zone is traceable across the entire strike length of the Horseshoe deposit from southwest to northeast. It is thickest to the northeast (Figures 8.09 and 8.10), where drill intercepts locally exceeding 30 m at grades of 0.5-0.6% U_3O_8 have been obtained. Additional parallel, minor zones may lie above the main BW zone and extend upward into quartzite (e.g. M1 zone).
 - d) *The B East (BE) zone*: Occurring mainly on the opposite side (above) the clay alteration zone from the BW zone, this zone locally crosses the clay alteration zone where it may link to the BW zone to the east. The BE zone is often thick (up to 40 m), and is dominated by the disseminated style of mineralization. It is shallower dipping than the associated clay alteration zone.
 - e) *The C zone*: This is the deepest zone intersected at Horseshoe, lying beneath the clay alteration zone at depths of 420-460 m depth, straddling the contact between the arkosic quartzite and underlying mixed calc-arkose/semi-pelite gneiss unit. It is volumetrically small, but locally contains higher grade intercepts of the nodular style mineralisation (e.g. hole HU-065, 0.61% U_3O_8 over 17.65 m: intercept on section 4700N, not shown)
 - f) *The S zones*: These zones form the principal mineralization in western parts of the Horseshoe deposit, which locally exhibit the synclinal morphology of the hosting arkosic quartzite unit (Figure 8.02 – 8.04). They gradually dissipate where the A zone begins between sections 4540-4593E (Figures 8.05-8.06). They are locally stacked and may display an en echelon morphology with the A zone.
 - g) *The A3 to A5 zones*: These comprise a series of stacked, shallow dipping zones of mixed disseminated and nodular style which occur immediately beneath the northeast end of the A zone (Figures 8.08 – 8.09).
 - h) *The M zones*: Designated M for minor, some of these zones were subsequently determined to have significant tonnage. These are mainly miscellaneous zones, most of which are small, that lie above, and are separate from the A and B-series zones in quartzite and arkosic quartzite. The largest, the M1 zone, is closely associated spatially with the BW zone, occurring immediately above and parallel to the BW zone over much of its strike length, although often on the opposite side of the clay alteration zone. Other minor zones are developed in quartzite, or occur above the BE zone in arkosic quartzite, where plumes and lenses of hematite alteration extend well above the clay alteration zones. Veinlet and disseminated mineralization styles dominate in these minor, quartzite hosted zones.
-

Table 8.1: Lateral and down dip dimensions, and contained volume of mineralized zones in the Horseshoe deposit based on wireframe modeling of mineralization. The wireframe model generated has been utilized by Palmer (2008) in the Horseshoe resource estimate. See Figures 8.01-8.11 for diagrams illustrating the location of these zones.

Zone	Lateral strike continuity (m)	Average dip length (m)	Volume (m²)
A	331	55	153,385
A2	170	94	117,934
A3	147	52	42,031
A4	143	48	23,946
A5	161	41	26,581
BW	569	87	537,030
BE	212	127	280,463
C	120	44	50,274
S1	228	50	45,077
S2	240	36	70,935
S3	183	66	71,162
M1	284	81	74,424
M2	90	40	9,244
M3	162	50	21,501
M4	100	118	39,059
M5	160	42	10,158
M6	110	46	17,486
M7	124	22	20,681
M8	90	27	5,679
M9	59	43	3,437
M10	47	68	6,226
M11	57	23	2,130







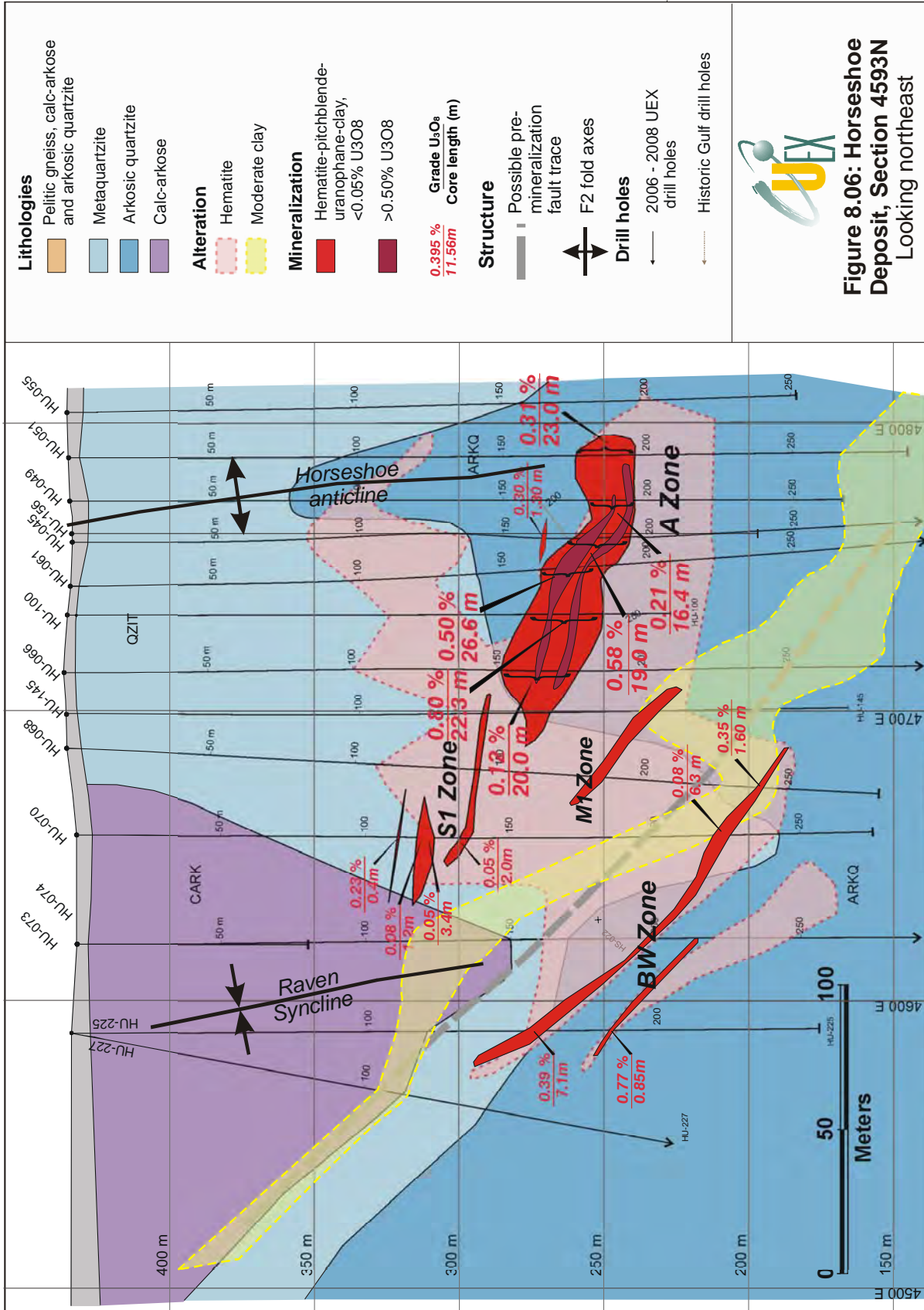
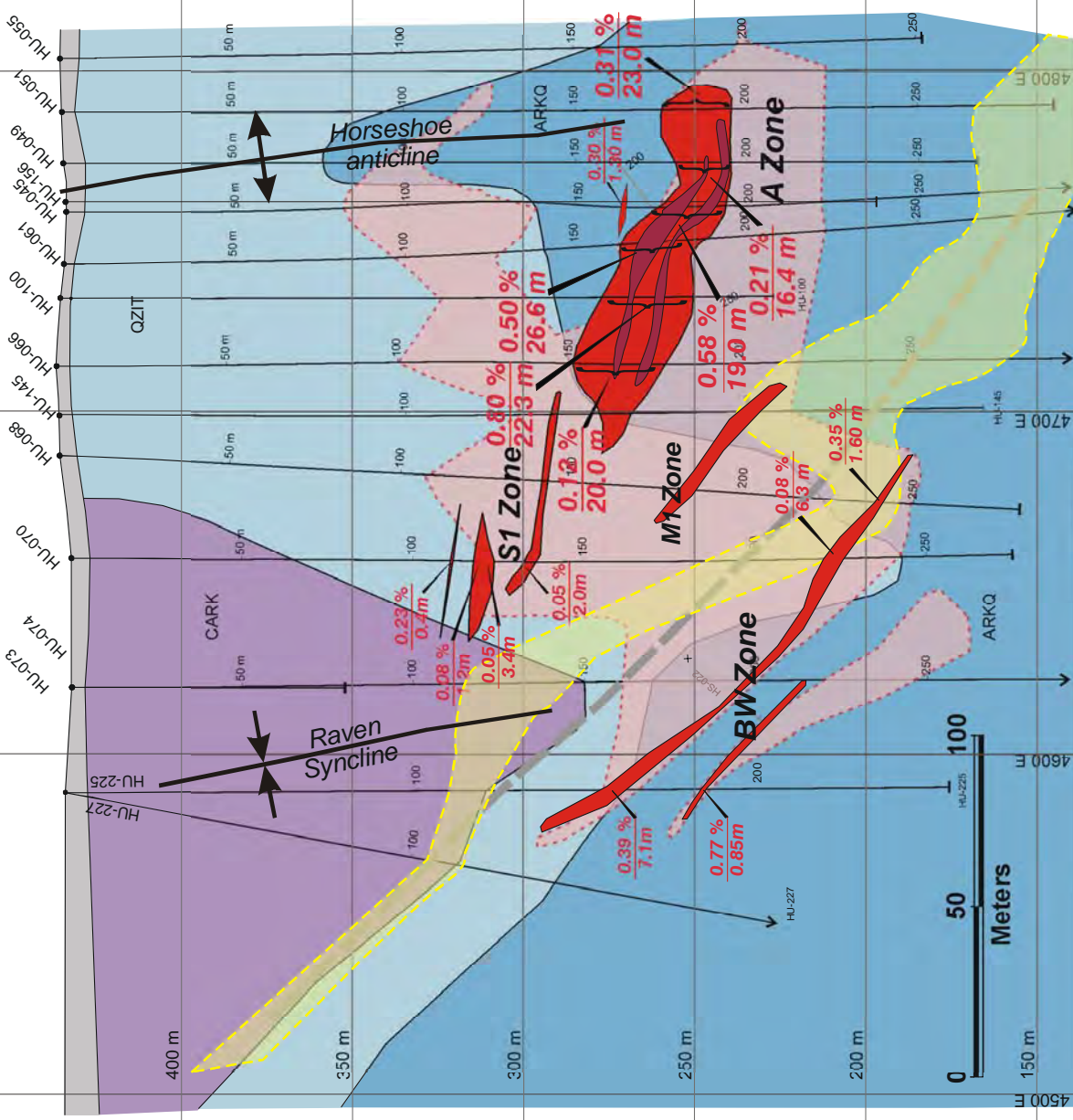
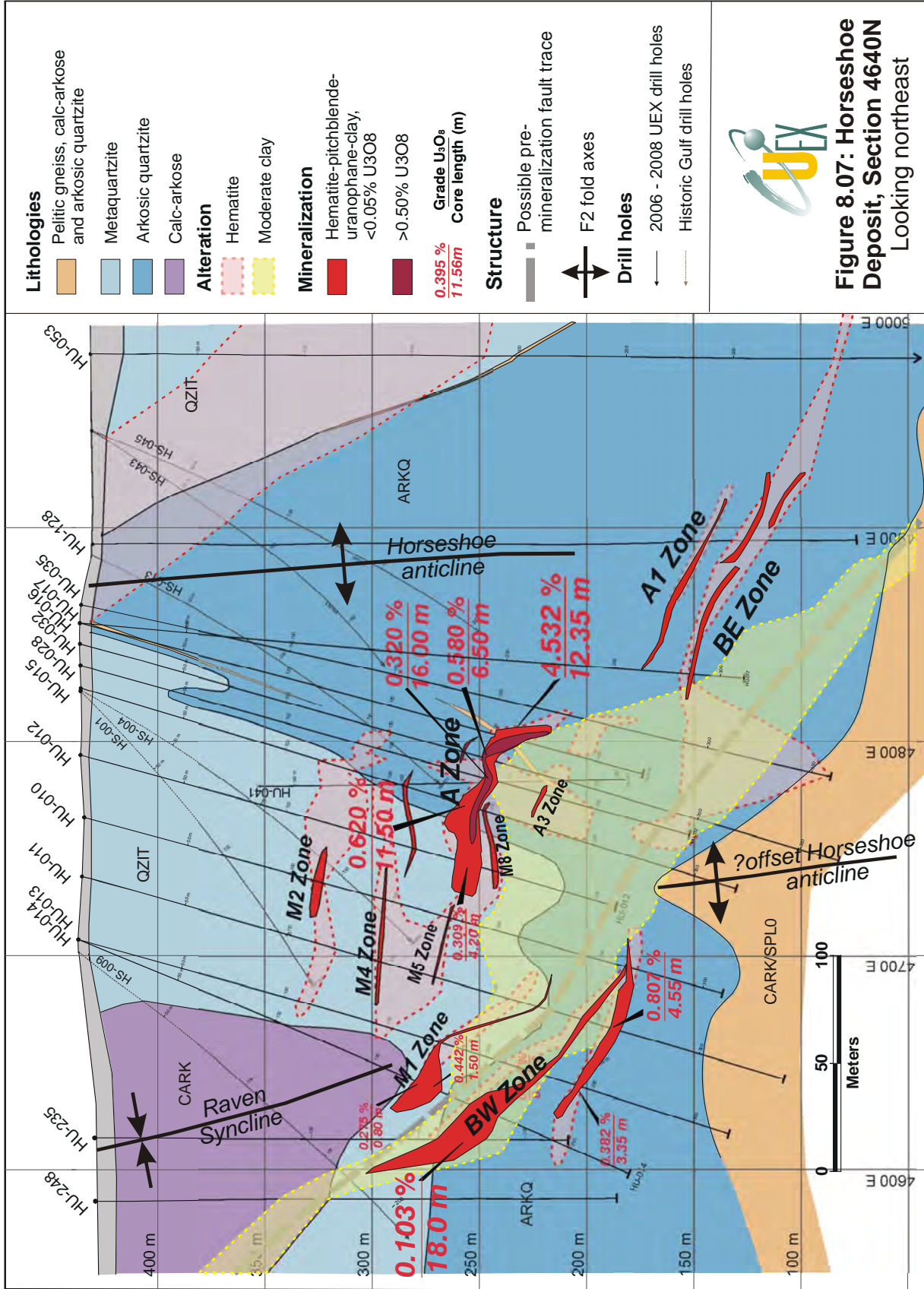
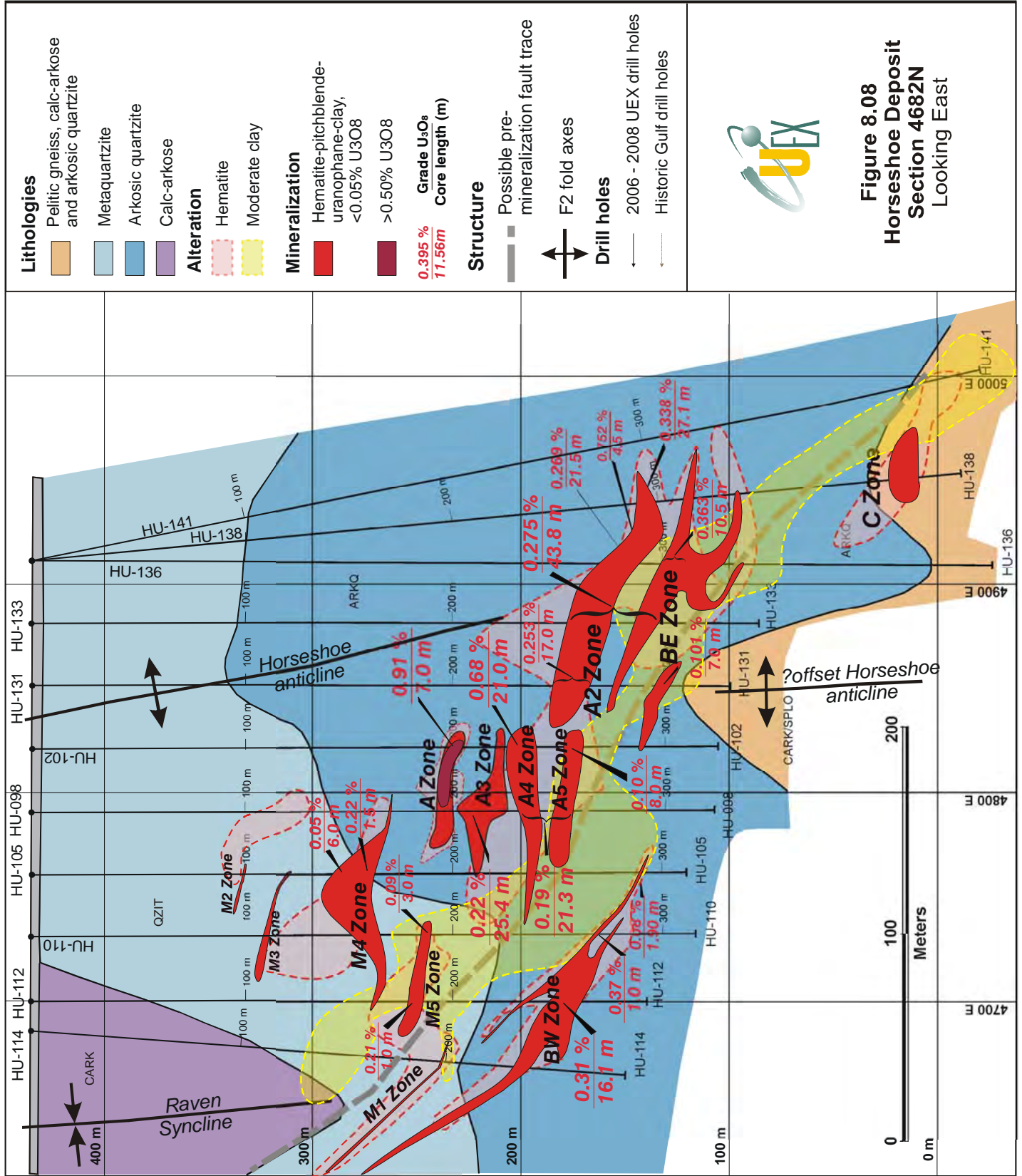


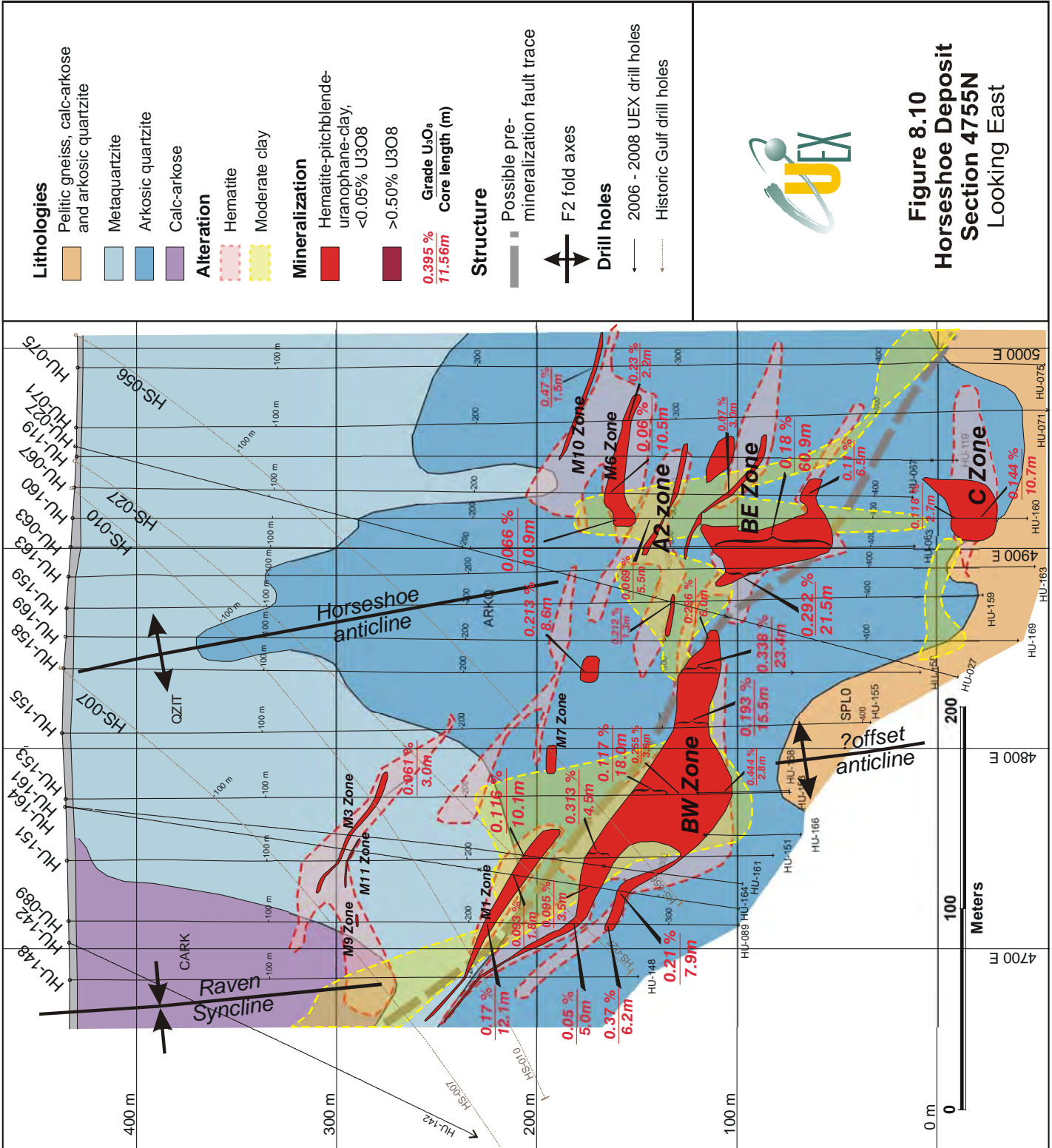
Figure 8.06: Horseshoe Deposit, Section 4593N Looking northeast

0 50 100
Meters









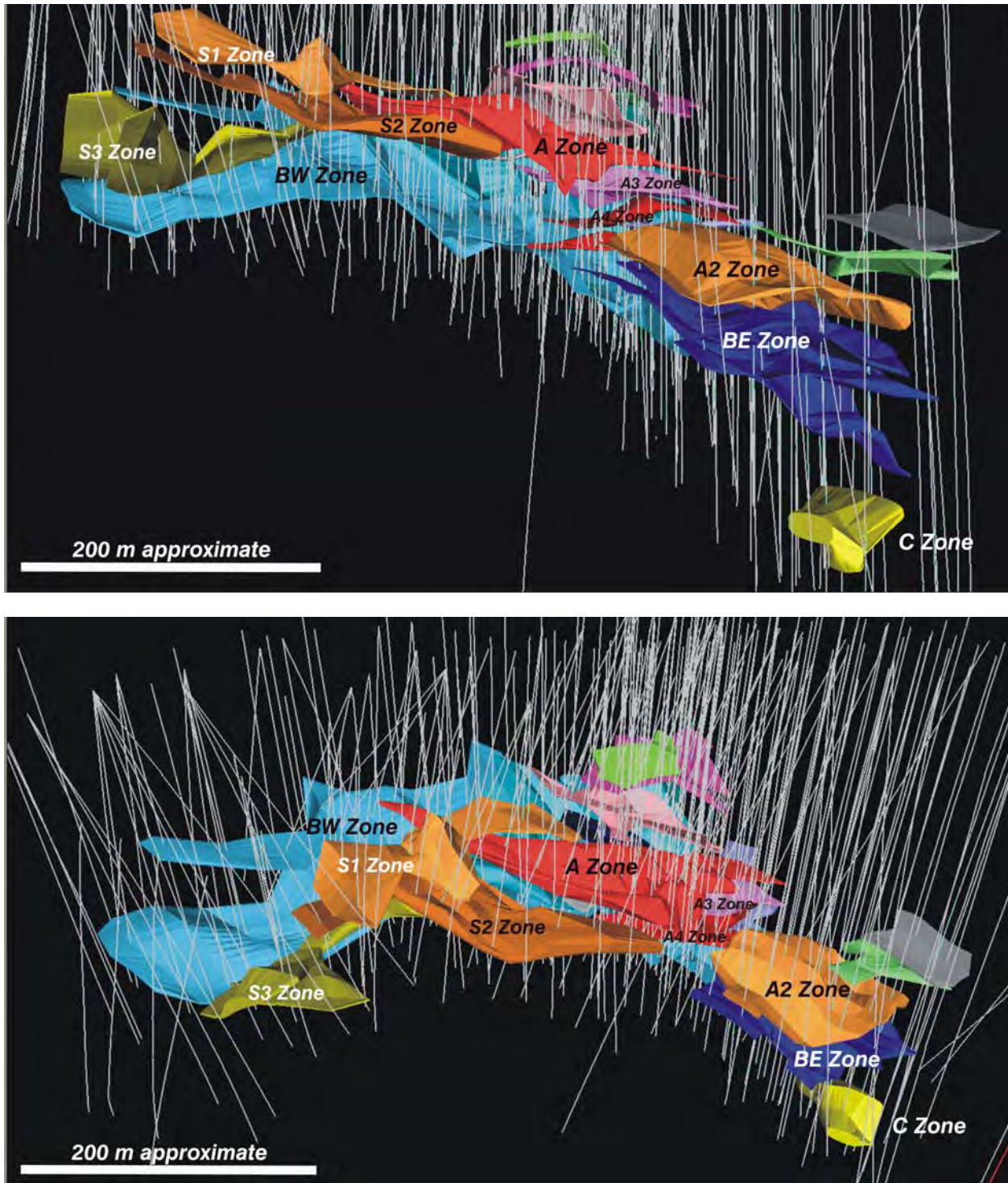


Figure 8.11: Oblique views of the Horseshoe wireframe 3D model, exported from Datamine software. Drill holes traces are shown as white lines. **Above:** View from the south looking northward with eye level approximately 200 m below surface. This view approximates a vertical long section. Note the shallow plunge to the east-northeast (to the right) of the system as a whole. **Below:** Oblique view looking downward from above and to the northeast.

8.4 Raven deposit: distribution and style of uranium mineralization

The Raven deposit has been defined since 2005 to date, by drilling for and by UEX, over a strike length of approximately 700 m (Figure 8.12). Mineralization is developed mainly at consistent depths of between 100 and 300 m below surface and exhibits no significant plunge, unlike Horseshoe, defining an overall strongly elongate and east-northeast trending zone of mineralization (Figure 8.12). Minor zones may extend upward to within a few tens of meters of surface however, but these are not consistently present along the length of the deposit as it is currently defined by drilling. Mineralization is localized along the trace of the Raven syncline, particularly along the southeastern limb of the fold, and is developed extending downward from the base of the folded calc-arkose unit into the underlying quartzite and arkosic quartzite (Figures 8.13-8.15).

Similar to Horseshoe, mineralization at Raven occurs in hematitic altered areas which surround a steep to moderate southeast dipping zone of clay alteration which obliquely crosses the southeastern, dominantly shallow northwest dipping limb of the Raven syncline. Structural position of the mineralization is consequently the same as Horseshoe with respect to the folded metamorphic stratigraphy. The clay alteration zone also shallows in dip to the east through the deposit, although it does not attain the shallow dips of the eastern Horseshoe clay alteration zone. It may also be controlled by pre- or syn-alteration/mineralization faulting, as evidenced by clay gouge seams up dip from the projection of the principal clay zone. Potential for offset lithologies across the clay zone at Raven is not as pronounced as it is at Horseshoe, with lithologic contacts often showing little or no significant deflection across the trace of the clay zone.

The distribution of mineralization at Raven is more complex in morphology than that observed in the current areas of definition drilling at Horseshoe (Figure 8.16). In general, there are two general zones of mineralization at Raven, a Lower and an Upper zone (Table 8.2), each of which may be split into sub-zones (L- and U- zones in Figures 8.12-8.16). The largest of each of these zones are termed L01 and U01. The L01 Lower zone extends through the entire defined strike length of the Raven deposit (Figures 8.12, 8.16), while the main U01 Upper zone is best developed in the central portions of the deposit. The U01 Upper zone extends eastward and splits into multiple zones, while dissipating to the southwest (Figure 8.16).

Table 8.2: Lateral and down dip dimensions, and contained volume of mineralized zones in the Raven deposit based on wireframe modeling of mineralization. See Figures 8.12-8.15 for diagrams illustrating the location of these zones.

Zone	Lateral strike continuity (m)	Average dip length (m)	Volume (m ²)
L01	715	90	1,424,779
L02	215	50	64,772
U01	600	120	1,427,927
U02	145	40	44,269
U03	220	40	141,488
U05	240	40	50,569

The Raven L01 Lower zone generally comprises a tabular, steep to moderate southeast dipping zone of mineralization which occurs along the footwall of, and parallel to the clay alteration zone over vertical dip lengths of 100-200 m. On most sections it commences in quartzite and passes downward across arkosic quartzite into the upper portions of the mixed semi-pelitic gneiss/calc-arkose sequence (Figures 8.13-8.15). The L01 zone may occur over widths up to 20 m, but is

generally a few meters wide, with grades typically between 0.05% and 0.15% comprised mainly of disseminated and stringer styles of mineralization.

The Raven Upper zone is more complex in geometry. It forms one or more shallow dipping lobes at depths typically between 100-220 m below surface which straddle the quartzite unit, extending both into basal portions of the calc-arkose unit and the upper parts of the underlying calc-arkose. It occurs in the hangingwall of the clay alteration zone (Figures 8.13-8.15). Mineralization is highly variable in grade, with the highest grades occurring between sections 5330E and 5500E in the thickest and most extensive parts of the U01 zone, and between 5630E and 5665E where it splits into multiple zones. In these areas, nodular and veinlet styles of mineralization are locally developed, forming probably sinuous alteration fronts and associated pitchblende +/- U-silicate veinlets that lie along zones of hematization. Multiple sub-zones are developed that are often close enough to model together at various cutoffs and may have complex outlines. Like western parts of the Horseshoe deposit, pods of mineralization in the Raven Upper zone on many sections are approximately stratabound, and therefore vary in orientation around the hinge of the Raven syncline, locally resulting in an overall synclinal form to the mineralization on some sections (Figure 8.15).

In some areas in the central Raven deposit, the Upper zone may extend downward in two or more lobes which nearly link to the Lower zone below, thus defining an upward widening, semi-circular pattern which in upper portions wraps around and encloses the upper parts of the clay alteration zone (Figures 8.13-8.14). This crudely semi-circular upward facing outline to the mineralization may have represented a large scale upward facing redox front, along which at the leading edge hematization and uranium mineralization may have developed if the front remained stationary for sufficient periods. Internal complexities of mineralization in the U01 Upper zone may have resulted from various advances and retreats of the leading edge of the front, resulting in local overprinting, and variable areas of mineralization depletion and enrichment.

The more complex geometry of the Raven mineralization relative to that seen at Horseshoe, may also be reflective of additional factors, including the occurrence of mineralization over a broader range of lithologies that may have influenced mineralization distribution. Lithologic units are thinner here than at Horseshoe, where much of the mineralization is hosted by the substantially thicker arkosic quartzite unit. The steeper dip of the clay zone and potential controlling fault may also have contributed to these patterns, since at Horseshoe the shallower fault dips coincide with more consistent mineralization outlines, while in western parts of that deposit where the clay alteration/fault is steeper, lithologic control becomes increasingly important in influencing the position and orientation of mineralization, as is seen at Raven.

Mineralization at the Raven deposit is still open beyond the limits of the 2005-2008 drilling into areas both to the east and west where mineralization was intersected by Gulf for up to 250 m to the west, and locally to the east. Follow-up drilling to expand the mineralization footprint is planned (see Section 19).

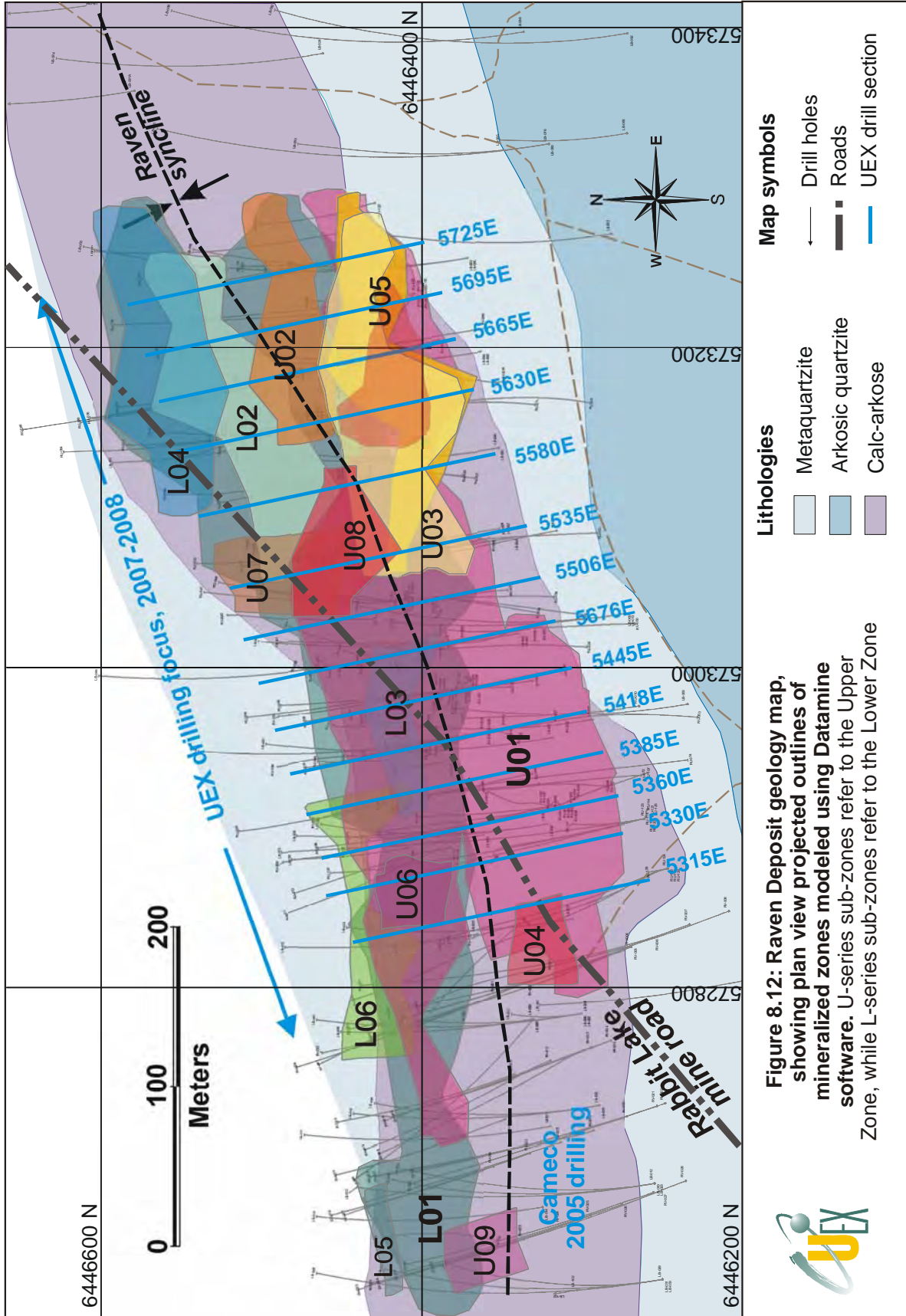
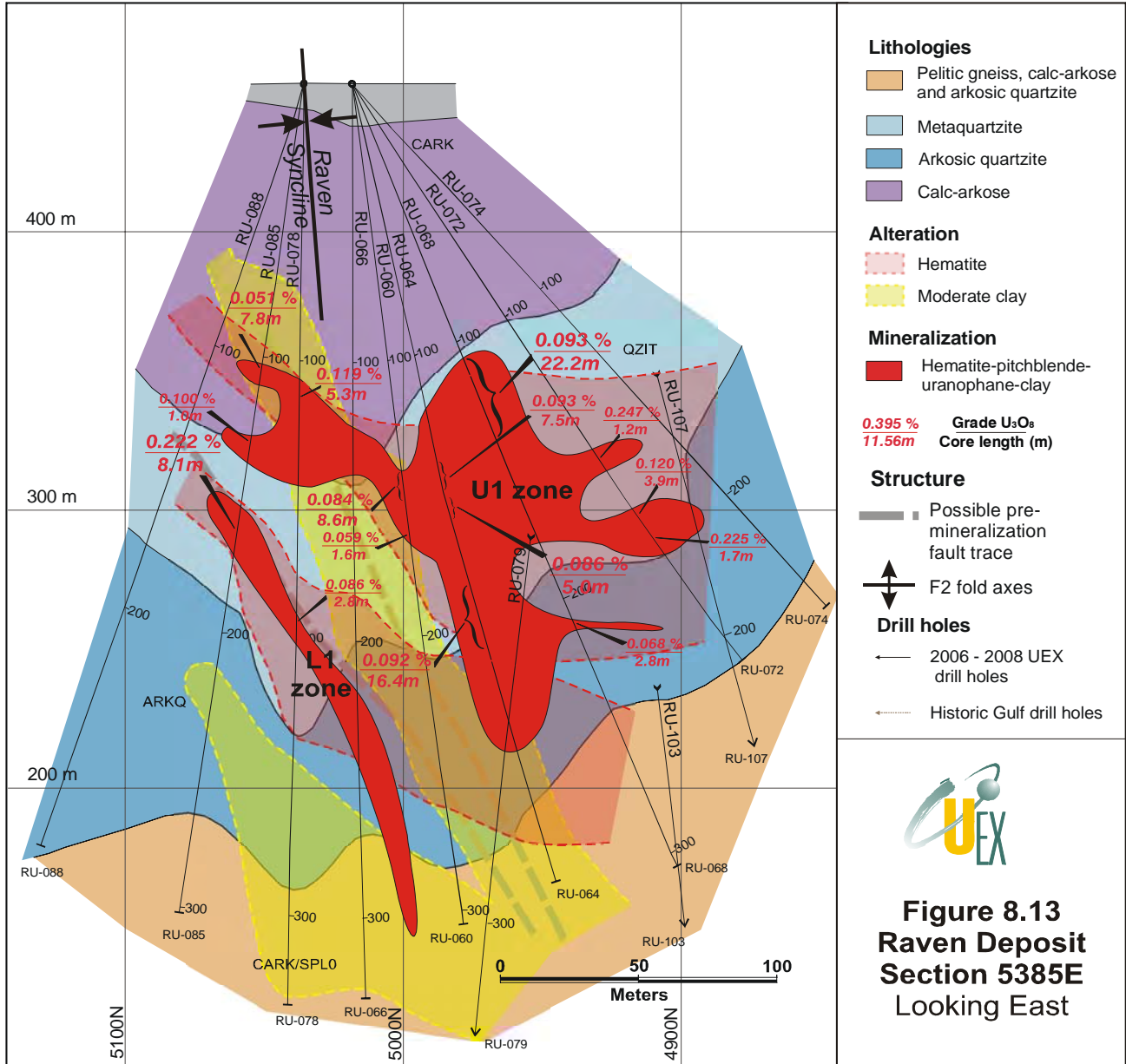
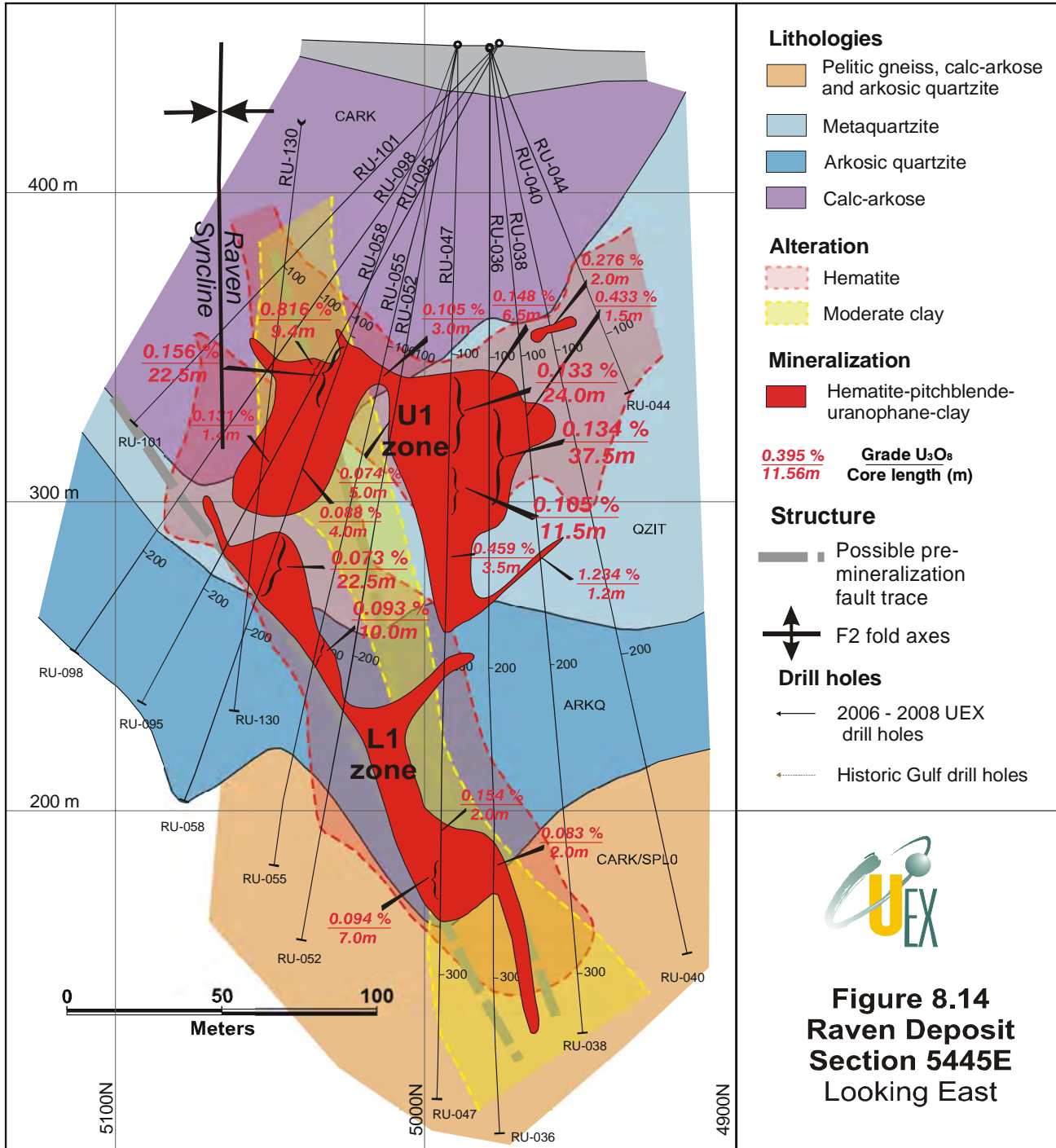
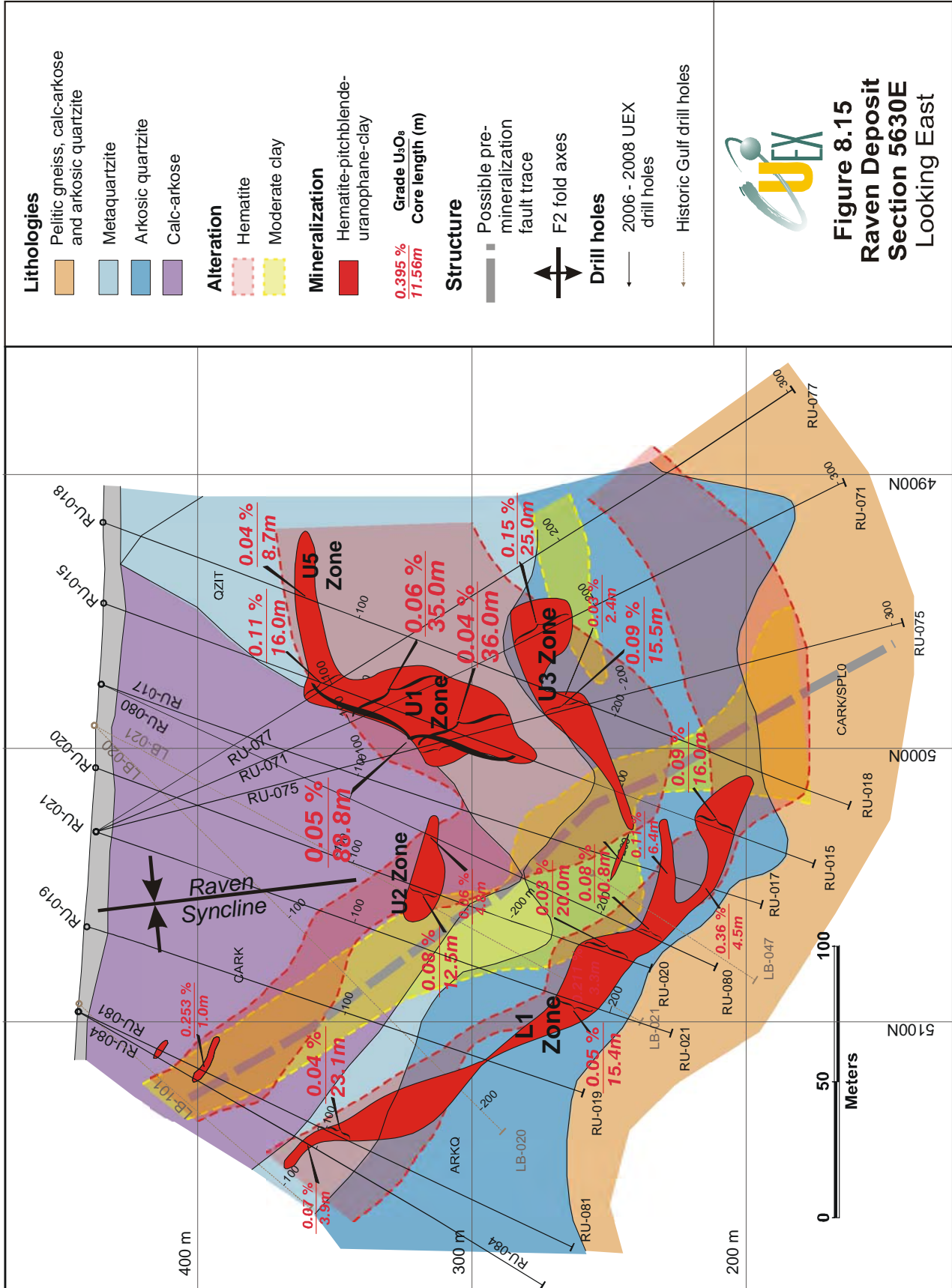
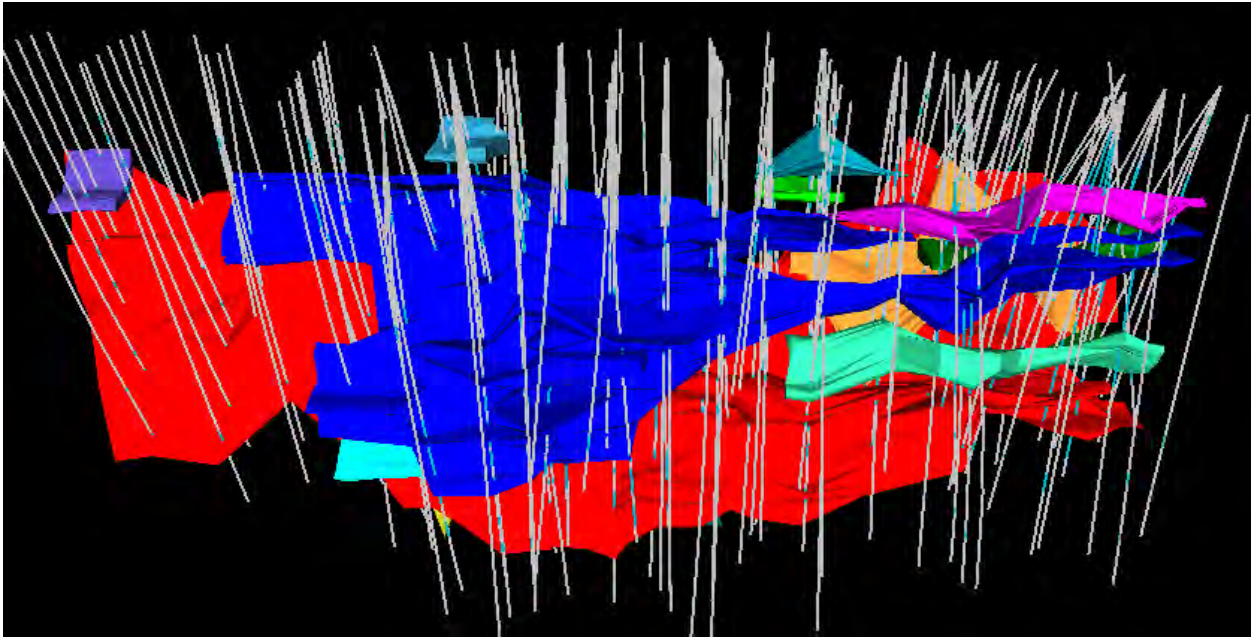


Figure 8.12: Raven Deposit geology map, showing plan view projected outlines of mineralized zones modeled using Datamine software. U-series sub-zones refer to the Upper Zone, while L-series sub-zones refer to the Lower Zone

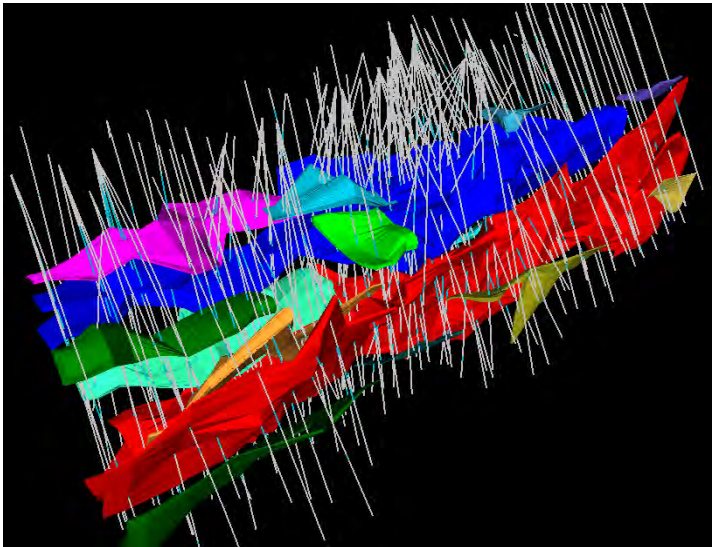




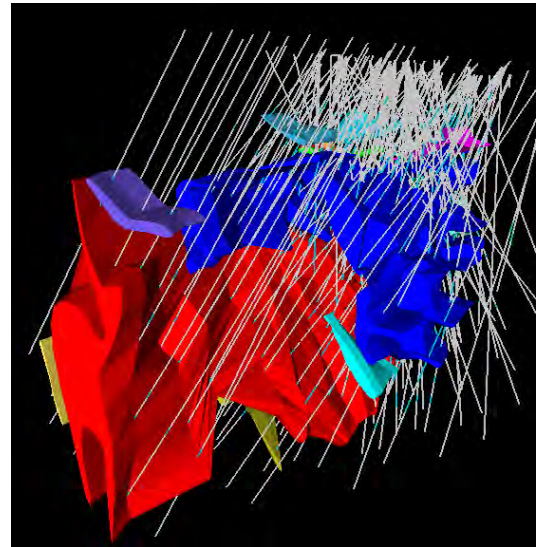




A: Long sectional view to north



B: View southwest, looking obliquely downward from the northeast



C: View northeast

Figure 8.16: Screen capture views of the Raven 3-dimensional wireframe model, with 2005-2008 drill holes shown. The Lower zone (L01) is shown in red; upper zones in blue, green and pink. The largest of the upper zones, U01, is shown in blue.

9.0 EXPLORATION (form 43-101 F1, Item 12)

Exploration conducted on the Hidden Bay property by UEX as operator, and between 2002 and 2005 for UEX by Cameco under the exploration management service agreement, has comprised mainly diamond drilling, and various geophysical surveys. Diamond drilling in the Horseshoe-Raven area during these periods, which is where by far the bulk of drilling was conducted on the Hidden Bay property, is documented in detail in Section 10 below and the geological context of those results are presented in Section 6 of this report. Drilling in other parts of the Hidden Bay property is beyond the scope of this report. LeMaitre (2005) and Palmer (2008) document resource drilling and estimations in the West Bear area for UEX.

Other forms of exploration conducted by, or on behalf of, UEX include several types of ground and airborne geophysical surveys, summarized below, as well as ground geochemical (soil) surveys, using conventional and partial extraction (MMI) techniques. Reconnaissance geochemical surveys were conducted to the south of the Horseshoe and Raven deposits and to the northwest in the Vixen Lake area (Kos, 2004).

9.1 Geophysics in the Horseshoe and Raven deposit area

Several airborne and ground geophysical surveys that have been conducted since UEX acquired the Hidden Bay property cover all or parts of the Horseshoe and Raven deposit areas. These include:

- a) VTEM airborne electromagnetic surveys which were conducted between 2004 and 2006 over most of the property area by Geotech Ltd. of Aurora, Ontario (Irvine, 2004; Cristall, 2005; Whitherly, 2007; Cameron and Eriks, 2008b), and which cover the Horseshoe and Raven area.
- b) Airborne radiometric and magnetic surveys were conducted in June 2008 by Geo Data Solutions Inc. of Laval, Quebec which cover much of the Hidden Bay property. More detailed, northwest trending and 50 m spaced flight lines were conducted over the Horseshoe and Raven deposit areas to aid in the identification of magnetic and radiometric patterns that could reflect both near-surface projection of mineralization and/or prospective faults potentially hosting mineralization. Full interpretation of this survey is underway and targets will be integrated into the UEX exploration program when complete.
- c) A RESOLVE airborne electromagnetic and magnetic survey conducted over selected parts of the property by Fugro Airborne Surveys Corporation of Mississauga, Ontario, including Raven-Horseshoe and West Bear, during 2005 (Cameron and Eriks, 2008a). This outlined in particular the distribution of folded graphitic gneiss (Figure 6.1), which occurs to the southwest of the Raven deposit, and which could focus faulting that may control uranium mineralization.
- d) A widely spaced ground EM (Moving Loop) survey which was conducted across the Horseshoe and Raven area in February – March, 2002 by Quantec Geoscience Inc. of Porcupine, Ontario (Goldak and Powell, 2003). Like the RESOLVE survey, this identified EM targets in the local area mainly associated with graphitic gneiss to the south and west outside of the immediate area of the deposits. One hole was drilled at Raven in 2002 to test whether the folded graphitic gneiss unit was present below the Raven deposit where it might act as a reductant to focusing mineralization along the steeply dipping clay alteration zone (LeMaitre and Herman, 2003). Graphitic gneiss was not intersected, and may lie below the depths tested.

These surveys have provided further insight into the geological setting of the deposits, including identification of the location of potentially controlling faults, and folding of favorable host lithologies (e.g. graphitic gneiss, and competent quartzite-rich host rocks near faults) that may influence the position of mineralization. Some drilling was conducted in 2004 and 2005 to test these target areas beyond the local area of the Horseshoe and Raven deposits, and future drilling is planned to test other potentially favorable sites. The reader is referred to the references above for further details.

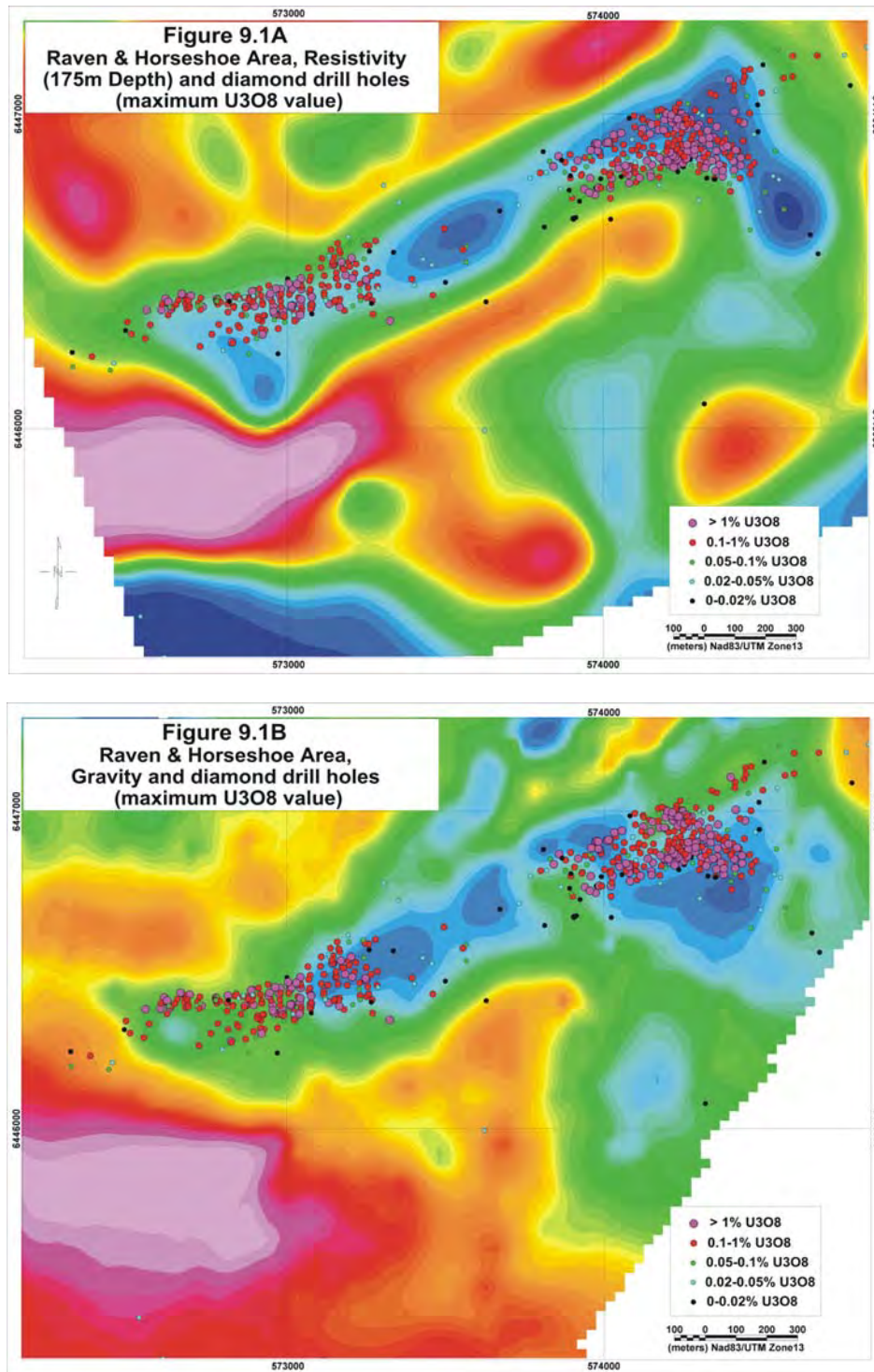


Figure 9.1: Plan maps illustrating apparent resistivity (top) and gravity (bottom), colour contoured with decreasing resistivity and gravity response from red (high) to green (low). Symbols show drill holes with maximum grade in hole, outlining areas of uranium mineralization. Note that distribution of uranium mineralization closely corresponds with a northeast-trending gravity and resistivity low which is coincident with the principal clay alteration zone associated with the two deposits. Other areas of low resistivity and gravity response to the south and north of Horseshoe that have seen little drilling and form priority exploration targets. Gravity data is digitized from Gulf Minerals data, while the resistivity survey was completed in 2006 for UEX by Walcott and Associates.

In addition to the geophysical surveys summarized above, which were mainly of a regional nature, a detailed D.C. resistivity (induced polarization) survey was carried out over the Raven and Horseshoe deposits as well as the surrounding area by Peter E. Walcott and Associates Limited between October and December, 2006 (Walcott and Walcott, 2008). The survey was conducted along sixteen lines at an azimuth of 160° spaced at 200 m over and extending beyond areas of known uranium mineralization at Horseshoe and Raven. Measurements of apparent resistivity were made along these lines using the pole-dipole technique employing a 100 meter dipole, and taking one half to one tenth separation readings at half spacing intervals. The survey clearly outlines the distribution of clay alteration is associated with mineralization in the Horseshoe and Raven deposit areas, which forms a prominent east-northeast trending resistivity low. In addition, the survey identified several other zones of low resistivity which have either been tested by follow-up drilling, or which form future exploration targets (Figure 9.1a). Inversion modeling of the resistivity also reflects three-dimensional distribution of the clay zones in resistivity profiles and plans, providing very specific targeting profiles for drilling extensions of clay zones which are known to host mineralization in the deposit area. The resistivity results closely match and support the results of a gravity survey which was conducted by Gulf, and Figure 9.1b illustrates how clay altered areas form gravity lows. These two surveys define several priority targets outside the known areas of mineralization for follow up. These targets are incorporated in the exploration program that is outlined in Section 19.

10.0 DRILLING (*form 43-101 F1 Item 13*)

Historically, the Hidden Bay property has been explored by several previous operators with numerous diamond drill holes as is summarized in Section 5 of this report and Rhys (2002). Since 2002, when the Hidden Bay property was acquired by UEX, drilling has occurred in several target areas on the property (see Section 5), but most of these areas are beyond the scope of the report. The documentation of drilling below is focused on exploration and definition drilling in the immediate areas of Horseshoe and Raven on disposition S-106962 which was undertaken by, or on behalf of, UEX since 2005. Historical drilling conducted by Gulf is briefly reviewed below to provide a context to the basis for the subsequent UEX program.

10.1 Historical drilling by Gulf Minerals in the Horseshoe and Raven area

After initial discovery of the Raven deposit, Gulf Minerals Canada (“Gulf”) drilled a total of 53,329 m in 212 diamond drillholes over the Horseshoe and Raven deposit areas between 1972 and 1978. These holes form the basis for the estimation of the non-N.I. 43-101 compliant historical resources that are mentioned in Section 5.3 of this report. Drill hole spacing of the Gulf holes is variable across the deposits, but generally ranges from 30-90 m with an average of approximately 60 m in areas of mineralization. A plan map illustrating the collar locations of the Gulf drill holes is presented in Figure 5.1. Drilling by Gulf utilized BQ diamond drill core (36.5 mm diameter).

Although the Gulf drill hole collar locations were surveyed and many are still locatable in the field, down hole surveying of drill holes was rudimentary, with many holes only subject to acid tests that provide indications of drill hole dip, but not azimuth. Given these uncertainties, and the lack of documentation of analytical methods and laboratory quality controls on uranium analyses, the Gulf drilling data will not be used in the current or any future resource estimations at Horseshoe and Raven. The mineralized intercepts in these generally widely spaced historical drill holes have only been used to guide the recent, more systematic drilling of the Horseshoe-Raven

area. Drill core from the Gulf drill holes is still available, so examination of the core has provided important geological guidance to the more recent drilling as well.

Examinations of the historical drill core confirms that mineralized sample intervals match those recorded in historical drill logs, and that the intervals contain alteration and/or uranium mineralization consistent with that suggested by the geochemical results. Some of the most significant drilling results from the Gulf programs at Horseshoe and Raven are tabulated in Table 10.1.

Table 10.1: Significant historical diamond drilling results from Gulf Minerals Canada drilling in the Horseshoe and Raven deposits. Only intervals with a grade-thickness product of $>2 \text{ U}_3\text{O}_8\% \text{m}$ are tabulated. These results are of a historical nature only and illustrate the types of drilling intersections which lead to the modern drilling programs that are documented in this report. Holes numbered HS- are in the Horseshoe deposit, while those numbered LB- are in the Raven deposit. Areas containing these drill intercepts have subsequently been re-drilled by UEX Corporation using more rigorous survey and analytical constraints. The historical results generally exhibit similar grades and thickness to equivalent holes from the modern program. Thicknesses are all apparent; true thickness was not determined.

Hole	From (m)	To (m)	Thickness (m)	Grade U_3O_8 (%)
HS-013	210.31	214.43	4.11	0.88
HS-013	303.73	319.74	16.01	0.80
HS-016	193.24	211.53	18.29	0.43
HS-016	236.07	237.90	1.83	1.14
HS-027	349.30	359.66	10.36	0.47
HS-032	197.82	200.86	3.04	1.27
HS-061A	319.13	321.87	2.74	1.06
LB-009	181.05	183.34	2.28	3.60
LB-028	155.14	156.97	1.83	2.11
LB-031	264.57	270.05	5.48	0.42
LB-040	147.37	158.65	11.28	0.60
LB-043	104.24	106.83	2.59	1.47
LB-072	107.59	110.49	2.89	0.84
LB-080	41.30	43.74	2.43	1.89

10.2 Drilling in the Raven and Horseshoe deposit areas during 2005

The historical Gulf drilling demonstrated the potential to define significant areas of mineralization at the Horseshoe and Raven deposits, but was too widely spaced to allow confident interpretation of the geometry and extent of mineralized zones. In order to test mineralization continuity in parts of the better mineralized areas defined by Gulf, drilling programs were designed in 2005 in western parts of each of the Horseshoe and Raven deposits with tighter spaced drilling. The programs were implemented for UEX by Cameco as a geological contractor under the Cameco service agreement. The results are documented in Lemaitre and Herman (2006). The program comprised (i) 28 diamond drill holes (RV-001 to RV-026) totaling 7,996.3 m in western portions of the Raven deposit on five 50 m spaced cross sections, with drill holes spaced 25 m apart on each section, to test a 200 m strike length of the historical Gulf Raven

resource area, and (ii) 16 diamond drill holes (HO-001 to HO-016) totaling 4,815 m in the western Horseshoe deposit on three cross sections, with drill holes spaced 25 m apart on each section, to test a 100 m strike length of the historical Gulf Horseshoe resource area (Figure 5.1). Significant results of this program are listed in Appendix 2.

While re-affirming the presence and location of the Raven deposit, the 2005 drilling program demonstrated the potential for greater continuity and thickness of mineralization in the Horseshoe deposit. The drilling also locally intersected wider intercepts of higher grade mineralization than had been intersected in the western Horseshoe deposit historically by Gulf. The 2005 Horseshoe drilling included intercepts of 0.55% U₃O₈ over 6.6 m in hole HO-003, 0.57% U₃O₈ over 8.7 m and 0.44% U₃O₈ over 6.9 m in hole HO-004, 2.82% U₃O₈ over 2.9 m in hole HO-009, and 0.48% U₃O₈ over 7.9 m in hole HO-015. The best intercept in the Raven deposit during this 2005 program was 0.46% U₃O₈ over 8.0 m in hole RV-020. Details regarding sample analysis and procedures are outlined below, and the geological context of the results is documented in Section 8 of this report.

10.3 2006-2008 drilling by UEX Corporation

After the termination of the Cameco exploration service agreement in 2005, UEX assumed management of all exploration activities on the Hidden Bay property. Since the 2005 drilling only tested short portions of the 1,100 m strike length of the Raven Deposit, and the 800 m strike length of the Horseshoe deposit as defined by Gulf, UEX proceeded to commence further drill testing of the deposits in the summer of 2006. These drilling programs from 2006 to the present allowed both definition drilling and exploration of the area of the two deposits (Figure 5.1).

As of September 1, 2008, 472 surface drill holes had been completed in the Horseshoe and Raven deposit area since 2005, which represents a total of 138,839 m (Table 10.2). These drill holes comprise the basis for the database used for the Horseshoe resource estimate in this report and for the Raven resource estimate which is currently underway.

Table 10.2: Summary of drilling in the Horseshoe and Raven areas between 2005 and September 1, 2008 by, or on behalf of, UEX Corporation.

Area	Hole Identifier	Year	Number of Holes	Average Hole Length (m)	Total Length (m)
Horseshoe	HO	2005	16	301	4,815
Raven	RV	2005	28	285.6	7,996
Horseshoe	HU	2006-2008	268	318.3	85,302
Raven	RU	2006-2008	160	254.5	40,726
Totals			472	294.2	138,839

10.3.1 2006-2008 drilling at the Horseshoe deposit

Drilling between June and October, 2006 was concentrated in western and central portions of the Horseshoe deposit, further tracing to the east mineralization intersected in the 2005 drilling, and testing at 60 by 30 m spacing areas where some of the best Gulf drill intercepts were present. This program, comprising 26 holes (HU-001 to HU-026) for a total of 8,617 m, successfully tracked mineralization eastward from the 2005 drilling and proved mineralization continuity in what is now termed the A and southwestern BW zones. During this program, the most significant drilling intercept to date in the Horseshoe deposit was obtained in hole HU-016, which intersected 12.35

m grading 4.53% U_3O_8 from 201.50 m to 213.85 m in the Horseshoe A zone on section 4640N (Figure 8.07).

Recognition of mineralization continuity and the potential for grades and mineralization thickness in the deposit greater than those identified by Gulf prompted a management decision to conduct definition drilling of the Horseshoe deposit area leading to a new N.I. 43-101 compliant resource. A systematic drilling program commencing in January, 2007 and continuing to the present has tested the Horseshoe deposit at 15-30 m drill spacing. Subsequent drilling at Horseshoe comprised:

- a) 21,804 m in 63 holes (HU-028 to HU-090) drilled between January and April 2007, which further stepped out to the east at 30-60 m spacing and identified the BE, much of the extent of the BW, and the A1-A3 zones.
- b) 30,696 m drilled between in 89 holes (holes HU-091 to 179) between June and November 2007, which comprised infill drilling to decrease hole spacing to 15-30 m, and additional step out drilling to extend known zones.
- c) 20,371 m drilled in 77 holes (HU-180 to HU-256) between January and April, 2008 to test southwestern portions of the Horseshoe deposit, infill between 2005 drill holes in that area, and to conduct some peripheral exploration drill holes in projected areas of prospective alteration along strike from mineralized zones.
- d) 4,390 m drilled in 12 holes (HU-257 to HU-268) between June and September 1, 2008 that is ongoing, which is testing exploration targets to the northeast of the current area of resource estimation in an area where historical Gulf drill holes intersected uranium mineralization in widely spaced drill holes.

Since most of the ground surface above Horseshoe is elevated and well drained, much of the deposit can be drilled year round. Exceptions are the southwestern and far southeastern parts of the deposit that are partially under swamp and require frozen ground during winter conditions to drill, as was done in early 2008. In total, between 2005 and September 1, 2008, 268 diamond drill holes totaling 85,302 m were drilled in the Horseshoe deposit area (Table 10.2), which will form the basis of the Golder resource estimation which is reported in Palmer (2008). Composited drill intersections for these holes are presented in Appendix 2. Discussions of sampling methodology, core handling and quality control procedures are presented in Sections 11-13. Drilling plans and sections are illustrated in Figures 8.01 to 8.11. The Horseshoe deposit has now been drilled at a 15-30 m spacing (15-30 m centers) with local 7.5 – 15 m spacing in higher grade areas that required tighter definition. This drilling excludes the historical Gulf drill holes.

The UEX drilling programs encountered higher grades, wider intersections, better continuity and an overall greater extent of mineralization at Horseshoe than was outlined by Gulf in the 1970's. Some of the most significant intercepts received from the 2006-2008 drilling at Horseshoe, with a grade-thickness product $>10 U_3O_8\%m$, include the following:

- **5.43% U_3O_8 over 12.35 m, HU-016 (A zone, section 4640N)**
 - **0.41% U_3O_8 over 39.0 m, HU-022 (A zone, section 4640 N)**
 - 0.74% U_3O_8 over 13.40 m, HU-037 (A zone, section 4611N)
 - **0.31% U_3O_8 over 65.0 m, HU-043 (A zone, section 4665N)**
 - 0.58% U_3O_8 over 19.00 m, HU-045 (A zone, section 4593N)
 - 0.50% U_3O_8 over 26.60 m, HU-061 (A zone, section 4593N)
 - 0.18% U_3O_8 over 60.90 m, HU-063 (BE zone, section 4755N)
 - 0.61% U_3O_8 over 17.65 m, HU-065 (C zone, section 4697N)
-

- **0.83% U₃O₈ over 23.0 m in hole HU-093 (A zone, section 4626N)**
- 1.86% U₃O₈ over 8.3 m in hole HU-099 (A zone, section 4626N)
- 0.28% U₃O₈ over 38.8 m in hole HU-100 (A zone, section 4593N)
- **0.80% U₃O₈ over 22.3 m in hole HU-101 (A zone, section 4611N)**
- 0.68% U₃O₈ over 21.0 m in hole HU-102 (A2 zone, section 4682N)
- 0.73% U₃O₈ over 15.4 m in hole HU-113 (BE zone, section 4665N)
- 0.16% U₃O₈ over 65.0 m in hole HU-117 (BE zone, section 4665N)
- 0.22% U₃O₈ over 56.4 m in hole HU-119 (BE zone, section 4740N)
- **0.65% U₃O₈ over 23.1 m in hole HU-126 (A zone, section 4644N)**
- 0.64% U₃O₈ over 16.0 m in hole HU-130 (BW zone, section 4724N)
- 0.28% U₃O₈ over 43.8 m in hole HU-133 (BE zone, section 4682N)
- **0.75% U₃O₈ over 31.7 m in hole HU-134 (BW zone, section 4724N)**
- **0.47% U₃O₈ over 37.4 m in hole HU-144 (BW zone, section 4724N)**
- **1.01% U₃O₈ over 18.2 m in hole HU-156 (A zone, section 4306N)**

Since the drill holes have steep to vertical dips and test shallow dipping zones, many of these intercepts are close to true thickness. Further discussion of the geological context and significance of those results is given in Section 8 of this report.

10.3.2 2006-2008 drilling at the Raven deposit

UEX commenced the most recent phase of drilling in the Raven deposit with RU- series drill holes in the latter part of 2007. A total of 25 holes comprising 6,408 m (holes RU-001 to RU-025) were completed between July and November, 2007. The drilling focused on establishing mineralization continuity and extent to the east of the 2005 HO-series drill holes in the central parts of the deposit. Significant results are listed in Appendix 2. The positive results of that program, which established continuity of several stacked mineralization pods, prompted further drilling with the intent of providing sufficient data for a N.I. 43-101 resource estimation. Subsequent drilling in 2007 and 2008 included the following:

- a) Between August and November, 2007, 33 drill holes comprising 8,767 m (holes RU-026 to RU-058) were completed which comprised infill drilling between widely spaced sections, and step out drill holes into areas previously defined as mineralized by Gulf, but for which drill spacing was insufficient to confidently establish mineralization continuity.
- b) Between January and April, 2008, 18,314 m of drilling in 72 holes (holes RU-059 to RU-130), which continued to expand along 30 m step out cross sections along strike, with some infill drilling where necessary to provide a minimum 30 m drill spacing for resource estimation.
- c) Most recent drilling comprised 30 holes (7,247 m total; hole RU-131 to RU-160) between June and August 2008, which provided further infill drilling at 15-30 m centers on 30 m spaced cross sections, and step out holes to the east.

To date, the recent drilling of Raven, including the 2005 drill holes, has tested a 700 m strike length of the west-central to eastern Raven deposit, in which mineralization has been defined at a drill spacing of 15-30 m.

A summary of composited drilling intersections obtained from the 2006 to 2008 drilling programs at Raven is given in Appendix 2. Drilling plans and sections are presented in Figures 8.12-8.15. Geological context of the intercepts is documented in Sections 6 and 8 of this report. Some of the more significant intercepts with grade-thickness product of >3.5 U₃O₈%m include:

- 0.09% U_3O_8 over 40.70 m in hole RU-001 (U01 zone, section 5475E)
- 0.80% U_3O_8 over 2.20 m, 0.08% U_3O_8 over 14.60 m, and 0.12% U_3O_8 over 9.00 m in hole RU-002 (U01 zone, section 5475E)
- 0.16% U_3O_8 over 27.0 m in hole RU-004 (U01 zone, section 5475E)
- 0.25% U_3O_8 over 13.30 m in hole RU-005 (L01 zone, section 5535E)
- 0.09% U_3O_8 over 36.20 m, and 0.15% U_3O_8 over 8.30 m in hole RU-015 (U01 zone, section 5630E)
- 0.07% U_3O_8 over 20.00 m and 0.06% U_3O_8 over 38.70 m in hole RU-024 (U01 and L01 zones, section 5660N)
- 0.10% U_3O_8 over 33.60 m in hole RU-025 (U01 zone, section 5415E)
- **2.98% U_3O_8 over 5.2 m, in hole RU-026 including 7.99% U_3O_8 over 1.5 m (U01 zone, section 5476E)**
- 0.13% U_3O_8 over 37.5 m in hole RU-036 (U01 zone, section 5448E)
- 0.18% U_3O_8 over 38.0 m in hole RU-048 (U01 zone, section 5418E)
- 0.16% U_3O_8 over 22.5 m in hole RU-058 (U01 zone, section 5445E)
- 0.09% U_3O_8 over 20.0 m, and 0.30% U_3O_8 over 11.0 m in hole RU-071 (U01 and U03 zones, section 5630E)
- 0.17% U_3O_8 over 13.5 m, and 0.21% U_3O_8 over 8.5 m in hole RU-087 (U01 zone, section 5360E)
- **0.38% U_3O_8 over 37.3 m, including 0.82% U_3O_8 over 9.4 m in hole RU-095 (U01 zone, section 5445E)**
- 0.51% U_3O_8 over 7.0 m in hole RU-103 (U01 zone, section 5360E)
- **0.52% U_3O_8 over 19.8 m in hole RU-118 (U02 zone, section 5725E)**
- 0.21% U_3O_8 over 24.5 m in hole RU-143 (L01 zone, section 5665E)
- 0.24% U_3O_8 over 24.1 m in hole RU-157 (U02 zone, section 5755E)

The recent and historical drilling at Raven suggest that mineralization is still open in some areas to the east, and these areas will be further tested in future drilling programs. Western extensions of the Raven deposit to the west of the 2005 drilling also contain several mineralized drill intercepts which suggest that additional continuous areas of mineralization could be defined in that area.

Intercepts are quoted in weight percent U_3O_8 while Saskatchewan Research Council (“SRC”) report uranium values in parts per million (“U ppm”). To convert the ppm uranium values to weight percent U_3O_8 , the reported values were divided by a conversion factor of 10,000 then multiplied by another conversion factor of 1.17924.

10.4 Core handling, drill hole surveys, and logistical considerations during the 2005-2008 drilling programs

The summer 2005 to winter 2007 drilling programs in the Horseshoe and Raven area were performed by Britton Brothers Diamond Drilling Ltd. (“Britton”), of Smithers, B.C., Canada. The winter and summer 2008 drilling programs were completed by Boart Longyear Canada (“Boart”) of North Bay, Ontario following the sale of Britton to Boart in February, 2008. Drill programs were typically run with between two and six rigs operating on a full time basis during the summer-fall (June to November) and winter (January to April) seasons. All of the drilling during these programs has been with NQ size core (48 mm core diameter) except for three holes, HU-

156, HU-157 and RU-130, which were drilled for metallurgical testing purposes with HQ size core (63.5 mm core diameter).

10.4.1 Drill hole field locations and surveys

After completion of drilling, the drill hole collar locations are marked in the field with 2m high wooden pickets, which are visible in all seasons. The pickets are labeled with a permanent aluminum tag containing the hole number, dip, azimuth and depth and clearly marked with high visibility flagging tape.

Proposed hole collars are located in the field by chaining along grid lines from existing collars or located by a hand held GPS unit. The proposed and completed collars are surveyed internally by UEX personnel with a hand held Thales ProMark™3 GPS for preliminary interpretations. Independent checks have been completed on collar locations at least twice using Tri-City Surveys Ltd. (“Tri-City”), of Kindersley, Saskatchewan. Tri-City used a 5800/Trimble R8 Model 2 handheld GPS with GNSS. Tri-City also relocated and surveyed the 2005 Cameco drill hole collars. The UEX and Tri-City collar readings are compared and if any significant differences are noted the Tri-City reading is resurveyed, otherwise it is adopted as the final collar location.

Raven and Horseshoe were drilled on two separate, local project drilling grids. The Raven grid is rotated approximately 10° clockwise from the UTM WGS 84 (Zone 13) grid north and the Horseshoe grid is rotated approximately 35° anti-clockwise from the UTM WGS 84 (Zone 13) grid north. Surveying, however is conducted in UTM grids.

LiDAR (“Light Detection and Ranging”), an optical remote sensing technology used primarily for typical digital terrain modeling (“DTM”), was flown over the Horseshoe-Raven and West Bear portions of the Hidden Bay property in August 2007, by LiDAR Services International Inc., of Calgary, Alberta. The LiDAR survey was performed to accurately determine the surface landforms in the project areas, and forms a cross check to the digital elevations of the surveyed drill hole collars. A surface digital terrain model was created using the LiDAR survey data from known reference points and the collars locations were verified in Datamine software. Drill hole collars with greater than 1 m elevation difference were reviewed.

10.4.2 Downhole surveys

Downhole surveys were routinely collected on all holes using a Reflex Ez-Shot® tool at approximately 25-50m intervals downhole in the 2006-2008 drilling programs at Horseshoe and Raven, and were also collected during the 2005 drilling program managed by Cameco (LeMaitre and Herman, 2006). Reflex EZ-Shot® is an electronic single shot instrument that measures six parameters in one single shot, reading azimuth, inclination, magnetic tool face angle, gravity roll angle, magnetic field strength and temperature. These readings are transcribed onto a paper ticket book. Measured azimuth are recorded relative to magnetic north. The measured azimuths are adjusted to true north using a correction factor (11.6 degrees of current magnetic declination in the area, which is added). This data was then entered in the drill logging database, with corrections if required. On some occasions, the magnetic field reading was outside of tolerance and in this case the azimuth and dip measurement was ignored. The error rate where the azimuth had to be removed was 0.57% of all the downhole surveys and 0.3% of surveys had transcription errors which had to be resolved. Following input to the drill database, the data is exported and then imported into Datamine, UEX’s choice for mining software, where the surveys are viewed in plan and section for accuracy.

10.4.3 Drill core handling procedures

At the drill rig, core is removed from the core barrel by the drillers and placed directly into three row NQ wooden core boxes with standard 1.5 m length and a nominal 4.5 m capacity. Individual drill runs are identified with small wooden blocks, onto which the depth in meters is recorded. Diamond drill core is transported at the end of each drill shift to an enclosed core-handling facility at the Raven Camp on the property. In general, the core handling procedures at the drill site are industry standard.

10.4.4 Core recovery

Every hole is measured from the start of the hole to the bottom to determine core recovery or block marking errors, and to produce reference meter marks on the core. Core recovery is determined by measuring the recovered core length and dividing this by the downhole drilled interval. Core recovery is recorded routinely both on the core boxes and during core logging.

UEX has conducted a core loss study over all mineralized domains. Core recoveries through the mineralized zones in the Raven - Horseshoe deposit are generally very high, with 100% recovery common, even in mineralized intervals. Significant core loss has occurred mainly in the proximal non-mineralized clay alteration haloes to the deposit and in the oxidized zone below the overburden. Up to March 31, 2008, a total of 56.9 m was logged with 0% core recovery, while 4191.95 m were logged with core recoveries ranging from 4% to 99% with the average loss recorded being 30% of the interval drilled. This equates to 1,248.7 m of core loss over these partial intervals. Adding these intervals, the cumulative total core loss was 1,305.6 m for all UEX RU and HU holes totaling 114,392 m drilled on Raven and Horseshoe up to March 2008, which is equivalent to 98.9% core recovery overall. Similar high levels of core recovery are characteristic of the 2005 drill holes.

10.4.5 Drill core logging

All of the 2006 to 2008 surface holes were geologically logged and sampled by UEX field personnel. All holes were logged in accordance with the UEX legend (Table 10.3) and geological logging procedure. Geological logging includes the detailed recording of lithology, alteration, mineralization, structure, veining, and core recovery. Upon completion of the logging of a hole, the data is reviewed on a set of working cross sections for dynamic interpretation of the geology and mineralization. The logging was completed under the guidance of the authors. Logging data was entered onto laptop computers into *Lagger 3D Exploration* (“Lagger”), a digital software program developed by North Face Software. *Lagger* has the ability to enter and edit drill hole and sample data, and has a custom library of UEX geological codes to standardize the logging legend (Table 10.3).

The primary purpose of the logging system is to provide a standard process for the geological logging procedures on the Raven–Horseshoe exploration project. The initial concept was to develop a legend that was better at recording the information that UEX geologists require to produce quality interpretations. The collection of this data ultimately leads to more refined geological models and resource estimations.

Table 10.3: Geological logging legend applied to UEX Corporation's Raven–Horseshoe project. Principal lithologic units in the Horseshoe and Raven areas, QZIT, CARK, ARKQ, SPL0, AMPH, and CALC are described in Section 6.2.1. Many other units listed below are present on the Hidden Bay property, but not in the vicinity of the deposits.

Codes	UEX name	Description
OB	Overburden	Overburden
CONG	Conglomerate	Conglomerate: maximum grain size >4mm
MDST	Mudstone	Mudstone
SDST	Sandstone	Sandstone: grain size 0.065-4 mm
SLST	Siltstone	Siltstone
UX	Uranium mineralization	Uranium mineralization
CLAY	Clay	Clay alteration: hydrothermal or paleoweathering, protolith uncertain
GOUG	Fault gouge	Fault gouge: unconsolidated cataclastite, clay matrix breccia, precursor lithology is unclear
LOST	Lost core	Lost core
AMPH	Amphibolite	>80% dark green to black amphibole; often massive to crudely banded.
ARKS	Meta-arkose	Massive to weakly foliated or weakly gneissic feldspar > quartz-rich meta-sandstone, with weak to undeveloped gneissic compositional layering. Generally lower biotite content than semipelites
ARKQ	Arkosic Quartzite	Arkosic Quartzite: >30% feldspar, finer grained, more easily altered than the QZIT, specific to Raven Horseshoe area
CALC	Calc-silicate gneiss	Compositionally layered) with amphibole-pyroxene +/- garnet and psammitic (meta-arkosic) layers; may contain dolomite
CARK	Calc-arkose	Arkosic rock with calc-silicate bands (where ARKS>CALC)
DIAB	Diabase	Fine grained mafic dykes with sharp contacts, equigranular, post-metamorphic
DIOR	Diorite	Mafic equigranular, usually medium-grained feldspar with biotite or amphibole-bearing intrusion; usually foliated
DOLO	Dolomite	Grey to cream or pink, usually banded to laminated dolomite-rich unit often with calc-silicate, graphite, or arkosic lamina
GABR	Gabbro	Mafic equigranular, usually medium-grained feldspar + pyroxene +/- amphibole-bearing intrusion; usually foliated
GRAN	Granite	K-feldspar-quartz-biotite granite, massive to foliated; usually medium grained, non-porphyrific; pink to grey
GRGN	Granitic gneiss	Impure granitic gneiss with foliated granitic and other compositional bands
PEGM	Pegmatite	Coarse-grained K-feldspar-quartz-biotite pegmatite; also includes quartz-dominant pegmatites
PLAG	Plagioclase	Albite-pyroxene +/- amphibole metasomatic unit after meta-arkose; may contain coarse pyroxene and resemble an intrusion; gradational contacts
PEL0	Pelitic gneiss or schist	Biotite quartz feldspar +/- garnet +/- sillimanite gneiss or schist (>50% biotite for schist) with >25% combined biotite, garnet, and/or sillimanite
PEL1	"	As above, 1-5% graphite
PEL2	"	As above, 5-20% graphite
PEL3	"	As above, >20% graphite
SPL0	Semi-pelitic gneiss	Biotite quartz feldspar gneiss with <25% combined biotite, garnet, sillimanite, often with abundant pegmatitic segregations
SPL1	"	As above, 1-5% graphite
SPL2	"	As above, 5-20% graphite
SPL3	"	As above, >20% graphite
PYRX	Pyroxenite	>80% pyroxene, up to 20% amphibole; often massive to crudely banded. Grains up to 1.5 cm in diameter.
QZIT	Quartzite	Pale grey to white, massive quartz rich meta-sandstone with >80% quartz, and subsidiary feldspar +/- biotite
QZPL	Quartz-rich pelite	Quartz-rich pelite
QV	Quartz Vein	Quartz vein >20cm (+ or - carbonate) NB: Clearly not pegmatoid related

The legend was developed to increase the amount and quality of geological data being collected and allow flexibility with data collection. In this manner, geologists can record all the information required without having to record one type of data at the expense of other data. The principal aim of the is to simplify the interpretation of drill hole data and reduce the number of rock codes in the database to a manageable level.

The logging system is broken down into a series of tablets that are used to record the various forms of data required. These tablets include: Lithology, Alteration/Paleoweathering, Veining/Structure, and Veining/Structure Orientation Data. Each of the individual tablets is treated in isolation so that geologists can refine the data being recorded depending on the types of geological data required for the specific task, e.g. resource definition, grade control, regional exploration.

A core reference library has been established on-site and good communication between geologists allow for a consistent approach to geological logging. In addition to the geological log, all core is routinely wet down and digitally photographed with a Canon Powershot A610 digital camera as a permanent record of the lithological history.

A review of the historical Cameco logs and cross cutting scissor holes of the 2005 Cameco drilling indicates that the geological information is complete and of good quality. The Cameco

drill holes were logged using a similar legend under the guidance of Roger LeMaitre, P.Geol., from Cameco Corporation. Drill holes completed under the direction of Cameco in 2005 were also relogged by UEX personnel during the summer of 2008 to standardize coding and logging data, to perform a second check on sampling intervals, and to conduct infill sampling where necessary.

10.4.6 Relationship between sample length and true thickness

Since the orientations of drill holes in the deposit vary, and the morphology of mineralized zones has variable orientation across the two deposits, the relationship of geochemical sample length in drill holes to the true thickness of mineralization is also variable. At the Horseshoe deposit, the steep orientation of most drill holes crosses the lens-shaped mineralized zones at or near to true thickness. The 15-30 m spaced drilling density, and geological confidence in the mineralization extent orientation and morphology based on information discussed in section 8 of this report has enabled 3-dimensional wireframe modeling of both deposits which accommodates for variations in sample length to local orientation of drill holes and mineralized zones (Figures 8.11 and 8.16). Composited intervals reported in Appendix 2 represent apparent thickness.

10.4.7 Geotechnical logging

All geotechnical logging was completed by, or conducted under the supervision and advice from, personnel of Golder Associates Ltd. (“Golder”) of Saskatoon, Saskatchewan, and Mississauga, Ontario. All selected holes were logged geotechnically in accordance with the UEX Geotechnical Protocol developed by Golder. A selection of holes were logged with Rock Quality Designation (“RQD”), which is the cumulative length recovered of solid core pieces longer than 10 cm in a run divided by the total length of the drilled interval. Numerous holes were tested for intact rock strength using a rating system based on hammer blows, fracture count per run and detailed total core recovery.

During 2007 and 2008, Golder personnel came to site and conducted intact rock strength measurements on HQ core using a point load testing machine. Throughout the drill seasons, Golder has also conducted detailed geotechnical assessments of drill core. Logging was completed using the modified Q system.

In the winter of 2008, Golder surveyed a series of holes in the Horseshoe area using a downhole televiewer. The aim of this survey was to determine geotechnical properties directly above the mineralized zones and around the peripheries of the deposit. UEX has received a draft report on this work at the time of writing.

10.4.8 Radiometric probing of drill holes

Downhole radiometric probing (gamma logging) with in-hole probing instruments is a routine task undertaken on all holes drilled at the Raven – Horseshoe project. In uranium exploration, probing is integral in accurately detecting gamma radiation downhole, which directly correlates to mineralized zones, since these probes are able to quantitatively measure radioactivity caused by the atomic decay of uranium. Through the use of in-house correlation formulas determined from comparing geochemical sampling with probe data, the concentration of uranium in-situ can be determined. The probe data is used to determine an uranium equivalent intersection which is used for planning of follow-up drill holes and to correlate intervals in the drill core in order to guide geochemical sampling. A detailed radiation measurement is taken every 10 cm downhole and

10cm uphole by passing a probe continuously down and back up the drillhole immediately after its completion and measuring in situ radioactivity.

The probes are calibrated before each drill program at the Saskatchewan Research Council's test pit facility in Saskatoon, Saskatchewan. The probing equipment was tested using a known low-grade radioactive source in the field before and after the probing of each hole to ensure that the equipment was functioning properly before and after the downhole probing was completed. The radiometric logging was performed using a Mount Sopris Model 4MXA/1000 500m winch or Model 4MXC/1000 1,000m winch and MGX II Model 5MCA/PMA digital encoder. A Mount Sopris Modified Triple Gamma Probe consisting of a 2SMA-1000 Sonic Modem section (#3460 or #3461) and 2GHF-1000 Triple Gamma Probe section (#3431 or #3458) was used to probe all holes. Data was acquired using MSLog Version 7.43, a Mount Sopris computer recovery program. Data from the probing is then used to correlate mineralized zones with the drill core and identify zones for sampling and geochemical assay. The drill core is scanned with a hand held SPP2 scintillometer or a RS-120/125 super scintillometer in order to determine radioactivity in the core. Detailed radiometric measurements are taken every 10 cm on the core in mineralized zones and recorded on the core and in accordance with standard procedure. At times there are some discrepancies with the downhole probe interval and the core due to stretch in the winch cable, the counter wheel icing up or a differing zero depth between the core and the probe data.

The detailed radiometric readings from the hand held scintillometer on the drill core are used as a guide by the geologist for geochemical sampling. The geologist marks on the individual sample intervals on the core and the sample numbers and location are recorded in drill logs.

In the authors' opinions, the core sizes, procedures for logging and recording of core recoveries are standard industry practices. They provide an acceptable basis for the geological and geotechnical interpretation of the deposits leading to the estimation of mineral resources, and economic evaluation of the deposits.

11.0 SAMPLING METHOD AND APPROACH (*form 43-101 F1 Item 14*)

Drill core sampling for geochemical analysis is the primary sampling method. A combination of radiometric responses from hand held scintillometer readings on drill core and recognition of visibly mineralized or altered areas help guide the sampling. Sampling has been conducted continuously across mineralized intervals within the mineralized zones. Samples were also collected from the non-mineralized core for at least several meters above and below mineralized intersections to confirm the location of the mineralization boundaries for each mineralized zone. In the case of multiple zones of mineralization in a hole, the internal non-mineralized section was generally sampled to provide a more continuous profile. In June 2008, UEX implemented a program of sampling weakly and non-mineralized core to clearly bracket mineralization with a nominal 2 m of sampling below 0.02% U_3O_8 and any broad zones of internal waste were sampled. Additional sampling of holes was conducted at this time where previously sampled intervals were deemed too restricted in extent.

A representative length check on selective sample intervals was conducted on all of the HU and RU holes up until March 31, 2008. A total of 16,756 m of core was sampled representing 24,049 samples averaging 0.7 m in length. Sample intervals range from 0.1 m to 3.0 m with 261 samples or 1% of the total data set greater or equal to 1.2 m in length. Note this excludes non-routine blanks and standards. Typically, the broader intervals were sampled over areas of low core recovery. An extra 1,635 samples, each approximately 10 cm in length underwent spectral

analysis with PIMA and were assayed with a full multi-element suite to spectrally and geochemically profile the alteration signature of the deposit. These additional samples are excluded from the resource estimation data set. To September 1, 2008, the entire UEX drilled Raven and Horseshoe database includes 29,854 selective sample records and 2,576 systematic sample records (note these numbers include routine standards and blanks).

After core logging, all drill core marked for sampling is split longitudinally to obtain a representative half core sample for geochemical analysis. Splitting of core samples is undertaken by employees of UEX at the Raven Camp. Samples are split dry and not cut, using an electric hydraulic press with a “knife” and “V-block”. The splitter and sample trays are vacuumed clean to prevent contamination between each sample. One half of the core is placed in a clear plastic sample bag along with a sample tag containing the sample number and the bag top is rolled down and then securely taped to prevent any sample loss. Once a sample is split and bagged up, an additional level of quality control is introduced where the radioactivity of the sample is measured by a SPP-2 scintillometer. These samples are then placed in approved pails and sent to Saskatchewan Research Council (“SRC”) for analysis. The second half is retained for geological documentation and record purposes and remains in the core box. A sample tag with the sample number is stapled into the core box to mark the location of the sample interval. All mineralized sections are kept in permanent wooden racks for easy access and review. After each hole is sampled, the splitting tent is cleaned to prevent hole to hole contamination and to minimize the amount of background radiation from dust.

A small representative portion of drill core has had the second half of the core removed for specific gravity and dry bulk density testing and some intersections have been taken for detailed metallurgical testing. The three HQ (HU-156, HU-157 and RU-130) holes were bulk sampled for metallurgical testing, and as a result no remaining core is available.

Once the samples arrive, all elements of sample preparation were completed by employees of SRC’s Geoanalytical lab in Saskatoon, Saskatchewan. The SRC laboratories are accredited by the Canadian Association for Laboratory Accreditation Inc. When samples arrive at the lab, no employee, officer, director or associate of UEX Corporation, the issuer, is or has been involved in any aspect of sample preparation and analysis. Radioactive samples, mainly drill core, are shipped within Canada in compliance with pertinent federal and regulations regarding their transport and handling. UEX Corporation has developed a procedure to detail requirements for exploration staff and others to ensure nuclear substances are shipped in compliance with regulatory requirements.

Essentially the transportation instructions are provided for the shipment of Dangerous Good Class 7, Radioactive Materials. Each shipment must meet all regulatory requirements of the Canadian Transportation of Dangerous Goods guidelines.

The samples are held in approved pails and sealed shut with secure lids and meet the requirements of the CNSC Packaging and Transport of Nuclear Substances Regulations. Each pail is weighed and the level of the radioactivity is measured in compliance with the Transportation of Dangerous Goods regulations. The sealed pails are temporarily stored outside the core shack at the Raven Camp. Once a week, the shipment of radioactive samples is transported by road from the Raven Camp directly to SRC’s lab in Saskatoon. The pails are shipped in a closed vehicle under the exclusive use rules by our carrier, J.P. Enterprises Inc., based in La Ronge, Saskatchewan. In the authors’ opinions, there is little chance of tampering of samples as they are shipped directly from the Raven camp to the lab in sealed containers.

11.1 Sampling Quality and Representativity

The sampling methods and approach employed by UEX at the Raven and Horseshoe deposits meet industry standards, and there is no drilling, sampling or recovery (core loss) factors in the author's opinion that could materially impact the accuracy and reliability of the results. As discussed above, drill core recoveries are high in mineralized areas. Sample locations and lengths are selected to appropriately represent mineralization distribution, with breaks between sample intervals made between obvious changes in geology or mineralization distribution. As a result, the sampling is considered to consistently represent the appropriate length and quantity of mineralization to determine a representative uranium grade independent of mineralization style.

No inherent sampling biases exist in the longitudinal splitting of the core and sample processes are consistent from season to season. It is the authors' opinion that the samples are of good quality, representative and contain no material factors that may have resulted in sample biases. The correlation of downhole radiometric probing, detailed radiometric SPP2 or RS120/125 readings, as well as detailed assay comparison and quality assurance/quality control ("QA/QC") program (Section 14) provides further confidence in our opinion. Relevant sample composites are listed in Appendix 2.

12.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY (*form 43-101 F1 item 15*)

Sample preparation procedures have not varied since the initiation of the modern exploration at Raven and Horseshoe in 2005. QA/QC procedures have improved from lab based quality control initially to the implementation of a more in depth quality QA/QC protocol, as is described below.

Two detailed lab audits were completed on the primary lab, SRC laboratories, in Saskatoon, Saskatchewan. An initial lab audit was conducted on September 24, 2007 and a follow up review was carried out on June 5, 2008. The lab audit covers all aspects of the sample preparation and analytical process. The review is documented with an appropriate action plan for non-compliance or suggested action items. SRC and UEX have an established an open relationship where our external QAQC program and our interpretation of the lab's internal QC program are discussed.

The laboratory has an ISO/IEC 17025:2005 accredited quality management system (Scope of Accreditation # 537), from the Standards Council of Canada (SRC, 2007). All samples were initially analyzed at the SRC's Geoanalytical Laboratory located at 125-15 Innovation Blvd, Saskatoon, Saskatchewan.

12.1 Sample Preparation

On arrival at the SRC lab, all samples are received and sorted into their matrix types and received radioactivity levels. The samples are then dried overnight at 80°C in their original bags and then jaw crushed until $\geq 60\%$ of the material is < 2 mm size. A 100 g sub sample is split using a riffler, which is then ground (either puck and ring grinding mill or an agate grind) until $\geq 90\%$ is minus 106 μm . The grinding mills are cleaned between sample using steel wool and compressed air or in the case of clay rich samples, silica sand is used. The pulp is transferred to a labeled plastic snap top vial.

SRC is an independent laboratory, and no employee, officer or director of UEX is, or has been, involved in any aspect of sample preparation or analysis.

12.2 Analytical Procedures

The following section is summary of the analytical procedures undertaken by SRC (2007). The resource data set uses U_3O_8 assay by ICPOES as the primary analytical method and ICP Total Digestion for lower grade samples (<1,000 ppm U).

12.2.1 Total and partial digestion

The samples are tested using validated procedures by trained personnel. All samples are digested prior to analysis by ICP and fluorimetry. All samples are subjected to multi-suite assay analysis which includes U, Ni, Co, As, Pb by total and partial digestions. Initial phases of exploration, four separate digestions were performed: Boron, Partial and Total. In early winter 2007, routine analysis of Boron was discontinued. Boron analyses exist for 73 holes up to HU-053 and RU-020, and for drill holes completed during the 2005 program which was managed by Cameco.

Total Digestions are performed on an aliquot of sample pulp. The aliquot is digested to dryness on a hotplate in a Teflon beaker using a mixture of concentrated HF:HNO₃:HClO₄. The residue is dissolved in dilute HNO₃ (SRC, 2007). Partial digestions are performed in an aliquot of sample pulp. The aliquot is digested in a mixture of concentrated HNO₃: HCl in a hot water bath then diluted to 15ml with DI water. Fluorimetry is used on low uranium samples (<100 ppm) as a comparison for Inductively Coupled Plasma – optical emission spectrometry (“ICPOES”) uranium results. Uranium is determined on the partial digestion. An aliquot of digestion solution is pipeted into a 90% Pt 10% Rh dish and evaporated. A NaF/LiK pellet is placed on the dish and fused on a special propane rotary burner and then cooled to room temperature.

The reader is referred to the SRC’s website (<http://www.src.sk.ca/>) for more details regarding the analytical techniques and sample handling procedures.

12.2.2 U_3O_8 method by ICPOES

McCready (2007) documents in detail the SRC U_3O_8 assay method and it is summarized below. All samples are received and entered into the Laboratory Information Management System (“LIMS”). In the case of uranium assay by ICPOES for UEX, a pulp is already generated from the first phase of preparation and assaying (discussed above). UEX routinely assays every sample above 1,000 ppm Uranium via ICP Total Digestion with ICPOES Uranium assay. A 1,000 mg of sample is digested for 1 hour in an HCl: HNO₃ acid solution. The totally digested sample solution is then made up to 100 mls and a 10 fold dilution is taken for the analysis by ICPOES. Instruments are calibrated using certified commercial solutions. The instruments used are a Perkin Elmer Optima 300DV, Optima 4300DV or Optima 5300DV. The detection limit for U_3O_8 by this method is 0.001%. SRC management has developed quality assurance procedures to ensure that all raw data generated in-house is properly documented, reported and stored to meet confidentiality requirements. All raw data is recorded on internally controlled data forms. Electronically generated data is calculated and stored on computers. All computer generated data is backed up on a daily basis. Access to samples and raw data is restricted to authorized SRC Geoanalytical personnel at all times. All data is verified by key personnel prior to reporting results. Laboratory reports are generated using SRC’s LIMS.

12.3 Dry bulk density samples

Under the guidance of Golder, UEX collected a large selection of samples for dry bulk density measurement. These samples were systematically selected from different mineralized zones, and a proportionately valid sample distribution of all rock types and alteration types, including different intensities of clay alteration. A total of 2,615 samples from 33 holes underwent dry bulk density

testing. There were 1,845 samples from 33 Horseshoe (HU-series) holes and 770 samples from four Raven (RU-series) holes. Average dry bulk density for Horseshoe lithologies is 2.48 and 2.51 for Raven lithologies. The density statistics by lithology are listed in Tables 12.1 and 12.2 for Horseshoe and Raven, respectively.

Table 12.1: Horseshoe SG statistics grouped by lithology.

HORSESHOE					
Rock	Count	Mean	Median	Minimum	Maximum
ARKQ/S	1284	2.47	2.5	1.45	3.14
CARK	66	2.73	2.75	2.34	2.86
CLAY	12	1.88	1.89	1.33	2.45
DIAB/DIOR	14	2.71	2.73	2.27	2.85
GOUG	2	1.98	1.98	1.75	2.21
PEGM	88	2.37	2.42	1.89	2.65
PELO	7	2.41	2.38	2.22	2.64
QZIT	273	2.53	2.55	2.08	2.83
SPL0	6	2.57	2.53	2.44	2.75
UX	93	2.49	2.49	1.75	2.95
Total	1845	2.48	2.51	1.33	3.14

Table 12.2: Raven SG statistics grouped by lithology.

RAVEN					
Rock	Count	Mean	Median	Minimum	Maximum
ARKQ	89	2.42	2.55	1.67	2.64
BX	10	1.98	1.99	1.74	2.32
CARK	243	2.53	2.54	2.08	2.93
GRAN	14	2.43	2.43	2.2	2.58
PEGM	36	2.41	2.43	2.13	2.89
PELO	26	2.64	2.67	1.92	2.76
QZIT	328	2.54	2.56	1.93	2.65
SPL0	24	2.45	2.44	2.24	2.65
Total	770	2.51	2.55	1.67	2.89

12.3.1 Density analytical methods

Dry bulk density samples were collected from half split core retained in the core box after geochemical sampling, since the dry bulk density process requires wax coating of the samples, which would affect the geochemical analysis. An approximately 7-15 cm piece of half split core was submitted for each analysis. Samples were tagged and placed in sample bags on site, then shipped to SRC. Once received by SRC, samples are weighed dry, covered in an impermeable barrier of wax and then reweighed. The samples are then submersed in room temperature water and reweighed. The dry bulk density is then calculated and reported.

There is a strong negative correlation with logged proportions of clay in the core and density. Table 12.3 details the uranium grade ranges and specific gravity. Those samples not assayed for uranium are typically sitting distal to mineralization in less altered rock.

Table 12.3: Average dry densities by grade bins

U ₃ O ₈ % Grade range	Number of samples	SG average	U ₃ O ₈ % average
Not assayed	544	2.58	Barren
Assay to 0.05%	1,098	2.47	0.016%
0.05% to 0.1%	270	2.45	0.072%
0.1% to 1%	601	2.47	0.317%
>1%	102	2.47	2.742%
TOTAL	2,615	2.49	0.245%

As shown in Figure 12.1 below, there is no correlation in increasing grade and increasing specific gravity. The regression curve is flat though above 3% U₃O₈, there is a small inflection associated with a weak correlation of increasing U₃O₈ grade and increasing specific gravity.

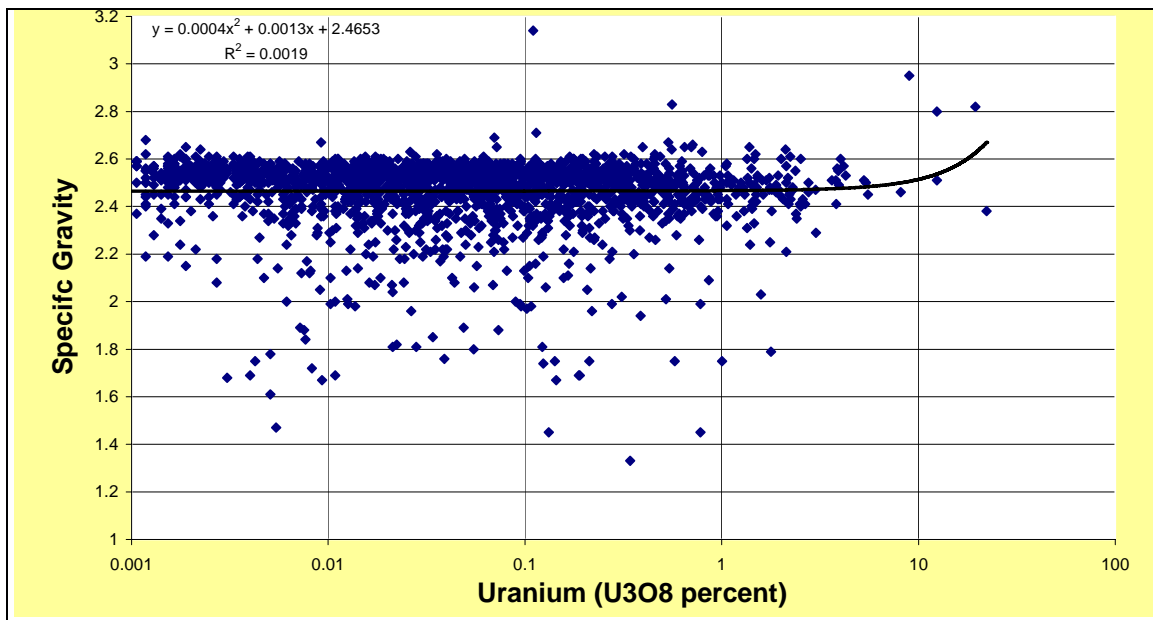


Figure 12.1: Logarithmic plot of dry bulk density versus uranium grade in corresponding geochemical samples.

SRC conducted 89 repeat measurements whereby in each batch at least one sample is repeated in every 40 samples. The repeats work out to 1 in 29 samples. All repeats passed the internal QC limit of +/- 0.02. The sample repeats have a strong positive correlation (Figure 12.2).

As a check, a total of 52 samples, or 1 in 50, underwent wet density measurements in parallel with dry bulk density measurement. The average wet density of the selected samples was 2.61 and the difference between the corresponding dry densities, which average 2.53, is 2.8%. One known standard, a piece of granite, was used for the wet density measurements and the three results were in the acceptable range of 2.71 +/- 0.01.

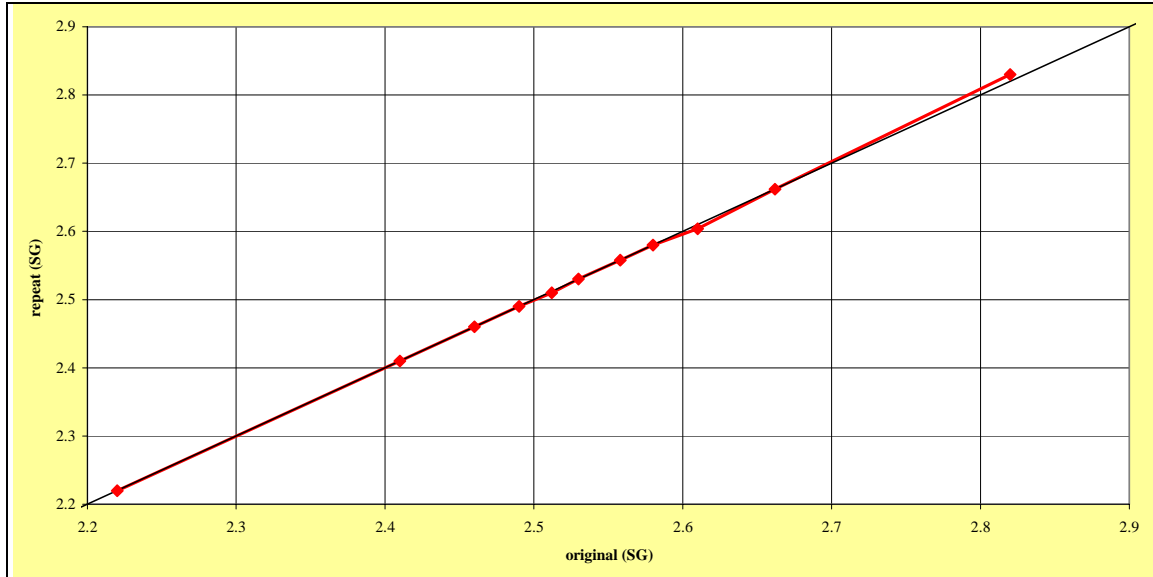


Figure 12.2: Quantile – Quantile plot of lab specific gravity replicates for batches submitted for all seasons.

Table 13.1 Summary of results for the QC samples for the UEX drilled samples and results outside of acceptable limits for the reporting period 2005 – September 2008.

QAQC Sample	Number	Outside	Percentage outside of tolerance
CG515 standard (ICP)	2,016	0	0%
Blanks (ICP)	1,033	6	0.6%
Field Duplicates	228	11	5% (outside of 30% precision)
Lab Replicates	1,098	0	0%
Lab Replicates (ICPOES)	404	1	0.2%
BL-2 (ICP) standard	210	0	0%
BL-3 (ICP) standard	180	0	0%
BL-4 (ICP) standard	334	0	0%
BL-4A (ICP) standard	232	0	0%
UEX08 (ICP) standard	9	0	0%
BL-1 (ICPOES) standard	17	0	0%
BL-2 (ICPOES) standard	255	0	0%
BL-2A (ICPOES) standard	159	0	0%
BL-3 (ICPOES) standard	259	0	0%
BL-4 (ICPOES) standard	332	3	1%
BL-4A (ICPOES) standard	615	0	0%
BL-5 (ICPOES) standard	7	0	0%
ICP vs. ICPOES assay comparison	4,575	3	0.1%

13.0 DATA VERIFICATION (form 43-101 F1 item 16)

Samples are submitted to SRC in Saskatoon for geochemical analysis. As part of UEX's quality improvement programs, a more rigorous QA/QC program was implemented in July 2007 during the summer drilling program which continues to be followed. As drill holes are sampled, sixteen routine and four QC samples are submitted for every twenty samples. The QC samples include a commercially available standard (certified reference material), a blank, a field duplicate, and a round robin pulp. Results are documented below. Most drill hole sampling at both the Horseshoe and Raven deposits was completed under the management of UEX. Prior to the implementation of this QC program in the summer of 2007, only blank samples had been submitted throughout the 2006 and early 2007 drilling programs.

UEX's Batch Acceptance Procedure is used to provide a standard process for reviewing QA/QC and accepting batches of geochemical assays from the laboratory on the Raven – Horseshoe exploration project.

In all cases, results outside of acceptable limits have been followed up by checking results with the lab or reanalysis of the problem sample and all surrounding samples to known internal/external within acceptable limits. In the case of the error repeating through reanalysis, resplitting of the core and resubmitting the samples was undertaken.

Analysis of standards indicates that results were acceptable (within three standard deviations from the mean) for 100% of 965 standards submitted via U ppm ICP Total Digestion and 1,641 or 99.8% of the 1,644 standards submitted via the ICPOES U₃O₈ assay technique. Assay comparison between three different assay techniques revealed a strong positive correlation for U ppm and U₃O₈ (Figure 13.14). A full discussion of lab replicates is presented in Section 13.3.

Lab replicates, where a pulp is analyzed in replicate as part of the labs internal QC measures to ensure reproducibility of assay results over time. Replicates also serve as a validation tool for batches with identified problems in either standards or blanks. The lab replicates are found to be in acceptable limits with exceptional correlation ($R^2 > 0.999$) and have very low dispersion.

13.1 Sample blanks

A blank is material with low level uranium grades. Blanks are used to check for significant cross contamination within subsequent samples and previous jobs arising through the sample preparation and analytical processes. Contamination can occur in the crushing circuit and pulverizing mills. SRC carry out a staged analysis of samples based on a detailed radiometric reading from lowest grades to highest grades based on the dot and bar classification system. The blanks test for contamination in the non-mineralized samples and to date, 99.4% or 1,027 blanks have returned metal values within acceptable limits. The few high values returned were investigated for data entry or sample swap issues and at times reassayed. Reanalysis of surrounding samples typically revealed repeatability on routine samples while in three cases, the source of the error could not be determined, so the intersections were resplit and assayed.

UEX started the routine submission of blanks in September 2006 from holes HU-020 and RU-001 onwards. Prior to July 2008, UEX used local non-mineralized granite (Hidden Bay granite) as the field blank. Unfortunately, this non-mineralized granite drill core was found to have varying amounts of background metal making it unsuitable for the QC program. In July 2008, a non-mineralized cover sandstone sequence was introduced as a field blank. The nominal grade of the

blank is 73 ppm uranium by ICP Total Digestion, which equates to three standard deviations of the population data around the mean.

The blanks were routinely analyzed by ICP Total and Partial Digestion. UEX reviews the ICP Total Digestion on a regular basis. Blanks submitted between 2006 and 2008, totaling 1,033, returned at an average grade of 6 ppm uranium by ICP Total Digestion. Overall, the blanks were under the threshold in the lab and the 138 assay batches passed. Figure 13.1 reveals certain periods in time where UEX has obtained blank material substantially more anomalous. This has occurred twice during since the initiation of submission of blanks. In the summer of 2008, UEX reduced the insertion of blanks to 1 in 50 after reviewing the QA/QC data and determining the level of rigor was not required.

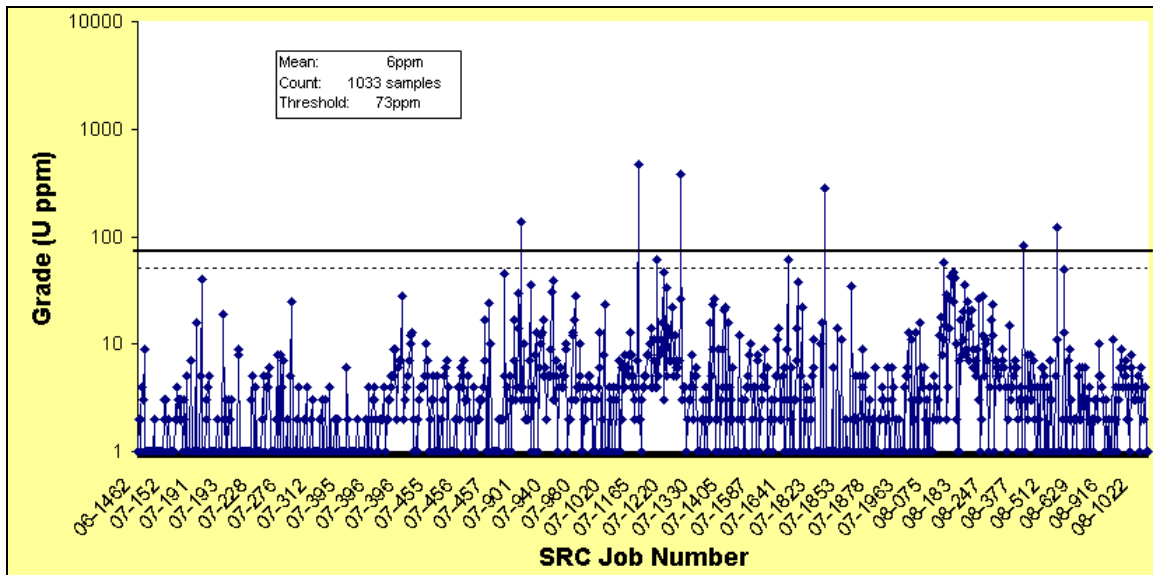


Figure 13.1: Blanks submitted for all batches between September 2006 and September 1, 2008. Threshold is 73 ppm U for ICP Total Digestion.

13.2 Split and field duplicates

Repeat analysis on coarse rejects or duplicate splits on samples were submitted to test sample preparation and splitting methods to ensure that the pulp produced was representative of the drill core sample. The submission of a field duplicate can also test the natural variance of mineralization over short distances. Instead of sampling the other half of the core, SRC is instructed to collect a crush duplicate, whereby the sample is crushed and a coarse, rough duplicate is split off and then prepared and analyzed separately. As there is natural variance in the samples, or nugget variance, there will be some difference in the analysis of the duplicate split with respect to the original sample.

In June 2007, UEX requested SRC to locate stored coarse rejects from previous drill seasons and reanalyse them to identify the repeatability. In parallel, some samples from the early summer 2007 drill season were submitted to test repeatability. In total, UEX submitted 228 samples as field duplicates and the results of this program have led to high confidence in the sample preparation methods employed at the SRC laboratory. Nearly all duplicates were found to be within acceptable limits with minimal dispersion and high correlation ($R^2 > 0.996$), (Figure 13.2).

Of the 228 duplicate pairs submitted, 62% were within 10% of the parent sample, 33% were within 10 – 30% of the parent, and 5% had a difference of greater than 30% (Figure 13.3).

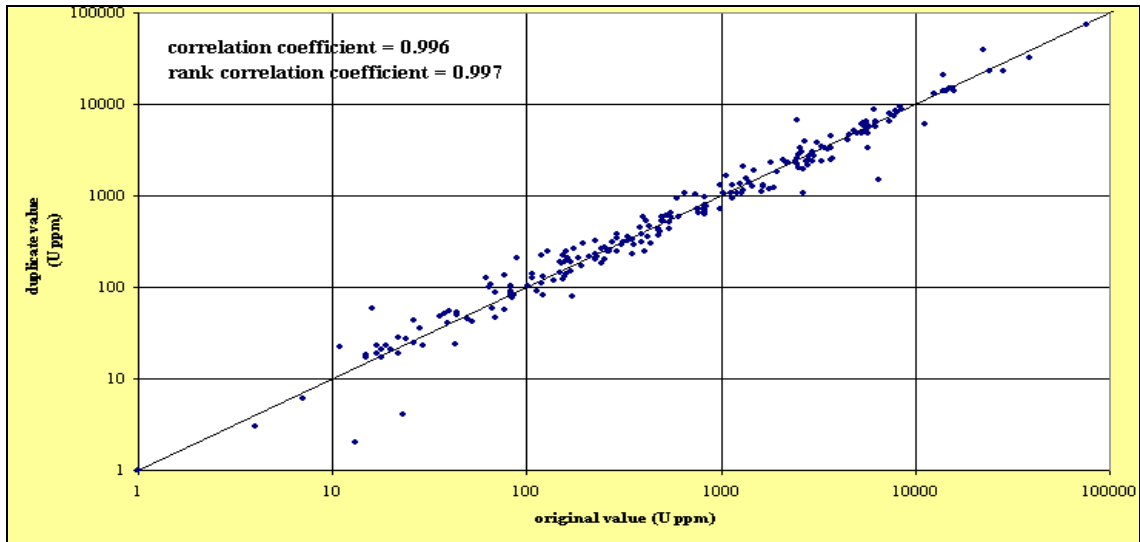


Figure 13.2: Scatter plot of Split Duplicates for batches submitted for ICP Uranium, Total Digestion.

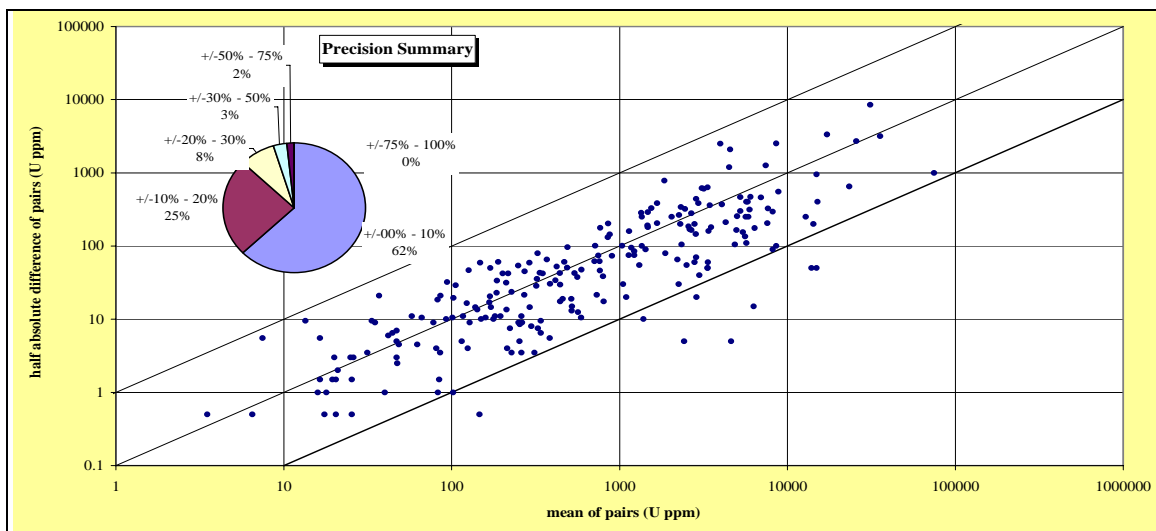


Figure 13.3: Thompson-Howarth precision plot of duplicates, ICP Uranium, Total Digestion. The three diagonal lines represent 100%, 10% and 1% precision (left to right).

Overall, UEX is comfortable with the level of precision between duplicate sample pairs and have an understanding of the inherent variability within the samples. Some of the scatter occurred in the lower detection limit which does not have a material impact on the data (Figure 13.3).

13.3 Lab replicates

A total of 1,098 lab replicates were analyzed during the UEX Horseshoe-Raven drilling programs. UEX routinely reviews all lab replicate data on a variety of plots including a Thompson-Howarth precision plot, scatter plot, relative paired difference and quantile-quantile

(“Q-Q”) plots. Replicate pulp samples are routinely run on one in forty samples to ensure the repeatability of assay results over time as part of SRC’s internal QC program. They also serve as a validation tool for batches that have identified problems with blanks and standards, or for earlier programs which did not use the routine addition of standards. Overall, there are no issues with the replicate data. SRC offers high quality analytical services and the review of replicate data forms parts of SRC’s dedicated quality assurance program. SRC (2007) has an internal practice for reviewing repeatability as follows.

Repeatability ranges are defined for all duplicate sample analysis. Errors arise when:

- >10% difference in results 100 ppm or greater
- >25% difference in results of 10 ppm to 100 ppm
- >100% difference in results of 1 ppm to 10 ppm
- >200% difference in results 0.01 ppm to 1 ppm.

The authors’ agree with the error range thresholds and they are adequate for the purpose of the samples. If results fall outside of these tolerances then the batch of forty samples are reanalyzed.

The Thompson-Howarth precision plot (Figure 13.4) is a way of determining the precision between the paired data. The right most diagonal line represents the 1% precision line. Any data point below this 1% precision line is within 1% between the replicate and original. The middle diagonal line in Figure 13.4 represents the 10% precision line. As shown in the graph, all except 2% of the data sits below 10% precision.

Replicate results have a good correlation with original values ($R^2 > 0.999$) indicating reproducibility of assay results as is illustrated in Figure 13.5. This data also includes the Cameco lab replicate data received in 2005.

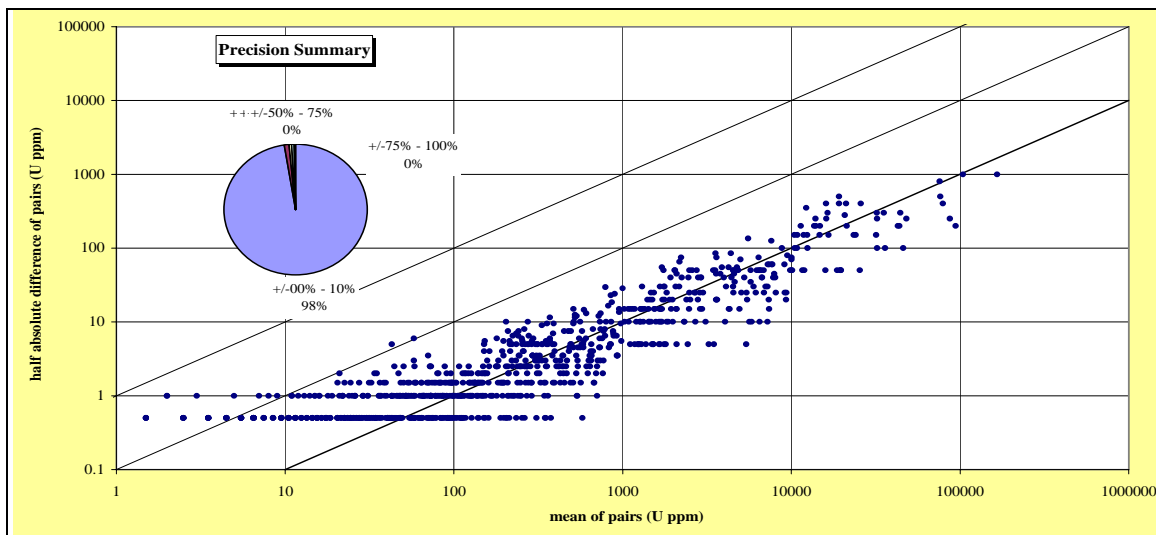


Figure 13.4: Thompson-Howarth precision plot of lab replicates, ICP Total Digestion for 2005 – September 2008. The three diagonal lines represent 100%, 10% and 1% precision (left to right).

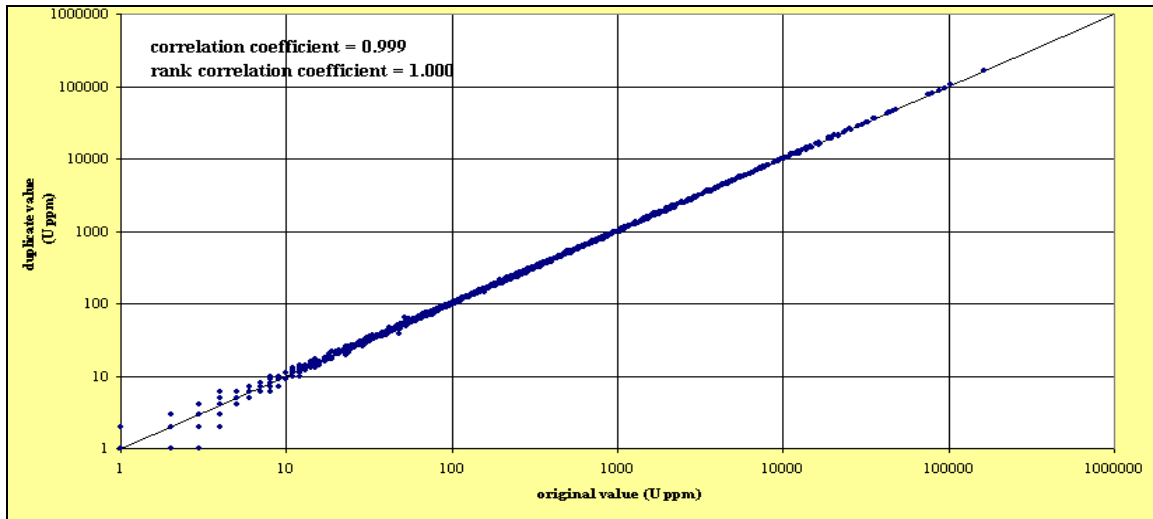


Figure 13.5: Scatter plot of lab replicates for all batches submitted between 2005 and September 2008 (ICP Total Digestion)

UEX routinely assays all samples which return above 1,000 ppm U by the ICP Total Digestion method with ICPOES uranium assay. SRC routinely undertake in-house quality control using lab replicates for this assay method. A total of 404 lab replicates were assayed over a range of values from 0.01 % U_3O_8 to 18.79% U_3O_8 . The replicates have an exceptional correlation $R^2 = 1.000$ (Figure 13.6). This data also includes the Cameco U_3O_8 lab replicate data received in 2005.

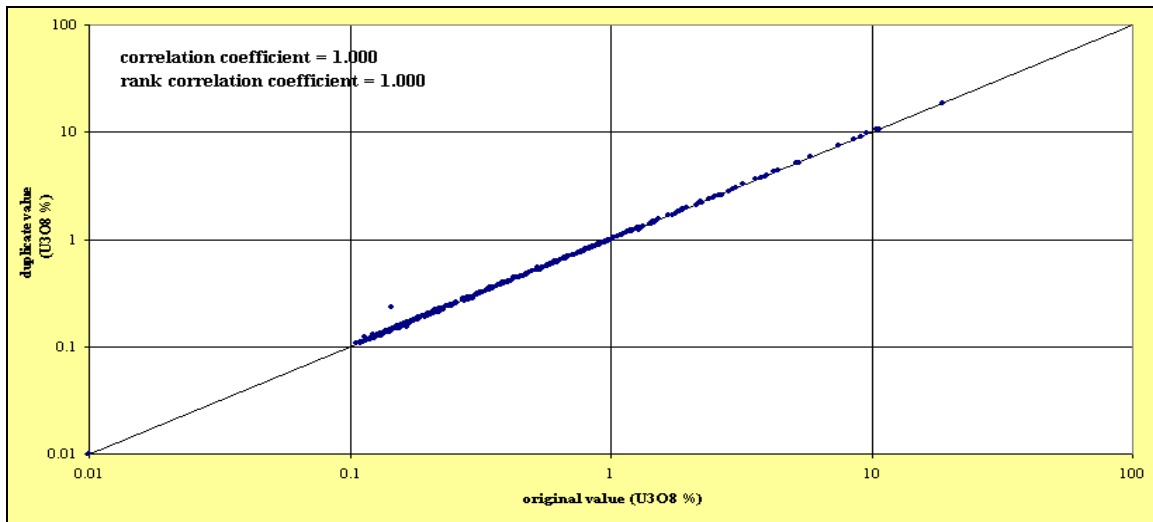


Figure 13.6: Scatter plot of lab replicates for all batches submitted between 2005 and September 2008 (ICPOES U_3O_8 assay)

13.4 Laboratory standards

SRC undertake in-house quality control utilising seven standards used to monitor analytical performance in their analytical lab. These are: ASR1, ASR2, CG515, LS4, BH, BM and BL. Additional certified reference materials are used for some analyses. The values for in-house material are independently determined by SRC and by external laboratory verification. These

standards test the nearly the full suite of multi-elements and can be swapped in and out depending on the target elements. UEX tests the full suite of multi-elements even though they are not economic, and only for exploration, metallurgical and environmental interest. The level of rigor on the non-ore elements are reviewed though, there is no rigorous quality control.

SRC submit a routine internal standard, CG515, with a nominal grade of 2 ppm Uranium and tolerance limits of <2 ppm (or 1 ppm) and 4 ppm. A total of 2,016 CG515 standards were inserted with an average grade of 1.98 ppm uranium. All standards performed within tolerance as illustrated in Figure 13.7. This standard is low grade in nature and does not have a material impact on the assay data, although it provides an assessment of the lower end of the dataset. One CG515 standard did return outside of tolerance though once highlighted, the error on SRC's behalf was rectified.

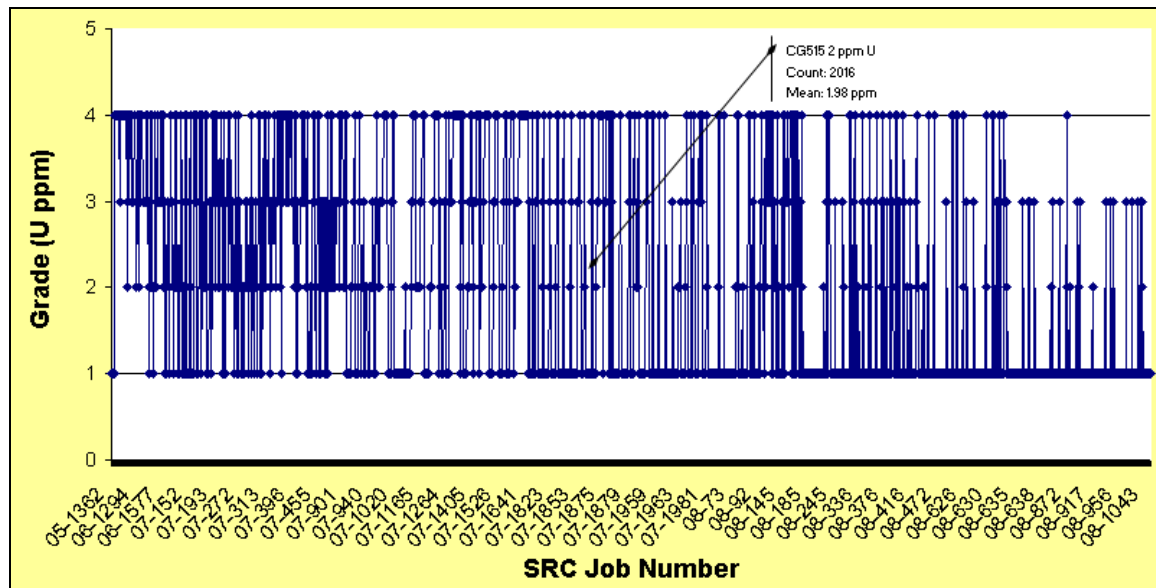


Figure 13.7: Plot of CG515 SRC Internal standard (2 ppm U) for 2005 to September 2008 drill holes.

13.5 External standards

An external standard is certified reference material that is commercially available. UEX uses the CANMET BL series standards, which are produced from a set of ores with naturally radioactive elements. CANMET has documented in detail the radioactive certified reference materials, with average values and an upper and lower confidence interval at 95% (Ingles, et al., 1977; Faye, Bowman and Sutarno, 1979; Steger, et al., 1982). External standards have been submitted into the sample stream since July 25, 2007 (hole HU-108 onward, and RU-026 onward). The external BL series standards are submitted at a rate of one standard per twenty routine samples.

The 95% confidence interval is equivalent to plus or minus 1.96 standard deviations around the mean. UEX follows the industry practice of reviewing standards above or below three standard deviations around the nominal grade of the standard. UEX currently uses seven different CANMET standards (Table 13.2) either through insertion into the sample stream on site or via SRC. The CANMET standards are obtained from the CCRMP Sales Office of the CANMET Mining and Mineral Sciences Laboratories in Ottawa, Ontario.

Table 13.2: CANMET standards with recommended values, 95% confidence limits and calculated thresholds based on three standard deviations around the mean. All values are in U %. Source: Ingles, et al., 1977; Faye, Bowman and Sutarno, 1979; Steger, et al., 1982.

	Recommended Value (U %)	Recommended 95% CI (lower)	Recommended 95% CI (upper)	Three standard deviations (lower)	Three standard deviations (upper)
BL-1	0.022%	0.021%	0.023%	0.020%	0.024%
BL-2	0.453%	0.448%	0.459%	0.445%	0.461%
BL-2A	0.426%	0.423%	0.429%	0.421%	0.431%
BL-3	1.02%	1.01%	1.03%	1.00%	1.04%
BL-4	0.173%	0.170%	0.177%	0.168%	0.178%
BL-4A	0.1248%	0.1234%	0.1262%	0.1227%	0.1269%
BL-5	7.09%	7.06%	7.12%	7.04%	7.14%

When a batch returns, UEX compares the assays of the standards against the acceptable limits, in this case data is reviewed above two standard deviations and scrutinized outside of three standard deviations. As with the blanks, the surrounding assays from the batch are checked to identify any mislabeled samples. Sample swap issues can occur within the sampling process typically when the standard is incorrectly labeled e.g. BL-2 recorded when BL-4 is submitted. If the standard is within the acceptable limits then the batch passes. If the assay of the standard falls outside the acceptable threshold and the investigation reveals proximal in tolerance standards either side or the standards are bracketed by non-material assays below 200 ppm U, then the batch can pass. If the issue cannot be resolved by reviewing the data, then the lab is asked to review the batch. At times, UEX requested SRC to reassay sections of a batch of samples where out of tolerance samples were bracketed by known good QC samples. In the unlikely case that the issue cannot be resolved or that UEX is not comfortable with the results, the original remaining half of the core in the core box is resampled.

It became evident in the early stages of reviewing our standard data that the nominal grade ranges and standard deviation data provided by CANMET for the BL series standards were tighter than the data that was received from the SRC lab. After completing reassays on selected intervals and standards with no material changes, UEX adopted a method of reviewing the rapidly expanding database of standards, and determined a nominal value and standard deviation from the data via each assay technique. SRC also use internal QC limits based on the submission of internal standards and different assay technique. These are reviewed on an ongoing basis. Table 13.3 below lists the CANMET standards with UEX internal upper and lower threshold values for ICP Total Digestion assay technique.

Table 13.3: CANMET standards with UEX's internal upper and lower threshold values for ICP Total Digestion

Standard	Recommend Value (U ppm)	Lower threshold – three standard deviations (U ppm)	Upper threshold – three standard deviations (U ppm)
BL-2	4,440	4,060	4,830
BL-3	10,130	9,530	10,730
BL-4	1,690	1,550	1,820
BL-4A	1,260	1,180	1,340

The BL-2 standard was introduced in July 2007 for the summer 2007 drilling program. Overall, there has been some assay calibration issues and possibly some bottle settling issues with the standard throughout the assay history (as shown in Figure 13.8). If the nominal values obtained from CANMET are used, then 115 of the 210, or 55% of the standards would be outside of the nominal reference value plus/minus three standard deviations. UEX is comfortable with the BL-2 standard performance and the recommended ranges based on the data set derived for this assay technique.

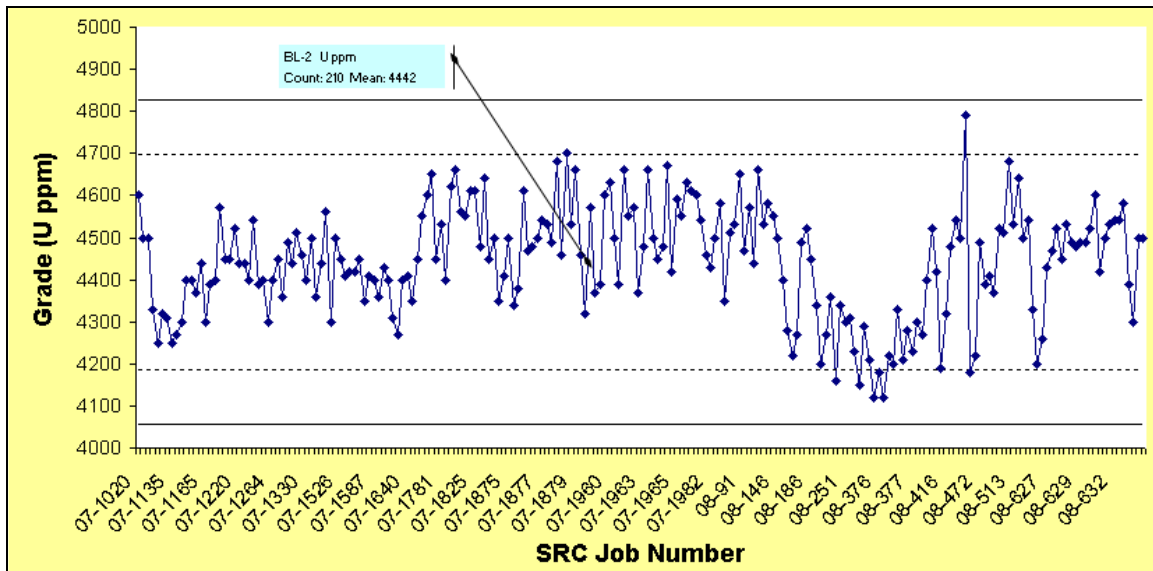


Figure 13.8: BL-2 (4,440 ppm U) standard \pm three standard deviations graph with grade vs. increasing SRC lab job number for ICP Total Digestion – July 2007 to September 2008. The dashed lines represent two standard deviations around the mean and the solid line represents three standard deviations around the mean.

The BL-3 standard was also introduced in July 2007 for the summer 2007 drilling program and a total of 180 BL-3 standards were submitted. Overall, the standard has behaved well (Figure 13.9), although once again, the nominal reference values assigned by CANMET are too tight.

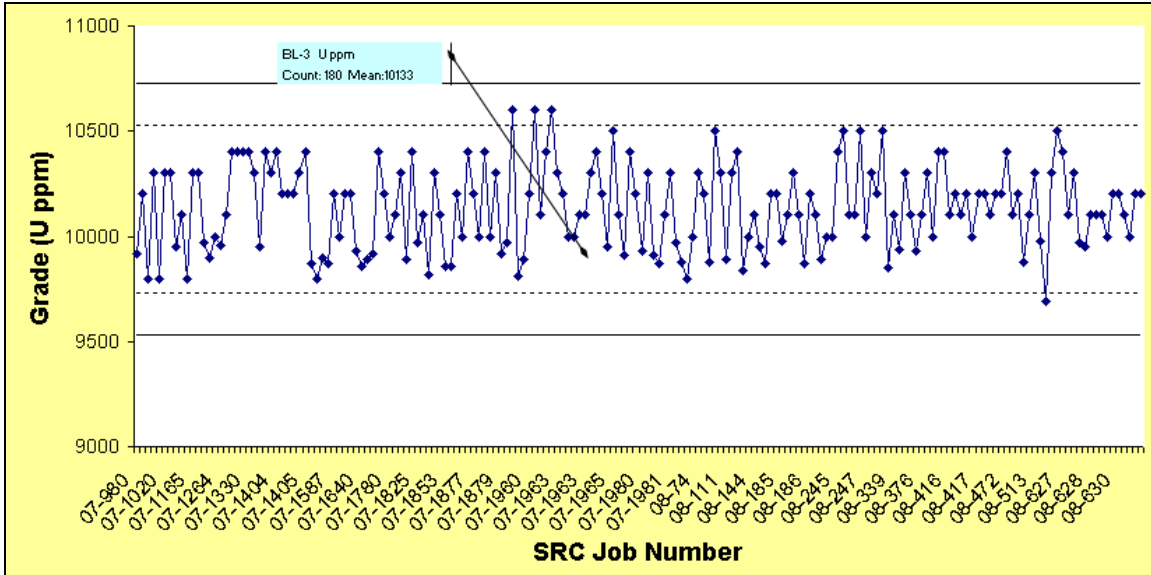


Figure 13.9: BL-3 (10,130 ppm U) standard \pm three standard deviations graph with grade vs. increasing SRC lab job number for ICP Total Digestion – July 2007 – September 2008. The dashed lines represent two standard deviations around the mean and the solid line represents three standard deviations around the mean.

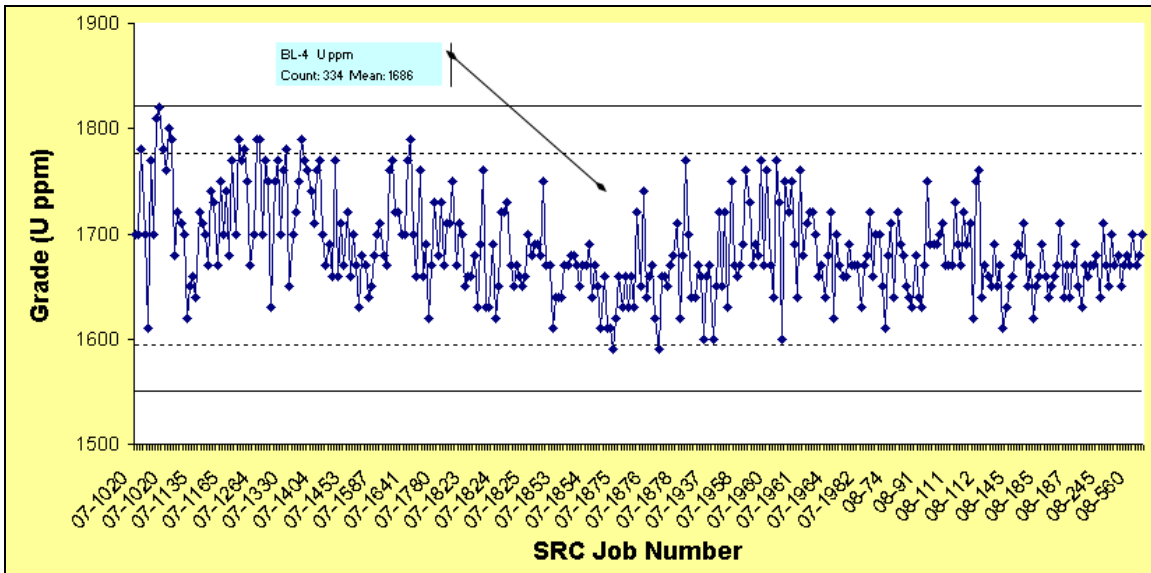


Figure 13.10: BL-4 (1,690 ppm U) standard graph \pm three standard deviations with grade vs. increasing SRC lab job number for ICP Total Digestion – July 2007 – September 2008. The dashed lines represent two standard deviations around the mean and the solid line represents three standard deviations around the mean.

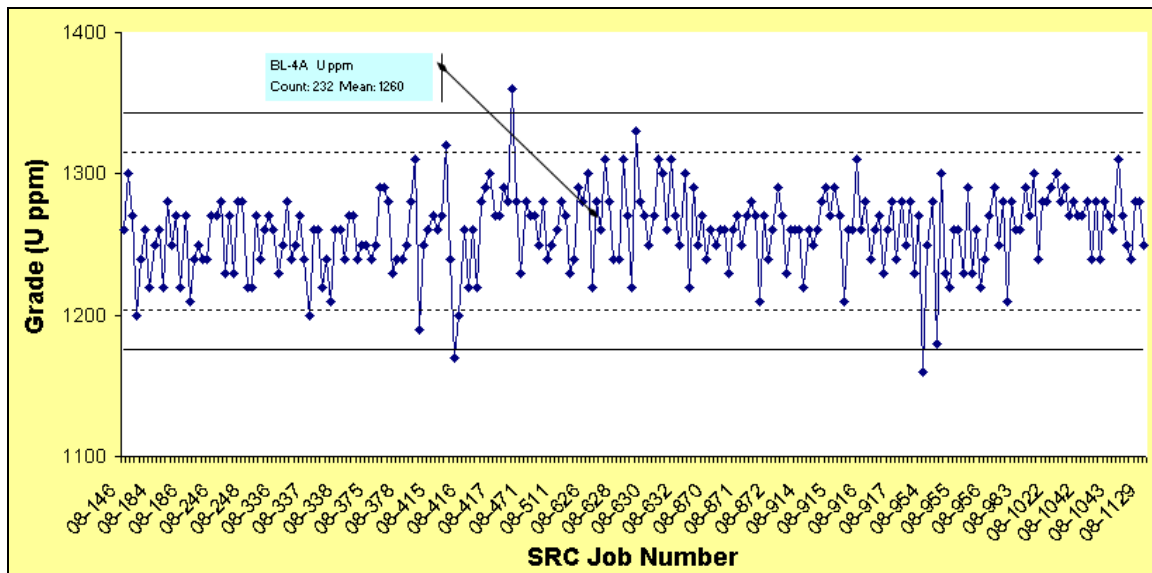


Figure 13.11: BL-4A (1,260 ppm U) standard graph \pm three standard deviations with grade vs. increasing SRC lab job number for ICP Total Digestion – January 2008 to September 2008. The dashed lines represent two standard deviations around the mean and the solid line represents three standard deviations around the mean.

The BL-4 standard was also introduced in July 2007 for the summer 2007 drilling program. Overall, analyses of the standard initially were variable, but overall scatter has subsequently decreased. The grade assigned by CANMET for this sample differs consistently from results received from the SRC and may not be representative of the material from this sample which was available to UEX. The average grade received from SRC sits at the mean minus two standard deviations from CANMET, that is, 1,730 ppm CANMET vs. 1,690 ppm UEX (Figure 13.10). Once again, if the nominal values obtained from CANMET were used, then 171 of the 334, or 51% of the standards would be outside of the nominal reference value plus/minus three standard deviations. The authors are comfortable with the new threshold limits determined by SRC that are based on the BL-4 standard performance.

The commercially available supplies of the BL-4 standard were depleted in January 2008, so UEX obtained the BL-4A standard to replace it at that time. Of the 232 BL-4A standard analyses received to September 1, 2008, three are outside of tolerance. These out of tolerance standards are bracketed in adjacent, sequential analyses by in tolerance QC samples. The first value of 1,170 ppm U is bracketed by two acceptable BL-4A standards, two samples above and three samples below in the assay stream order. The value of 1,360 ppm sits directly above an acceptable repeat, and one sample above it is an acceptable CG515 standard and repeat. The value of 1,160 ppm is bracketed by 38 routine samples and then by two acceptable CG515 standards. The average grade of the intervening samples is 29 ppm with the highest value being 102 ppm. These samples around this out of tolerance standard do not have a material impact on the data. Overall, the authors are comfortable with this assay data.

Since supplies of standards BL-2 and BL-4 were no longer commercially available in 2008, SRC initiated the creation of an internal standard of approximately 700 ppm uranium for UEX's exclusive use. Dust was collected from the dust extraction system at the SRC and homogenized to create approximately 40 kg of standard. A total of 50 ICP Total Digestion assays and in replicate, 50 ICPOES U_3O_8 assays and 50 DNC (Delayed Neutron Counting) were completed. The nominal

ICP uranium grade is 738 ppm with the upper and lower thresholds based on three standard deviations around the mean are 826 ppm and 649 ppm uranium for the ICP total digestion technique. The insertion of this new standard forms part of UEX's ongoing QAQC program. The new UEX08 standard was introduced into QAQC program on August 18, 2008, and was present in the last three batches prior to closing off the data for this technical report on the September 1, 2008. The samples were in tolerance and there are no material issues (Figure 13.12).

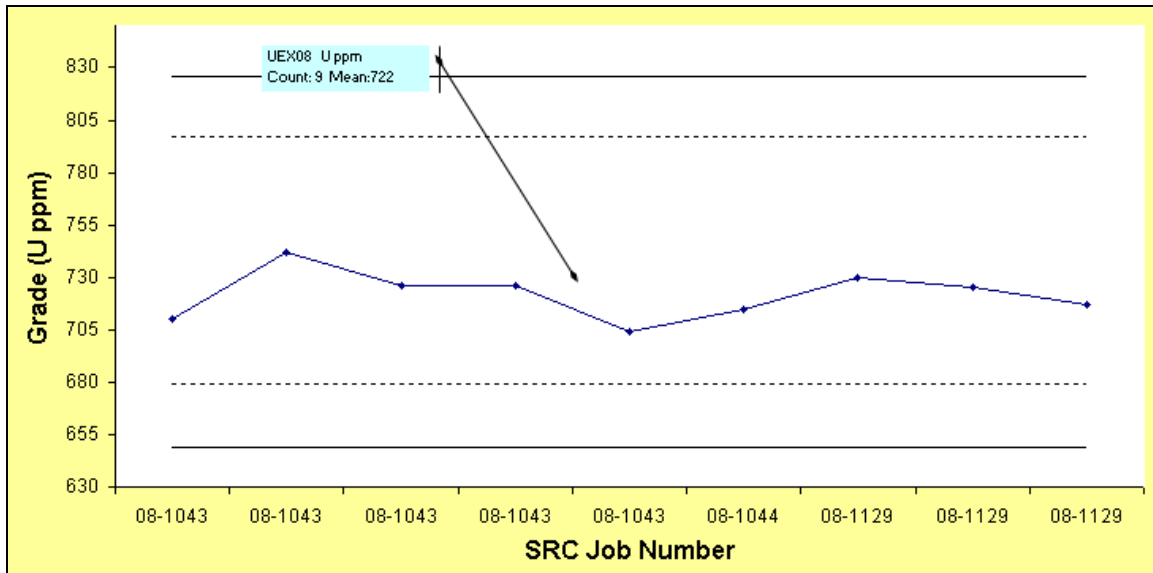


Figure 13.12: UEX08 (738 ppm U) standard graph \pm three standard deviations with grade vs. increasing SRC lab job number for ICP Total Digestion – August – September 2008. The dashed lines represent two standard deviations around the mean and the solid line represent three standard deviations around the mean.

13.6 ICPOES versus ICP analytical comparison

A third check procedure was to have all samples exceeding 1,000 ppm U undergo further analysis by ICPOES, a technique which digests a larger portion of the pulp (as discussed in Section 12.0). Figure 13.13 represents 4,575 assay pairs and the correlation between the ICP Total Digestion and ICPOES is very good ($R^2=0.999$). Three assays pairs or less than 0.1% of the data set has a precision of 50-75% and is poorly correlated. The Thompson Howarth plot in Figure 13.14 reveals the majority of the data is within 10% precision. A total of 1,654 assays or 36% of the data have a precision of <1%.

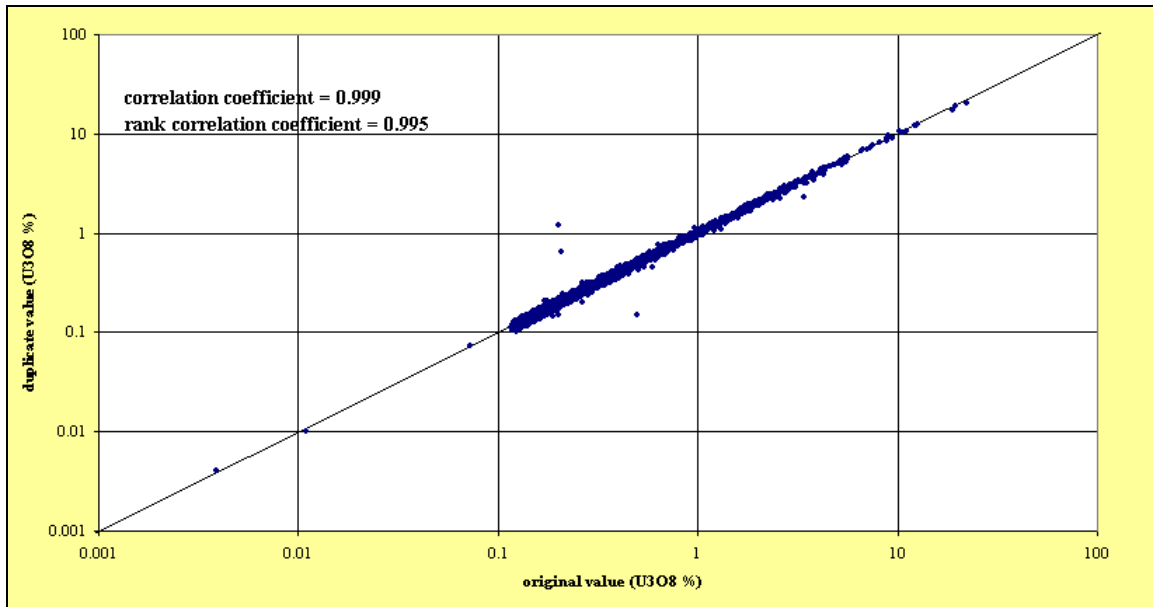


Figure 13.13: Scatter plot of samples as comparison between the SRC ICP and ICPOES U₃O₈ assay techniques.

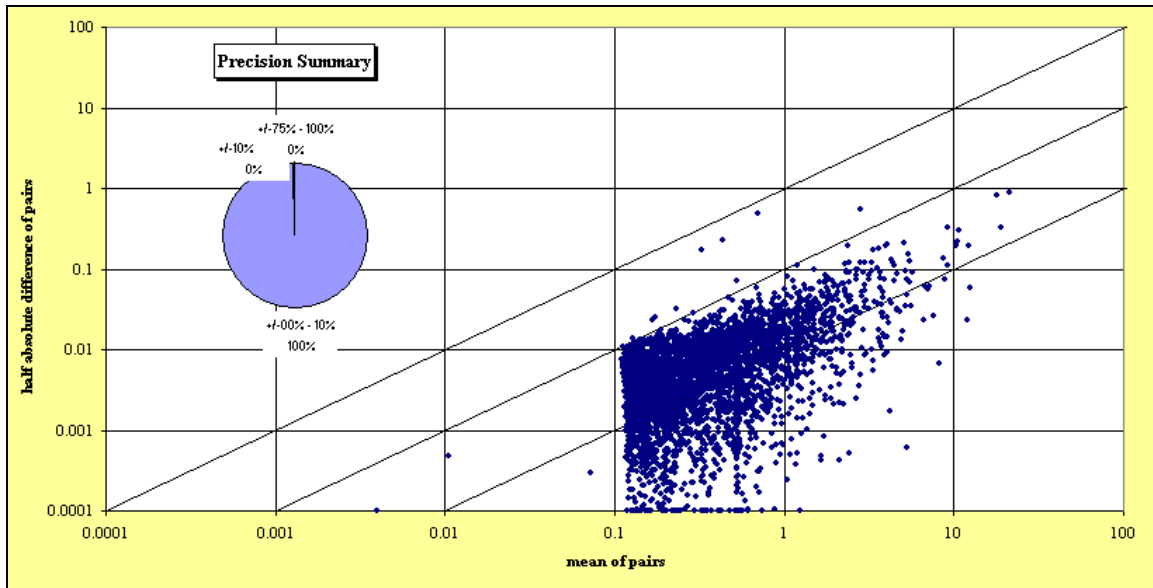


Figure 13.14: Thompson-Howarth precision plot of assay comparison pair – ICP vs. ICPOES. The three diagonal lines represent 100%, 10% and 1% precision (left to right).

13.7 Uranium assay standards

It is standard procedure for UEX to request uranium assay by ICPOES to be conducted on all samples which return above 1,000 ppm U from ICP Total Digestion. These ICPOES assays are used in preference to the ICP Total Digestion assays for the resource estimation data set. Another level of QA/QC is completed on these assays in order to ensure they are acceptable for inclusion into this dataset. Due to the nature of the assay method and samples selected, no blanks are

inserted into this assay stream, as contamination and sample swap issues should have been resolved in the initial ICP Total Digestion stream.

In June 2007, UEX had all preceding uranium analyses which returned over 1,000 ppm uranium by ICP Total Digestion from the 2005 and 2006 drilling programs at Raven - Horseshoe, re-assayed with ICPOES uranium assay. All material assays since the initiation of the UEX drilling campaign at Raven - Horseshoe have adequate coverage with respect to standards via this assay technique.

SRC inserts CANMET BL series standards in parallel with UEX standards. Similar to the BL series standards above, the results are calculated as U_3O_8 percent. To calculate the U_3O_8 percent, the U% value is multiplied by 1.17924. If the primary value is in U ppm, the ppm value is multiplied by 1.17924 and divided by 10,000 to convert to U_3O_8 percent. These are tabulated in Table 13.4 below. It is recognized that the results will have difference tolerances for different assay techniques and has adjusted the thresholds for acceptance of standards have been adjusted accordingly.

Table 13.4: CANMET standards with recommended values, 95% confidence limits and calculated thresholds based on three standard deviations around the mean. All values are converted to U_3O_8 %. Source: Ingles, et al., 1977; Faye, Bowman and Sutarno, 1979; Steger, et al., 1982.

Standard	Recommended Value (U_3O_8 %)	Recommended 95% CI (lower)	Recommended 95% CI (upper)	Three standard deviations (lower)	Three standard deviations (upper)
BL-1	0.026%	0.025%	0.027%	0.024%	0.028%
BL-2	0.534%	0.528%	0.541%	0.525%	0.543%
BL-2A	0.502%	0.499%	0.506%	0.496%	0.508%
BL-3	1.20%	1.19%	1.21%	1.18%	1.22%
BL-4	0.204%	0.200%	0.209%	0.198%	0.209%
BL-4A	0.1472%	0.1455%	0.1488%	0.1447%	0.1497%
BL-5	8.36%	8.33%	8.40%	8.30%	8.41%

Table 13.5: CANMET standards with UEX internal upper and lower threshold values for ICPOES U_3O_8 assay.

Standard	Recommended Value (U_3O_8 %)	Lower threshold – three standard deviations (U_3O_8 %)	Upper threshold – three standard deviations (U_3O_8 %)
BL-1	0.0273%	0.0226%	0.0320%
BL-2	0.534%	0.518%	0.550%
BL-2A	0.500%	0.490%	0.511%
BL-3	1.204%	1.176%	1.232%
BL-4	0.201%	0.191%	0.210%
BL-4A	0.148%	0.142%	0.154%
BL-5	8.31%	8.23%	8.39%

This low grade BL-1 series standard is acceptable as is illustrated in Figure 13.15. The 2005 analyses (represented with the 05-series SRC job numbers), are BL-1 standards submitted as part of the SRC and Cameco QAQC program in 2005. There is a minor calibration difference between the programs on the lower scale. Since 2006, UEX has three assays in this range for uranium assay technique, since samples were only analyzed above 0.117% U_3O_8 .

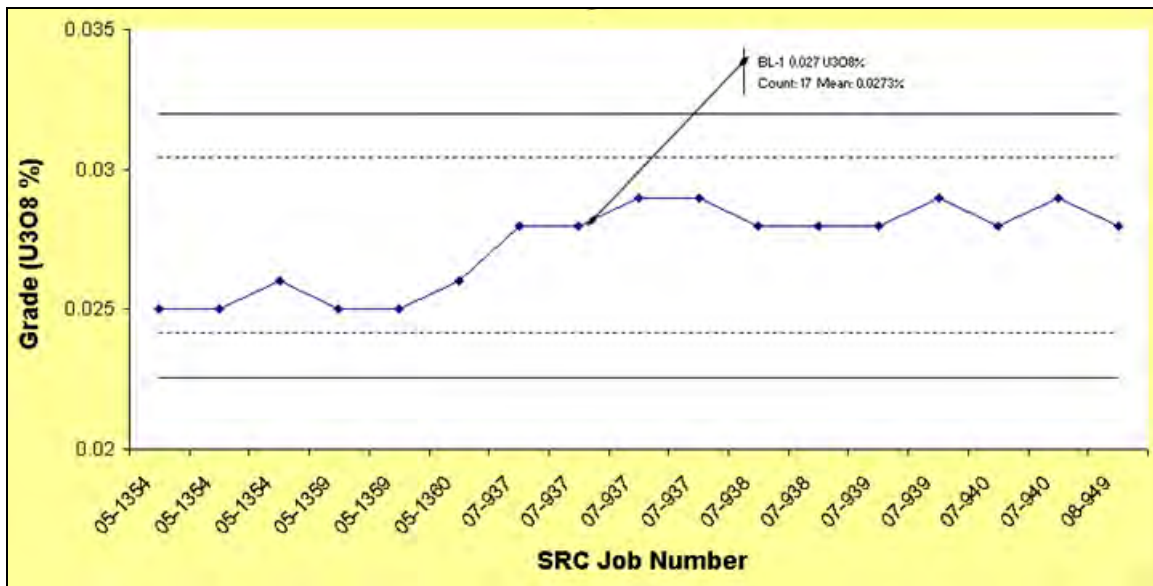


Figure 13.15: BL-1 (0.027% U_3O_8) SRC internal standard \pm three standard deviations graph with grade vs. increasing SRC lab job number for ICPOES U_3O_8 uranium assay – 2005 to September 2008. The dashed lines represent two standard deviations around the mean and the solid line represents three standard deviations around the mean.

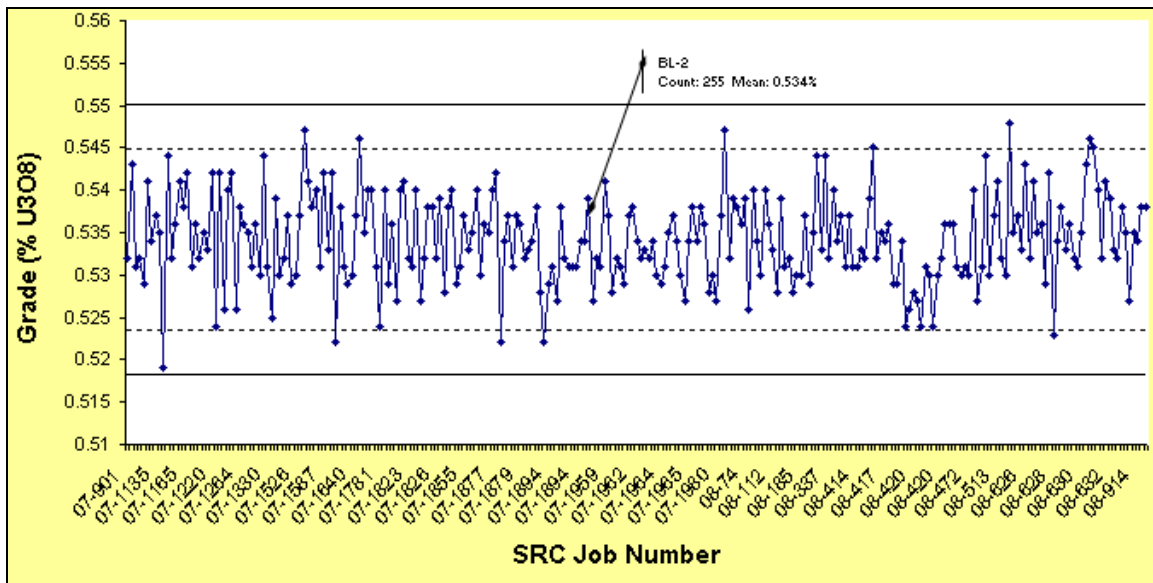


Figure 13.16: BL-2 (0.534% U_3O_8) SRC internal standard \pm three standard deviations graph with grade vs. increasing SRC lab job number for ICPOES U_3O_8 uranium assay – July 2007 – September 2008. The dashed lines represent two standard deviations around the mean and the solid line represents three standard deviations around the mean.

A total of 255 BL-2 standards have been submitted to ensure quality control for the ICPOES uranium assay. No issues have been identified with this dataset (Figure 13.16). The recommended ranges by CANMET have been ignored as the nominal values are too tight for this assay technique. This was also found for the ICP Total digestion technique as discussed above. The

three standard deviation threshold lines have been calculated from this standard's data set and are reflective of the technique. The standard error of the assay technique is still within acceptable ranges.

The BL-2A standard was used to test the quality of the Cameco data set in 2005 and was re-introduced routinely in July 2007. There are no issues with this data set (Figure 13.17).

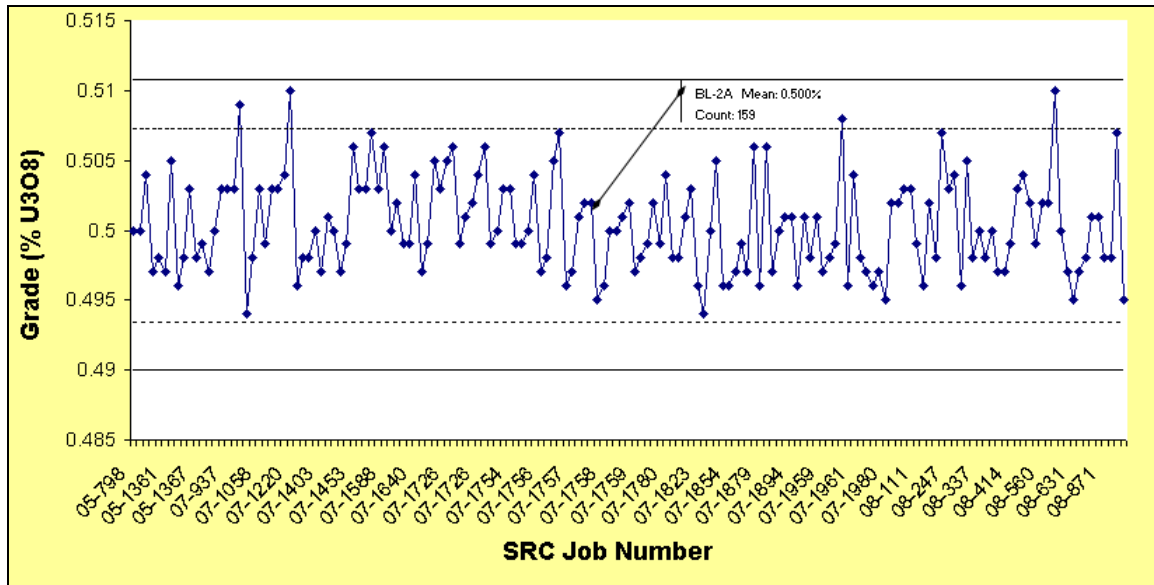


Figure 13.17: BL-2A (0.500% U₃O₈) SRC internal standard \pm three standard deviations graph with grade vs. increasing SRC lab job number for ICPOES U₃O₈ uranium assay – 2005 and July 2007 – September 2008. The dashed lines represent two standard deviations around the mean and the solid line represents three standard deviations around the mean.

In July 2008, relatively early in the submission of the BL-3 standard, a number of samples were reassayed due to the tight nominal tolerances as assigned by CANMET. The ranges used by UEX are broader and appropriate for this assay technique. The one particular value on the graph (Figure 13.18) with a grade of 1.16% has been reviewed and is bracketed by repeats and acceptable BL-3 standards, twelve samples above and eight samples below. A cross check of the assays surrounding the out of tolerance versus the ICP Total Digestion results reveals they correlate very well ($R^2=0.997$) and an average precision of 2.1%. The lowest precision received was 8% on one of these samples. Overall, this one out of tolerance standard does not have a material impact on the data.

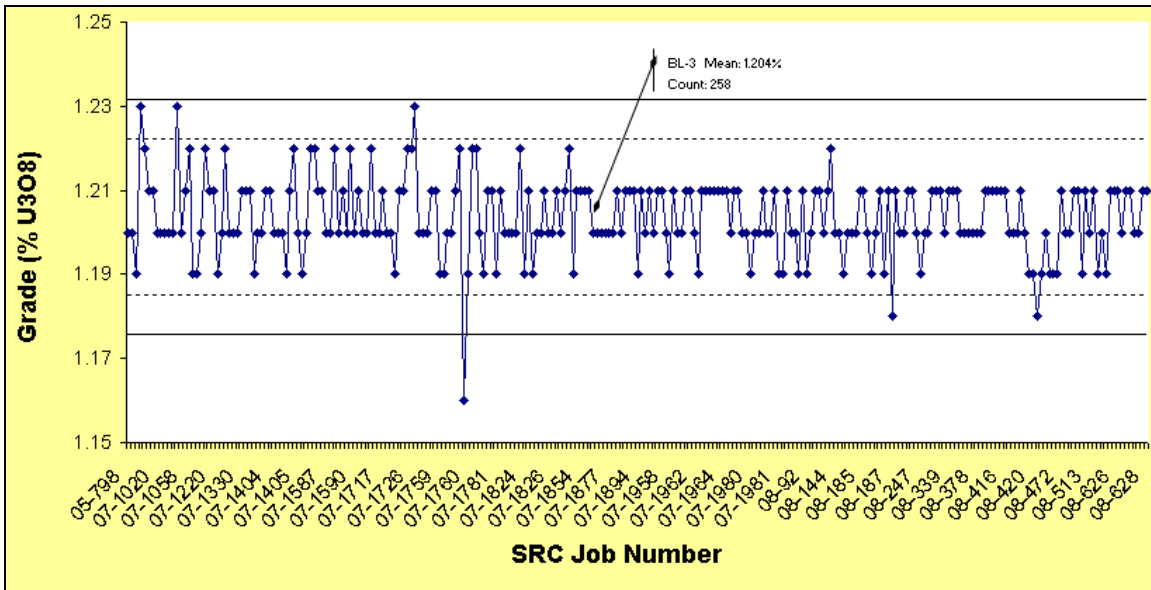


Figure 13.18: BL-3 (1.20% U₃O₈) SRC internal standard ± three standard deviations graph with grade vs. increasing SRC lab job number for ICPOES U₃O₈ uranium assay – 2005 and July 2007 to September 2008. The dashed lines represent two standard deviations around the mean and the solid line represents three standard deviations around the mean.

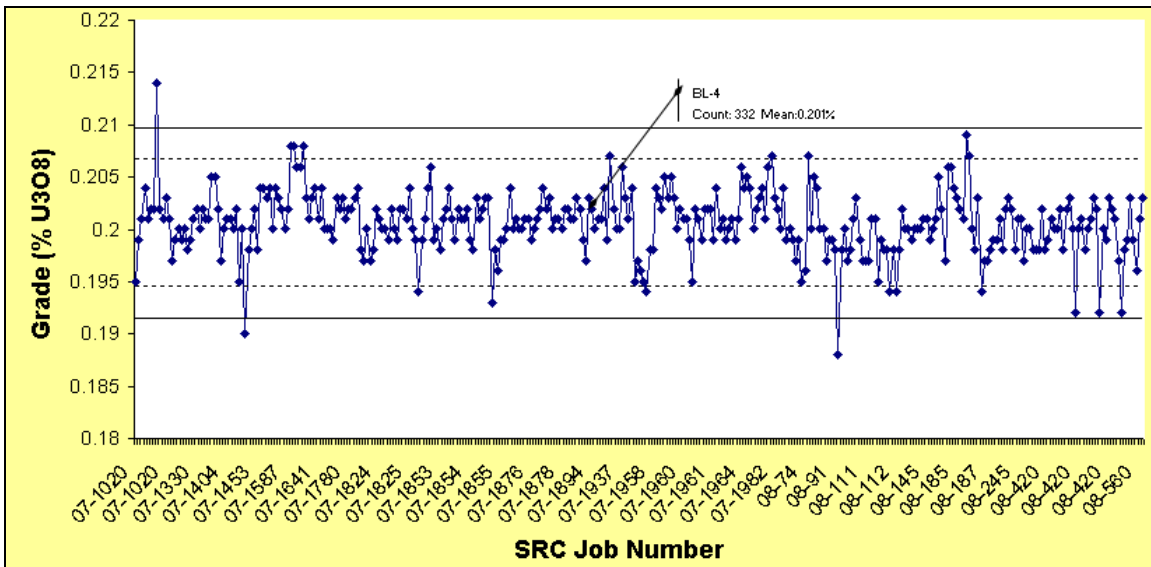


Figure 13.19: BL-4 (0.20% U₃O₈) SRC internal standard ± three standard deviations graph with grade vs. increasing SRC lab job number for ICPOES U₃O₈ uranium assay – July 2007 to September 2008. The dashed lines represent two standard deviations around the mean and the solid line represents three standard deviations around the mean.

Figure 13.19 reveals three results or less than 1% of the BL-4 standard dataset is outside of tolerance. On investigation of the samples, the first result of 0.214%, the second of 0.19% and the third of 0.188%, are all directly bracketed by in tolerance standards. UEX had all assays above 1,000 ppm U by ICP Total Digestion re-analyzed by ICPOES and in these cases, all of the standards were analyzed and they formed the majority of the samples reanalyzed.

Specifically, batch 08-420 referred to on the right side of the SRC Job Number axis in Figure 13.19 is the re-analysis of 54 samples for five separate assay batches where standards were out of tolerance. It was after this group of analyses, UEX determined the CANMET thresholds were too tight for this assay technique, as assays that were in tolerance went out of tolerance and vice versa.

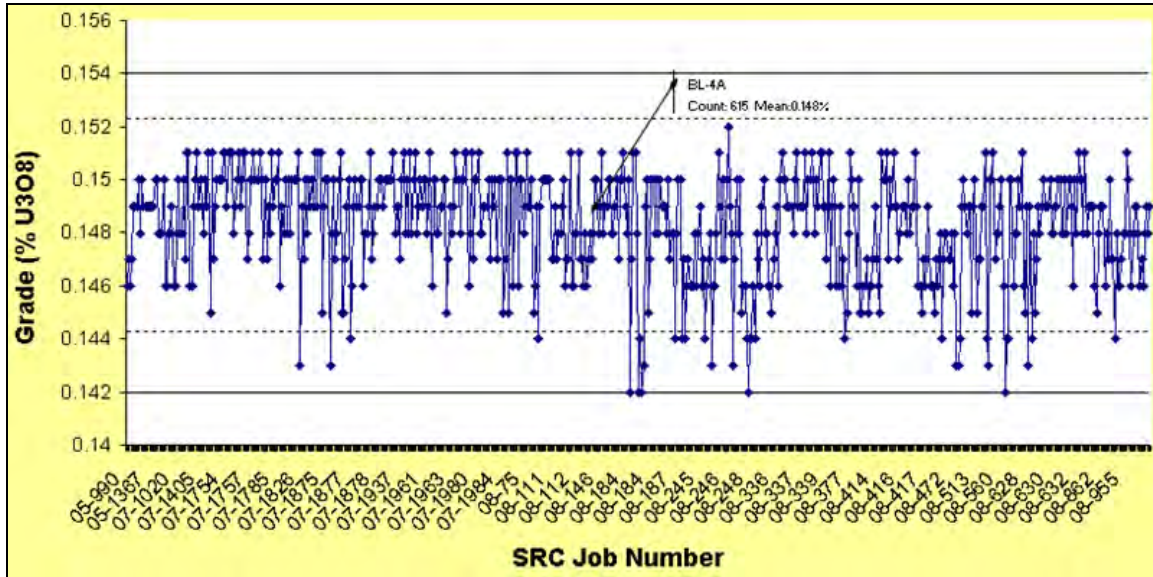


Figure 13.20: BL-4A (0.148% U₃O₈) SRC internal standard \pm three standard deviations graph with grade vs. increasing SRC lab job number for ICPOES U₃O₈ uranium assay for 2005 and July 2007 to September 2008. The dashed lines represent two standard deviations around the mean and the solid line represent three standard deviations around the mean.

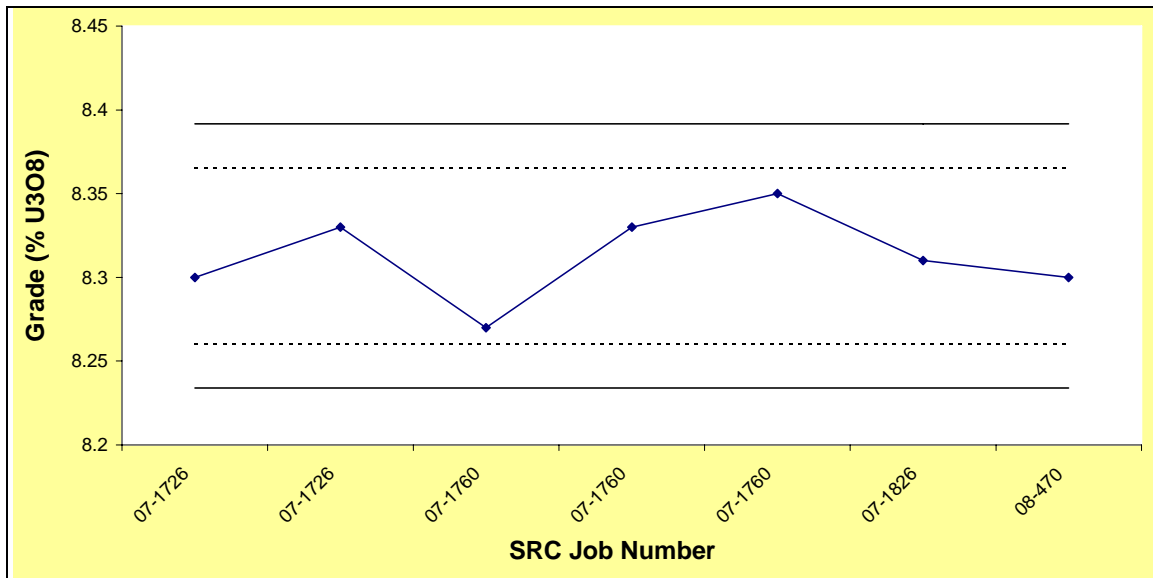


Figure 13.21: BL-5 (8.361% U₃O₈) SRC internal standard \pm three standard deviations graph with grade vs. increasing SRC lab job number for ICPOES U₃O₈ uranium assay for July 2007 to September 2008. The dashed lines represent two standard deviations around the mean and the solid line represents three standard deviations around the mean.

In review of the BL-4A standard (Figure 13.20) there is strong bias towards the lower assay ranges. SRC analyzed a total of 615 BL-4A standards and five standards sit on the lower three standard deviation line. Note that no analyzes for this standard sit above the upper two standard deviation dash line. In the authors' opinion, this bias is not material as it is not revealed for routine samples in the assay comparison test work between ICP Total Digestion and ICPOES uranium assay.

SRC periodically submits the high-grade BL-5 standard as part of its internal QC program. A total of seven high-grade BL-5 series standards were submitted in the course of assaying UEX's samples. Figure 13.21 exhibits that none of these samples are outside of tolerance.

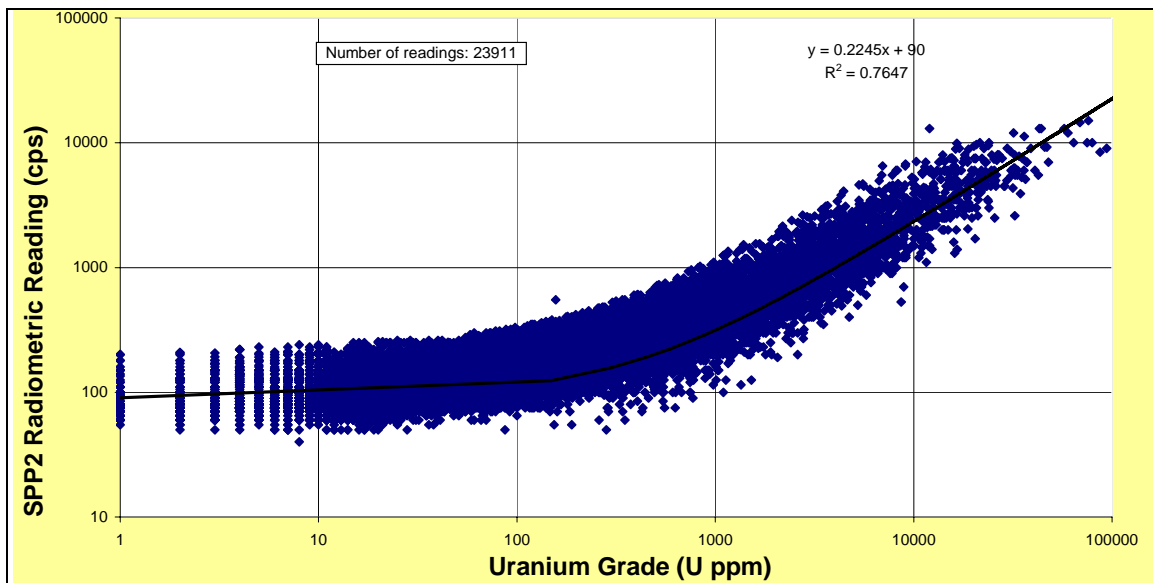


Figure 13.22: Plot of SPP2 Radiometric reading (cps) vs. uranium grade, U ppm ICP Total Digestion for June 2006 to September 2008.

13.8 Scintillometer readings of samples

Once a sample is split and placed in a sample bag at the UEX core logging facilities on the Hidden Bay property, a radiometric reading is taken on the sample bag to aid in determining the transportation index of a sample batch for shipping purposes. As a routine check at the end of each season, this SPP2 scintillometer data measured in counts per second for each sample is compared to the assay returned from the lab. Note this data is not used in any reporting of results or interpretation, but it can be used as a check of uranium analytical results, since gamma radioactivity corresponds with uranium abundance and quantity.

A total of 23,911 readings are represented in Figure 13.22. The broad nature to the trend of the results also relates to the volume of sample and the data has not been length corrected. Results that read above the maximum value of the SPP2 scintillometer (15,000 cps) and data from QA/QC standards (sample size is too small) are excluded on Figure 13.22. Overall, the data is quite scattered, but overall it confirms that the amount of gamma radiation from the sample correlates well with increasing uranium grade (Figure 13.22). There are a number of items that may accentuate scatter, such as reading the sample directly over a nodule of uraninite, being in

proximity to higher grade samples or radioactive sources, which will increase the background, as well as transcription errors.

13.9 External laboratory check analyses

As an external check of the SRC uranium assay and ICP results, UEX selected samples ranging from trace to >10% U_3O_8 for analyses at other laboratories. Analyses were performed at two independent labs, as is documented below, on a representative selection of original pulps. The pulps, which are stored at the SRC lab, were pulled and sent to the independent labs by SRC, at the request of UEX.

13.9.1 Assay by DNC

A total of 739 samples, including pulps from the high-grade hole HU-016, were analyzed at SRC's Delayed Neutron Counting ("DNC") laboratory, a separate lab facility located at SRC Analytical Laboratories, 422 Downey Road, Saskatoon, Saskatchewan. Of these, 392 samples from this selected set had previously returned analyses from SRC grading >1,000 ppm uranium by Total Digestion, so the reanalyzed set comprises 53% of the total 739 samples grading >0.1% U_3O_8 in the 2006-2008 UEX sample database to September 1, 2008.

SRC (2008) documents the method summary for the DNC technique as follows. Samples have been previously prepared as pulps for ICP Total Digestion and the pulps are used for the DNC analysis. The pulps are irradiated in a Slowpoke 2 nuclear reactor for a given period of time. After irradiation, the samples are pneumatically transferred to a counting system equipped with 6 helium-3 detectors. After a suitable delay period, neutrons emanating from the sample are counted. The proportion of delayed neutrons emitted is related to the uranium concentration. For low concentrations of uranium, a minimum of 1 gram of sample is preferred, and larger sample sizes (2-5g) will improve precision. Several blanks and certified uranium ore standards are analyzed to establish the instrument calibration. In addition, control samples are analyzed with each batch of samples to monitor the stability of the calibration. At least one in every 10 samples is analyzed in duplicate. The results of the instrument calibration, blanks, control samples and duplicates must be within specified limits otherwise corrective action is required.

There are 739 assay pairs that used both ICP Total Digestion and the DNC assay techniques. Similar to the ICPOES uranium assay comparison, the DNC compares very well ($R^2=0.999$), (Figure 13.23). The DNC technique is not used in any estimation but as a check between assay techniques and labs. A Thompson-Howarth plot reveals that 714 assay pairs between ICP Total Digestion and DNC are within 10% precision (Figure 13.24). A total of four samples have a precision greater than 50%.

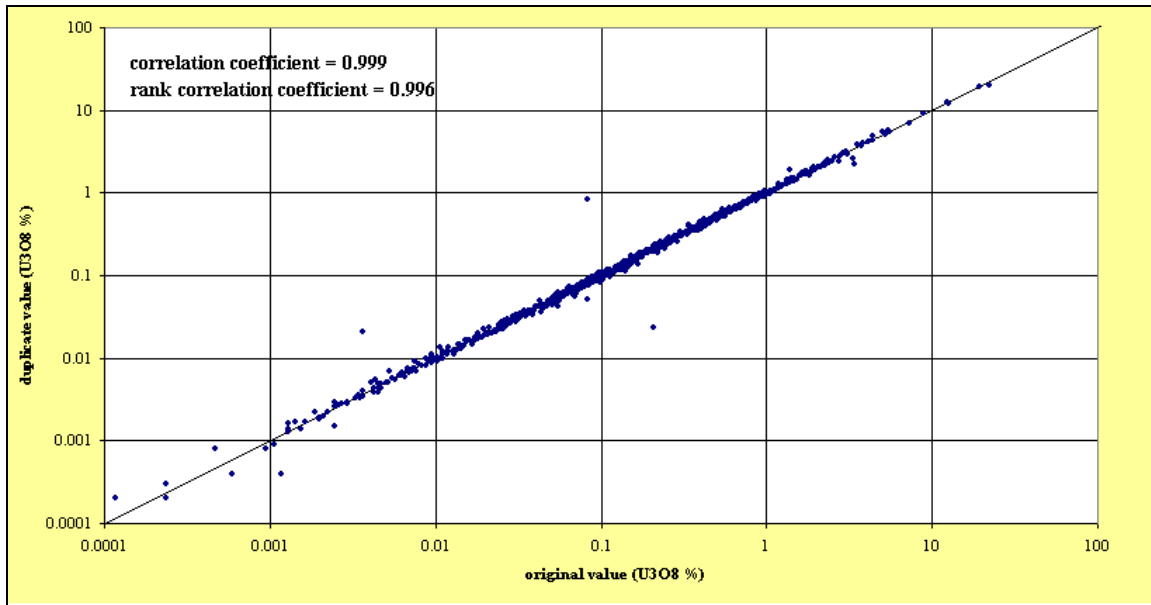


Figure 13.23: Scatter plot of samples as comparison between the SRC ICP Total Digestion and DNC assay techniques.

Further comparison shows four of the 391 assay pairs between ICPOES and DNC assay techniques have a precision greater than 10% and less than 20% and one assay has a precision of 79% (Figure 13.24).

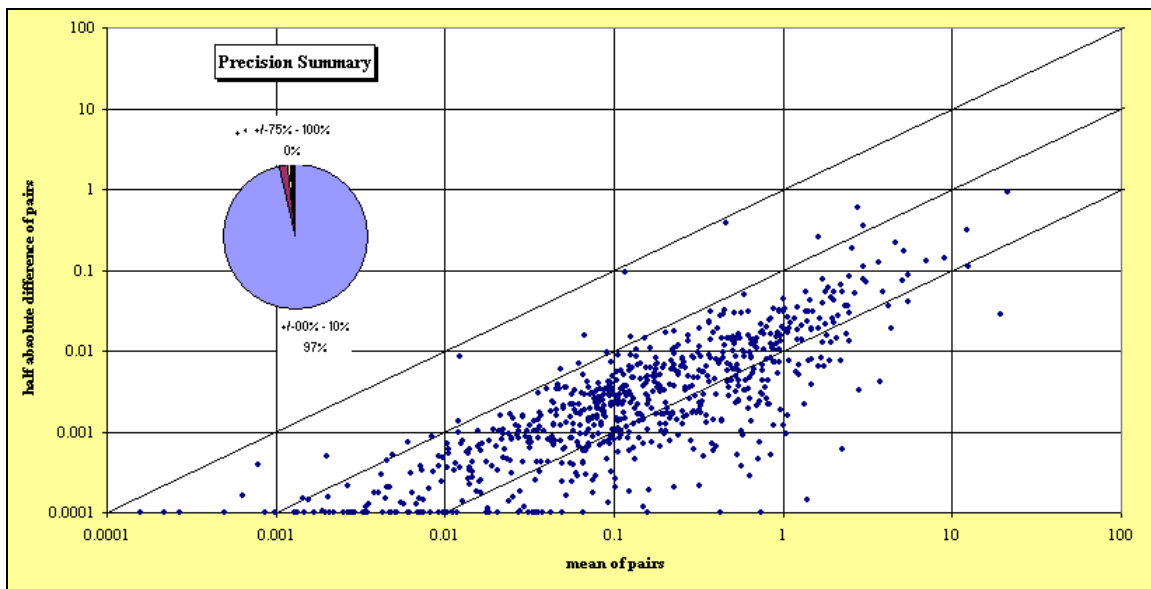


Figure 13.24: Thompson-Howarth precision plot of assay comparison between SRC ICP Total Digestion and DNC. The three diagonal lines represent 100%, 10% and 1% precision (left to right).

The correlation as shown in the scatter plot (Figure 13.25) between the ICPOES uranium assay and DNC is good ($R^2=0.997$). One of the 391 assays pairs is outside of tolerance with low precision. At the time of writing this assay is being reviewed by SRC.

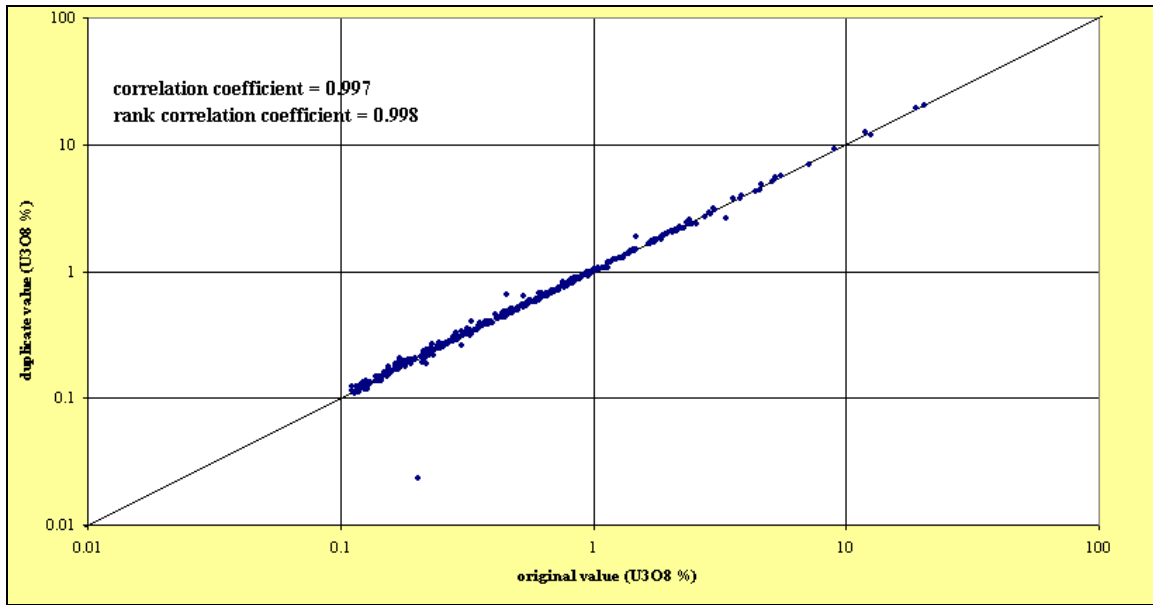


Figure 13.25: Scatter plot as comparison between the SRC ICPOES and DNC assay techniques.

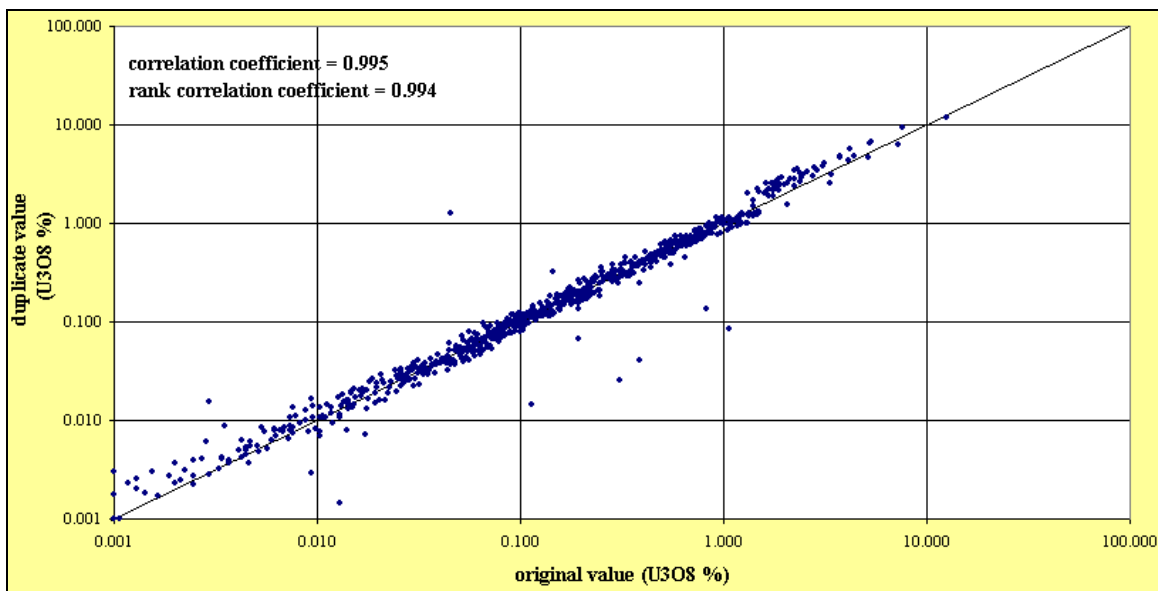


Figure 13.26: Scatter plot of SRC ICP Total Digestion and Loring Fluorimetry.

13.9.2 Loring laboratory checks

A total of 741 sample pulps previously analyzed by SRC were submitted to Loring Laboratories Ltd., of Calgary, Alberta (“Loring”) for uranium analysis by fluorimetry. Of these 741 samples, 432 samples previously returned $>0.1\%$ U_3O_8 by uranium ICP Total Digestions from SRC, representing 1 in 10.6 of the total analyses in the UEX database from the 2006-2008 drilling which gave grades of $>0.1\%$ U_3O_8 .

The population of samples analyzed at Loring, represents a wide range of grades from 0.001% to $>10\%$ U_3O_8 . Figure 13.26 reveals a strong positive correlation ($R^2=0.995$) with some minor scatter of assay pairs. The last batch received from Loring may have some issues with

transcription errors of sample numbers. At the time of writing these seven assays were being reviewed and validated.

The scatter plot in Figure 13.26 reveals there may be some bias towards higher grades returned by Loring above 2% U_3O_8 . In order to check this possible bias, a Q-Q plot on 10% percentiles (Figure 13.27) revealed no fundamental issues between the two data sets. The Loring assays are used as another check against assay techniques and assay quality. These assays are not used in any resource estimation.

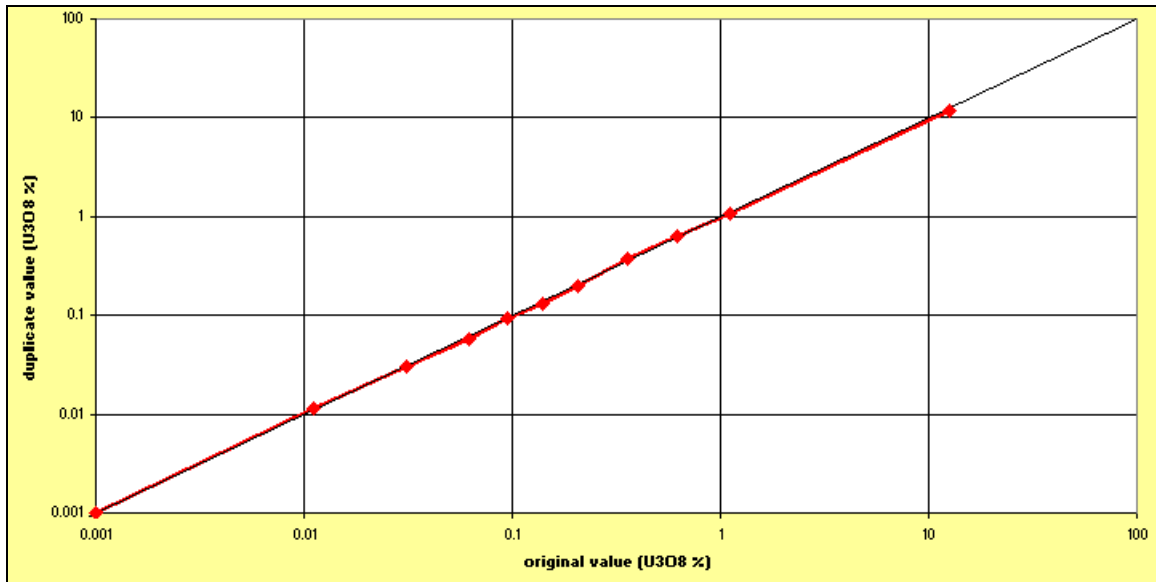


Figure 13.27: Quantile - Quantile plot of SRC ICP Total Digestion and Loring Fluorimetry.

13.10 Authors' Opinion on Sampling, Preparation, Security, and Procedures

In the authors' opinions, the procedures employed by the project team during sampling, shipping, sample security, analytical procedures, inter-lab assay validation, validation by different techniques and a rigorous QA/QC protocol comply with industry standard practices. The results of the additional levels of cross check of assay techniques and confirmation with duplicate samples are industry standard. In addition, for levels of validation and verification from (i) the downhole radiometric probing, (ii) detailed SPP2-RS120/125 scintillometer radiometric reading every 10cm on the core, (iii) SPP2 scintillometer readings on samples prior to shipping, and (iv) the additional assaying by ICPOES of all samples that returned above 1,000 ppm uranium provide a high level of confidence in the sample data. The authors have verified all data reported here as received from SRC, and directly reviewed laboratory procedures and practices on site at SRC through two laboratory audits. Drill hole collar locations have been verified by LiDAR and Tri-City surveys.

14.0 ADJACENT PROPERTIES (form 43-101 F1 item 17)

As is discussed in Section 5.2 and 7 of this report, the Hidden Bay property occurs in the prolific eastern Athabasca uranium district, and deposits on the adjacent Rabbit Lake and McClean Lake properties, which are currently operated by Cameco and Areva Resources Canada respectively, have produced more than 200 million pounds of U_3O_8 (Jefferson et al., 2007). As a result, the local area has significant infrastructure, including two currently operating uranium mills of which the closest, Rabbit Lake, is 4 km from the Horseshoe and Raven deposits (Figure 1.3).

15.0 MINERAL PROCESSING AND METALLURGICAL TESTING (form 43-101 F1 item 18)

Representative samples derived from composited drill core assay rejects from the Horseshoe deposit, and from three HQ (63.5 mm) diameter metallurgical holes from both the Horseshoe and Raven deposits have undergone preliminary metallurgical and grindability testing under the direction of Melis Engineering Ltd. (“Melis”) of Saskatoon, Saskatchewan, at SGS Lakefield Research Limited (“Lakefield”) in Lakefield, Ontario. Initial results which are documented by Fielder (2008) and Nunes et al. (2008) are summarized in the sections below.

15.1 Comminution, uranium recovery testwork and environmental data generation

Metallurgical testing for the Horseshoe and Raven mineralization commenced with initial Phase I testing of assay coarse reject composites, and Phase II testing of HQ drill core from three holes drilled during late 2007 and early 2008 for metallurgical purposes. Preliminary results are documented in Fielder (2008) and summarized below.

Horseshoe Phase I metallurgical testing extended from October 2006 until October 2007. Metallurgical test composites prepared from assay rejects included composites representing Horseshoe zones A and BW, a blend of zone A and zone B to provide a main composite for initial testing, and a high-grade composite from drillhole HU-016 (Fielder, 2008). A summary of the composites from this phase is given in Table 15.2.

Horseshoe-Raven Phase II metallurgical testing began with sample selection in September 2007 and is still in progress. Phase II includes comminution testwork, uranium leaching testwork and environmental data generation from three diamond drill holes drilled with HQ (63.5 mm) diameter core for metallurgical purposes, including two in the Horseshoe deposit, and one in the Raven deposit. Diamond drill hole locations were chosen in representative portions of the deposits to test areas both of representative uranium grade and mineralization style. Hole HU-156 was selected to test higher grade portions of the Horseshoe A zone in the nodular mineralization style, while hole HU-157 tested disseminated mineralization style in the BE zone. Hole RU-130 was drilled in western-central portions of the Raven deposit, and crossed typical areas of mineralization in two of the principal lithologic host lithologies within that deposit. Composited intervals $>0.05\%$ U_3O_8 which occur in the drill holes that were subject to metallurgical testing are summarized in Table 15.1.

Table 15.1: Composited drill hole intersections from which metallurgical samples 5-9 were derived composited to a minimum of 0.05% U_3O_8 . The data is composited from ICP geochemical analysis of splits from 0.5 m metallurgical samples which were analyzed by SRC Analytical Laboratories. Metallurgical samples also include some intervening intervals below the 0.05% cutoff for compositing.

Metallurgical composites	Deposit	Zone	Drill hole	From (m)	To (m)	Length (m)	Grade (% U_3O_8)
AH, AL	Horseshoe	A zone	HU-156	168.8	187.0	18.2	1.01
BEH, BEL	Horseshoe	BE zone	HU-157	285.5	320.4	34.9	0.13
RU-130	Raven	U01	RU-130	109.0	119.0	10.9	0.14
				136.7	137.0	0.5	1.29
				144.6	149.0	4.4	0.16

Composite Preparation

The following composites were prepared from the Horseshoe zone for testing (Fielder, 2008):

A: Samples from assay coarse rejects in the Horseshoe deposit

1. Composite A - representative material from intervals of >1.5 m minimum mining width in the Horseshoe A zone,
2. Composite B - representative material from intervals of >1.5 m minimum mining width in the Horseshoe B zone,
3. Composite HU-016 - representative material from the high-grade HU-016 intersection,
4. Composite Main - a blend of Composite A and Composite B to be used in the initial testing.

B: Samples from Horseshoe HQ diameter metallurgical holes HU-156 and HU-157

5. Composite AH - a high-grade composite from the A zone in hole HU-156,
6. Composite AL - a low-grade composite from the A zone in hole HU-156,
7. Composite BEH - a high-grade composite from the BE zone in hole HU-157,
8. Composite BEL - a low grade composite from the BE zone in hole HU-157.

C: Samples from HQ diameter metallurgical hole RU-130 from the Raven deposit:

9. Composite RU-130 - representative material from drill hole RU-130 in the Raven zone.

The reader is referred to Fielder (2008) for further details concerning sample analyses, size, and chemical composition.

Composite Analysis

Table 15.2 summarizes analyses of selected elements for the test composites from Fielder (2008). In all cases, composites were prepared and then assayed.

Table 15.2: Summary of Horseshoe and Raven metallurgical composite assays, after Fielder (2008).

U₃O₈ analyses on A, B, HU-016 and Main were completed by SRC by total digestion and ICP. All other assays were completed at SGS Lakefield Research Limited by total digestion and ICP.

Composite	% U ₃ O ₈	% As	% Fe	% Mo	% Se
A	0.414	0.0048	1.61	0.0014	<0.0001
B	0.297	0.0083	3.85	0.0008	<0.0001
HU-016	4.07	0.0785	3.36	0.0012	<0.0001
Main	0.33	0.0063	2.66	0.0015	<0.0001
AH	2.18	0.014	4.20	0.0025	< 0.0030
AL	0.38	0.0052	1.29	0.0018	< 0.0030
BEH	0.31	0.0055	1.39	0.0024	< 0.0030
BEL	0.054	< 0.0040	0.73	0.0016	< 0.0030
RU-130	0.21	< 0.0060	1.72	0.0025	< 0.0030

Results of Leach Testwork

Fielder (2008) indicates that leaching tests show that the uranium in the Horseshoe and Raven zones is easily leached under relatively mild atmospheric leach conditions. Leach extractions of 98% can be achieved under the following conditions (Fielder, 2008):

- grind K80 of 90 to 200 µm (both yielded acceptable extractions),
- 12 hour leach retention time,

- free acid level of 10 g H₂SO₄/L, representing acid additions of approximately 50 kg H₂SO₄/t, and
- a 475 mV redox/potential controlled with NaClO₃ at addition rates of 0.5 to 1 kg NaClO₃/t.

Treated Effluent Analysis

Results of treated effluent analysis are quoted from Fielder (2008) as follows:

“Selected treated effluent assays are summarized in the Table 15.3. The molybdenum concentration alone is above the anticipated discharge limit of 0.5 mg Mo/L. Reducing the molybdenum concentration in the treated effluent by altering treatment condition will be an objective of the ongoing Phase II test program.”

Table 15.3: Horseshoe treated effluent analysis

Parameter	Unit	Treated Effluent
pH	-	7.12
emf	mV	168
As	mg/L	0.0043
Ca	mg/L	617
Cd	mg/L	0.00082
Hg	mg/L	< 0.0001
Mo	mg/L	1.51
Pb	mg/L	0.00077
Se	mg/L	0.011
U	mg/L	0.0123

Tailings Aging Tests

The pregnant leach solution and residues from the eight leach tests, five conducted on Composite Main and one on each of Composites A, B and HU-016, were retained to generate waste raffinate and leach residue for tailings neutralization (Fielder, 2008). The neutralized raffinate and leach residue were subject to tailings aging tests.

Results of tailings aging tests are quoted from Fielder (2008) as follows:

“The more significant tailings supernatant assays are summarized in Table 15.4 below. As expected, molybdenum and residual uranium levels in the tailings supernatant, which, as expected, is also contaminated with radium, increase upon aging, but excess tailings water would be re-used and/or treated in the mill process and waste treatment circuits under normal operating conditions.”

Table 15.4: Results of Horseshoe neutralized tailings supernatant aging tests

Parameter	Unit	Day 1	Day 2	Day 14	Day 30	Day 61
pH	-	7.1	7.54	7.65	7.81	7.91
EMF	mV	-20	37	-37	108	150
Ra ²²⁶	Bq/L	n/a	n/a	n/a	n/a	9.1
Hg	mg/L	< 0.0001	0.0053	< 0.0001	0.0001	< 0.0001
As	mg/L	0.0496	0.0383	0.0378	0.0518	0.0565
Ca	mg/L	620	608	574	599	590
Mo	mg/L	54.3	n/a	74.7	80	75.2
Pb	mg/L	0.0479	0.0126	0.00164	0.00865	0.00460
Se	mg/L	0.007	0.008	0.007	0.009	0.010
U	mg/L	0.0778	0.114	0.616	0.774	0.709

15.2 Ore characterization and preliminary grinding circuit evaluation

To further assess mineralization processing characteristics, the three composite drill hole samples from holes HU-156 and HU-157 in Horseshoe, and hole RU-130 from Raven were submitted for SAG power index (SPI(r)), and seven composite samples were submitted for Bond ball mill work index (“BWI”) determinations to SGS Minerals Services (SGS) at its laboratories in Lakefield, Ontario. Preliminary results of that work are described by Nunes et al. (2008), and are quoted below:

“The CEET2(r) technology was used to evaluate two existing grinding circuits to process the Raven Horseshoe ore, based on grindability test results. The CEET2(r) forecasting mode was used based on the information submitted by Mr. Fielder [of Melis Engineering Ltd]. This report discusses the grindability testing performed on seven main composite samples, as well as the evaluation of two existing grinding circuits to process the tested material.

Nine composites, representing the Raven Horseshoe deposit, were submitted for Bond ball mill work index (BWI) and SPI(r) determinations. The Raven Horseshoe composites were categorized as medium in hardness from the perspective of SAG milling, with an average SPI(r) value of 69 minutes. The BWI averaged 17.1 kWh/t and the composites were characterized as moderately hard.

Circuit Evaluation

The grindability data were used to evaluate the two existing grinding circuits using CEET2(r) technology. The goal of the study was to analyse throughput capacity to a final P80 of 150 µm for each one of the circuits available. The two circuits were composed of SAG and ball mill (“SAB”), with cyclone sizing.

Combinations of SAG grates and vibrating screen apertures were simulated to examine the effect on throughput rate and power draw. The CEET2(r) program was used in production forecast mode to maximize the throughput rate for the specified product size target. The Circuit 1 design, using a 20 mm grate and a 2 mm screen, is capable of treating 42 t/h (927 t/d at 92% availability) to a target P80 of 150 µm, with a T80 of 743 µm. This circuit was comprised of:

- *One SAG mill of 18' diameter by 6' EGL drawing 483 kW at the shell, and*
- *one ball mill of 9' diameter by 12' EGL drawing 283 kW at the shell.*

The Circuit 2 design, using a 70 mm grate and a 6 mm screen, is capable of treating 81 t/h (1788 t/d at 92% availability) to a target P80 of 150 µm and T80 of 1578 µm. This circuit was comprised of:

- *One SAG mill of 20' diameter by 6' EGL drawing 690 kW at the shell, and*
- *one ball mill of 10' diameter by 20' EGL drawing 709 kW at the shell.*

Sensitivity analysis

As an exercise to confirm the robustness of the design, the SPI and BWI values for each sample were increased by 20% and 10%, respectively, to investigate the effect of increased ore hardness on the selected circuit design.

For Circuit 1 design, increasing the SPI values by 20% is equivalent to 18% increase in specific energy required for the SAG mill. The increase in BWI values by 10% is equivalent to 12% increase in specific energy required for the ball mill, and, as this circuit is ball mill limited, the suggested design would be able to treat 38 t/h.

For Circuit 2 design, increasing the SPI values by 20% is equivalent to 19% increase in specific energy required for the SAG mill. The increase in BWI values by 10% is equivalent to 13% increase in specific energy required for the ball mill, and the given design would be able to treat 71 t/h.

Uncertainty and Safety Factors

It must be remembered that this preliminary design evaluation study was based on only three Raven Horseshoe samples and no safety factor was used in these simulations.

Recommendations

More test work is required for a better understanding of the Raven Horseshoe deposit. Grindability values should be assigned to specific blocks of ore within the mine plan using an acceptable geostatistical technique before a final study. Then we can determine suitable equipment sizes and motor powers, with minimized risk, as the bankable feasibility design is conducted.”

16.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES (form 43-101 F1 item 19)

Uranium deposits on the Hidden Bay property for which historical, and more recent N.I. 43-101 compliant resources have been estimated include the West Bear, Horseshoe and Raven deposits. Resources estimated to N.I. 43-101 compliant standards for the West Bear deposit on the Hidden Bay property, and which are beyond the scope of this report, are documented by LeMaitre (2006) and Palmer (2007). Historical, non-N.I. 43-101 compliant resources for the Horseshoe and Raven deposits are mentioned in Section 5.3 of this report. Currently, a resource estimate for the Raven deposit is underway, and will be reported when completed. A resource for the Horseshoe deposit was recently disclosed (UEX, September 29, 2008 news release), and an accompanying technical documentation for that estimate is in Palmer (2008). Details concerning additional key assumptions and parameters in the mineral estimate that are not summarized here are discussed in Palmer (2008).

16.1 Horseshoe 2008 Mineral Resource Estimation

The current Horseshoe mineral resource estimate was prepared by K. Palmer, B.Sc, P. Geo., of Golder Associates Ltd., of Burnaby, BC. Complete documentation of this resource estimation is available in Palmer (2008). The mineral resource estimation utilized the 272 diamond drill holes (86,100 m from holes HU-001 to HU-256 and HO-001 to HO-016) drilled between 2005 and 2008 that are described in preceding sections, which test the deposit at 7.5 to 30 m drill centers. The mineral resource was estimated using a minimum cut-off grade of 0.05% U_3O_8 utilizing a geostatistical block model technique with ordinary kriging methods and the Datamine Studio 3 software package.

Details of the mineral resources at different cut-off levels are provided in Tables 16.1 and 16.2 below. The mineral resource estimate contains 3.578 million tonnes grading 0.237% U_3O_8 in the

Indicated category containing 18.693 million pounds of U₃O₈, and 0.311 million tonnes grading 0.208% U₃O₈ in the Inferred category containing 1.426 million pounds of U₃O₈ at a cut-off of 0.05% U₃O₈. Most of the resource is in Indicated category at a 0.05% U₃O₈ cut-off. At a cut-off of 0.20%, most of the contained U₃O₈ in the deposit is within areas averaging 0.433% U₃O₈.

Table 16.1: September 2008 Indicated mineral resources at the Horseshoe deposit (N.I. 43-101 compliant). Tonnes and grades are shown at various U₃O₈ cut-offs. See Palmer (2008) for documentation.

Cutoff	Tonnes	Dry Density	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
0.05	3,577,700	2.48	0.237	18,693,000
0.10	2,725,300	2.48	0.287	17,255,000
0.15	1,944,100	2.48	0.353	15,116,000
0.20	1,343,000	2.48	0.433	12,817,000
0.25	945,500	2.48	0.521	10,866,000
0.30	693,000	2.48	0.612	9,347,000
0.35	525,400	2.48	0.704	8,154,000
0.40	400,200	2.48	0.807	7,120,000

Table 16.2: September 2008 Inferred mineral resources at the Horseshoe deposit (N.I. 43-101 compliant). Tonnes and grades are shown at various U₃O₈ cut-offs. See Palmer (2008) for documentation.

Cutoff	Tonnes	Dry Density	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
0.05	311,200	2.37	0.208	1,426,000
0.10	248,600	2.37	0.239	1,310,000
0.15	180,600	2.43	0.282	1,124,000
0.20	132,400	2.45	0.320	935,000
0.25	83,900	2.47	0.376	695,000
0.30	53,100	2.47	0.439	514,000
0.35	33,000	2.47	0.512	372,000
0.40	19,300	2.49	0.607	258,000

This N.I. 43-101 compliant mineral resource represents a substantial increase in quantity of contained uranium, grade, and resource confidence level over the non-compliant historical mineral resources of 13.6 million pounds of U₃O₈ at grades of 0.17% which were estimated in the 1970's by Gulf Resources Canada Ltd. The improvements represent expansion of the total known area of the deposit well beyond the deposit limits interpreted by Gulf, establishment of greater continuity of mineralization between the widely spaced historical Gulf drill holes, and identification of areas of higher grade mineralization within the deposit which were not tested by the historical drilling.

Since no feasibility study has yet been undertaken, the extent to which environmental, permitting, socio-economic, marketing or political issues, or the extent to which the estimates may be materially affected by mining, metallurgical, infrastructure or other factors are not known, and are beyond the scope of this report. Scoping and feasibility studies are recommended to address these issues.

17.0 OTHER RELEVANT DATA AND INFORMATION (form 43-101 F1 item 20)

No other significant information concerning the Horseshoe and Raven deposits and their local area is considered relevant to the report at this time. Future scoping and feasibility studies will address environmental, economic, and cultural aspects of potential future development of the deposits.

18.0 INTERPRETATION AND CONCLUSIONS *(form 43-101 F1 item 21)*

Drilling by, and for UEX between 2005 and 2008 has successfully met the initial objectives of the program the Horseshoe and Raven deposits, which was to (i) verify the position and continuity of mineralization in the historical areas of the Gulf Minerals resources, (ii) identify areas of higher grade within the areas of the historic drilling that could be continuous, and (iii) expand the footprint of mineralization. Details of the geology and results of these programs are summarized and discussed below.

18.1 Summary and discussion

- Uranium mineralization in the Horseshoe and Raven deposits is hosted by folded arkosic quartzite, quartzite and calc-arkosic gneisses of the Proterozoic Hidden Bay Assemblage. It is developed along the southeastern limb of the Raven syncline over a 2.5 km strike, within which mineralization occurs over strike lengths of approximately 1 km at each deposit. Throughout the strike length, mineralization occurs mainly on the margins of an east-northeast trending zone of illite–Mg-chlorite clay alteration and occurs at depths ranging from a few tens of meters up to 460 meters below surface. The clay alteration zone associated with uranium mineralization may be cored by, and potentially overprint a southeast dipping fault zone, since abrupt changes in the thickness of the quartzite unit and difficulty in tracing D2 fold hinges across the clay alteration zone suggest displacement of lithologies across it.
 - Within each deposit, mineralization surrounds, or is developed along, the generally southeast dipping clay alteration zone in multiple, generally shallow dipping lenses of disseminated, nodular and vein-like uranium mineralization that occur within areas of red-brown hematite alteration. Five principal uranium-bearing minerals have been identified in the two deposits with the principal, and most abundant uranium-bearing mineral is pitchblende, which is also generally the paragenetically earliest uranium mineral. Secondary uranium minerals, which are generally formed here by alteration and remobilization of uranium in uraninite, are comprised of the yellow-green colored uranium silicates boltwoodite and uranophane, locally accompanied by coffinite and minor amounts of carnotite. Precipitation of uranium mineralization may have been directly coupled with hematite formation, occurring at a deposit scale in redox fronts. The mineralization is located at the interface between oxidized fluid channelways in clay alteration zones with illite-sudoite dominant alteration, and the surrounding reduced wallrock which contains sulphide-bearing assemblages.
 - At the Horseshoe deposit, drilling conducted by UEX has defined continuous mineralization over a strike length of approximately 600 m. Mineralization plunges shallowly to the northeast from 130 to 220 m in the southwestern parts of the deposit to depths of 250 to 450 m below surface in the northeast. It occurs in several stacked, linear and shallow dipping, east-northeast plunging zones which are planar to lenticular in cross section, and in plan view generally elongate in an east-northeast trend. The mineralization is developed on both sides of, but principally in the hangingwall of the main northeast trending, southeast dipping clay alteration zone that passes continuously through and between the deposits, and preferentially where the clay alteration zone passes obliquely across the arkosic gneiss unit. Principal zones which host most of the mineralization in the deposit include the A, A2, B East and B West zones. The B West zone is the largest, traceable over much of the length of the deposit. Dominant mineralization style in the B
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- West and the B East zones is disseminated pitchblende in competent hematitic arkosic quartzite, which typically grades between 0.1% and 0.3% U_3O_8 . The A zones, which are developed in the upper southeastern portions of the deposit, are typically the highest grade, comprising dominantly nodular, internally stacked lenses that locally contain intercepts of >10 m at grades of 0.5% to 1% U_3O_8 and local grades exceeding 4% over several meters.
- Distribution of mineralization varies in style across the Horseshoe deposit. In the west, mineralization occurs in a series of lenses that are developed mainly in arkosic quartzite within approximately 80 m of the overlying quartzite contact. Several lenses which occur here mimic the geometry of the folded arkosic quartzite unit in the core of the Raven syncline. These lenses vary in dip from shallow to the southeast to shallow northwest, and surround an irregular lobe of clay alteration above the main steeply southeast dipping clay zone, in a style that is comparable to much of the Raven deposit. Eastern parts of the Horseshoe deposit contain the widest, most extensive and most abundant zones of mineralization. This area coincides with the well developed planar and shallow southeast dipping nature of the clay alteration zone, which becomes more focused and cuts obliquely across the folded gneiss sequence. Mineralization here occurs in multiple shallow southeast dipping to subhorizontal lenses of mineralization that are hosted mainly by arkosic quartzite within 100 m of the hangingwall of the clay alteration zone, but also below the clay zone in the BW and C zones. Longer dip length of the mineralized zones in this area than to the west results in an overall bend in the dominant trend of the deposit in plan view to southeasterly trending. The overall changes in mineralization distribution across the deposit may correspond with increasing structural control and intensity of pre-mineralization controlling faulting along the clay alteration zone, as well as an overall shallowing of the controlling clay/fault zone.
 - The Raven deposit, which lies approximately 500 m to the west of the Horseshoe deposit, has been defined over a strike length of approximately 700 m. Mineralization is developed mainly at consistent depths of between 100 and 300 m below surface and exhibits no significant plunge, defining an overall elongate and east-northeast trending zone of mineralization. Mineralization is localized along the trace of the Raven syncline, particularly along the southeastern limb of the fold, and developed extending downward from the base of the folded calc-arkose unit into the underlying quartzite and arkosic quartzite. Like the western Horseshoe deposit, the associated probable fault-controlled clay alteration zone adjacent to which mineralization is developed dips steeply to moderately to the southeast, obliquely crossing the folded lithologic sequence.
 - Two zones of mineralization comprise the Raven deposit, the Lower and Upper zones, each of which may split into sub-zones. The Lower zone, composed mainly of the L01 sub-zone, generally comprises a tabular, steep to moderate southeast dipping zone of mineralization which occurs along the footwall of, and parallel to the clay alteration zone over vertical dip lengths of 100-200 m. On most sections it commences in quartzite and passes downward across arkosic quartzite into the upper portions of the mixed semi-pelitic gneiss/calc-arkose sequence. The L01 zone may occur over widths up to 20 m, but is generally a few meters wide, with grades typically between 0.05% and 0.1% U_3O_8 comprising mainly disseminated and stringer mineralization styles. The Raven Upper zone, composed mainly of the U01 sub-zone, is more complex in geometry, and forms several shallow dipping lobes at depths typically between 100-220 m below surface that are developed in the hangingwall of the clay alteration zone. The Upper zone straddles
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the quartzite unit, extending both into the basal portions of the calc-arkose unit above, and upper parts of the underlying calc-arkose. The Upper zone mineralization on many sections forms flat lying, stacked, cigar shaped zones that occur on the hangingwall of the clay alteration plume. The Raven Upper zone is highly variable in grade, with the highest grades occurring in central parts of the deposit over an approximately 200 m strike length in the thickest and most extensive parts of the U01 zone. Higher grade areas of the U01 zone are locally developed and may grade 0.3 to 0.8% U_3O_8 over several tens of meters, comprising nodular and veinlet styles of mineralization forming probably sinuous alteration fronts along zones of hematization. These higher grade zones appear where the mineralization rolls sub-parallel to the calc-arkose contact. Overall, grades of both zones are generally lower, however, and comprised of broad intervals of 0.05-0.1% U_3O_8 .

- The clay alteration zone associated with uranium mineralization may be cored by, and potentially overprint a southeast dipping fault zone, since abrupt changes in the thickness of the quartzite unit and difficulty in tracing D2 fold hinges across the clay alteration zone suggest displacement of lithologies across it. If so, mineralization may have occurred late in the faulting history since mineralization and alteration often overprint it. The fault could have focused fluid flow, and controlled the formation of shallow dipping dilational veins and disseminated replacement style mineralization in the deposits during a late stage of reverse displacement. Map patterns suggest that the now eroded Athabasca sandstone may have been present not far above the current erosional level, allowing the potential for incursion of oxidized, potentially uranium-bearing diagenetic basinal fluid down the probable fault zone. This basinal fluid potentially mixed with reduced basement fluid along the fault, as has been suggested for the fluid ingress model for basement hosted uranium deposits in the region (e.g. Jefferson et al., 2007). The nearby clay-hematite altered Dragon Lake Fault, which occurs just to the east of the Horseshoe deposit, contains extensive near-surface hematite-clay alteration and may have also acted as a fluid channelway for fluid incursion, as it is linked to the east to the main clay zones hosting mineralization there. Reduced, dark green chlorite-bearing assemblages are observed deeper along the fault suggest deeper reduced assemblages were present at depth along this fault zone which may reflect a second, reduced and basement derived fluid.
 - Unlike most other basement hosted deposits in the Athabasca Basin, no graphitic gneiss units are present in the immediate vicinity of the Horseshoe and Raven deposits. This excludes the possibility that the reducing effects of graphite may have aided in the deposition of uranium mineralization being carried by oxidized hydrothermal fluid, as has been invoked for many deposits in the region (e.g. Jefferson et al., 2008). The overall morphology of the system, comprising a clay alteration core fringed by hematization with lenses of uranium mineralization, resembles the morphology of roll front uranium deposits, suggesting that fluid mixing of oxidized and reduced fluids along more permeable fault and fringing shallow dipping extensional fracture networks may have been a principal mechanism for the deposition of uranium in the deposits. Internal complexities of mineralization in the deposits, particularly at Raven, could have resulted from various advances and retreats of the leading edge of the front, resulting in local overprinting, and variable areas of mineralization depletion and enrichment, as well as interaction with the various different lithologies which the mineralized zones cross.
 - Geotechnically, the Horseshoe and Raven deposits lie in overall competent and impermeable quartzite, arkosic quartzite and calc-arkosic gneiss host rocks, with no
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overlying sandstone cover that could cause additional geotechnical concerns, as in other deposits in the region. Few faults were identified during core logging at Horseshoe and Raven, and no discrete corridors of fault development were recognized in or near mineralized zones, apart from potential faulting along the central axis of the clay alteration zone. Although extensive, areas of clay alteration often are not associated with any decreases in core recovery during drilling since in most areas framework quartz grains in the quartzite and arkosic quartzite are preserved and retain rock strength. The most consistently intensely altered areas lie between the BW and A zones in northeastern portions of the Horseshoe deposit, but do not extend into the more competent mineralization and could potentially be avoided if future underground development is conceived in a feasibility evaluation. Friable areas do occur within some higher grade portions of the A, S2 and BW zones, but these are closely restricted to the mineralization, and the surrounding wallrock usually become fresh and competent adjacent to these areas. Modeling of clay alteration intensity recorded during core logging in addition to ongoing geotechnical studies may consequently aid in geotechnical evaluation of the system.

18.2 Resource estimation and metallurgical results

- Based on definition drilling conducted at 15-30 m spacing throughout the deposit, a subsequent resource estimation reported in Palmer (2008) has established a resource of 3.578 million tonnes grading 0.237% U_3O_8 in the Indicated category containing 18.693 million pounds of U_3O_8 , and 0.311 million tonnes grading 0.208% U_3O_8 in the Inferred category containing 1.426 million pounds of U_3O_8 at a cut-off of 0.05% U_3O_8 . This N.I. 43-101 compliant mineral resource represents a substantial increase in quantity of contained uranium, grade, and resource confidence level over the non-compliant historical mineral resources of 13.6 million pounds of U_3O_8 at grades of 0.17% U_3O_8 which were estimated in the 1970's by Gulf Resources Canada Ltd. The improvements represent expansion of the total known area of the deposit well beyond the deposit limits interpreted by Gulf, establishment of greater continuity of mineralization between the widely-spaced historical Gulf drill holes, and identification of areas of higher grade mineralization within the deposit which were not tested by the historical drilling.
- Metallurgical testwork at both the Horseshoe and Raven Deposits is being supervised by Melis Engineering Ltd. of Saskatoon, Saskatchewan, and is ongoing. Initial results are positive, and indicate that uranium in both deposits is easily leached under relatively mild atmospheric leach conditions, producing leach extractions of 98%, and lacking any significant concentrations of deleterious elements.

18.3 Adequacy of data density and reliability

During the drilling programs at the Horseshoe and Raven deposits, all industry standards were followed. Core sizes, procedures for logging and recording of core recoveries and consistent documentation of the geology provide an acceptable basis for the geological and geotechnical interpretation of the deposits.

In the authors' opinions, the procedures employed by the project team during sampling, shipping, sample security, analytical procedures, inter-lab assay validation, validation by different analytical techniques and a rigorous QA/QC protocol comply with industry standard practices. The results of the additional levels of cross check of assay techniques and confirmation with

duplicate samples are industry standard. In addition, for levels of validation and verification from (i) the down hole radiometric probing, (ii) detailed SPP2 or RS-120/125 scintillometer radiometric reading every 10 cm on the core, (iii) SPP2 scintillometer readings on samples prior to shipping, and (iv) the additional assaying all samples above 1,000 ppm uranium by ICP Total Digestion by ICPOES provide a high level of confidence in the sample data. Drill hole collar locations have been verified by LiDAR and Tri-City surveys. In the opinion of the authors, the acquisition, analysis and interpretation of the data has been completed to industry standards, and is reliable.

While mineralization outlines at the Horseshoe and Raven deposits are locally complex geologically, at 15-30 m spacing, drilling density is considered of sufficient density, and geological patterns are of sufficient continuity and regularity to support the geological interpretations conveyed above. In addition to the intersections of uranium mineralization, additional geological parameters which increase the confidence in the geological interpretation of the mineralization include 1) the close association of intense hematite alteration with uranium mineralization, which has greater extent and continuity than individual mineralized zones, and forms an envelope within which mineralization distribution can be constrained, 2) the controlling probably fault controlled clay alteration zone, which establishes lateral and down dip continuity to the hydrothermal system, 3) local lithological control, where mineralization is preferentially controlled by the distribution and orientation of hosting rock units, which can aid in interpreting mineralization outlines, and 4) presence of vein or banded nodular mineralization in many high grade areas which based on core axis angles, and relationships to foliation in drill core support the interpretation of the morphology of many mineralized zones. Further infill drilling will be required in some areas to validate the local mineralization model and establish higher confidence in grade distribution, as is discussed in Palmer (2008).

19.0 RECOMMENDATIONS (*form 43-101 F1 item 22*)

Recommended work programs in the Horseshoe and Raven deposit area comprises several components, including 1) scoping and feasibility studies to assess the economic viability of mining and processing mineralization outlined by the current Horseshoe and upcoming Raven resource estimates, 2) priority infill drilling to upgrade significant areas of Inferred resources in the current Horseshoe resource and upcoming Raven resource to Indicated status, and 3) exploration of the local area of the Horseshoe and Raven deposits, to trace out known areas of open mineralization and follow up historical intercepts, and to further test geophysical targets and previously intercepted alteration zones and faults. All three of these components are recommended to be advanced simultaneous of one another, and are not contingent on other phases, unless the upcoming Raven resource requires any substantial additional definition drilling to upgrade parts of it to Indicated status for feasibility work.

19.1 Feasibility study

With the high proportion of the Horseshoe resource base in the Indicated category, it is recommended that scoping level evaluations which are currently underway internally be advanced to feasibility level to assess the potential economics and viability of mining the Horseshoe deposit, and if sufficient resources of Indicated status are defined, the Raven deposit. These studies should examine the most efficient methods and procedures for extracting the defined uranium resource, including the most appropriate road access and support infrastructure, mining methods, operating plans, cash flow analyses and projections in order to determine net

present values and internal rates of return for Horseshoe at various uranium price levels. Budgets and timelines for feasibility work would be determined in consultation with the lead engineering contractor and are beyond the scope of this report.

In anticipation of a potential future feasibility study on the Horseshoe and Raven deposits, environmental baseline studies were commenced by Golder Associates Ltd., of Saskatoon, Saskatchewan during 2006, and Golder continues to collect biological, hydrogeological and other environmental data. Metallurgical studies are well underway, as documented in Section 15 of this report and Appendix 3. During the 2007 and 2008 drilling programs, geotechnical studies of the area of the deposits also commenced, assessing rock properties and hydrogeology of the area of both the Horseshoe and Raven deposits. Further environmental baseline and geotechnical studies are scheduled.

19.2 Infill drilling

Recommended additional infill holes to upgrade portions of the Horseshoe and future Raven mineral resources which are in the Inferred category to Indicated status will be reported by Palmer (2008) in the Horseshoe resource report, and will be conveyed in the future Raven resource report. These recommendations are exclusive of the recommended exploration drilling which is recommended here.

19.3 Proposed exploration of the local deposit area

19.3.1 Horseshoe Northeast target

Uranium mineralization intersected by Gulf in the 1970's, and which was included in historical resources at both the Raven and Horseshoe deposits, extends beyond the limits of the mineralized zones outlined in Figures 6.2, 8.01, and 8.12 that have been tested by UEX's definition drilling programs. At Horseshoe, zones tested by drilling between 2005 and 2008 have been fully outlined by drilling, but additional Gulf drill intercepts which lie to the northeast of the current Horseshoe resource area may define additional, separate pods which extend up to 200 m northeast of the current resource outlines. This area, here termed the Horseshoe Northeast target, includes intercepts in widely spaced Gulf drill holes of 1.06% U_3O_8 over 2.74 m in hole HS-61A, 0.78% U_3O_8 over 2.74 m in hole HS-49 and 0.74% U_3O_8 over 1.22 m in hole HS-59. The Gulf drilling is too widely spaced to accurately determine mineralization geometry, although general patterns suggest that mineralization in this area is also developed on the margins of the northeastern continuation of the same northeast-trending, moderate southeast dipping zone of clay alteration and potential faulting that is associated with the main Horseshoe deposit. The alteration is continuous to the Dragon Lake Fault, which lies approximately 250 m along strike to the northeast of the limits of the current Horseshoe resource. At the Dragon Lake Fault, widely spaced drill holes suggest that the clay alteration zone merges with clay-hematite alteration along the fault zone.

Drilling is currently underway to define the extent of mineralization in the Horseshoe Northeast area (Figure 19.1). Approximately 25 holes are planned, with several currently underway or recently completed, for a total of approximately 9,000 m, with additional drill holes necessary if these are insufficient to fully define, and delineate mineralization.

19.3.2 Raven extensions

As with the Horseshoe deposit, historical mineralized intercepts which lie beyond the limits of 2005-2008 drilling occur in the westernmost portions of the Raven deposit and will require additional follow-up drilling in that direction. These include intercepts of 0.21% U_3O_8 over 15.54 m in hole LB-031, 0.52% U_3O_8 over 3.35 m in hole LB-038, and 0.16% U_3O_8 over 13.72 m in hole LB-048, which suggest mineralization may extend for up to 200 m westward from the 2005 RV-series drill holes which form the most western holes to be included in the Raven resource estimation that is currently underway. Mineralization is also open at the eastern end of the Raven deposit, east of section 5755E. Although the mineralization in this area is thinning, potential for additional mineralized pods is possible, since new lenses could appear along strike between widely spaced Gulf drill holes, or outside the area tested by Gulf drilling. Drilling will trace the clay alteration zone eastward and down dip from known areas (Figure 19.1). In total, 18 holes are planned to the west and a further 7 to the east to test these areas for a total of 25 holes (approximately 7,500 m), with additional follow-up necessary if continuous mineralization requires further definition drilling.

19.3.3 Down dip extensions of clay alteration zones associated with mineralization

Potential also exists in both the Horseshoe and Raven deposits for additional mineralization at depth, surrounding the down dip projection of clay-hematite alteration that extends beyond the limits of drilling. While known mineralized lenses have generally been defined by drilling, the continuity of alteration suggests the potential for additional mineralization in separate lenses and zones, as is seen in the stacking of mineralized lenses at both deposits, which are often separated by tens of meters. Down-dip areas of the eastern Horseshoe deposit were already tested during early 2008, so only two holes are planned to test the down dip extent of alteration in the western Horseshoe deposit (Figure 19.1); 5 holes are proposed at a 100 m spacing along strike to test the down dip extent of clay-hematite alteration beneath the Raven deposit (total 7 holes, 3,500 m).

19.3.4 Other target areas

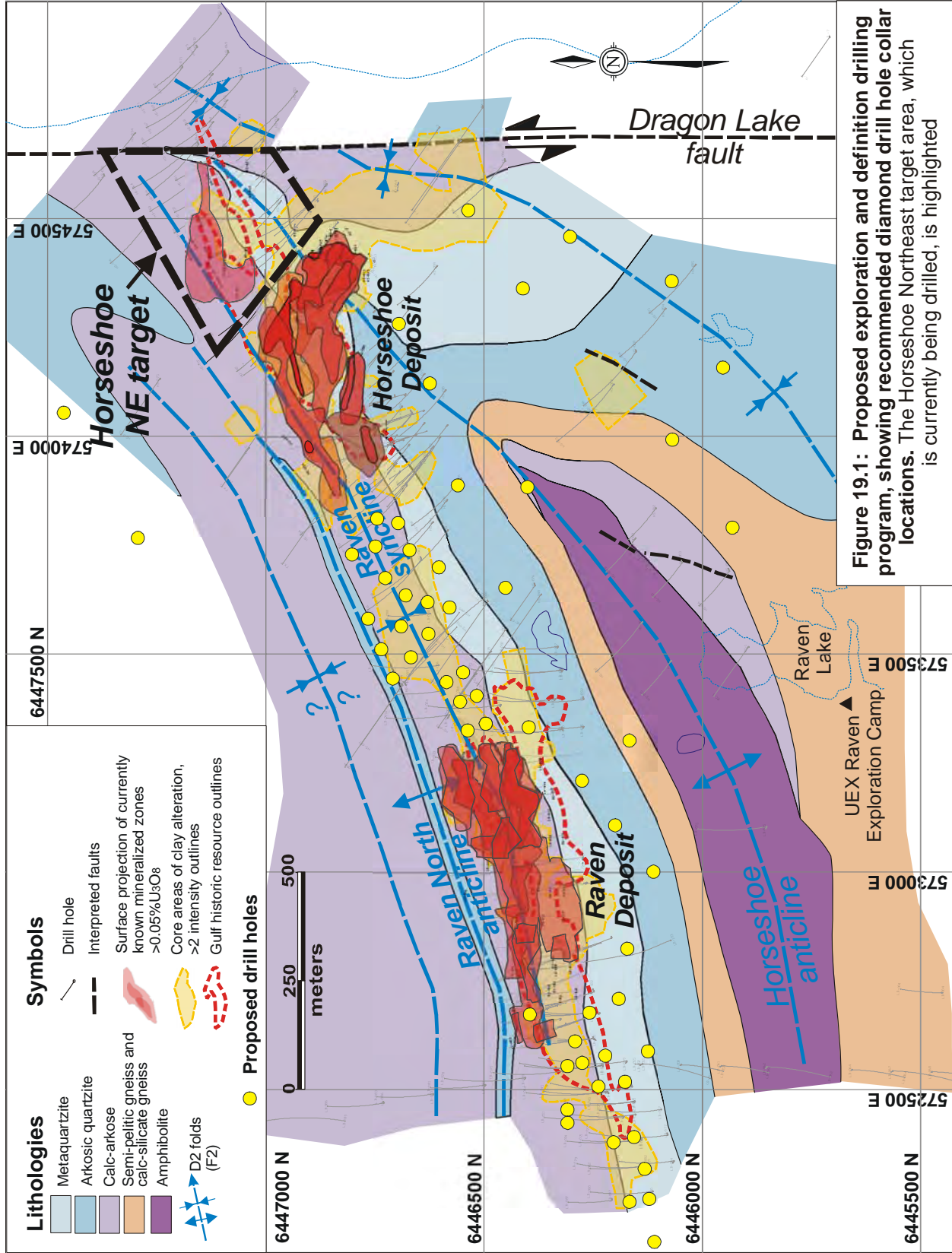
Other target areas in the general vicinity (within 1 km) of the Horseshoe and Raven deposits which represent separate exploration targets that are not direct follow-up to extensions of known zones or previous drill intercepts include the following (Figure 19.1):

- 1) Area between Horseshoe and Raven. Historical drilling and both resistivity and gravity surveys suggest that the principal alteration zone is continuous between the two deposits, and is locally intense. Drill holes completed in this 500 m gap between the deposits by Gulf intersected anomalous radioactivity and weak mineralization in HS-093 which returned 0.6 m at 0.39 % U_3O_8 . The wide spacing of the drill holes in this area (locally >100 m) provide room for local lenses of mineralization. Eighteen holes (5,400 m total) are recommended to test this area as an initial pass, with further potential drilling necessary if mineralization is identified and requires follow-up.
- 2) Parallel, northeast-trending clay alteration zones occur several hundred meters to the north and south-southwest of the Horseshoe deposit are suggested by resistivity and gravity anomalies, and supported by the occurrence of widespread clay, hematite and chlorite alteration with locally associated faulting of the host gneiss sequence in the isolated historical drill holes that have been completed in these areas. While no uranium mineralization was interested historically, the drill holes were shallow and very widely

- spaced. A first pass of 6 holes, two to the north, and four to the south, is proposed to further test these areas, with 1,800 m budgeted.
- 3) Testing of the Dragon Lake Fault corridor, since extensive alteration along this structure could link to other zones of clay alteration that could be associated with uranium mineralization south of the Horseshoe deposit. Three holes are proposed, for 900 m.
 - 4) Testing of projected intersections of alteration zones and faults with graphitic schist to the south and west of the deposits, which could localize faulting and provide a reductant to the deposition of uranium mineralization. Further follow up ground geophysics, including EM and resistivity, are recommended to refine these target areas before drilling. Four holes totaling 1,000 m could be budgeted for such a program.

19.3.5 Summary: proposed exploration of the Horseshoe-Raven area

In total, 88 holes totaling approximately 29,100 m are recommended in the preceding sections to explore the immediate Horseshoe and Raven areas. Since drilling at Horseshoe Northeast is currently underway, and much of the recommended drilling there is anticipated to be complete by the end of 2008, a remaining approximately 63 drill holes and 20,100 m of drilling is proposed in the area for 2009, exclusive of any additional infill drilling in the Horseshoe and Raven deposits. At established all-in costs of drilling, on site camp/accommodation, transportation, assaying/sampling, salaries/contractors fees, supplies, expediting and management, based on UEX's ongoing exploration in the area, this equates to a budget of approximately \$4 million for 2009. Priorities would be, in order, to a) define and establish a resource in the Horseshoe Northeast target area, b) test open areas of Raven mineralization to expand that resource, c) test the area between the two deposits for additional mineralization, and d) test down dip extent of the alteration zones. Outlying targets in the other parallel alteration zones, along the Dragon Lake Fault, and at EM conductors are lower priority targets, which if other priorities such as infill drilling were required, could be deferred to future exploration programs. Additional drilling of up to 5,000 m could also be required in the Horseshoe Northeast area to define mineralization there if further uranium mineralization is discovered during the current drilling program.



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Dates and Signatures page

Name of Report:

**Technical Report on the Geology of, and Drilling Results from,
the Horseshoe and Raven Uranium Deposits, Hidden Bay
Property, Northern Saskatchewan**

Commissioned by:

UEX Corporation

SIGNED

David Rhys

November 12, 2008

Date

SIGNED

Leo Horn

November 12, 2008

Date

SIGNED

Daniel Baldwin

November 12, 2008

Date

SIGNED

R. Sierd Eriks

November 12, 2008

Date

Certificates of Qualified Persons

David Alan Rhys

14180 Greencrest Drive, Surrey, B.C. V4P 1L9

Certificate of Author

I, David A. Rhys, P. Geo., as an author of this report, titled “Technical Report on the Geology of, and Drilling Results from, the Horseshoe and Raven deposits, Hidden Bay Property, Northern Saskatchewan”, prepared for UEX Corporation and dated November 12, 2008, do hereby certify that:

1. I am a consulting geologist employed by Panterra Geoservices Inc. at 14180 Greencrest Drive, Surrey, British Columbia, Canada.
2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia and the Association of Professional Geoscientists of Ontario.
3. I am a graduate of the University of British Columbia with a B.Sc. (1989) and a M.Sc. (1993) in geology.
4. I have practiced my profession continuously since graduation in 1989, and have been involved in mineral exploration and mine geology evaluation in Canada, Australia, Mexico, Russia, China, U.S.A., New Zealand, Tanzania, Ecuador and Peru.
5. I am president of Panterra Geoservices Inc., a geological consulting firm incorporated in the Province of British Columbia.
6. As a result of my experience and qualification, I am a qualified person as defined in N.I. 43-101.
7. I am not independent of the issuer applying the test set out in section 1.4 of N.I. 43-101.
8. The foregoing report is based on:
 - My personal knowledge of the geology of the property gained through my activities on site as a consultant to Cameco Corporation in 1998 and 1999, and multiple visits to the Horseshoe and Raven projects to assess geology and exploration progress for UEX Corporation during 2002, 2006, 2007 and 2008. I last visited the projects between March 24 and 28, 2008.
 - Ongoing study of available current and historical exploration data
9. I have read N.I. 43-101 and Form 43-101F1, and the technical report has been prepared in compliance with both.
10. I am not aware of any material fact or material change with respect to the subject matter of this technical report which is not reflected in this report, the omission to disclose which would make this report misleading.
11. I am responsible for preparation of Sections 1 to 19 of this report.

Dated at Vancouver, British Columbia, this 12th day of November, 2008.

SIGNED

“David Rhys”
(signed and sealed)

David Rhys, M.Sc., P. Geo
Panterra Geoservices Inc.

Leo S. Horn

Suite 1605 – 488 Helmcken Street,
Vancouver, BC, V6B 6E4, Canada

Certificate of Author

I, Leo S. Horn, MAusIMM, as an author of this report, titled “Technical Report on the Geology of, and Drilling Results from, the Horseshoe and Raven deposits, Hidden Bay Property, Northern Saskatchewan”, prepared for UEX Corporation and dated November 12, 2008, do hereby certify that:

1. I am a senior project geologist with UEX Corporation with its principal office at Suite 1007 – 808 Nelson Street, Vancouver, BC, V6Z 2H2, Canada
2. I am a member in good standing of the Australian Institute of Mining and Metallurgy (#991541) in Australia.
3. I am a graduate of the University of Western Australia with a Bachelor of Science degree in Geology and Geomorphology (2001) and Bachelor of Science (Honours) (2002).
4. I have 7 years of experience in exploration geology, which includes over 3 years directly related to uranium mineralization.
5. As a result of my experience and qualification, I am a qualified person as defined in the N.I. 43-101.
6. I am not independent of the issuer applying the test set out in section 1.4 of N.I. 43-101.
7. The foregoing report is based on:
 - My personal knowledge of the geology of the property through regular field work at Raven and Horseshoe between 2006 and 2008. I last visited the Raven and Horseshoe projects between October 20 and 26, 2008.
 - Ongoing study of available current and historical exploration data
8. I have read N.I. 43-101 and Form 43-101F1, and the technical report has been prepared in compliance with both.
9. I am not aware of any material fact or material change with respect to the subject matter of this technical report which is not reflected in this report, the omission to disclose which would make this report misleading.
10. I am responsible for Sections 6 to 9 of this report.

Dated at Vancouver, British Columbia, this 12th day of November, 2008.

SIGNED

“Leo Horn”
(signed and sealed)

Leo S. Horn, B.Sc (Hons), MAusIMM
Senior Geologist, UEX Corporation

Daniel L. Baldwin

8 The Promenade, Mount Pleasant, WA, 6153, Australia

Certificate of Author

I, Daniel L. Baldwin, MAusIMM, as an author of this report, titled “Technical Report on the Geology of, and Drilling Results from, the Horseshoe and Raven deposits, Hidden Bay Property, Northern Saskatchewan”, prepared for UEX Corporation and dated November 12, 2008, do hereby certify that:

1. I am a consulting geologist based at 8 The Promenade, Mount Pleasant, WA, 6153, Australia
2. I am a member in good standing of the Australian Institute of Mining and Metallurgy (#112043) in Australia.
3. I am a graduate of the University of Ballarat with a Bachelor of Applied Science degree in Geology (Honours) (1994) and hold a Graduate Diploma in Business from Curtin University of Technology (1998).
4. I have 14 years experience in mining and exploration geology, mineral resource and mineral reserve estimation which includes over 4.5 years directly related to uranium mineralization.
5. As a result of my experience and qualification, I am a qualified person as defined in the N.I. 43-101.
6. I am an independent qualified person applying the test set out in section 1.4 of N.I. 43-101..
7. The foregoing report is based on:
 - My personal knowledge of the geology of the property through multiple on site field visits during 2007 and 2008. I last visited the Raven and Horseshoe projects between March 24 and 28, 2008.
 - Ongoing study of available current and historical exploration data
8. I have read N.I. 43-101 and Form 43-101F1, and the technical report has been prepared in compliance with both.
9. I am not aware of any material fact or material change with respect to the subject matter of this technical report which is not reflected in this report, the omission to disclose which would make this report misleading.
10. I am responsible for Sections 10 to 13 of this report.

Dated at Vancouver, British Columbia, this 12th day of November, 2008.

SIGNED

“Daniel Baldwin”
(signed and sealed)

Daniel L. Baldwin, B.Sc (Hons), MAusIMM.
Consulting geologist

R. Sierd Eriks

295 Huckleberry Lane, Qualicum Beach, B.C. V9K 2N3

Certificate of Author

I, R. Sierd Eriks, P. Geo., as an author of this report, titled “Technical Report on the Geology of, and Drilling Results from, the Horseshoe and Raven deposits, Hidden Bay Property, Northern Saskatchewan”, prepared for UEX Corporation and dated November 12, 2008, do hereby certify that:

1. I am the Vice President of Exploration, employed by UEX Corporation with its principal office at Suite 1007 – 808 Nelson Street, Vancouver, BC, V6Z 2H2, Canada.
2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of Saskatchewan and Manitoba.
3. I am a graduate of Boston University with a B.A. (1976) in geology.
4. I have practiced my profession continuously since 1980, and have been involved in mineral exploration in Canada.
5. As a result of my experience and qualification, I am a qualified person as defined in N.I. 43-101.
6. I am not independent of the issuer applying the test set out in section 1.4 of N.I. 43-101.
7. The foregoing report is based on:
 - My personal knowledge of the geology of the Horseshoe and Raven projects gained through my activities as an on-site exploration geologist during 2006 and 2007 and as Vice President of Exploration during 2007 and 2008. I last visited the Raven and Horseshoe projects between September 22 and 26, 2008.
 - Ongoing study of available current and historical exploration data
8. I have read N.I. 43-101 and Form 43-101F1, and the technical report has been prepared in compliance with both.
9. I am not aware of any material fact or material change with respect to the subject matter of this technical report which is not reflected in this report, the omission to disclose which would make this report misleading.
10. I contributed to the preparation of sections 1 to 6 and 14 to 19 of this report.

Dated at Vancouver, British Columbia, this 12th day of November, 2008.

SIGNED

“*R. Sierd Eriks*”
(signed and sealed)

R. Sierd Eriks, B.A., P. Geo.
Vice-President, Exploration
UEX Corporation

APPENDIX 1:

**List of drill hole collar coordinates, azimuths and lengths,
2005-2008 drilling in the Horseshoe and Raven deposit areas**

**Appendix 1: Drill hole collar, length and aimuth
data, 2005 to 2008 drill holes, Horseshoe and Raven deposits**

Drill hole	UTM North NAD 83 (m)	UTM East NAD 83 (m)	Elevation ASL (m)	Hole length (m)	Dip	UTM Azimuth	Grid Azimuth	Grid East (m)	Grid north (m)	Start Date	End Date
HO-001	6446710.7	573982.7	429.88	299.00	-50.0	340.0	305.0	4660.5	4361.6	13-Sep-2005	17-Sep-2005
HO-002	6446710.7	573982.7	429.88	290.00	-50.0	340.0	305.0	4660.5	4361.6	18-Sep-2005	21-Sep-2005
HO-003	6446684.8	573992.1	430.32	294.30	-60.0	340.0	305.0	4683.0	4345.7	22-Sep-2005	24-Sep-2005
HO-004	6446656.1	574002.8	430.47	280.20	-60.0	340.0	305.0	4708.3	4328.4	25-Sep-2005	27-Sep-2005
HO-005	6446631.4	574011.7	430.42	318.30	-60.0	340.0	305.0	4729.7	4313.3	28-Sep-2005	2-Oct-2005
HO-006	6446745.0	574023.3	431.37	293.00	-60.0	340.0	305.0	4674.0	4413.0	28-Sep-2005	1-Oct-2005
HO-007	6446745.0	574023.3	431.37	344.35	-60.0	340.0	305.0	4674.0	4413.0	2-Oct-2005	4-Oct-2005
HO-008	6446719.1	574032.7	431.19	306.90	-50.0	340.0	305.0	4696.6	4397.2	5-Oct-2005	9-Oct-2005
HO-009	6446690.6	574043.2	430.87	309.01	-60.0	340.0	305.0	4721.5	4379.8	8-Oct-2005	12-Oct-2005
HO-010	6446665.4	574052.2	430.60	306.90	-60.0	340.0	305.0	4743.4	4364.4	13-Oct-2005	16-Oct-2005
HO-011	6446637.8	574059.7	430.07	279.50	-60.0	340.0	305.0	4765.4	4346.0	16-Oct-2005	18-Oct-2005
HO-012	6446679.7	574099.0	430.86	298.00	-60.0	340.0	305.0	4773.5	4402.9	2-Oct-2005	4-Oct-2005
HO-013	6446704.3	574091.1	431.55	314.00	-60.0	340.0	305.0	4752.9	4418.5	6-Oct-2005	9-Oct-2005
HO-014	6446730.7	574081.3	431.55	291.51	-60.0	340.0	305.0	4729.7	4434.5	9-Oct-2005	12-Oct-2005
HO-015	6446756.2	574072.7	431.75	300.30	-60.0	340.0	305.0	4708.1	4450.5	13-Oct-2005	15-Oct-2005
HO-016	6446781.5	574063.2	430.80	290.00	-60.0	340.0	305.0	4685.8	4465.7	15-Oct-2005	17-Oct-2005
HU-001	6446617.0	573975.7	429.63	280.00	-65.0	305.0	270.0	4708.5	4280.8	8-Jul-2006	11-Jul-2006
HU-002	6446630.7	573956.7	429.19	266.00	-65.0	300.0	265.0	4685.1	4281.2	12-Jul-2006	14-Jul-2006
HU-003	6446600.0	573998.3	429.34	287.00	-65.0	298.0	263.0	4736.7	4279.9	14-Jul-2006	17-Jul-2006
HU-004	6446644.6	573936.0	428.70	280.00	-65.0	296.0	261.0	4660.2	4280.6	17-Jul-2006	20-Jul-2006
HU-005	6446785.2	574237.1	432.88	325.00	-75.0	305.0	270.0	4826.1	4568.5	20-Jul-2006	23-Jul-2006
HU-006	6446811.6	574195.4	432.42	302.00	-75.0	305.0	270.0	4776.8	4566.2	24-Jul-2006	26-Jul-2006
HU-007	6446823.3	574176.6	430.85	323.00	-75.0	305.0	270.0	4754.7	4565.0	27-Jul-2006	30-Jul-2006
HU-008	6446837.6	574153.1	431.83	302.00	-65.0	305.0	270.0	4727.3	4563.3	30-Jul-2006	2-Aug-2006
HU-009	6446872.0	574099.2	429.82	233.00	-75.0	305.0	270.0	4663.4	4560.6	3-Aug-2006	5-Aug-2006
HU-010	6446872.5	574223.1	432.52	313.00	-75.0	305.0	270.0	4764.6	4632.0	5-Aug-2006	8-Aug-2006
HU-011	6446888.0	574200.3	433.17	341.00	-75.0	305.0	270.0	4737.0	4631.7	8-Aug-2006	11-Aug-2006
HU-012	6446855.7	574247.2	433.75	320.00	-75.0	305.0	270.0	4793.9	4632.0	11-Aug-2006	15-Aug-2006
HU-013	6446904.7	574175.8	434.58	317.00	-75.0	305.0	270.0	4707.3	4631.2	15-Aug-2006	19-Aug-2006
HU-014	6446904.7	574175.8	434.58	302.00	-68.0	305.0	270.0	4707.3	4631.2	19-Aug-2006	22-Aug-2006
HU-015	6446838.7	574271.3	433.65	320.00	-75.0	305.0	270.0	4823.4	4632.0	22-Aug-2006	26-Aug-2006
HU-016	6446820.8	574297.1	434.13	272.00	-75.0	305.0	270.0	4854.9	4632.2	26-Aug-2006	29-Aug-2006
HU-017	6446820.8	574297.1	434.13	311.00	-85.0	305.0	270.0	4854.9	4632.2	29-Aug-2006	2-Sep-2006
HU-018	6446931.7	574246.5	433.53	356.00	-75.0	305.0	270.0	4749.8	4693.9	3-Sep-2006	7-Sep-2006
HU-019	6446914.3	574270.3	434.47	311.00	-75.0	305.0	270.0	4779.3	4693.3	7-Sep-2006	10-Sep-2006
HU-020	6446897.0	574294.3	436.03	341.00	-75.0	305.0	270.0	4808.9	4692.9	11-Sep-2006	17-Sep-2006
HU-021	6446877.9	574320.4	435.53	347.00	-75.0	305.0	270.0	4841.1	4692.3	17-Sep-2006	23-Sep-2006
HU-022	6446862.1	574343.6	434.44	359.00	-75.0	305.0	270.0	4869.2	4692.6	24-Sep-2006	29-Sep-2006
HU-023	6446797.9	574216.1	433.41	288.60	-75.0	305.0	270.0	4801.6	4566.9	26-Sep-2006	29-Sep-2006
HU-024	6446848.9	574363.4	432.04	361.00	-78.0	305.0	270.0	4893.1	4693.2	29-Sep-2006	6-Oct-2006
HU-025	6446865.8	574109.0	431.93	339.55	-65.0	305.0	270.0	4675.0	4561.1	30-Sep-2006	4-Oct-2006
HU-026	6446833.0	574333.1	434.19	368.00	-78.0	305.0	270.0	4877.3	4662.8	6-Oct-2006	11-Oct-2006
HU-027	6446865.3	574444.6	430.58	456.30	-75.0	305.0	270.0	4950.2	4753.2	5-Oct-2006	12-Oct-2006
HU-028	6446825.7	574289.4	434.07	600.00	-75.0	305.0	270.0	4845.7	4631.7	11-Jan-2007	19-Jan-2007
HU-029	6446869.5	574257.1	434.35	251.00	-90.0	0.0	325.0	4794.2	4649.0	11-Jan-2007	17-Jan-2007
HU-030	6446840.8	574238.7	432.55	321.00	-90.0	0.0	325.0	4795.5	4615.0	16-Jan-2007	21-Jan-2007
HU-031	6446852.3	574280.7	434.44	272.00	-90.0	0.0	325.0	4823.3	4648.5	18-Jan-2007	21-Jan-2007
HU-032	6446831.9	574281.3	433.92	295.00	-75.0	305.0	270.0	4835.6	4632.1	19-Jan-2007	22-Jan-2007
HU-033	6446857.9	574213.3	432.38	255.00	-90.0	0.0	325.0	4764.9	4614.5	21-Jan-2007	24-Jan-2007
HU-034	6446888.3	574232.5	432.29	235.00	-90.0	0.0	325.0	4763.2	4650.3	21-Jan-2007	24-Jan-2007
HU-035	6446815.4	574304.5	433.80	358.70	-78.0	305.0	270.0	4864.0	4632.0	23-Jan-2007	26-Jan-2007
HU-036	6446876.2	574277.6	434.89	272.00	-90.0	0.0	325.0	4807.1	4666.4	24-Jan-2007	27-Jan-2007
HU-037	6446847.6	574225.9	432.28	258.40	-90.0	0.0	325.0	4781.1	4613.2	24-Jan-2007	27-Jan-2007
HU-038	6446860.9	574269.2	434.50	262.00	-90.0	0.0	325.0	4809.0	4649.0	27-Jan-2007	30-Jan-2007
HU-039	6446865.7	574200.9	432.55	255.00	-90.0	0.0	325.0	4750.3	4613.7	28-Jan-2007	31-Jan-2007
HU-040	6446888.6	574306.4	435.86	400.60	-90.0	0.0	325.0	4823.6	4693.0	28-Jan-2007	2-Feb-2007
HU-041	6446878.3	574244.6	433.74	253.80	-90.0	0.0	325.0	4778.9	4649.2	31-Jan-2007	1-Feb-2007
HU-042	6446874.3	574189.8	433.68	243.00	-90.0	0.0	325.0	4736.2	4614.4	31-Jan-2007	3-Feb-2007

**Appendix 1: Drill hole collar, length and aimuth
data, 2005 to 2008 drill holes, Horseshoe and Raven deposits**

Drill hole	UTM North NAD 83 (m)	UTM East NAD 83 (m)	Elevation ASL (m)	Hole length (m)	Dip	UTM Azimuth	Grid Azimuth	Grid East (m)	Grid north (m)	Start Date	End Date
HU-043	6446894.6	574254.2	434.10	329.60	-90.0	0.0	325.0	4777.4	4668.0	2-Feb-2007	7-Feb-2007
HU-044	6446900.5	574289.8	435.82	362.00	-90.0	0.0	325.0	4803.1	4693.2	3-Feb-2007	7-Feb-2007
HU-045	6446847.5	574197.1	431.58	347.00	-90.0	0.0	325.0	4757.6	4596.6	4-Feb-2007	12-Feb-2007
HU-046	6446914.8	574227.4	433.70	296.00	-90.0	0.0	325.0	4743.8	4669.1	7-Feb-2007	11-Feb-2007
HU-047	6446880.8	574316.6	435.57	363.90	-90.0	0.0	325.0	4836.4	4692.4	8-Feb-2007	13-Feb-2007
HU-048	6446932.7	574203.7	434.93	361.00	-90.0	0.0	325.0	4714.2	4670.2	11-Feb-2007	16-Feb-2007
HU-049	6446839.4	574209.4	432.43	267.00	-90.0	0.0	325.0	4772.3	4597.0	12-Feb-2007	16-Feb-2007
HU-050	6446883.3	574359.1	434.99	431.00	-90.0	0.0	325.0	4869.8	4718.9	13-Feb-2007	19-Feb-2007
HU-051	6446831.0	574221.9	432.77	289.80	-90.0	0.0	325.0	4787.4	4597.3	16-Feb-2007	20-Feb-2007
HU-052	6446950.2	574177.2	434.85	302.00	-90.0	0.0	325.0	4682.4	4669.3	17-Feb-2007	21-Feb-2007
HU-053	6446752.4	574403.3	428.15	474.00	-90.0	0.0	325.0	4981.1	4637.0	19-Feb-2007	9-Mar-2007
HU-054	6446872.0	574329.0	434.89	344.00	-90.0	0.0	325.0	4851.6	4692.4	19-Feb-2007	25-Feb-2007
HU-055	6446821.7	574234.4	433.41	252.00	-90.0	0.0	325.0	4803.0	4596.9	20-Feb-2007	25-Feb-2007
HU-056	6446966.5	574151.3	431.83	293.00	-90.0	0.0	325.0	4651.9	4667.9	21-Feb-2007	24-Feb-2007
HU-057	6446979.9	574124.5	431.22	270.80	-90.0	0.0	325.0	4622.2	4663.4	25-Feb-2007	27-Feb-2007
HU-058	6446855.2	574353.8	433.44	350.00	-90.0	0.0	325.0	4881.6	4692.9	25-Feb-2007	1-Mar-2007
HU-059	6446833.0	574251.3	433.31	281.00	-90.0	0.0	325.0	4810.3	4615.9	25-Feb-2007	1-Mar-2007
HU-060	6446993.7	574097.3	431.11	191.00	-90.0	0.0	325.0	4592.0	4659.1	27-Feb-2007	2-Mar-2007
HU-061	6446855.9	574184.9	432.29	308.00	-90.0	0.0	325.0	4742.8	4596.5	1-Mar-2007	5-Mar-2007
HU-062	6446835.9	574382.2	429.01	379.00	-90.0	0.0	325.0	4915.9	4693.3	1-Mar-2007	5-Mar-2007
HU-063	6446893.0	574402.6	433.01	422.00	-90.0	0.0	325.0	4899.9	4751.7	2-Mar-2007	7-Mar-2007
HU-064	6446696.4	574581.7	426.38	593.00	-90.0	0.0	325.0	5159.3	4693.5	5-Mar-2007	13-Mar-2007
HU-065	6446819.0	574407.2	429.04	440.00	-90.0	0.0	325.0	4946.1	4693.8	5-Mar-2007	11-Mar-2007
HU-066	6446871.0	574159.4	434.48	307.00	-90.0	0.0	325.0	4713.3	4594.2	5-Mar-2007	8-Mar-2007
HU-067	6446877.1	574427.7	431.11	419.00	-90.0	0.0	325.0	4929.5	4753.1	7-Mar-2007	12-Mar-2007
HU-068	6446884.6	574136.9	433.66	281.00	-88.0	305.0	270.0	4687.0	4592.5	8-Mar-2007	11-Mar-2007
HU-069	6446801.8	574432.1	428.50	458.00	-90.0	0.0	325.0	4976.3	4694.0	12-Mar-2007	19-Mar-2007
HU-070	6446900.0	574111.3	430.08	275.00	-90.0	0.0	325.0	4657.2	4590.4	12-Mar-2007	14-Mar-2007
HU-071	6446860.9	574453.0	430.24	515.00	-90.0	0.0	325.0	4959.5	4754.4	12-Mar-2007	18-Mar-2007
HU-072	6446836.7	574433.8	429.48	486.00	-90.0	0.0	325.0	4957.7	4723.6	13-Mar-2007	18-Mar-2007
HU-073	6446917.0	574086.9	429.94	80.00	-90.0	0.0	325.0	4627.5	4590.3	14-Mar-2007	15-Mar-2007
HU-074	6446917.0	574086.9	429.94	299.00	-90.0	0.0	325.0	4627.5	4590.3	15-Mar-2007	18-Mar-2007
HU-075	6446845.0	574478.4	429.41	483.10	-90.0	0.0	325.0	4989.5	4756.0	18-Mar-2007	23-Mar-2007
HU-076	6446860.3	574073.5	429.53	275.00	-90.0	0.0	325.0	4649.0	4536.3	18-Mar-2007	21-Mar-2007
HU-077	6446820.2	574458.2	429.14	533.00	-90.0	0.0	325.0	4987.2	4724.0	18-Mar-2007	25-Mar-2007
HU-078	6446881.1	574540.7	429.87	526.00	-90.0	0.0	325.0	5019.8	4821.3	19-Mar-2007	27-Mar-2007
HU-079	6446847.4	574096.8	432.58	266.00	-90.0	0.0	325.0	4675.5	4539.0	21-Mar-2007	24-Mar-2007
HU-080	6446830.2	574123.5	431.34	242.00	-90.0	0.0	325.0	4707.2	4540.2	24-Mar-2007	27-Mar-2007
HU-081	6446852.4	574410.3	429.75	449.00	-90.0	0.0	325.0	4929.5	4722.9	25-Mar-2007	30-Mar-2007
HU-082	6446898.3	574515.8	430.90	523.80	-90.0	0.0	325.0	4989.6	4821.0	27-Mar-2007	4-Apr-2007
HU-083	6446813.3	574149.2	430.49	269.00	-90.0	0.0	325.0	4738.0	4541.1	27-Mar-2007	30-Mar-2007
HU-084	6446799.6	574175.5	432.55	243.00	-90.0	0.0	325.0	4767.4	4545.1	30-Mar-2007	1-Apr-2007
HU-085	6446869.9	574386.9	432.86	449.00	-90.0	0.0	325.0	4900.3	4723.8	30-Mar-2007	3-Apr-2007
HU-086	6446783.0	574200.2	432.93	234.50	-90.0	0.0	325.0	4797.2	4545.5	2-Apr-2007	4-Apr-2007
HU-087	6446932.1	574466.7	432.58	565.70	-90.0	0.0	325.0	4930.0	4820.5	4-Apr-2007	11-Apr-2007
HU-088	6446918.9	574311.2	437.01	429.00	-90.0	0.0	325.0	4810.2	4720.5	3-Apr-2007	7-Apr-2007
HU-089	6447000.1	574249.5	433.55	335.00	-90.0	0.0	325.0	4713.0	4751.7	5-Apr-2007	8-Apr-2007
HU-090	6446932.5	574284.6	435.49	403.40	-90.0	0.0	325.0	4780.6	4716.4	7-Apr-2007	10-Apr-2007
HU-091	6446884.2	574267.7	434.48	281.00	-90.0	0.0	325.0	4794.4	4667.2	3-Jul-2007	5-Jul-2007
HU-092	6446899.7	574248.0	433.42	314.00	-90.0	0.0	325.0	4769.4	4668.6	5-Jul-2007	8-Jul-2007
HU-093	6446852.0	574242.3	433.04	220.00	-90.0	0.0	325.0	4792.0	4626.2	6-Jul-2007	8-Jul-2007
HU-094	6446892.1	574301.4	435.81	324.10	-90.0	0.0	325.0	4817.5	4693.0	8-Jul-2007	11-Jul-2007
HU-095	6446845.5	574250.4	432.81	233.00	-90.0	0.0	325.0	4802.4	4625.6	8-Jul-2007	11-Jul-2007
HU-096	6446897.3	574220.2	433.28	209.00	-90.0	0.0	325.0	4748.0	4650.6	8-Jul-2007	10-Jul-2007
HU-097	6446905.8	574207.8	433.59	221.00	-90.0	0.0	325.0	4732.9	4650.5	11-Jul-2007	13-Jul-2007
HU-098	6446902.6	574267.7	434.84	328.00	-90.0	0.0	325.0	4783.8	4682.2	11-Jul-2007	13-Jul-2007
HU-099	6446857.9	574234.7	433.10	221.00	-90.0	0.0	325.0	4782.5	4626.7	11-Jul-2007	13-Jul-2007
HU-100	6446861.4	574177.3	432.50	206.00	-90.0	0.0	325.0	4733.4	4596.6	12-Jul-2007	14-Jul-2007

**Appendix 1: Drill hole collar, length and aimuth
data, 2005 to 2008 drill holes, Horseshoe and Raven deposits**

Drill hole	UTM North NAD 83 (m)	UTM East NAD 83 (m)	Elevation ASL (m)	Hole length (m)	Dip	UTM Azimuth	Grid Azimuth	Grid East (m)	Grid north (m)	Start Date	End Date
HU-101	6446860.4	574208.8	432.20	221.00	-90.0	0.0	325.0	4759.9	4613.9	13-Jul-2007	15-Jul-2007
HU-102	6446885.2	574292.1	435.63	330.00	-90.0	0.0	325.0	4813.8	4682.0	14-Jul-2007	16-Jul-2007
HU-103	6446901.5	574335.2	436.25	353.00	-90.0	0.0	325.0	4839.8	4720.1	14-Jul-2007	18-Jul-2007
HU-104	6446855.3	574126.0	433.39	221.00	-74.0	305.0	270.0	4694.9	4562.2	15-Jul-2007	18-Jul-2007
HU-105	6446919.2	574243.6	433.64	315.00	-90.0	0.0	325.0	4754.6	4682.0	17-Jul-2007	22-Jul-2007
HU-106	6446863.8	574226.9	432.91	236.00	-90.0	0.0	325.0	4772.7	4627.1	18-Jul-2007	20-Jul-2007
HU-107	6446891.3	574384.0	434.56	475.00	-90.0	0.0	325.0	4885.6	4739.7	18-Jul-2007	22-Jul-2007
HU-108	6446856.2	574307.0	434.91	373.20	-90.0	0.0	325.0	4842.6	4666.8	20-Jul-2007	25-Jul-2007
HU-109	6446874.9	574408.3	431.59	476.00	-90.0	0.0	325.0	4915.0	4740.2	23-Jul-2007	28-Jul-2007
HU-110	6446936.6	574219.3	433.86	320.00	-90.0	0.0	325.0	4724.7	4682.4	23-Jul-2007	27-Jul-2007
HU-111	6446869.5	574218.3	432.74	233.00	-90.0	0.0	325.0	4762.4	4626.8	24-Jul-2007	30-Jul-2007
HU-112	6446953.4	574195.2	434.53	296.00	-90.0	0.0	325.0	4695.3	4682.3	27-Jul-2007	31-Jul-2007
HU-113	6446841.3	574327.4	434.21	411.10	-90.0	0.0	325.0	4867.9	4666.3	30-Jul-2007	4-Aug-2007
HU-114	6446961.7	574183.6	434.54	290.00	-86.0	305.0	270.0	4681.1	4682.4	31-Jul-2007	3-Aug-2007
HU-115	6446908.7	574360.9	436.26	437.00	-90.0	0.0	325.0	4856.7	4740.7	3-Aug-2007	9-Aug-2007
HU-116	6446887.0	574307.7	435.71	335.00	-75.0	305.0	270.0	4825.6	4692.5	4-Aug-2007	7-Aug-2007
HU-117	6446819.9	574355.7	428.64	430.10	-90.0	0.0	325.0	4903.4	4665.0	4-Aug-2007	10-Aug-2007
HU-118	6446876.1	574210.5	432.73	227.00	-90.0	0.0	325.0	4752.2	4627.7	8-Aug-2007	14-Aug-2007
HU-119	6446858.1	574433.4	429.88	440.00	-90.0	0.0	325.0	4945.1	4740.9	10-Aug-2007	15-Aug-2007
HU-120	6446882.1	574202.6	433.52	230.00	-90.0	0.0	325.0	4742.3	4628.1	14-Aug-2007	19-Aug-2007
HU-121	6446841.8	574457.6	429.47	530.00	-90.0	0.0	325.0	4974.3	4741.3	15-Aug-2007	21-Aug-2007
HU-122	6446851.2	574259.2	433.55	284.00	-90.0	0.0	325.0	4806.3	4635.3	20-Aug-2007	23-Aug-2007
HU-123	6446802.7	574379.8	428.62	453.00	-90.0	0.0	325.0	4933.0	4664.7	22-Aug-2007	27-Aug-2007
HU-124	6446816.7	574302.6	433.74	386.00	-90.0	0.0	325.0	4861.7	4631.9	24-Aug-2007	29-Aug-2007
HU-125	6446855.3	574271.0	434.24	269.00	-90.0	0.0	325.0	4813.7	4645.4	24-Aug-2007	26-Aug-2007
HU-126	6446860.0	574261.4	434.35	257.00	-90.0	0.0	325.0	4803.1	4643.8	26-Aug-2007	29-Aug-2007
HU-127	6446802.7	574379.8	428.62	437.00	-85.0	125.0	90.0	4933.0	4664.7	28-Aug-2007	1-Sep-2007
HU-128	6446799.7	574327.6	428.35	359.00	-90.0	0.0	325.0	4892.0	4632.4	30-Aug-2007	2-Sep-2007
HU-129	6446865.0	574253.6	433.96	242.00	-90.0	0.0	325.0	4793.8	4643.4	30-Aug-2007	1-Sep-2007
HU-130	6446954.7	574264.0	434.64	338.00	-90.0	0.0	325.0	4750.9	4722.8	2-Sep-2007	6-Sep-2007
HU-131	6446867.4	574316.2	434.96	338.00	-90.0	0.0	325.0	4843.8	4681.2	2-Sep-2007	6-Sep-2007
HU-132	6446842.2	574298.0	434.26	395.00	-90.0	0.0	325.0	4843.3	4650.2	3-Sep-2007	7-Sep-2007
HU-133	6446850.0	574340.8	434.62	350.00	-90.0	0.0	325.0	4873.9	4681.1	6-Sep-2007	8-Sep-2007
HU-134	6446984.1	574224.9	433.39	342.00	-87.0	125.0	90.0	4702.0	4724.5	6-Sep-2007	10-Sep-2007
HU-135	6446825.0	574321.8	433.66	378.50	-90.0	0.0	325.0	4872.7	4649.7	7-Sep-2007	11-Sep-2007
HU-136	6446833.2	574364.4	429.46	461.00	-90.0	0.0	325.0	4902.8	4680.9	9-Sep-2007	14-Sep-2007
HU-137	6446984.1	574224.9	433.39	306.10	-88.0	305.0	270.0	4702.0	4724.5	10-Sep-2007	15-Sep-2007
HU-138	6446833.2	574364.4	429.46	449.00	-86.0	125.0	90.0	4902.8	4680.9	14-Sep-2007	18-Sep-2007
HU-139	6446984.1	574224.9	433.39	311.00	-82.0	305.0	270.0	4702.0	4724.5	15-Sep-2007	18-Sep-2007
HU-140	6446984.1	574224.9	433.39	293.00	-75.0	305.0	270.0	4702.0	4724.5	18-Sep-2007	21-Sep-2007
HU-141	6446833.2	574364.4	429.46	509.00	-79.0	125.0	90.0	4902.8	4680.9	19-Sep-2007	26-Sep-2007
HU-142	6446984.1	574224.9	433.39	257.00	-66.0	305.0	270.0	4702.0	4724.5	22-Sep-2007	25-Sep-2007
HU-143	6446825.0	574321.8	433.66	380.00	-84.0	125.0	90.0	4872.7	4649.7	24-Sep-2007	30-Sep-2007
HU-144	6446984.1	574224.9	433.39	302.00	-89.0	125.0	90.0	4702.0	4724.5	26-Sep-2007	29-Sep-2007
HU-145	6446878.1	574147.4	434.17	269.20	-90.0	0.0	325.0	4699.4	4593.2	26-Sep-2007	28-Sep-2007
HU-146	6446898.7	574155.1	433.75	284.00	-90.0	0.0	325.0	4693.9	4614.5	29-Sep-2007	1-Oct-2007
HU-147	6446959.5	574258.6	434.75	323.00	-89.0	305.0	270.0	4743.8	4723.7	29-Sep-2007	2-Oct-2007
HU-148	6447017.0	574225.2	433.07	284.00	-90.0	0.0	325.0	4683.5	4751.6	30-Sep-2007	5-Oct-2007
HU-149	6446825.0	574321.8	433.66	404.00	-79.0	125.0	90.0	4872.7	4649.7	1-Oct-2007	5-Oct-2007
HU-150	6446904.5	574147.2	434.04	284.00	-83.5	305.0	270.0	4684.1	4614.7	2-Oct-2007	5-Oct-2007
HU-151	6446983.2	574274.3	434.55	353.00	-90.0	0.0	325.0	4743.0	4752.1	2-Oct-2007	7-Oct-2007
HU-152	6446904.5	574147.2	434.04	284.00	-79.0	305.0	270.0	4684.1	4614.7	5-Oct-2007	7-Oct-2007
HU-153	6446965.4	574299.5	435.43	362.00	-90.0	0.0	325.0	4773.9	4751.9	6-Oct-2007	12-Oct-2007
HU-154	6446949.8	574222.4	433.50	280.00	-75.0	305.0	270.0	4719.6	4694.9	6-Oct-2007	10-Oct-2007
HU-155	6446946.5	574326.4	437.21	404.00	-90.0	0.0	325.0	4806.8	4751.9	7-Oct-2007	12-Oct-2007
HU-156	6446851.6	574204.7	431.75	236.00	-90.0	0.0	325.0	4761.5	4604.4	8-Oct-2007	10-Oct-2007
HU-157	6446862.8	574397.6	431.95	430.00	-90.0	0.0	325.0	4913.1	4724.1	11-Oct-2007	16-Oct-2007
HU-158	6446927.9	574353.1	436.05	428.00	-90.0	0.0	325.0	4839.3	4752.0	11-Oct-2007	16-Oct-2007

**Appendix 1: Drill hole collar, length and aimuth
data, 2005 to 2008 drill holes, Horseshoe and Raven deposits**

Drill hole	UTM North NAD 83 (m)	UTM East NAD 83 (m)	Elevation ASL (m)	Hole length (m)	Dip	UTM Azimuth	Grid Azimuth	Grid East (m)	Grid north (m)	Start Date	End Date
HU-159	6446910.5	574377.8	434.67	458.00	-90.0	0.0	325.0	4869.5	4751.8	12-Oct-2007	20-Oct-2007
HU-160	6446885.2	574414.7	432.00	477.00	-90.0	0.0	325.0	4914.2	4752.3	12-Oct-2007	19-Oct-2007
HU-161	6446956.1	574288.2	434.95	341.00	-85.0	305.0	270.0	4770.0	4737.8	17-Oct-2007	21-Oct-2007
HU-162	6447010.6	574291.9	435.66	341.00	-90.0	0.0	325.0	4741.8	4784.6	19-Oct-2007	31-Oct-2007
HU-163	6446901.7	574390.4	433.60	480.00	-90.0	0.0	325.0	4884.9	4752.0	20-Oct-2007	24-Oct-2007
HU-164	6446956.1	574288.2	434.95	341.00	-82.0	305.0	270.0	4770.0	4737.8	21-Oct-2007	25-Oct-2007
HU-165	6446995.0	574314.2	436.60	375.05	-90.0	0.0	325.0	4769.0	4784.6	23-Oct-2007	28-Oct-2007
HU-166	6446956.1	574288.2	434.95	368.00	-88.0	305.0	270.0	4770.0	4737.8	25-Oct-2007	30-Oct-2007
HU-167	6446977.7	574339.1	436.90	374.00	-90.0	0.0	325.0	4799.3	4784.7	28-Oct-2007	3-Nov-2007
HU-168	6446956.1	574288.2	434.95	362.00	-90.0	305.0	270.0	4770.0	4737.8	30-Oct-2007	3-Nov-2007
HU-169	6446919.5	574365.1	435.87	476.00	-90.0	0.0	325.0	4854.0	4752.0	1-Nov-2007	7-Nov-2007
HU-170	6446960.7	574363.6	437.11	386.00	-90.0	0.0	325.0	4829.1	4784.8	3-Nov-2007	8-Nov-2007
HU-171	6446925.3	574335.0	436.98	404.00	-90.0	0.0	325.0	4826.0	4739.5	4-Nov-2007	8-Nov-2007
HU-172	6446943.6	574388.1	435.61	491.00	-90.0	0.0	325.0	4859.0	4784.9	8-Nov-2007	14-Nov-2007
HU-173	6446942.4	574308.7	436.14	419.00	-90.0	0.0	325.0	4794.6	4738.3	9-Nov-2007	14-Nov-2007
HU-174	6446926.6	574412.8	434.02	491.00	-90.0	0.0	325.0	4888.9	4785.2	14-Nov-2007	19-Nov-2007
HU-175	6446988.1	574242.7	433.76	299.00	-90.0	0.0	325.0	4714.4	4738.0	14-Nov-2007	18-Nov-2007
HU-176	6446988.1	574242.7	433.76	305.00	-85.0	305.0	270.0	4714.4	4738.0	18-Nov-2007	22-Nov-2007
HU-177	6446909.4	574436.9	432.61	488.00	-90.0	0.0	325.0	4918.6	4784.9	19-Nov-2007	25-Nov-2007
HU-178	6446932.1	574273.9	435.71	314.00	-80.0	305.0	270.0	4772.0	4710.0	22-Nov-2007	25-Nov-2007
HU-179	6447010.6	574291.9	435.66	269.00	-82.0	305.0	270.0	4741.8	4784.6	25-Nov-2007	27-Nov-2007
HU-180	6446935.3	574275.1	435.11	344.00	-77.0	305.0	270.0	4771.2	4713.2	10-Jan-2008	13-Jan-2008
HU-181	6446769.0	574171.4	432.55	230.00	-90.0	0.0	270.0	4781.6	4517.6	11-Jan-2008	14-Jan-2008
HU-182	6446767.0	574129.3	432.05	200.00	-70.0	305.0	270.0	4748.2	4491.8	11-Jan-2008	14-Jan-2008
HU-183	6446935.3	574275.1	435.11	341.00	-73.0	305.0	270.0	4771.2	4713.2	14-Jan-2008	17-Jan-2008
HU-184	6446769.0	574171.4	432.55	221.00	-81.0	305.0	270.0	4781.6	4517.6	14-Jan-2008	15-Jan-2008
HU-185	6446767.0	574129.3	432.05	208.50	-80.0	305.0	270.0	4748.2	4491.8	14-Jan-2008	16-Jan-2008
HU-186	6446769.0	574171.4	432.55	230.00	-68.5	305.0	270.0	4781.6	4517.6	15-Jan-2008	18-Jan-2008
HU-187	6446767.0	574129.3	432.05	217.00	-90.0	305.0	270.0	4748.2	4491.8	16-Jan-2008	18-Jan-2008
HU-188	6446829.3	574035.8	429.12	220.00	-86.0	305.0	270.0	4636.0	4489.2	18-Jan-2008	21-Jan-2008
HU-189	6446767.0	574129.3	432.05	207.00	-65.0	305.0	270.0	4748.2	4491.8	18-Jan-2008	21-Jan-2008
HU-190	6446873.5	574062.2	429.77	220.00	-90.0	305.0	270.0	4632.2	4540.6	18-Jan-2008	20-Jan-2008
HU-191	6446794.5	573991.7	428.75	213.00	-90.0	305.0	270.0	4619.8	4435.4	20-Jan-2008	22-Jan-2008
HU-192	6446873.5	574062.2	429.77	237.00	-75.0	305.0	270.0	4632.2	4540.6	21-Jan-2008	22-Jan-2008
HU-193	6446829.3	574035.8	429.12	242.00	-69.0	305.0	270.0	4636.0	4489.2	20-Jan-2008	23-Jan-2008
HU-194	6446873.5	574062.2	429.77	240.00	-68.0	305.0	270.0	4632.2	4540.6	22-Jan-2008	24-Jan-2008
HU-195	6446803.8	573934.6	431.28	222.00	-71.0	125.0	90.0	4567.6	4410.3	23-Jan-2008	25-Jan-2008
HU-196	6446905.6	573970.5	430.00	220.00	-71.0	125.0	90.0	4538.7	4514.3	23-Jan-2008	25-Jan-2008
HU-197	6446805.4	574027.7	429.02	211.00	-90.0	305.0	270.0	4643.0	4465.0	24-Jan-2008	26-Jan-2008
HU-198	6446803.8	573934.6	431.28	219.00	-60.0	125.0	90.0	4567.6	4410.3	25-Jan-2008	27-Jan-2008
HU-199	6446905.6	573970.5	430.00	224.00	-90.0	125.0	90.0	4538.7	4514.3	25-Jan-2008	27-Jan-2008
HU-200	6446805.4	574027.7	429.02	260.00	-70.0	305.0	270.0	4643.0	4465.0	26-Jan-2008	27-Jan-2008
HU-201	6446803.8	573934.6	431.28	240.00	-90.0	125.0	90.0	4567.6	4410.3	27-Jan-2008	30-Jan-2008
HU-202	6446929.5	573937.8	430.12	272.00	-90.0	305.0	270.0	4498.2	4515.1	27-Jan-2008	30-Jan-2008
HU-203	6446805.4	574027.7	429.02	259.00	-57.0	305.0	270.0	4643.0	4465.0	28-Jan-2008	30-Jan-2008
HU-204	6446927.1	573988.6	430.33	200.00	-90.0	305.0	270.0	4541.1	4542.3	30-Jan-2008	1-Feb-2008
HU-205	6446885.1	573959.4	429.70	200.00	-90.0	305.0	270.0	4541.4	4491.1	31-Jan-2008	1-Feb-2008
HU-206	6446803.8	573934.6	431.28	216.00	-49.0	125.0	90.0	4567.6	4410.3	31-Jan-2008	2-Feb-2008
HU-207	6446885.1	573959.4	429.70	245.00	-70.0	305.0	270.0	4541.4	4491.1	1-Feb-2008	4-Feb-2008
HU-208	6446963.2	574254.2	434.44	326.00	-88.5	305.0	270.0	4738.0	4724.1	2-Feb-2008	5-Feb-2008
HU-209	6446812.8	573879.0	428.61	241.00	-72.0	125.0	90.0	4517.0	4385.8	2-Feb-2008	4-Feb-2008
HU-210	6446892.6	573901.6	429.22	251.00	-90.0	305.0	270.0	4489.7	4464.1	4-Feb-2008	7-Feb-2008
HU-211	6446812.8	573879.0	428.61	237.00	-83.0	125.0	90.0	4517.0	4385.8	4-Feb-2008	6-Feb-2008
HU-212	6446963.2	574254.2	434.44	307.00	-82.0	305.0	270.0	4738.0	4724.1	5-Feb-2008	8-Feb-2008
HU-213	6446812.8	573879.0	428.61	249.00	-45.0	125.0	90.0	4517.0	4385.8	6-Feb-2008	8-Feb-2008
HU-214	6446930.7	574032.9	430.28	215.00	-90.0	305.0	270.0	4575.4	4570.5	8-Feb-2008	11-Feb-2008
HU-215	6446964.4	574271.7	434.74	17.00	-89.0	305.0	270.0	4751.6	4735.2	8-Feb-2008	8-Feb-2008
HU-216	6446964.4	574271.7	434.74	347.00	-87.5	305.0	270.0	4751.6	4735.2	8-Feb-2008	12-Feb-2008

**Appendix 1: Drill hole collar, length and aimuth
data, 2005 to 2008 drill holes, Horseshoe and Raven deposits**

Drill hole	UTM North NAD 83 (m)	UTM East NAD 83 (m)	Elevation ASL (m)	Hole length (m)	Dip	UTM Azimuth	Grid Azimuth	Grid East (m)	Grid north (m)	Start Date	End Date
HU-217	6446812.8	573879.0	428.61	246.00	-62.0	125.0	90.0	4517.0	4385.8	8-Feb-2008	13-Feb-2008
HU-218	6446930.7	574032.9	430.28	251.00	-80.0	305.0	270.0	4575.4	4570.5	11-Feb-2008	14-Feb-2008
HU-219	6446964.4	574271.7	434.74	29.00	-89.0	305.0	270.0	4751.6	4735.2	12-Feb-2008	13-Feb-2008
HU-220	6446828.1	574082.0	431.58	230.00	-90.0	305.0	270.0	4674.5	4514.7	13-Feb-2008	16-Feb-2008
HU-221	6446964.4	574271.7	434.74	323.00	-89.0	305.0	270.0	4751.6	4735.2	13-Feb-2008	17-Feb-2008
HU-222	6446972.8	573972.5	430.89	200.00	-90.0	305.0	270.0	4501.7	4570.4	15-Feb-2008	17-Feb-2008
HU-223	6446828.1	574082.0	431.58	200.00	-82.0	305.0	270.0	4674.5	4514.7	16-Feb-2008	18-Feb-2008
HU-224	6446688.9	574498.7	425.56	602.00	-90.0	305.0	270.0	5095.6	4639.7	17-Feb-2008	12-Mar-2008
HU-225	6446940.2	574055.7	430.73	256.00	-90.0	305.0	270.0	4588.7	4591.4	18-Feb-2008	20-Feb-2008
HU-226	6446828.1	574082.0	431.58	215.00	-48.0	305.0	270.0	4674.5	4514.7	18-Feb-2008	22-Feb-2008
HU-227	6446940.2	574055.7	430.73	215.00	-80.0	305.0	270.0	4588.7	4591.4	20-Feb-2008	22-Feb-2008
HU-228	6446828.1	574082.0	431.58	260.00	-72.0	305.0	270.0	4674.5	4514.7	21-Feb-2008	23-Feb-2008
HU-229	6446914.2	573958.1	429.99	156.00	-90.0	0.0	270.0	4523.6	4514.2	23-Feb-2008	24-Feb-2008
HU-230	6446777.5	573857.2	428.37	281.00	-63.0	125.0	90.0	4519.4	4344.3	24-Feb-2008	28-Feb-2008
HU-231	6446777.5	573857.2	428.37	260.00	-55.0	125.0	90.0	4519.4	4344.3	28-Feb-2008	2-Mar-2008
HU-232	6446828.1	574082.0	431.58	291.00	-55.0	305.0	270.0	4674.5	4514.7	29-Feb-2008	3-Mar-2008
HU-233	6446688.2	574584.0	426.58	594.00	-75.0	125.0	90.0	5165.9	4688.1	1-Mar-2008	9-Mar-2008
HU-234	6446777.5	573857.2	428.37	260.00	-72.0	125.0	90.0	4519.4	4344.3	2-Mar-2008	4-Mar-2008
HU-235	6446958.2	574100.0	430.70	222.00	-90.0	305.0	270.0	4614.6	4631.6	4-Mar-2008	7-Mar-2008
HU-236	6447050.1	574027.0	431.01	201.00	-90.0	305.0	270.0	4502.1	4665.0	7-Mar-2008	10-Mar-2008
HU-237	6446786.4	574562.0	428.86	599.00	-90.0	305.0	270.0	5091.5	4755.9	10-Mar-2008	17-Mar-2008
HU-238	6446899.2	573799.4	429.07	282.00	-90.0	125.0	90.0	4402.2	4410.9	10-Mar-2008	13-Mar-2008
HU-239	6446688.9	574498.7	425.56	311.00	-72.0	305.0	270.0	5095.6	4639.7	12-Mar-2008	16-Mar-2008
HU-240	6446840.7	573882.5	428.75	267.00	-90.0	305.0	270.0	4503.8	4410.6	13-Mar-2008	16-Mar-2008
HU-241	6446637.6	574454.7	424.94	131.00	-90.0	305.0	270.0	5089.1	4572.4	16-Mar-2008	27-Mar-2008
HU-242	6446840.7	573882.5	428.75	96.00	-80.0	305.0	270.0	4503.8	4410.6	17-Mar-2008	20-Mar-2008
HU-243	6446786.4	574562.0	428.86	410.00	-81.0	305.0	270.0	5091.5	4755.9	18-Mar-2008	21-Mar-2008
HU-244	6446840.7	573882.5	428.75	252.00	-90.0	305.0	270.0	4503.8	4410.6	20-Mar-2008	22-Mar-2008
HU-245	6446751.5	574509.1	427.33	584.00	-90.0	305.0	270.0	5068.3	4696.9	22-Mar-2008	30-Mar-2008
HU-246	6446820.8	573909.5	429.02	252.00	-90.0	305.0	270.0	4537.3	4409.8	23-Mar-2008	25-Mar-2008
HU-247	6446846.7	573921.3	429.17	273.00	-90.0	305.0	270.0	4532.1	4437.8	26-Mar-2008	28-Mar-2008
HU-248	6446976.6	574076.5	430.94	245.00	-90.0	305.0	270.0	4584.8	4633.2	28-Mar-2008	2-Apr-2008
HU-249	6446846.7	573921.3	429.17	270.00	-81.0	305.0	270.0	4532.1	4437.8	29-Mar-2008	31-Mar-2008
HU-250	6446846.7	573921.3	429.17	261.00	-73.0	305.0	270.0	4532.1	4437.8	31-Mar-2008	3-Apr-2008
HU-251	6446826.9	573808.8	429.03	254.00	-77.0	125.0	90.0	4451.4	4357.0	1-Apr-2008	5-Apr-2008
HU-252	6446812.8	573879.0	428.61	249.60	-90.0	305.0	270.0	4517.0	4385.8	3-Apr-2008	7-Apr-2008
HU-253	6446826.9	573808.8	429.03	245.00	-84.0	125.0	90.0	4451.4	4357.0	5-Apr-2008	8-Apr-2008
HU-254	6446812.8	573879.0	428.61	249.00	-80.0	305.0	270.0	4517.0	4385.8	7-Apr-2008	9-Apr-2008
HU-255	6446826.9	573808.8	429.03	239.00	-67.0	125.0	90.0	4451.4	4357.0	8-Apr-2008	11-Apr-2008
HU-256	6446812.8	573879.0	428.61	237.00	-73.0	305.0	270.0	4517.0	4385.8	9-Apr-2008	11-Apr-2008
HU-257	6446891.2	574525.5	430.52	396.00	-60.0	305.0	270.0	5001.5	4820.8	7-Jun-2008	12-Jun-2008
HU-258	6446891.2	574525.5	430.52	500.00	-80.0	305.0	270.0	5001.5	4820.8	13-Jun-2008	20-Jun-2008
HU-259	6446891.2	574525.5	430.52	401.00	-66.0	305.0	270.0	5001.5	4820.8	21-Jun-2008	27-Jun-2008
HU-260	6446936.6	574590.7	431.55	464.00	-57.0	305.0	270.0	5028.9	4895.4	27-Jun-2008	3-Jul-2008
HU-261	6446936.6	574590.7	431.55	378.70	-45.0	305.0	270.0	5028.9	4895.4	3-Jul-2008	6-Jul-2008
HU-262	6446982.1	574522.3	433.17	360.00	-45.0	305.0	270.0	4946.8	4893.4	6-Jul-2008	11-Jul-2008
HU-263	6446910.2	574627.6	429.69	29.00	-69.0	305.0	270.0	5074.3	4894.9	11-Jul-2008	13-Jul-2008
HU-264	6446910.2	574627.6	429.69	458.00	-65.0	305.0	270.0	5074.3	4894.9	13-Jul-2008	21-Jul-2008
HU-265	6447025.1	574315.0	434.61	299.00	-62.0	305.0	270.0	4752.4	4809.7	22-Jul-2008	28-Jul-2008
HU-266	6447066.7	574501.3	435.62	304.00	-54.0	305.0	270.0	4881.1	4950.7	29-Jul-2008	10-Aug-2008
HU-267	6447066.4	574502.1	435.67	282.00	-69.0	305.0	270.0	4881.9	4950.9	10-Aug-2008	17-Aug-2008
RU-001	6446326.5	573025.4	441.12	218.80	-75.0	350.0	0.0	5476.6	4924.0	15-Jan-2007	19-Jan-2007
RU-002	6446372.8	573016.7	443.99	313.00	-82.0	350.0	0.0	5476.2	4971.1	19-Jan-2007	22-Jan-2007
RU-003	6446402.8	573011.6	446.87	239.00	-80.0	350.0	0.0	5476.3	5001.6	22-Jan-2007	24-Jan-2007
RU-004	6446403.6	573011.6	447.01	212.00	-68.0	350.0	0.0	5476.5	5002.3	24-Jan-2007	26-Jan-2007
RU-005	6446358.2	573080.8	437.90	299.00	-70.0	350.0	0.0	5536.7	4945.6	25-Jan-2007	28-Jan-2007
RU-006	6446332.1	573024.3	441.51	347.00	-81.0	350.0	0.0	5476.5	4929.7	27-Jan-2007	30-Jan-2007
RU-007	6446387.3	573077.7	441.02	263.00	-70.0	350.0	0.0	5538.7	4974.7	29-Jan-2007	31-Jan-2007

**Appendix 1: Drill hole collar, length and aimuth
data, 2005 to 2008 drill holes, Horseshoe and Raven deposits**

Drill hole	UTM North NAD 83 (m)	UTM East NAD 83 (m)	Elevation ASL (m)	Hole length (m)	Dip	UTM Azimuth	Grid Azimuth	Grid East (m)	Grid north (m)	Start Date	End Date
RU-008	6446471.9	572999.7	452.31	185.10	-88.0	350.0	0.0	5476.6	5071.7	31-Jan-2007	2-Feb-2007
RU-009	6446417.7	573075.0	445.00	241.70	-70.0	350.0	0.0	5541.4	5005.1	1-Feb-2007	2-Feb-2007
RU-010	6446264.6	572975.9	439.19	314.00	-70.0	350.0	0.0	5417.1	4871.7	3-Feb-2007	6-Feb-2007
RU-011	6446446.4	573072.3	447.14	194.00	-70.0	350.0	0.0	5543.7	5033.9	3-Feb-2007	4-Feb-2007
RU-012	6446347.4	572962.1	446.29	253.70	-70.0	350.0	0.0	5417.9	4955.5	6-Feb-2007	9-Feb-2007
RU-013	6446316.1	573085.3	434.11	314.00	-70.0	350.0	0.0	5533.8	4903.4	5-Feb-2007	8-Feb-2007
RU-014	6446347.4	572962.1	446.29	225.00	-62.0	350.0	0.0	5417.9	4955.5	9-Feb-2007	11-Feb-2007
RU-015	6446375.8	573172.9	432.49	275.00	-70.0	350.0	0.0	5630.4	4946.9	9-Feb-2007	11-Feb-2007
RU-016	6446397.5	572953.4	450.22	205.50	-71.0	350.0	0.0	5418.0	5006.4	12-Feb-2007	13-Feb-2007
RU-017	6446404.9	573166.9	434.23	254.00	-70.0	350.0	0.0	5629.6	4976.6	12-Feb-2007	14-Feb-2007
RU-018	6446346.7	573178.6	432.79	290.50	-70.0	350.0	0.0	5631.0	4917.3	14-Feb-2007	18-Feb-2007
RU-019	6446491.8	573149.3	439.40	191.00	-70.0	350.0	0.0	5627.4	5065.3	14-Feb-2007	16-Feb-2007
RU-020	6446434.6	573160.8	435.51	213.50	-70.0	350.0	0.0	5628.7	5006.9	17-Feb-2007	20-Feb-2007
RU-021	6446457.6	573156.8	436.72	224.00	-70.0	350.0	0.0	5628.8	5030.3	16-Feb-2007	20-Feb-2007
RU-022	6446458.7	573186.6	436.16	244.70	-70.0	350.0	0.0	5658.4	5026.2	20-Feb-2007	23-Feb-2007
RU-023	6446429.8	573194.1	434.62	321.00	-74.0	350.0	0.0	5660.7	4996.4	23-Feb-2007	26-Feb-2007
RU-024	6446389.8	573204.8	431.88	287.00	-72.0	350.0	0.0	5664.3	4955.1	26-Feb-2007	1-Mar-2007
RU-025	6446311.9	572967.3	441.73	310.00	-68.0	350.0	0.0	5416.9	4919.7	2-Mar-2007	5-Mar-2007
RU-026	6446436.7	573005.9	449.73	351.00	-68.0	170.0	180.0	5476.6	5035.9	13-Oct-2007	22-Oct-2007
RU-027	6446455.9	573071.3	447.48	320.00	-80.0	170.0	180.0	5544.3	5043.5	17-Oct-2007	20-Oct-2007
RU-028	6446391.1	573013.9	445.65	262.00	-81.0	350.0	0.0	5476.5	4989.6	22-Oct-2007	24-Oct-2007
RU-029	6446455.9	573071.3	447.48	320.00	-71.0	170.0	180.0	5544.3	5043.5	20-Oct-2007	23-Oct-2007
RU-030	6446391.1	573013.9	445.65	332.00	-69.0	170.0	180.0	5476.5	4989.6	24-Oct-2007	26-Oct-2007
RU-031	6446455.9	573071.3	447.48	341.00	-62.0	170.0	180.0	5544.3	5043.5	23-Oct-2007	26-Oct-2007
RU-032	6446459.5	573001.9	451.48	250.00	-89.0	350.0	0.0	5476.6	5059.0	26-Oct-2007	30-Oct-2007
RU-033	6446469.0	573070.2	446.89	182.00	-68.0	350.0	0.0	5545.5	5056.6	26-Oct-2007	28-Oct-2007
RU-034	6446375.4	572986.2	446.31	37.00	-90.0	170.0	180.0	5446.5	4978.9	29-Oct-2007	1-Nov-2007
RU-035	6446402.2	573042.2	444.96	320.00	-87.0	170.0	180.0	5506.3	4995.6	30-Oct-2007	31-Oct-2007
RU-036	6446375.4	572986.2	446.31	350.00	-90.0	170.0	180.0	5446.5	4978.9	31-Oct-2007	3-Nov-2007
RU-037	6446402.2	573042.2	444.96	281.90	-80.0	170.0	180.0	5506.3	4995.6	1-Nov-2007	3-Nov-2007
RU-038	6446375.4	572986.2	446.31	319.00	-84.0	170.0	180.0	5446.5	4978.9	3-Nov-2007	6-Nov-2007
RU-039	6446402.2	573042.2	444.96	269.00	-73.0	170.0	180.0	5506.3	4995.6	3-Nov-2007	6-Nov-2007
RU-040	6446375.4	572986.2	446.31	299.00	-77.0	170.0	180.0	5446.5	4978.9	7-Nov-2007	11-Nov-2007
RU-041	6446412.9	573042.3	445.98	302.00	-90.0	350.0	0.0	5508.3	5006.2	6-Nov-2007	9-Nov-2007
RU-042	6446360.4	572959.7	447.14	359.00	-88.0	350.0	0.0	5417.9	4968.8	9-Nov-2007	13-Nov-2007
RU-043	6446412.9	573042.3	445.98	281.00	-82.0	350.0	0.0	5508.3	5006.2	9-Nov-2007	11-Nov-2007
RU-044	6446375.4	572986.2	446.31	120.00	-67.0	170.0	180.0	5446.5	4978.9	9-Nov-2007	11-Nov-2007
RU-045	6446412.9	573042.3	445.98	278.00	-72.0	350.0	0.0	5508.3	5006.2	12-Nov-2007	14-Nov-2007
RU-046	6446385.5	572984.3	447.23	22.00	-90.0	350.0	0.0	5446.5	4989.2	12-Nov-2007	12-Nov-2007
RU-047	6446385.5	572984.3	447.23	340.00	-90.0	350.0	0.0	5446.5	4989.2	13-Nov-2007	15-Nov-2007
RU-048	6446360.4	572959.7	447.14	221.00	-62.0	350.0	0.0	5417.9	4968.8	13-Nov-2007	15-Nov-2007
RU-049	6446412.9	573042.3	445.98	251.00	-64.0	350.0	0.0	5508.3	5006.2	14-Nov-2007	15-Nov-2007
RU-050	6446355.2	572960.2	446.93	221.00	-86.0	170.0	180.0	5417.4	4963.6	15-Nov-2007	18-Nov-2007
RU-051	6446412.9	573042.3	445.98	212.00	-56.0	350.0	0.0	5508.3	5006.2	16-Nov-2007	19-Nov-2007
RU-052	6446385.5	572984.3	447.23	293.00	-81.0	350.0	0.0	5446.5	4989.2	16-Nov-2007	19-Nov-2007
RU-053	6446311.9	572967.3	441.73	200.00	-70.0	170.0	180.0	5416.9	4919.7	18-Nov-2007	20-Nov-2007
RU-054	6446434.9	573118.8	442.43	272.00	-90.0	170.0	180.0	5587.5	5014.5	19-Nov-2007	21-Nov-2007
RU-055	6446385.5	572984.3	447.23	271.00	-77.0	350.0	0.0	5446.5	4989.2	19-Nov-2007	22-Nov-2007
RU-056	6446403.7	572919.1	451.69	329.00	-90.0	170.0	180.0	5385.3	5018.5	20-Nov-2007	23-Nov-2007
RU-057	6446434.9	573118.8	442.43	302.00	-83.0	170.0	180.0	5587.5	5014.5	21-Nov-2007	25-Nov-2007
RU-058	6446385.5	572984.3	447.23	259.00	-69.0	350.0	0.0	5446.5	4989.2	22-Nov-2007	26-Nov-2007
RU-059	6446434.9	573118.7	442.57	242.00	-76.0	170.0	180.0	5587.3	5014.6	11-Jan-2008	13-Jan-2008
RU-060	6446403.7	572919.1	451.69	305.00	-83.0	170.0	180.0	5385.3	5018.5	12-Jan-2008	16-Jan-2008
RU-061	6446434.9	573118.7	442.57	203.00	-70.0	170.0	180.0	5587.3	5014.6	13-Jan-2008	14-Jan-2008
RU-062	6446359.6	573212.4	433.64	14.00	-72.0	350.0	0.0	5666.6	4924.1	15-Jan-2008	17-Jan-2008
RU-063	6446454.6	573116.1	444.17	272.00	-90.0	350.0	0.0	5588.2	5034.4	15-Jan-2008	17-Jan-2008
RU-064	6446403.7	572919.1	451.69	296.50	-76.0	170.0	180.0	5385.3	5018.5	16-Jan-2008	20-Jan-2008
RU-065	6446454.6	573116.1	444.17	272.00	-81.0	350.0	0.0	5588.2	5034.4	17-Jan-2008	19-Jan-2008

**Appendix 1: Drill hole collar, length and aimuth
data, 2005 to 2008 drill holes, Horseshoe and Raven deposits**

Drill hole	UTM North NAD 83 (m)	UTM East NAD 83 (m)	Elevation ASL (m)	Hole length (m)	Dip	UTM Azimuth	Grid Azimuth	Grid East (m)	Grid north (m)	Start Date	End Date
RU-066	6446359.6	573212.4	433.64	303.50	-72.0	350.0	0.0	5666.6	4924.1	17-Jan-2008	22-Jan-2008
RU-067	6446454.6	573116.1	444.17	242.00	-73.0	350.0	0.0	5588.2	5034.4	19-Jan-2008	21-Jan-2008
RU-068	6446403.7	572919.1	451.69	305.00	-68.0	170.0	180.0	5385.3	5018.5	20-Jan-2008	23-Jan-2008
RU-069	6446454.6	573116.1	444.17	246.00	-64.0	350.0	0.0	5588.2	5034.4	21-Jan-2008	23-Jan-2008
RU-070	6446443.6	573190.3	435.53	241.00	-72.0	350.0	0.0	5659.3	5010.7	22-Jan-2008	24-Jan-2008
RU-071	6446457.6	573156.8	436.72	302.00	-68.0	170.0	180.0	5628.8	5030.3	23-Jan-2008	24-Jan-2008
RU-072	6446403.7	572919.1	451.69	251.00	-57.0	170.0	180.0	5385.3	5018.5	23-Jan-2008	26-Jan-2008
RU-073	6446491.1	573178.5	439.39	239.00	-68.0	350.0	0.0	5656.0	5059.5	24-Jan-2008	27-Jan-2008
RU-074	6446403.7	572919.1	451.69	254.00	-48.0	170.0	180.0	5385.3	5018.5	26-Jan-2008	28-Jan-2008
RU-075	6446457.6	573156.8	436.72	302.00	-75.0	170.0	180.0	5628.8	5030.3	25-Jan-2008	27-Jan-2008
RU-076	6446491.1	573178.5	439.39	239.00	-60.0	350.0	0.0	5656.0	5059.5	27-Jan-2008	29-Jan-2008
RU-077	6446457.6	573156.8	436.72	302.00	-58.0	170.0	180.0	5628.8	5030.3	27-Jan-2008	29-Jan-2008
RU-078	6446420.7	572916.1	452.30	332.00	-90.0	170.0	180.0	5385.3	5035.7	28-Jan-2008	4-Feb-2008
RU-079	6446313.6	572914.3	446.91	341.00	-82.0	350.0	0.0	5365.0	4930.6	29-Jan-2008	1-Feb-2008
RU-080	6446404.9	573166.9	434.23	246.50	-64.0	350.0	0.0	5629.6	4976.6	29-Jan-2008	30-Jan-2008
RU-081	6446522.0	573143.2	441.61	200.00	-64.0	350.0	0.0	5626.6	5096.1	31-Jan-2008	2-Feb-2008
RU-082	6446313.6	572914.3	446.91	23.00	-72.0	350.0	0.0	5365.0	4930.6	1-Feb-2008	2-Feb-2008
RU-083	6446313.6	572914.3	446.91	341.00	-76.0	350.0	0.0	5365.0	4930.6	2-Feb-2008	4-Feb-2008
RU-084	6446522.0	573143.2	441.61	200.00	-59.0	350.0	0.0	5626.6	5096.1	3-Feb-2008	4-Feb-2008
RU-085	6446420.7	572916.1	452.30	302.00	-81.0	350.0	0.0	5385.3	5035.7	4-Feb-2008	7-Feb-2008
RU-086	6446500.4	573175.8	437.90	237.00	-54.0	350.0	0.0	5654.9	5069.2	5-Feb-2008	8-Feb-2008
RU-087	6446313.6	572914.3	446.91	240.00	-64.0	350.0	0.0	5365.0	4930.6	5-Feb-2008	8-Feb-2008
RU-088	6446420.7	572916.1	452.30	290.60	-74.0	350.0	0.0	5385.3	5035.7	7-Feb-2008	11-Feb-2008
RU-089	6446313.6	572914.3	446.91	110.00	-55.0	350.0	0.0	5365.0	4930.6	7-Feb-2008	9-Feb-2008
RU-090	6446500.4	573175.8	437.90	161.00	-45.0	350.0	0.0	5654.9	5069.2	9-Feb-2002	10-Feb-2008
RU-091	6446313.6	572914.3	446.91	300.00	-90.0	350.0	0.0	5365.0	4930.6	9-Feb-2008	12-Feb-2008
RU-092	6446520.9	573033.3	452.89	278.00	-73.0	175.0	185.0	5518.2	5114.1	10-Feb-2008	15-Feb-2008
RU-093	6446405.2	573233.9	431.43	317.00	-83.0	350.0	0.0	5695.6	4965.2	11-Feb-2008	16-Feb-2008
RU-094	6446313.6	572914.3	446.91	360.00	-70.0	350.0	0.0	5365.0	4930.6	12-Feb-2008	16-Feb-2008
RU-095	6446372.6	572987.3	446.16	242.00	-62.0	350.0	0.0	5447.1	4976.0	15-Feb-2008	18-Feb-2008
RU-096	6446313.6	572914.3	446.91	263.00	-55.0	350.0	0.0	5365.0	4930.6	17-Feb-2008	19-Feb-2008
RU-097	6446405.2	573233.9	431.43	251.00	-76.0	350.0	0.0	5695.6	4965.2	17-Feb-2008	20-Feb-2008
RU-098	6446372.6	572987.3	446.16	239.00	-54.0	350.0	0.0	5447.1	4976.0	19-Feb-2008	21-Feb-2008
RU-099	6446313.6	572914.3	446.91	242.00	-47.0	350.0	0.0	5365.0	4930.6	20-Feb-2008	23-Feb-2008
RU-100	6446405.2	573233.9	431.43	251.00	-69.0	350.0	0.0	5695.6	4965.2	21-Feb-2008	23-Feb-2008
RU-101	6446372.6	572987.3	446.16	170.00	-45.0	350.0	0.0	5447.1	4976.0	21-Feb-2008	23-Feb-2008
RU-102	6446405.2	573233.9	431.43	260.00	-61.0	350.0	0.0	5695.6	4965.2	23-Feb-2008	26-Feb-2008
RU-103	6446317.8	572913.6	446.91	301.00	-82.0	170.0	180.0	5365.0	4934.8	23-Feb-2008	27-Feb-2008
RU-104	6446387.1	573042.2	443.50	179.00	-72.0	170.0	180.0	5503.7	4980.8	23-Feb-2008	26-Feb-2008
RU-105	6446405.2	573233.9	431.43	269.00	-54.0	350.0	0.0	5695.6	4965.2	26-Feb-2008	28-Feb-2008
RU-106	6446387.1	573042.2	443.50	181.00	-60.0	170.0	180.0	5503.7	4980.8	27-Feb-2008	28-Feb-2008
RU-107	6446317.8	572913.6	446.91	242.00	-76.0	170.0	180.0	5365.0	4934.8	27-Feb-2008	1-Mar-2008
RU-108	6446405.2	573233.9	431.43	251.00	-47.0	350.0	0.0	5695.6	4965.2	28-Feb-2008	1-Mar-2008
RU-109	6446489.7	572938.1	455.71	200.00	-64.0	170.0	180.0	5419.0	5099.9	28-Feb-2008	1-Mar-2008
RU-110	6446405.2	573233.9	431.43	291.20	-90.0	350.0	0.0	5695.6	4965.2	1-Mar-2008	5-Mar-2008
RU-111	6446382.8	572887.7	450.52	200.00	-59.0	350.0	0.0	5350.8	5003.3	2-Mar-2008	4-Mar-2008
RU-112	6446382.8	572887.7	450.52	152.00	-47.0	350.0	0.0	5350.8	5003.3	4-Mar-2008	6-Mar-2008
RU-113	6446424.0	573259.8	431.10	299.00	-90.0	350.0	0.0	5724.4	4979.3	5-Mar-2008	7-Mar-2008
RU-114	6446261.6	572905.4	441.98	293.00	-90.0	350.0	0.0	5347.2	4880.9	6-Mar-2008	11-Mar-2008
RU-115	6446424.0	573259.8	431.10	278.00	-78.0	350.0	0.0	5724.4	4979.3	7-Mar-2008	10-Mar-2008
RU-116	6446424.0	573259.8	431.10	281.00	-71.0	350.0	0.0	5724.4	4979.3	10-Mar-2008	13-Mar-2008
RU-117	6446261.6	572905.4	441.98	298.00	-81.0	350.0	0.0	5347.2	4880.9	11-Mar-2008	13-Mar-2008
RU-118	6446424.0	573259.8	431.10	278.00	-64.0	350.0	0.0	5724.4	4979.3	13-Mar-2008	15-Mar-2008
RU-119	6446424.0	573259.8	431.10	263.00	-54.0	350.0	0.0	5724.4	4979.3	15-Mar-2008	19-Mar-2008
RU-120	6446261.6	572905.4	441.98	371.00	-74.0	350.0	0.0	5347.2	4880.9	25-Mar-2008	29-Mar-2008
RU-121	6446261.6	572905.4	441.98	371.00	-67.0	350.0	0.0	5347.2	4880.9	29-Mar-2008	1-Apr-2008
RU-122	6446429.0	573290.1	432.08	266.00	-75.0	350.0	0.0	5755.1	4979.0	29-Mar-2008	1-Apr-2008
RU-123	6446261.6	572905.4	441.98	368.00	-61.0	350.0	0.0	5347.2	4880.9	1-Apr-2008	6-Apr-2008

**Appendix 1: Drill hole collar, length and aimuth
data, 2005 to 2008 drill holes, Horseshoe and Raven deposits**

Drill hole	UTM North NAD 83 (m)	UTM East NAD 83 (m)	Elevation ASL (m)	Hole length (m)	Dip	UTM Azimuth	Grid Azimuth	Grid East (m)	Grid north (m)	Start Date	End Date
RU-124	6446247.0	572874.3	444.13	341.00	-71.0	350.0	0.0	5314.0	4871.9	1-Apr-2008	4-Apr-2008
RU-125	6446261.6	572905.4	441.98	338.00	-55.0	350.0	0.0	5347.2	4880.9	6-Apr-2008	9-Apr-2008
RU-126	6446247.0	572874.3	444.13	374.00	-65.0	350.0	0.0	5314.0	4871.9	4-Apr-2008	8-Apr-2008
RU-127	6446384.3	572941.0	450.60	99.67	-70.0	350.0	0.0	5403.6	4995.6	10-Apr-2008	11-Apr-2008
RU-128	6446247.0	572874.3	444.13	371.00	-59.0	350.0	0.0	5314.0	4871.9	8-Apr-2008	12-Apr-2008
RU-129	6446247.0	572874.3	444.13	19.10	-52.0	350.0	0.0	5314.0	4871.9	12-Apr-2008	13-Apr-2008
RU-130	6446429.3	572962.9	452.67	221.58	-83.0	350.0	0.0	5432.9	5036.1	13-Apr-2008	15-Apr-2008
RU-131	6446377.2	572898.0	450.00	21.00	-64.0	350.0	0.0	5360.0	4996.0	8-Jun-2008	9-Jun-2008
RU-132	6446383.1	572897.0	450.00	222.00	-65.0	350.0	0.0	5360.0	5002.0	9-Jun-2008	12-Jun-2008
RU-133	6446266.9	572871.8	450.00	302.00	-45.0	350.0	0.0	5315.0	4892.0	12-Jun-2008	16-Jun-2008
RU-134	6446383.1	572897.0	450.00	237.00	-75.0	350.0	0.0	5360.0	5002.0	13-Jun-2008	15-Jun-2008
RU-135	6446358.6	572857.7	450.61	222.00	-59.0	350.0	0.0	5317.1	4984.7	15-Jun-2008	18-Jun-2008
RU-136	6446266.9	572871.8	450.00	300.00	-45.0	350.0	0.0	5315.0	4892.0	16-Jun-2008	19-Jun-2008
RU-137	6446358.6	572857.7	450.61	171.00	-45.0	350.0	0.0	5317.1	4984.7	18-Jun-2008	21-Jun-2008
RU-138	6446212.8	572881.3	450.00	333.00	-70.0	350.0	0.0	5315.0	4837.0	19-Jun-2008	22-Jun-2008
RU-139	6446342.1	572873.9	448.94	222.00	-50.0	350.0	0.0	5330.1	4965.7	21-Jun-2008	23-Jun-2008
RU-140	6446212.8	572881.3	450.00	287.00	-78.0	350.0	0.0	5315.0	4837.0	23-Jun-2008	28-Jun-2008
RU-141	6446342.1	572873.9	448.94	270.00	-61.0	350.0	0.0	5330.1	4965.7	23-Jun-2008	26-Jun-2008
RU-142	6446342.1	572873.9	448.94	274.00	-69.0	350.0	0.0	5330.1	4965.7	26-Jun-2008	29-Jun-2008
RU-143	6446400.4	573262.3	431.05	287.00	-74.0	350.0	0.0	5722.8	4955.6	28-Jun-2008	30-Jun-2008
RU-144	6446342.1	572873.9	448.94	175.00	-81.0	350.0	0.0	5330.1	4965.7	29-Jun-2008	1-Jul-2008
RU-145	6446395.3	573265.5	450.00	302.00	-90.0	0.0	10.0	5725.0	4950.0	30-Jun-2008	3-Jul-2008
RU-146	6446351.4	572825.5	450.10	252.00	-60.0	350.0	0.0	5284.1	4983.2	1-Jul-2008	3-Jul-2008
RU-147	6446483.3	573213.7	434.90	221.00	-51.0	350.0	0.0	5689.3	5045.7	3-Jul-2008	6-Jul-2008
RU-148	6446443.5	573143.9	436.52	300.00	-76.0	170.0	180.0	5613.6	5018.6	3-Jul-2008	8-Jul-2008
RU-149	6446517.3	573206.9	435.52	221.00	-50.0	350.0	0.0	5688.5	5080.4	6-Jul-2008	8-Jul-2008
RU-150	6446331.3	573269.7	430.19	260.00	-59.5	350.0	0.0	5718.1	4886.3	8-Jul-2008	10-Jul-2008
RU-151	6446389.4	572867.0	453.23	248.00	-60.0	350.0	0.0	5331.6	5013.4	8-Jul-2008	11-Jul-2008
RU-152	6446480.5	573252.3	433.02	260.00	-60.0	350.0	0.0	5726.8	5036.3	10-Jul-2008	13-Jul-2008
RU-153	6446358.8	572828.2	450.00	219.00	-45.0	350.0	0.0	5288.0	4990.0	11-Jul-2008	15-Jul-2008
RU-154	6446480.5	573252.3	433.02	242.00	-45.0	350.0	0.0	5726.8	5036.3	13-Jul-2008	18-Jul-2008
RU-155	6446387.3	573077.7	441.02	150.00	-75.0	170.0	180.0	5538.7	4974.7	15-Jul-2008	18-Jul-2008
RU-156	6446434.4	573145.9	436.12	234.00	-68.0	170.0	180.0	5614.1	5009.3	17-Jul-2008	20-Jul-2008
RU-157	6446429.0	573289.8	432.16	258.50	-58.0	350.0	0.0	5754.8	4979.0	19-Jul-2008	22-Jul-2008
RU-158	6446429.0	573289.8	432.16	254.00	-66.0	350.0	0.0	5754.8	4979.0	22-Jul-2008	27-Jul-2008
RU-159	6446429.0	573289.8	432.16	260.00	-49.0	350.0	0.0	5754.8	4979.0	27-Jul-2008	31-Jul-2008
RU-160	6446541.4	573258.3	434.72	242.00	-60.0	170.0	180.0	5743.3	5095.2	31-Jul-2008	5-Aug-2008
RV-001	6446353.4	572795.1	450.87	228.00	-60.0	340.0	325.0	5254.5	4990.5	12-Jul-2005	16-Jul-2005
RV-002	6446335.4	572802.9	450.03	249.30	-60.0	340.0	325.0	5259.1	4971.3	16-Jul-2005	18-Jul-2005
RV-003	6446318.1	572808.7	449.23	262.90	-60.0	340.0	325.0	5261.8	4953.3	19-Jul-2005	22-Jul-2005
RV-004	6446269.6	572825.3	448.70	270.70	-60.0	340.0	325.0	5269.7	4902.7	22-Jul-2005	26-Jul-2005
RV-005	6446269.6	572825.3	448.70	337.70	-60.0	340.0	325.0	5269.7	4902.7	26-Jul-2005	29-Jul-2005
RV-006	6446256.2	572831.1	447.19	340.80	-60.0	340.0	325.0	5273.1	4888.5	29-Jul-2005	2-Aug-2005
RV-007	6446233.2	572839.4	446.09	401.00	-60.0	340.0	325.0	5277.3	4864.4	2-Aug-2005	8-Aug-2005
RV-008	6446208.7	572847.7	443.43	395.00	-60.0	340.0	325.0	5281.2	4838.8	8-Aug-2005	12-Aug-2005
RV-009	6446376.4	572786.7	455.05	218.00	-60.0	340.0	325.0	5250.3	5014.5	12-Aug-2005	15-Aug-2005
RV-010	6446348.3	572717.6	456.50	224.00	-60.0	340.0	325.0	5177.3	4998.9	15-Aug-2005	17-Aug-2005
RV-011	6446342.6	572746.0	454.89	233.00	-60.0	340.0	325.0	5204.3	4988.4	18-Aug-2005	20-Aug-2005
RV-012	6446320.0	572754.5	451.76	249.90	-60.0	340.0	325.0	5208.7	4964.6	21-Aug-2005	24-Aug-2005
RV-013	6446294.7	572762.9	453.51	284.00	-60.0	340.0	325.0	5212.6	4938.2	24-Aug-2005	29-Aug-2005
RV-014	6446282.6	572767.2	452.10	317.00	-60.0	340.0	325.0	5214.8	4925.6	29-Aug-2005	31-Aug-2005
RV-015	6446282.6	572767.2	452.10	341.00	-60.0	340.0	325.0	5214.8	4925.6	31-Aug-2005	4-Sep-2005
RV-016	6446355.5	572688.1	461.14	215.00	-60.0	340.0	325.0	5149.5	5011.1	4-Sep-2005	7-Sep-2005
RV-017	6446332.7	572696.4	459.88	241.00	-60.0	340.0	325.0	5153.7	4987.2	7-Sep-2005	10-Sep-2005
RV-018	6446313.5	572703.3	458.90	260.00	-60.0	340.0	325.0	5157.2	4967.1	11-Sep-2005	14-Sep-2005
RV-019	6446293.3	572710.7	457.30	284.00	-60.0	340.0	325.0	5160.9	4945.9	14-Sep-2005	17-Sep-2005
RV-020	6446272.2	572719.4	455.34	308.00	-60.0	340.0	325.0	5165.9	4923.6	17-Sep-2005	20-Sep-2005
RV-021	6446253.5	572726.0	453.33	320.00	-60.0	340.0	325.0	5169.1	4904.0	20-Sep-2005	24-Sep-2005

**Appendix 1: Drill hole collar, length and aimuth
data, 2005 to 2008 drill holes, Horseshoe and Raven deposits**

Drill hole	UTM North NAD 83 (m)	UTM East NAD 83 (m)	Elevation ASL (m)	Hole length (m)	Dip	UTM Azimuth	Grid Azimuth	Grid East (m)	Grid north (m)	Start Date	End Date
RV-022	6446248.3	572727.7	453.04	362.00	-60.0	340.0	325.0	5169.8	4898.7	25-Sep-2005	29-Sep-2005
RV-023	6446336.7	572642.6	461.17	215.00	-60.0	340.0	325.0	5101.4	5000.5	30-Sep-2005	2-Oct-2005
RV-024	6446313.1	572651.2	460.63	242.00	-60.0	340.0	325.0	5105.8	4975.8	2-Oct-2005	5-Oct-2005
RV-025	6446294.8	572657.6	459.75	269.00	-60.0	340.0	325.0	5109.0	4956.6	6-Oct-2005	8-Oct-2005
RV-026	6446275.4	572664.4	458.19	287.00	-60.0	340.0	325.0	5112.2	4936.3	8-Oct-2005	11-Oct-2005
RV-027	6446255.6	572671.9	456.65	312.10	-60.0	340.0	325.0	5116.2	4915.5	11-Oct-2005	14-Oct-2005
RV-028	6446235.5	572679.2	454.11	329.00	-60.0	340.0	325.0	5119.8	4894.4	14-Oct-2005	18-Oct-2005

APPENDIX 2:

Significant composite assays obtained from drilling at the Horseshoe and Raven deposits, 2005-2008

Composites are to a cutoff of 0.05% U_3O_8 and a minimum grade-thickness product of 0.1 $U_3O_8\%$ m. Composite lengths are apparent thickness. Due to the complex morphologies of mineralized zones, reporting of interpreted true thickness is of limited meaning since zones may change morphology rapidly laterally or along strike. Many of the thicker intercepts reported here in the Horseshoe deposit are in steep drill holes which cross the dominantly shallow dipping, lensoidal mineralized zones at high angles which is close to true thickness. See Figures in section 8 for depiction of relationships of representative composited intercepts to the outline of mineralized zones.

Data reported here is composited from analyses by the Saskatchewan Research Council Geoanalytical Laboratories, analysed by ICP. The laboratory has an ISO/IEC 17025:2005 accredited quality management system (Scope of Accreditation # 537) from the Standards Council of Canada, and is accredited by the Canadian Association for Laboratory Accreditation Inc.

Table 1.**U₃O₈ composites, 2005 drilling, Horseshoe deposit**

All analyses were performed by the Saskatchewan Research Council Geoanalytical Laboratories (SRC). Only intervals with composite grades greater than 0.05% U₃O₈ and a grade-thickness product greater than 0.1 U₃O₈%m are listed below. Drill holes HO-005, 10, 11, 12 and 13 lack composite grades greater than 0.05% U₃O₈ and a grade-thickness product greater than 0.1.

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
HO-001	4385	299.0	241.6	248.9	7.3	0.067
HO-002	4385	299.0	246.5	250.0	3.5	0.114
HO-003	4411	294.3	224.3	229.9	5.6	0.095
HO-003			233.2	239.8	6.6	0.551
HO-004	4411	280.2	184.1	201.5	17.4	0.332
HO-004			222.3	230.6	8.3	0.377
HO-006	4437	431.4	243.5	246.5	3.0	0.117
HO-007	4437	431.4	232.5	237.9	5.4	0.255
HO-008	4490	431.2	118.7	120.4	1.7	0.137
HO-008			199.1	226.0	26.9	0.096
HO-009	4490	430.9	149.9	153.1	3.2	2.557
HO-014	4490	431.6	174.9	179.9	5.0	0.101
HO-014			204.6	205.9	1.3	0.206
HO-015	4515	431.8	150.3	160.9	10.6	0.109
HO-015			168.3	174.5	6.2	0.102
HO-015			186.6	200.0	13.4	0.305
HO-016	4540	430.8	209.0	220.2	11.2	0.162
HO-016			233.2	236.0	2.8	0.105

Table 2.**U₃O₈ composites, 2005 drilling, Raven deposit**

All analyses were performed by the Saskatchewan Research Council Geoanalytical Laboratories (SRC). Only intervals with composite grades greater than 0.05% U₃O₈ and a grade-thickness product greater than 0.1 U₃O₈%m are listed below. Drill holes RV-003, 9, 10, 13, 14, 15, and 22 lack composite grades greater than 0.05% U₃O₈ and a grade-thickness product greater than 0.1.

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
RV-001	5255	450.9	115.1	118.8	3.7	0.181
RV-002	5255	450.0	144.9	146.8	1.9	0.086
RV-004	5270	448.7	236.7	238.4	1.7	0.109
RV-005	5270	448.7	283.2	286.2	3.0	0.083
RV-006	5270	447.2	39.0	39.2	0.2	1.290
RV-006			45.9	46.2	0.3	0.640
RV-006			105.4	106.0	0.6	0.219
RV-007	5270	446.1	72.8	74.6	1.8	0.079
RV-007			81.2	82.3	1.1	0.391
RV-007			281.5	283.5	2.0	0.059
RV-007			292.2	306.4	14.2	0.160
RV-008	5280	443.4	211.5	212.4	0.9	0.347
RV-008			216.5	218.0	1.5	0.137
RV-008			235.6	239.5	3.9	0.084
RV-011	5200	454.9	97.5	125.4	25.6	0.142
RV-011			142.1	148.0	5.9	0.179
RV-012	5200	451.8	131.8	133.4	1.6	0.132
RV-012			150.8	151.7	0.9	0.197
RV-016	5150	461.1	149.9	150.4	0.5	0.360
RV-017	5150	459.9	177.3	178.7	1.4	0.140
RV-017			200.1	200.6	0.5	1.270
RV-018	5150	458.9	181.6	182.7	1.1	0.188
RV-019	5170	457.3	224.0	236.2	12.2	0.187
RV-020	5170	455.3	234.7	243.0	8.3	0.229
RV-020			250.3	251.3	1.0	0.111
RV-021	5170	453.3	273.2	279.1	5.9	0.101
RV-023	5100	461.2	91.1	94.5	3.4	0.117
RV-024	5100	460.6	148.1	149.4	1.3	0.110
RV-024			169.6	171.1	1.5	0.138
RV-024			185.0	192.0	7.0	0.274
RV-024			203.3	207.2	3.9	0.262
RV-025	5100	459.8	114.9	116.6	1.7	0.217
RV-025			154.5	164.0	9.5	0.062
RV-025			206.9	225.0	17.9	0.118
RV-026	5115	458.2	177.3	180.2	2.9	0.061
RV-026			197.7	200.5	2.8	0.250
RV-026			215.7	224.0	8.3	0.126
RV-026			238.0	255.4	17.4	0.130
RV-027	5115	456.6	251.0	252.6	1.6	0.136
RV-027			262.1	264.4	2.3	0.118

Table 3.**U₃O₈ composites, 2006-September 2008 drilling, Horseshoe deposit**

Only intervals with composite grades greater than 0.05% U₃O₈ and a grade-thickness product greater than 0.1 U₃O₈%m are listed below. All analyses were performed by SRC by ICP. No intervals greater than 0.05% and a grade thickness product higher than 0.1 were intersected in holes HU-001 to HU-005 (inclusive), HU-017, HU-031, HU-035, HU-042, HU-055, HU-059, HU-064, HU-073, HU-074 to HU-079 (inclusive), HU-082, HU-086, HU-125, 127, 128, HU-141, 142, 148, 149, 154, 165, 172, 174, 176, 179. HU-181, 186, 187, 191, 196, 202, 203, 204, 206, 207, 210, 211, 215, 218, 219, 222, and 224.

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
HU-006	4570	302.0	166.9	183.3	16.4	0.25
HU-007	4570	323.0	163.6	175.7	12.1	0.39
HU-008	4570	302.0	155.9	178.5	22.6	0.14
HU-008			184.5	188.0	3.5	0.10
HU-009	4570	233.0	190.9	192.0	1.1	0.20
HU-010	4640	313.0	111.0	114.0	3.0	0.10
HU-010			261.2	263.0	1.8	0.08
HU-011	4640	341.0	240.7	243.6	2.9	0.19
HU-011			253.3	258.5	5.2	0.72
HU-012	4640	320.0	179.0	191.7	12.7	0.14
HU-012			196.3	199.5	3.2	0.13
HU-013	4640	317.0	239.0	242.6	3.6	0.34
HU-014	4640	302.0	168.7	169.5	0.8	0.28
HU-014			179.9	181.7	1.8	0.38
HU-014			207.9	209.6	1.7	0.13
HU-015	4640	320.0	180.0	194.2	14.2	0.52
HU-016	4640	272.0	199.6	213.9	14.3	3.97
HU-016	<i>including</i>		201.5	213.9	12.4	4.53
HU-016	<i>including</i>		204.8	208.2	3.4	10.30
HU-016	<i>including</i>		204.8	205.4	0.6	22.17
HU-018	4700	356.0	109.1	116.6	7.8	0.08
HU-018			245.1	261.2	10.6	0.17
HU-019	4700	311.0	93.9	95.6	1.7	0.14
HU-019			205.7	210.0	4.3	0.15
HU-019			220.5	221.4	0.9	0.18
HU-019			225.8	229.6	3.8	0.13
HU-019			252.7	253.8	1.1	0.53
HU-019			259.0	261.7	2.7	0.48
HU-019			276.0	279.5	3.5	0.29
HU-019			284.5	285.5	1.0	0.23
HU-020	4700	341.0	279.7	297.6	17.9	0.26
HU-020			301.0	301.7	0.7	0.22
HU-021	4700	347.0	310.0	313.0	3.0	0.16
HU-021			318.7	320.5	1.8	0.11
HU-022	4700	359.0	208.5	247.5	39.00	0.41
HU-022			257.6	258.2	0.6	0.31
HU-022			325.2	325.6	0.3	0.33
HU-023	4570	288.6	174.0	176.8	2.8	0.17
HU-024	4700	361.0	307.5	343.8	35.2	0.21
HU-025	4570	339.6	166.5	173.3	6.8	0.07
HU-025			209.1	210.3	1.2	0.16

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
HU-026	4665	368.0	317.2	318.0	0.9	0.14
HU-027	4755	456.3	309.6	311.7	2.1	0.34
HU-028	4638	600.0	185.6	201.6	16.0	0.32
HU-028		<i>including</i>	191.8	193.4	1.6	2.55
HU-028		<i>and</i>	192.7	193.1	0.4	5.31
HU-029	4650	251.0	188.0	194.0	6.0	0.06
HU-029			205.7	209.3	3.6	0.06
HU-030	4611	321.0	188.0	198.5	10.5	0.21
HU-030			246.9	247.9	1.1	1.02
HU-032	4638	295.0	193.8	200.6	6.8	0.58
HU-033	4611	255.0	177.0	194.0	17.0	0.49
HU-033		<i>including</i>	190.3	193.4	3.1	1.90
HU-033		<i>and</i>	193.0	193.4	0.4	5.93
HU-034	4650	235.0	170.7	187.2	16.5	0.07
HU-036	4665	272.0	223.5	226.1	2.6	1.08
HU-036			238.0	246.5	8.5	0.16
HU-037	4611	258.4	181.0	194.4	13.4	0.74
HU-037		<i>including</i>	181.0	184.9	3.9	1.97
HU-037		<i>and</i>	184.3	184.9	0.6	5.27
HU-037			211.3	212.3	1.00	0.79
HU-038	4650	262.0	199.5	219.8	20.3	0.37
HU-038		<i>including</i>	199.5	200.5	1.0	3.90
HU-039	4611	255.0	136.9	139.4	2.5	0.29
HU-039			150.6	163.4	12.8	0.63
HU-039		<i>including</i>	162.8	163.4	0.6	7.55
HU-039			204.5	205.9	1.4	0.16
HU-040	4697	407.0	236.3	238.3	2.0	0.18
HU-040			262.0	272.4	10.4	0.15
HU-040			290.5	304.4	13.9	0.12
HU-041	4650	253.8	183.5	190.3	6.8	0.08
HU-041			212.8	214.0	1.2	0.22
HU-043	4665	329.6	156.6	161.4	4.8	0.05
HU-043			179.4	189.7	10.3	1.49
HU-043		<i>including</i>	183.8	187.1	3.3	4.27
HU-043		<i>and</i>	184.2	184.7	0.5	10.59
HU-043			240.9	243.6	2.7	0.17
HU-043			260.8	262.4	1.6	0.09
HU-043			297.9	298.4	0.5	0.19
HU-044	4697	362.0	158.3	159.0	0.7	0.43
HU-044			178.3	179.4	1.1	0.11
HU-044			207.0	235.9	28.9	0.21
HU-044		<i>including</i>	220.1	226.0	5.9	0.67
HU-044			253.5	268.7	15.2	0.09
HU-045	4593	347.0	163.0	164.3	1.30	0.30
HU-045			172.0	191.0	19.0	0.58
HU-045		<i>including</i>	172.0	172.8	0.8	1.94
HU-045		<i>and</i>	175.4	179.7	4.3	0.90
HU-045		<i>and</i>	190.0	191.0	1.0	2.72
HU-046	4665	296.0	117.9	119.0	1.1	0.14
HU-046			151.4	153.4	2.0	0.07
HU-046			207.7	208.6	0.9	0.20
HU-046			234.1	234.4	0.3	0.21

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
HU-046			237.9	239.3	1.4	0.10
HU-046			242.1	243.5	1.4	0.07
HU-046			254.3	267.4	13.1	0.14
HU-046			272.2	273.1	0.9	0.12
HU-047	4697	363.9	247.0	249.0	2.0	0.14
HU-047			279.0	294.0	15.0	0.23
HU-048	4665	361.0	110.6	111.8	1.2	0.12
HU-048			127.5	129.3	1.8	0.09
HU-048			135.2	139.7	4.5	0.06
HU-048			154.5	157.6	3.1	0.07
HU-048			253.9	256.5	2.6	0.39
HU-049	4593	267.0	180.9	197.3	16.4	0.21
HU-050	4724	431.0	274.7	276.4	1.7	0.06
HU-050			297.7	322.3	24.6	0.38
HU-050		<i>including</i>	306.6	321.1	14.5	0.56
HU-051	4593	289.8	175.0	198.0	23.0	0.31
HU-051		<i>including</i>	197.0	197.5	0.5	5.66
HU-052	4665	302.0	228.9	253.3	24.4	0.11
HU-052			258.5	259.5	1.0	0.15
HU-053	4638	476.0	131.2	132.5	1.3	0.09
HU-053			152.7	154.0	1.3	0.15
HU-054	4697	344.0	249.0	254.7	5.8	0.30
HU-054			265.9	267.4	1.5	0.09
HU-054			273.3	287.0	13.7	0.17
HU-054			300.3	308.8	8.5	0.18
HU-056	4665	293.0	137.5	139.5	2.0	0.06
HU-056			161.8	170.3	8.5	0.09
HU-056			221.8	228.3	6.5	0.40
HU-057	4665	271.0	135.0	140.0	5.0	0.07
HU-057			163.0	165.0	2.0	0.09
HU-058	4697	350.0	254.9	260.1	5.2	0.13
HU-058			264.0	264.7	0.7	0.09
HU-058			267.6	269.2	1.6	0.18
HU-058			307.0	322.4	15.4	0.10
HU-060	4665	191.0	119.3	120.1	0.8	0.12
HU-061	4593	308.0	156.9	183.5	26.6	0.50
HU-061		<i>including</i>	162.5	173.9	11.4	0.99
HU-062	4697	379.0	250.8	252.6	1.8	0.45
HU-062			269.1	284.0	14.9	0.14
HU-062			299.2	304.1	4.9	0.07
HU-062			323.7	330.2	6.5	0.06
HU-062			338.2	340.7	2.5	0.13
HU-063	4755	422.0	322.4	383.3	60.9	0.18
HU-065	4697	437.0	281.0	292.0	11.0	0.20
HU-065			312.4	314.0	1.6	0.11
HU-065			331.3	331.9	0.6	0.34
HU-065			402.6	420.3	17.7	0.61
HU-065		<i>including</i>	407.1	420.3	13.2	0.80
HU-065		<i>and</i>	408.4	413.6	5.2	1.58
HU-066	4593	307.0	151.0	171.0	20.0	0.12
HU-067	4755	419.0	264.5	275.0	10.5	0.06
HU-067			300.0	301.0	1.0	0.10

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
HU-067			325.0	328.0	3.0	0.07
HU-067			363.0	369.5	6.5	0.11
HU-068	4593	281.0	181.2	184.3	3.1	0.08
HU-068			239.0	240.6	1.6	0.35
HU-069	4697	458.0	421.0	421.3	0.3	0.19
HU-070	4593	275.0	111.2	111.6	0.4	0.23
HU-070			116.1	117.3	1.2	0.08
HU-070			120.4	123.8	3.4	0.05
HU-070			131.0	133.0	2.0	0.05
HU-070			217.3	223.6	6.3	0.08
HU-071	4755	515.0	245.6	246.5	0.9	0.30
HU-071			278.3	280.5	2.2	0.23
HU-072	4724	485.0	285.0	288.0	3.0	0.06
HU-072			326.5	328.0	1.5	0.17
HU-072			333.1	344.0	10.9	0.43
HU-072			401.0	410.4	9.4	0.09
HU-075	4755	483.0	257.5	259.0	1.5	0.47
HU-080	4540	242.0	153.3	154.0	0.7	0.16
HU-081	4724	449.0	265.1	267.0	1.9	0.51
HU-081			279.8	280.2	0.4	0.33
HU-081			315.0	324.8	9.8	0.50
HU-081			334.0	343.0	9.0	0.14
HU-081			401.0	407.0	6.0	0.17
HU-081			411.0	412.0	1.0	0.06
HU-083	4540	269.0	163.0	164.0	1.0	0.32
HU-083			170.5	173.2	2.7	0.20
HU-083			177.4	177.7	0.3	0.25
HU-083			182.5	186.6	4.1	0.80
HU-083		<i>including</i>	183.0	183.4	0.4	4.37
HU-084	4540	242.0	178.8	193.3	14.5	0.15
HU-084			197.0	198.0	1.0	0.06
HU-085	4724	449.0	264.0	266.0	2.0	0.08
HU-085			288.0	326.5	38.5	0.21
HU-085		<i>including</i>	304.9	314.5	9.6	0.35
HU-085			333.5	335.0	1.5	0.09
HU-087	4827	565.7	279.0	280.0	1.0	0.60
HU-088	4724	429.0	207.3	207.8	0.5	0.09
HU-088			209.3	210.0	0.7	0.07
HU-088			220.6	232.6	12.0	0.13
HU-088			264.4	269.8	5.4	0.26
HU-088			286.3	289.1	2.8	0.07
HU-088			291.4	294.7	3.3	0.08
HU-088			297.1	335.3	38.2	0.22
HU-088		<i>including</i>	323.5	330.8	7.3	0.55
HU-089	4755	335.0	201.3	213.4	12.1	0.17
HU-089			243.2	243.6	0.4	0.13
HU-089			251.0	256.0	5.0	0.05
HU-089			263.8	270.0	6.2	0.37
HU-090	4724	403.4	149.0	151.0	2.0	0.10
HU-090			310.5	314.0	3.5	0.12
HU-091	4665	281	173.3	174.5	1.2	0.09
HU-091			187.0	194.0	7.0	0.39

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
HU-091			221.0	223.1	2.1	0.21
HU-092	4665	311	162.0	164.0	2.0	0.11
HU-092			215.0	227.0	12.0	0.15
HU-092			243.0	245.5	2.5	0.28
HU-092			289.0	291.0	2.0	0.07
HU-093	4626	220	179.6	202.6	23.0	0.83
HU-093		<i>including</i>	180.9	181.4	0.5	10.26
HU-093		<i>including</i>	196.6	197.6	1.0	4.86
HU-094	4700	324	249.0	254.6	5.6	0.15
HU-094			259.2	274.0	14.8	0.09
HU-094		<i>including</i>	260.5	262.5	2.0	0.28
HU-094			293.7	295.4	1.7	0.16
HU-095	4626	233	217.6	221.8	4.2	0.10
HU-095			224.7	226.0	1.3	0.92
HU-096	4650	209	140.6	142.0	1.4	0.15
HU-096			172.0	174.0	2.0	0.06
HU-096			181.6	186.0	4.4	0.13
HU-097	4650	221	99.5	107.0	7.5	0.11
HU-097			119.0	121.0	2.0	0.24
HU-097			141.0	141.8	0.8	0.19
HU-098	4682	327	194.0	219.4	25.4	0.22
HU-098		<i>including</i>	209.5	219.4	9.9	0.41
HU-098		<i>including</i>	236.7	243.5	6.8	0.40
HU-098			236.7	258.0	21.3	0.19
HU-099	4626	220	182.3	190.6	8.3	1.86
HU-099		<i>including</i>	185.1	188.2	3.1	4.20
HU-100	4593	206	153.0	184.5	31.5	0.35
HU-100		<i>including</i>	162.8	164.0	1.2	3.45
HU-100		<i>including</i>	171.4	173.0	1.6	2.13
HU-100			194.0	196.0	2.0	0.27
HU-101	4611	221	162.1	184.4	22.3	0.82
HU-101		<i>including</i>	169.0	171.3	2.3	1.91
HU-101		<i>including</i>	176.0	178.2	2.2	3.87
HU-102	4682	330	196.5	203.5	7.0	0.91
HU-102			223.0	244.0	21.0	0.68
HU-102		<i>including</i>	229.0	234.5	5.5	1.57
HU-102			256.0	264.0	8.0	0.10
HU-103	4724	354	231.0	236.6	5.6	0.18
HU-103			275.0	278.0	3.0	0.39
HU-103			300.0	307.0	7.0	0.06
HU-103			320.6	332.0	11.4	0.37
HU-104	4570	221	136.8	138.8	2.0	0.10
HU-104			140.3	141.8	1.5	0.08
HU-104			147.8	149.6	1.8	0.06
HU-104			151.6	169.5	17.9	0.12
HU-104			177.3	178.4	1.1	0.12
HU-104			196.3	200.6	4.3	0.09
HU-105	4682	315	135.0	141.0	6.0	0.05
HU-105			152.5	154.0	1.5	0.22
HU-105			236.0	237.9	1.9	0.08
HU-106	4626	236	180.8	185.1	4.3	2.20
HU-106			211.5	213.7	2.2	0.12

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
HU-107	4740	475	296.0	327.0	31.0	0.18
HU-107			352.4	353.3	0.9	0.16
HU-108	4665	374	251.8	266.8	15.0	0.32
HU-108			317.8	319.8	2.0	0.11
HU-109	4740	476	272.8	274.8	2.0	0.06
HU-109			277.6	328.0	50.4	0.18
HU-109		<i>including</i>	286.0	298.6	12.6	0.34
HU-109			363.0	373.0	10.0	0.12
HU-110	4682	320	172.0	173.5	1.5	0.06
HU-110			186.0	189.0	3.0	0.09
HU-110			266.0	267.5	1.5	0.07
HU-110			275.5	276.5	1.0	0.37
HU-111	4626	231	163.5	183.9	20.4	0.36
HU-111			179.2	183.9	4.7	1.27
HU-111			204.6	206.7	2.1	0.42
HU-112	4682	296	237.0	238.0	1.0	0.21
HU-112			242.8	258.9	16.1	0.31
HU-113	4665	411	256.5	271.9	15.4	0.73
HU-113		<i>including</i>	256.5	259.0	2.5	1.78
HU-113		<i>including</i>	266.4	271.9	5.5	1.20
HU-113		<i>including</i>	270.2	271.6	1.4	3.33
HU-114	4682	287	225.8	227.5	1.7	0.08
HU-114			230.2	235.5	5.3	0.28
HU-115	4740	437	299.7	302.0	2.3	0.10
HU-114			311.4	312.9	1.5	0.08
HU-116	4607	335	139.7	140.3	0.6	0.26
HU-116			304.7	310.0	5.3	0.20
HU-117	4665	430	264.7	329.7	65.0	0.16
HU-117		<i>including</i>	264.7	266.2	1.5	0.59
HU-117		<i>including</i>	273.2	286.8	13.6	0.27
HU-117		<i>including</i>	319.4	327.0	7.6	0.37
HU-118	4626	227	170.9	187.0	16.1	0.34
HU-118		<i>including</i>	180.2	187.0	6.8	0.68
HU-118			192.0	195.0	3.0	0.07
HU-119	4740	440	246.0	248.3	2.3	0.22
HU-119			273.3	274.2	0.9	0.11
HU-119			290.0	346.4	56.4	0.22
HU-119		<i>including</i>	291.8	302.3	10.5	0.36
HU-120	4626	230	131.6	132.8	1.2	0.39
HU-120			172.2	174.7	2.5	0.08
HU-120			178.2	179.0	0.8	0.14
HU-120			194.6	195.9	1.3	0.23
HU-120			207.1	207.5	0.4	0.30
HU-121	4740	530	266.0	269.0	3.0	0.09
HU-212			345.0	347.3	2.3	0.22
HU-122	4635	284	199.4	199.9	0.5	0.25
HU-123	4665	452.7	285.0	317.0	32.0	0.26
HU-123		<i>including</i>	296.7	308.6	11.9	0.51
HU-124	4638	386	208.2	208.7	0.5	0.25
HU-126	4644	257	190.5	213.6	23.1	0.65
HU-126		<i>including</i>	199.9	205.0	5.2	1.89
HU-129	4644	242	187.2	190.4	3.2	0.36

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
HU-130	4724	338	288.9	304.9	16.0	0.64
HU-130		<i>including</i>	298.4	304.1	5.7	1.15
HU-131	4682	338	252.5	269.5	17.0	0.25
HU-131			277.0	279.0	2.0	0.10
HU-131			290.0	290.6	0.6	0.18
HU-131			300.0	307.0	7.0	0.10
HU-132	4650	395	272.6	274.6	2.0	0.14
HU-132			290.0	291.3	1.3	0.08
HU-132			314.7	319.3	4.6	0.14
HU-133	4682	350	254.2	298.0	43.8	0.28
HU-134	4724	342	136.4	138.2	1.8	0.08
HU-134			211.0	213.4	2.4	0.14
HU-134			225.0	226.8	1.8	0.16
HU-134			243.9	281.5	37.6	0.65
HU-134		<i>including</i>	248.6	280.3	31.7	0.75
HU-134		<i>including</i>	272.2	278.3	6.1	3.00
HU-135	4650	378	278.0	278.6	0.6	0.20
HU-135			286.9	299.4	12.5	0.10
HU-135			358.0	361.5	3.5	0.05
HU-136	4682	461	257.5	279.0	21.5	0.27
HU-136		<i>including</i>	257.5	262.0	4.5	0.75
HU-136			295.0	296.0	1.0	0.25
HU-136			302.5	313.0	10.5	0.36
HU-136			325.0	326.0	1.0	0.21
HU-137	4724	306	225.8	231.7	5.9	0.25
HU-137			259.3	260.7	1.4	0.67
HU-138	4682	449	266.7	269.6	2.9	0.25
HU-138			282.9	310.0	27.1	0.34
HU-138		<i>including</i>	289.5	295.8	6.3	0.98
HU-138			333.6	335.3	1.7	0.06
HU-139	4724	311	187.2	191.9	4.7	0.05
HU-139			200.6	212.0	11.4	0.32
HU-140	4724	293	179.0	187.2	8.2	0.20
HU-143	4650	380	319.5	321.8	2.3	0.10
HU-143			327.3	329.0	1.7	0.40
HU-144	4724	290	136.8	138.5	1.7	0.10
HU-144			238.6	276.0	37.4	0.47
HU-144		<i>including</i>	253.0	259.2	6.2	1.08
HU-144		<i>including</i>	268.9	276.0	7.1	1.00
HU-145	4593	269	157.6	167.6	10.0	0.06
HU-145			196.0	201.3	5.3	0.10
HU-146	4611	284	148.4	156.5	8.1	0.11
HU-146			207.8	214.8	7.0	0.17
HU-147	4724	323	276.0	277.1	1.1	0.17
HU-147			281.1	303.3	22.2	0.22
HU-150	4611	284	233.8	239.7	5.9	0.26
HU-150			250.6	260.0	9.4	0.18
HU-151	4755	350	107.8	109.5	1.7	0.07
HU-151			132.8	134.5	1.7	0.11
HU-151			225.9	236.0	10.1	0.12
HU-151			257.5	262.0	4.5	0.31
HU-151			273.0	273.9	0.9	0.14

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
HU-152	4611	284	244.8	247.3	2.5	0.28
HU-153	4755	362	153.7	156.7	3.0	0.06
HU-153			281.0	299.0	18.0	0.12
HU-153			311.9	315.5	3.6	0.26
HU-153			331.1	333.9	2.8	0.44
HU-155	4755	236	307.0	322.5	15.5	0.19
HU-156	4604	236	168.8	187.0	18.2	1.01
HU-157	4724	430	285.5	320.4	34.9	0.13
HU-158	4755	428	257.1	265.7	8.6	0.21
HU-158			306.6	330.0	23.4	0.34
HU-158		<i>including</i>	317.2	317.7	0.5	3.83
HU-159	4755	458	389.6	390.6	1.0	0.11
HU-160	4755	477	270.0	280.9	10.9	0.07
HU-160			287.5	293.0	5.5	0.07
HU-160			313.4	314.5	1.1	0.09
HU-160			440.5	443.2	2.7	0.12
HU-160			452.5	463.2	10.7	0.14
HU-161	4740	341	130.0	131.5	1.5	0.14
HU-161			247.7	249.0	1.3	0.11
HU-161			279.0	292.8	13.8	0.45
HU-161		<i>including</i>	287.8	288.7	0.9	5.19
HU-162	4785	341	131.3	133.8	2.5	0.10
HU-162			220.7	221.8	1.1	0.40
HU-163	4755	483	301.0	302.7	1.7	0.16
HU-163			326.5	348.0	21.5	0.29
HU-163		<i>including</i>	329.5	337.2	7.7	0.58
HU-164	4740	341	155.4	164.0	8.6	0.08
HU-164			245.2	247.0	1.8	0.09
HU-164			263.0	266.5	3.5	0.10
HU-164			276.5	284.0	7.9	0.21
HU-166	4740	368	291.5	303.0	11.5	0.15
HU-166			319.0	325.0	6.0	0.07
HU-167	4785	374	243.0	244.0	1.0	0.15
HU-168	4740	362	286.6	335.8	49.2	0.12
HU-168		<i>including</i>	286.6	293.0	6.4	0.24
HU-169	4755	476	320.5	326.5	6.0	0.30
HU-170	4785	386	309.8	312.6	2.8	0.42
HU-171	4740	404	235.3	236.9	1.6	0.33
HU-171			309.8	333.9	24.1	0.31
HU-173	4740	419	243.0	250.8	7.8	0.07
HU-173			258.2	258.7	0.5	0.09
HU-173			271.0	273.3	2.3	0.17
HU-173			287.0	296.6	9.6	0.21
HU-173			305.0	309.5	4.5	0.07
HU-173			319.6	329.0	9.4	0.08
HU-175	4740	299	116.3	120.5	4.2	0.10
HU-175			136.0	137.0	1.0	0.19
HU-175			183.3	185.4	2.1	0.07
HU-175			211.5	230.0	18.5	0.12
HU-175			252.1	276.4	24.3	0.25
HU-175		<i>including</i>	252.1	255.4	3.3	0.66
HU-175		<i>including</i>	267.2	268.7	1.5	1.35

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
HU-177	4785	488	400.4	402.5	2.1	0.09
HU-178	4710	314	130.8	131.6	0.8	0.14
HU-178			275.2	276.3	1.1	0.19
HU-178			281.5	291.3	9.8	0.35
HU-178		<i>including</i>	288.7	290.3	1.6	1.02
HU-180	4710	344	216.0	217.4	1.4	0.09
HU-180			220.8	221.7	0.9	0.08
HU-180			244.1	252.4	8.3	0.10
HU-180			261.0	279.6	18.6	0.32
HU-182	4490	200	172.7	183.0	10.3	0.87
HU-183	4710	341	106.9	112.7	5.8	0.17
HU-183			115.9	117.0	1.1	0.20
HU-183			240.9	243.0	2.1	0.09
HU-183			269.3	275.3	6.0	0.22
HU-184	4516	221	181.5	195.8	14.3	0.28
HU-185	4490	209	182.4	186.7	4.3	0.31
HU-188	4490	220	166.2	173.3	7.1	0.25
HU-189	4490	207	164.5	166.0	1.5	0.12
HU-189			176.9	188.0	11.1	0.18
HU-190	4540	220	96.2	97.7	1.5	0.15
HU-190			120.5	127.1	6.6	0.15
HU-190			192.5	194.1	1.6	0.19
HU-192	4540	237	166.0	167.0	1.0	0.13
HU-192			192.5	194.5	2.0	0.20
HU-193	4490	242	176.0	176.8	0.8	0.20
HU-193			200.1	201.9	1.8	0.78
HU-193			206.5	207.2	0.7	0.45
HU-194	4540	240	146.0	149.0	3.0	0.10
HU-194			153.0	156.5	3.5	0.60
HU-194			179.0	180.5	1.5	0.49
HU-195	4411	222	195.7	196.6	0.9	0.43
HU-197	4465	211	135.0	138.2	3.2	0.22
HU-198	4411	219	155.0	157.0	2.0	0.11
HU-198			166.8	168.5	1.7	0.07
HU-198			209.8	210.4	0.6	0.73
HU-199	4516	224	111.8	125.0	13.2	0.21
HU-199			205.8	206.7	0.9	0.38
HU-200	4465	260	99.5	100.0	0.5	0.65
HU-200			140.0	142.0	2.0	0.13
HU-200			221.7	230.2	8.5	0.15
HU-201	4411	240	214.7	216.0	1.3	0.19
HU-205	4490	200	167.9	168.8	0.9	0.54
HU-208	4724	326	243.7	248.0	4.3	0.12
HU-208			288.5	302.1	13.6	0.23
HU-209	4385	241	210.5	211.3	0.8	2.81
HU-212	4724	307	137.0	138.5	1.5	0.12
HU-212			211.0	212.6	1.6	0.39
HU-212			243.0	245.6	2.6	0.08
HU-212			252.8	272.4	19.6	0.34
HU-213	4385	249	135.8	136.9	1.1	0.17
HU-214	4570	215	131.2	132.2	1.0	0.64
HU-214			137.9	139.5	1.6	0.87

Hole	Section (North)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U ₃ O ₈)
HU-214			171.3	173.0	1.7	0.18
HU-216	4735	347	122.0	123.4	1.4	0.08
HU-216			237.0	245.2	8.2	0.16
HU-216			257.0	259.0	2.0	0.12
HU-216			274.6	285.0	10.4	0.22
HU-216			320.0	320.6	0.6	0.21
HU-217	4385	246	187.4	205.5	18.1	0.29
HU-220	4516	230	122.0	156.0	34.0	0.27
HU-221	4735	323	134.9	137.0	2.1	0.12
HU-221			278.5	281.5	3.0	0.09
HU-221			286.7	307.6	20.9	0.16
HU-223	4516	200	104.5	131.1	26.6	0.23
HU-225	4593	256	155.7	162.8	7.1	0.39
HU-225			183.3	184.2	0.9	0.77
HU-226	4516	215	185.8	189.3	3.5	0.36
HU-228	4516	260.0	132.00	135.00	3.00	0.05
HU-228			142.00	143.00	1.00	0.21
HU-232	4516	291.0	184.00	184.80	0.80	0.36
HU-232			204.50	207.20	2.70	0.37
HU-235	4640	222.0	167.00	185.00	18.00	0.10
HU-240	4411	267.0	120.40	123.00	2.60	0.20
HU-240			191.00	194.20	3.20	0.18
HU-240			200.00	205.40	5.40	0.05
HU-240			211.30	212.00	0.70	0.69
HU-242	4411	252.0	192.00	193.80	1.80	2.84
HU-246	4411	252.0	236.80	237.60	0.80	0.42
HU-247	4437	270.0	131.70	134.00	2.30	0.09
HU-247			175.00	177.00	2.00	0.07
HU-247			206.60	216.20	9.60	0.81
HU-249	4437	270.0	199.00	200.30	1.30	0.13
HU-249			206.00	207.50	1.50	0.13
HU-249			215.70	216.30	0.60	0.65
HU-252	4385	250.0	224.30	225.50	1.20	0.07
HU-254	4385	249.0	199.50	203.30	3.80	0.81
HU-257	4823	396.0	208.30	209.70	1.40	0.70
HU-257			290.40	291.50	1.10	0.13
HU-257			296.40	296.90	0.50	0.38
HU-257			318.30	319.50	1.20	0.10
HU-259	4823	401.0	322.70	323.90	1.20	0.46
HU-259			340.20	340.70	0.50	0.30

Table 4.
U₃O₈ composites, 2006-2008 Drilling, Raven deposit

Only intervals with composite grades greater than 0.05% U₃O₈ and a grade-thickness product greater than 0.1 U₃O₈%m are listed below. All analyses were performed by SRC by ICP. No intervals greater than 0.05% U₃O₈ and a grade thickness product higher than 0.1 were intersected in holes RU-006, RU-008, RU-019, RU-034, 044, 046, 049, 050, 053, RU-059, 061, 062 066, 074, 082, 086, 088, 089, 101, 102, 106, 107, 108, 110, 111, 112, 114, 117, 119, 124, 127, 129, 131, 133, 134, 137, 145, 147, 148, 149 and 158.

Hole	Section (East)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U3O8)
RU-001	5475	218.8	84.00	88.80	4.80	0.13
RU-001			114.80	170.00	55.2	0.09
RU-002	5475	313.0	89.30	91.50	2.20	0.80
RU-002			106.40	106.80	0.40	2.13
RU-002			124.90	139.50	14.60	0.08
RU-002			143.50	144.30	0.80	0.18
RU-002			148.00	149.60	1.60	0.11
RU-002			205.40	210.70	5.30	0.11
RU-002			222.70	231.70	9.00	0.12
RU-003	5475	239.0	197.80	218.00	20.20	0.10
RU-004	5475	212.0	107.00	134.00	27.00	0.16
RU-004		<i>including</i>	109.20	113.00	3.80	0.49
RU-004		<i>including</i>	130.00	133.50	3.50	0.39
RU-004			138.00	140.00	2.00	0.07
RU-005	5535	299.0	97.60	99.00	1.40	0.09
RU-005			224.90	238.20	13.30	0.25
RU-007	5535	263.0	94.40	95.40	1.00	0.10
RU-007			111.00	117.00	6.00	0.12
RU-007			220.40	224.20	3.80	0.08
RU-007			232.00	236.60	4.60	0.11
RU-009	5535	241.7	185.00	193.00	8.00	0.06
RU-010	5415	314.0	151.30	158.30	7.00	0.11
RU-011	5535	194.0	63.20	64.20	1.00	0.13
RU-011			70.20	72.20	2.00	0.15
RU-011			155.20	157.70	2.50	0.06
RU-012	5415	253.7	104.90	150.5	45.60	0.09
RU-012		<i>including</i>	117.20	117.80	0.60	1.80
RU-012			200.00	228.50	28.50	0.08
RU-013	5535	314.0	191.20	193.20	2.00	0.06
RU-013			213.70	216.30	2.60	0.15
RU-013			287.10	287.70	0.60	0.18
RU-014	5415	225.0	129.00	134.60	5.60	0.45
RU-014			192.00	194.00	2.00	0.12
RU-015	5630	225.0	78.20	79.00	0.80	0.22
RU-015			95.00	95.60	0.60	0.19
RU-015			100.60	136.80	36.20	0.09
RU-015			148.10	150.40	2.30	0.19
RU-015			161.00	164.00	3.00	0.07
RU-015			197.00	200.00	3.00	0.06
RU-015			228.00	236.30	8.30	0.15
RU-015			240.30	244.00	3.70	0.06
RU-016	5415	205.5	163.20	165.10	1.90	0.24
RU-017	5630	254.0	214.40	220.80	6.40	0.11

Hole	Section (East)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U3O8)
RU-017			231.00	235.50	4.50	0.36
RU-018	5630	290.5	79.70	81.40	1.70	0.13
RU-018			104.90	105.90	1.00	0.10
RU-020	5630	240.0	121.20	129.60	8.40	0.10
RU-020			188.60	194.60	6.00	0.08
RU-021	5630	220.0	193.00	194.00	1.00	0.56
RU-021			199.00	200.00	1.00	0.10
RU-022	5660	244.7	150.40	156.00	5.60	0.11
RU-022			195.90	199.00	3.10	0.06
RU-022			203.50	205.00	1.50	0.11
RU-022			214.40	215.00	0.60	0.12
RU-023	5660	321.0	222.00	226.10	4.10	0.51
RU-023		<i>including</i>	225.30	226.10	0.80	1.73
RU-024	5660	287.0	95.70	97.20	1.50	0.06
RU-024			101.50	102.00	0.50	0.09
RU-024			109.00	129.00	20.00	0.07
RU-024			183.30	222.00	38.70	0.06
RU-025	5415	310.0	151.40	185.00	33.60	0.10
RU-025		<i>including</i>	152.10	152.90	0.80	0.99
RU-025			226.60	231.50	4.90	0.15
RU-026	5476	351	116.8	122.0	5.2	2.98
RU-026		<i>including</i>	118.5	120.0	1.5	7.99
RU-026		<i>including</i>	119.5	120.0	0.5	19.45
RU-026			134.5	138.0	3.5	0.10
RU-026			151.0	152.0	1.0	0.18
RU-027	5534	320	73.2	73.4	0.2	0.96
RU-027			102.6	112.1	9.5	0.20
RU-027			217.7	227.6	9.9	0.05
RU-028	5476	262	219.5	221.5	2.0	0.06
RU-029	5534	320	112.1	125.4	13.3	0.08
RU-029			188.0	193.8	5.8	0.14
RU-030	5476	332	87.50	90.0	2.5	0.13
RU-030			136.4	136.7	0.3	0.67
RU-031	5534	341	162.7	164.1	1.4	0.17
RU-032	5476	250	184.5	186.0	1.5	0.84
RU-033	5534	182	105.7	107.3	1.6	0.52
RU-035	5506	320	104.0	106.0	2.0	0.77
RU-035			151.5	153.1	1.6	0.08
RU-035			195.2	199.1	3.9	0.08
RU-035			218.0	219.0	1.0	0.13
RU-036	5448	350	106.5	113.0	6.5	0.15
RU-036			118.0	155.5	37.5	0.13
RU-036			258.0	260.0	2.0	0.08
RU-037	5506	282	97.4	103.5	6.1	0.18
RU-037			132.0	135.0	3.0	0.07
RU-038	5448	319	121.5	122.5	1.0	0.17
RU-038			127.0	128.5	1.5	0.43
RU-038			163.3	164.5	1.2	1.23
RU-039	5506	269	93.2	97.8	4.6	0.14
RU-040	5448	299	91.5	93.5	2.0	0.28
RU-041	5506	302	138.8	144.5	5.7	0.08
RU-041			197.7	199.0	1.3	0.64

Hole	Section (East)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U3O8)
RU-041			212.0	218.8	6.8	0.09
RU-042	5418	359	108.5	112.5	4.0	0.07
RU-042			120.5	121.5	1.0	0.11
RU-042			162.0	178.5	16.5	0.13
RU-042			291.5	297.0	5.5	0.12
RU-042			303.0	303.5	0.5	0.23
RU-043	5506	281	104.8	106.7	1.9	0.13
RU-043			213.6	221.3	7.7	0.43
RU-043		<i>including</i>	214.1	216.6	2.8	0.76
RU-045	5506	278	125.6	128.0	2.4	0.07
RU-047	5445	340	105.5	129.5	24.0	0.13
RU-047			141.5	153.0	11.5	0.11
RU-047			184.0	187.5	3.5	0.46
RU-047			254.0	256.0	2.0	0.15
RU-047			266.0	273.0	7.0	0.09
RU-048	5418	221	113.5	151.5	38.0	0.18
RU-048		<i>including</i>	132.0	139.5	7.5	0.42
RU-048			164.5	168.5	4.0	0.11
RU-048			177.5	188.5	11.0	0.14
RU-051	5506	212	95.3	96.3	1.0	0.20
RU-051			111.3	121.3	10.0	0.34
RU-051		<i>including</i>	118.1	120.1	2.0	0.90
RU-052	5445	293	118.0	120.0	2.0	0.08
RU-052			125.5	130.5	5.0	0.07
RU-054	5580	272	252.5	257.4	4.9	0.17
RU-055	5445	271	108.0	111.0	3.0	0.11
RU-055			195.0	205.0	10.0	0.09
RU-056	5525	329	218.0	224.0	6.0	0.09
RU-057	5580	302	172.0	174.0	2.0	0.19
RU-058	5445	259	103.0	125.5	22.5	0.16
RU-058			143.0	147.0	4.0	0.09
RU-058			167.0	189.5	22.5	0.07
RU-060	5580	242	71.0	71.5	0.5	0.36
RU-060			141.4	150.0	8.6	0.08
RU-060			164.5	166.1	1.6	0.06
RU-063	5580	272	206.0	208.5	2.5	0.06
RU-063			212.0	213.0	1.0	0.15
RU-063			231.7	234.6	2.9	0.05
RU-063			242.7	243.6	0.9	0.12
RU-063			246.0	253.0	7.0	0.08
RU-064	5385	297	139.1	140.5	1.4	0.10
RU-064			142.6	143.9	1.3	0.08
RU-064			145.9	153.4	7.5	0.09
RU-064			158.0	163.0	5.0	0.09
RU-064			187.9	204.3	16.4	0.09
RU-065	5580	272	209.0	213.0	4.0	0.09
RU-065			218.7	223.0	4.3	0.10
RU-067	5580	242	153.7	155.7	2.0	0.13
RU-067			188.0	195.5	7.5	0.10
RU-068	5385	302	108.0	130.2	22.2	0.09
RU-068			207.2	210.0	2.8	0.07
RU-069	5580	246	205.0	205.5	0.5	0.39

Hole	Section (East)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U3O8)
RU-070	5664	244	179.1	180.1	1.0	0.53
RU-070			194.5	199.2	4.7	0.11
RU-070			225.5	226.7	1.2	0.21
RU-071	5630	302	63.0	64.0	1.0	0.54
RU-071			113.0	114.0	1.0	0.20
RU-071			121.0	141.0	20.0	0.09
RU-071			146.0	147.0	1.0	0.20
RU-071			167.0	178.0	11.0	0.30
RU-071			185.0	186.0	1.0	0.35
RU-072	5385	251	164.1	165.3	1.2	0.25
RU-072			182.5	186.4	3.9	0.12
RU-072			192.5	194.2	1.7	0.23
RU-073	5664	239	162.3	165.1	2.8	0.10
RU-075	5630	302	121.0	143.0	22.0	0.07
RU-075			160.0	161.0	1.0	0.19
RU-075			169.0	184.5	15.5	0.09
RU-075			268.3	269.0	0.7	0.19
RU-076	5664	239	62.7	64.0	1.3	0.08
RU-076			127.0	128.6	1.6	0.07
RU-076			148.0	149.1	1.1	0.10
RU-076			154.4	156.2	1.8	0.26
RU-077	5630	302	93.0	101.0	8.0	0.21
RU-078	5385	232	106.3	111.6	5.3	0.12
RU-078			197.0	199.8	2.8	0.09
RU-079	5360	341	117.7	120.5	2.8	0.05
RU-079			133.0	137.0	4.0	0.07
RU-079			141.8	144.5	2.7	0.09
RU-079			160.0	169.0	9.0	0.07
RU-079			188.0	196.0	8.0	0.07
RU-079			223.0	225.0	2.0	0.12
RU-080	5630	247	129.9	132.5	2.6	0.10
RU-080			216.3	219.6	3.3	0.21
RU-081	5630	200	32.1	33.1	1.0	0.25
RU-081			110.4	113.6	3.2	0.17
RU-081			129.5	133.5	4.0	0.07
RU-083	5360	341	123.0	132.0	9.0	0.08
RU-084	5630	200	93.5	96.9	3.4	0.08
RU-085	5385	302	102.0	109.8	7.8	0.05
RU-085			127.9	128.9	1.0	0.10
RU-085			157.2	165.3	8.1	0.22
RU-087	5360	240	98.0	111.5	13.5	0.17
RU-087			133.0	138.0	5.0	0.06
RU-087			237.0	245.5	8.5	0.21
RU-090	5664	161	42.0	44.1	2.1	0.33
RU-090			68.6	69.1	0.5	0.16
RU-090			120.4	122.7	2.3	0.36
RU-090			131.6	132.7	1.1	0.27
RU-091	5360	300	152.5	167.0	14.5	0.10
RU-091			187.0	198.0	11.0	0.16
RU-091			210.0	220.0	10.0	0.07
RU-092	5506	278	186.3	186.6	0.3	0.86
RU-092			194.0	198.3	4.3	0.39

Hole	Section (East)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U3O8)
RU-092			209.4	212.6	3.2	0.09
RU-092			217.6	222.3	4.7	0.08
RU-093	5695	317	65.3	67.3	2.0	0.16
RU-093			103.7	117.8	14.1	0.08
RU-094	5360	360	87.6	88.2	0.6	0.26
RU-094			97.5	100.5	3.0	0.13
RU-094			113.0	118.5	5.5	0.07
RU-094			125.0	126.5	1.5	0.08
RU-094			137.0	146.5	9.5	0.10
RU-094			227.0	228.5	1.5	0.07
RU-094			241.0	245.0	4.0	0.09
RU-094			260.0	263.0	3.0	0.09
RU-095	5445	242	117.0	154.3	37.3	0.38
RU-095		including	120.4	129.8	9.4	0.82
RU-095			160.8	162.2	1.4	0.13
RU-095			185.4	186.1	0.7	0.40
RU-096	5360	263	183.0	185.0	2.0	0.16
RU-096			188.0	191.0	3.0	0.06
RU-097	5695	251	58.8	61.6	2.8	0.06
RU-097			178.6	181.5	2.9	0.07
RU-098	5445	239	93.9	95.2	1.3	0.18
RU-098			124.4	125.0	0.6	0.17
RU-099	5360	242	107.0	108.5	1.5	0.32
RU-099			158.4	179.0	20.6	0.07
RU-100	5695	251	89.7	92.5	2.8	0.05
RU-100			234.3	241.8	7.5	0.07
RU-103	5360	301	117.5	125.0	7.5	0.15
RU-103			157.0	164.0	7.0	0.51
RU-103			193.5	194.0	0.5	0.31
RU-103			206.5	208.0	1.5	0.16
RU-104	5506	179	79.0	80.9	1.9	1.04
RU-105	5695	266.0	226.10	236.2	10.1	0.24
RU-105			244.20	250.9	6.7	0.18
RU-109	5418	200.0	131.70	143.0	11.3	0.31
RU-113	5725	302.0	101.30	102.6	1.3	0.18
RU-113			150.80	151.5	0.7	0.17
RU-115	5725	281.0	226.00	231.2	5.2	0.14
RU-115			254.00	258.7	4.7	0.19
RU-116	5725	281.0	78.70	79.4	0.7	0.21
RU-118	5725	278.0	117.10	136.9	19.8	0.52
RU-120	5330	371.0	151.90	153.2	1.3	0.08
RU-120			159.90	165.7	5.8	0.08
RU-120			174.30	176.1	1.8	0.07
RU-120			182.70	191.5	8.8	0.12
RU-120			203.40	203.9	0.5	0.29
RU-121	5330	371.0	308.20	315.2	7.0	0.06
RU-122	5755	266.0	88.80	92.2	3.4	0.15
RU-123	5330	368.0	129.10	133.8	4.7	0.11
RU-123			280.60	304.0	23.4	0.08
RU-125	5330	338.0	143.30	146.0	2.7	0.07
RU-125			156.00	156.8	0.8	0.13
RU-125			259.30	260.4	1.1	0.47

Hole	Section (East)	Length of Hole (meters)	From (meters)	To (meters)	Length (meters)	Avg. Grade (% U3O8)
RU-125			279.90	281.0	1.1	0.28
RU-126	5300	374.0	153.00	155.7	2.7	0.09
RU-126			170.90	178.0	7.1	0.09
RU-126			313.00	314.0	1.0	0.11
RU-128	5300	371.0	271.00	272.8	1.8	0.07
RU-128			275.40	279.7	4.3	0.15
RU-128			287.30	288.4	1.1	0.27
RU-128			305.00	308.0	3.0	0.07
RU-128			322.30	322.9	0.6	0.26
RU-130	5430	221.0	106.00	119.1	10.9	0.14
RU-130			136.70	137.2	0.5	1.29
RU-130			144.6	149.0	4.4	0.16
RU-132	5360	222.0	91.0	105.0	14.0	0.21
RU-132			116.4	119.0	2.6	1.76
RU-135	5315	222.0	70.5	71.5	1.0	0.30
RU-135			91.0	94.5	3.5	0.05
RU-135			99.5	100.5	1.0	0.17
RU-135			123.0	131.0	8.0	0.15
RU-135			145.0	150.0	5.0	0.05
RU-136	5315	300.0	144.0	147.0	3.0	0.06
RU-136			153.0	155.0	2.0	0.13
RU-136			232.0	233.3	1.3	0.09
RU-138	5315	333.0	198.9	200.6	1.7	0.11
RU-139	5330	222.0	70.0	74.0	4.0	0.64
RU-139			101.0	103.0	2.0	0.12
RU-139			109.0	112.0	3.0	0.11
RU-139			127.0	128.0	1.0	0.68
RU-141	5330	270.0	80.0	88.0	8.0	0.08
RU-142	5330	274.0	203.6	207.0	3.4	0.18
RU-143	5665	287.0	57.5	64.7	7.2	0.06
RU-143			71.0	77.6	6.6	0.15
RU-143			87.0	94.2	7.2	0.07
RU-143			99.0	103.8	4.8	0.05
RU-143			208.8	233.3	24.5	0.21
RU-144	5330	175.0	113.5	114.0	0.5	0.05
RU-144			118.5	119.0	0.5	0.07
RU-146	5288	252.0	106.5	108.0	1.5	0.09
RU-146			132.0	134.0	2.0	0.71
RU-150	5725	260.0	187.5	189.0	1.5	0.17
RU-152	5725	260.0	209.5	210.5	1.0	0.12
RU-156	5612	234.0	68.4	69.4	1.0	0.19
RU-157	5755	258.5	115.0	139.1	24.1	0.24
RU-159	5755	260.0	251.9	258.9	7.0	0.10
RU-160	5740	242.0	110.0	119.0	9.0	0.05

APPENDIX 3:

Report on metallurgical testing

September 12, 2008

Melis Project No. 479

UEX Corporation
Suite 1007-808 Nelson St.
VANCOUVER BC V6Z 2H2

Attention: David Rhys/Sierd Eriks

Dear Mr Rhys and Mr. Eriks:

RE: Results Of Preliminary Metallurgical Testwork on the Horseshoe and Raven Deposits

SUMMARY

Introduction

A metallurgical test program for the Raven-Horseshoe mineralization is being completed for UEX Corporation (UEX) under the direction of Melis Engineering Ltd. (Melis), at SGS Lakefield Research Limited (Lakefield) in Lakefield, Ontario. The test program, initiated in October 2006, includes comminution testwork, uranium recovery testwork and environmental data generation.

Horseshoe Phase I extended from October 2006 until October 2007. Metallurgical test composites prepared from assay rejects included composites representing Zone A and Zone B of the deposit, a blend of Zone A and Zone B to provide a main composite for initial testing, and a high grade composite from Drill Hole HU-16. Phase I included petrographic analysis, comminution testwork, uranium leaching testwork and environmental data generation.

Horseshoe Phase II began with sample selection in September 2007 and is still in progress. Phase II includes comminution testwork, uranium leaching testwork and environmental data generation

The Raven test program, which encompasses samples selected from March 2008 until July 2008, includes comminution and uranium leaching testwork.

Composite Preparation

The following composites were prepared from the Horseshoe zone for testing:

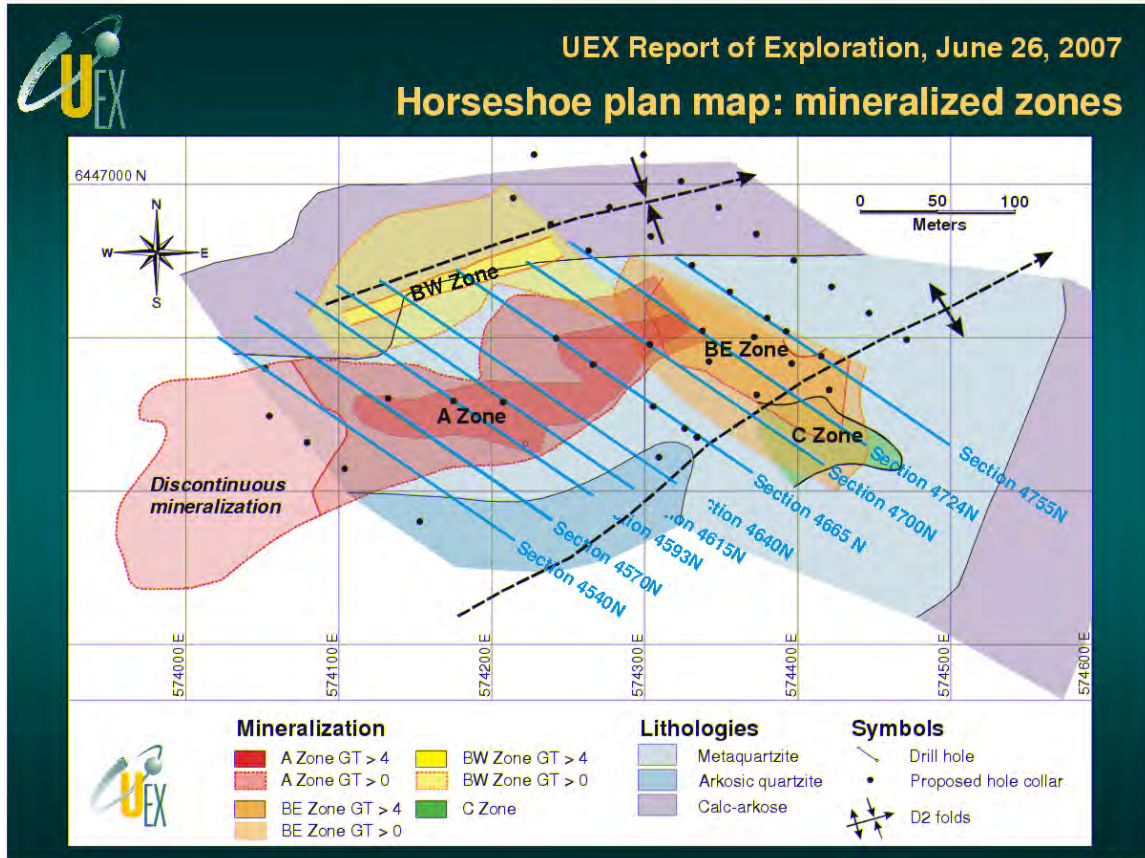
- Composite A - representative material from intervals >1.5 m minimum mining width in the Horseshoe A zone,

- Composite B - representative material from intervals >1.5 m minimum mining width in the Horseshoe B zone,
- Composite HU16 - representative material from the high grade HU-16 intersection,
- Composite Main – a blend of Composite A and Composite B to be used in the initial testing.
- Composite AH – a high grade composite from the A zone,
- Composite AL – a low grade composite from the A zone,
- Composite BEH – a high grade composite from the BE zone, and
- Composite BEL – a low grade composite from the BE zone.

The following composite was prepared from the Raven zone for testing:

- Composite RU-130 - representative material from drill hole RU-130 in the Raven zone.

The zones were defined as per the June 26, 2007 mineralization and lithological map below.



Petrographic Analysis

Five uranium carriers were identified in the Raven - Horseshoe samples. The primary uranium mineral (first deposited) is comprised of uraninite (UO_2). Secondary uranium minerals, all formed as a result of alteration and remobilization of uranium from the uraninite, are comprised of the uranium silicates boltwoodite HK ($UO_2(SiO_4) \cdot 1.5H_2O$), uranophane $Ca[(UO_2)SiO_3(OH)]_2 \cdot 2H_2O$ and coffinite $U(SiO_4)_{1-x}(OH)_{4x}$; these are accompanied by minor amounts of carnotite $K_2(UO_2)_2V_2O_8 \cdot 3H_2O$.

Composite Analysis

The table below summarizes the more significant assays for the test composites.

UEX Corporation – Raven-Horseshoe Uranium Deposit Summary of Horseshoe and Raven Composite Assays					
Composite	Assay, %				
	U ₃ O ₈	As	Fe	Mo	Se
A	0.414	0.0048	1.61	0.0014	<0.0001
B	0.297	0.0083	3.85	0.0008	<0.0001
HU16	4.07	0.0785	3.36	0.0012	<0.0001
Main	0.33	0.0063	2.66	0.0015	<0.0001
AH	2.18	0.014	4.20	0.0025	< 0.0030
AL	0.38	0.0052	1.29	0.0018	< 0.0030
BEH	0.31	0.0055	1.39	0.0024	< 0.0030
BEL	0.054	< 0.0040	0.73	0.0016	< 0.0030
RU-130	0.21	< 0.0060	1.72	0.0025	< 0.0030

Grinding Circuit Evaluation

Nine composites were submitted for Bond ball mill work index (BWI) and SPI[®] determinations. The Raven-Horseshoe composites were categorized as medium in hardness from the perspective of SAG milling, with an average SPI value of 69 minutes. The BWI averaged 17.1 kWh/t and the composites were characterized as moderately hard for ball mill grinding.

Results of Leach Testwork

Leaching tests show that the uranium in the Horseshoe and Raven zones is easily leached under relatively mild atmospheric leach conditions. Leach extractions of 98% can be achieved under the following conditions:

- grind K₈₀ of 90 to 200 µm (both yielded acceptable extractions),
- 12 hour leach retention time,
- free acid level of 10 g H₂SO₄/L, representing acid additions of approximately 50 kg H₂SO₄/t, and
- a 475 mV redox/potential controlled with NaClO₃ at addition rates of 0.5 to 1 kg NaClO₃/t.

Treated Effluent Analysis

The more significant treated effluent assays are summarized in the table below.

UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Zone Treated Effluent Analysis		
Parameter	Unit	Treated Effluent
pH	-	7.12
emf	mV	168
As	mg/L	0.0043
Ca	mg/L	617
Cd	mg/L	0.00082
Hg	mg/L	< 0.0001
Mo	mg/L	1.51
Pb	mg/L	0.00077
Se	mg/L	0.011
U	mg/L	0.0123

The molybdenum concentration alone is above the anticipated discharge limit of 0.5 mg Mo/L. Reducing the molybdenum concentration in the treated effluent by altering treatment condition will be an objective of the ongoing Phase II test program.

Tailings Aging Tests

The more significant tailings supernatant assays are summarized in the table below:

UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Neutralized Tailings Supernatant Aging Tests						
Parameter	Unit	Day 1	Day 2	Day 14	Day 30	Day 61
pH	-	7.1	7.54	7.65	7.81	7.91
EMF	mV	-20	37	-37	108	150
Ra ²²⁶	Bq/L	n/a	n/a	n/a	n/a	9.1
Hg	mg/L	< 0.0001	0.0053	< 0.0001	0.0001	< 0.0001
As	mg/L	0.0496	0.0383	0.0378	0.0518	0.0565
Ca	mg/L	620	608	574	599	590
Mo	mg/L	54.3	n/a	74.7	80	75.2
Pb	mg/L	0.0479	0.0126	0.00164	0.00865	0.00460
Se	mg/L	0.007	0.008	0.007	0.009	0.010
U	mg/L	0.0778	0.114	0.616	0.774	0.709

As expected, molybdenum and residual uranium levels in the tailings supernatant, which, as expected, is also contaminated with radium, increase upon aging, but excess tailings water would be re-used and/or treated in the mill process and waste treatment circuits under normal operating conditions.

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COMPOSITE PREPARATION

Horseshoe Phase I Metallurgical Test Composites

The selection of composites from the Horseshoe deposit was reviewed with Dave Rhys of Panterra Geoservices Inc. during and subsequent to a site visit by Lawrence Melis and Dave Rhys on October 3, 2006. It was decided to prepare test composites representative of three separate zones or areas of unique grade distribution within known parts of the Horseshoe deposit as established from drilling to the end of 2006, using coarse assay rejects stored at the Saskatchewan Research Council (SRC) in Saskatoon, Saskatchewan. The samples for the metallurgical composites were selected with a range of grades which together comprised typical grades of each of the domains/zones selected.

This provided the following composites for testing:

- Composite A - representative material from intervals >1.5 m minimum mining width in the Horseshoe A zone,
- Composite B - representative material from intervals >1.5 m minimum mining width in the Horseshoe B zone,
- Composite HU16 - representative material from the high grade HU-16 intersection, and
- Composite Main – a blend of Composite A and Composite B to be used in the initial testing.

Composite preparation, which was completed by SRC, consisted of the following steps:

- Extract the individual assay reject samples from storage as listed in the appropriate table (see below).
- Record the weight of each sample.
- Riffle split and return 1/4 of each sample to storage.
- Record the individual weights of the remaining samples.
- Blend the samples to make up the composite.
- Measure and record the overall weight of the composite.
- Submit a sub-sample of the composite for head assay including a full ICP scan (including U, V, As, Co, Ni, Cu, Mo, Pb, Zn, REEs), low-level Se, radionuclide suite and whole rock analysis.
- Riffle split Composite A and Composite B and blend half of each to produce Composite Main.

The samples comprising Composite A, Composite B, and Composite HU-16 are shown in Table 1, Table 2 and Table 3 below. Composite Main was subsequently prepared as a blend of Composites A and B.

Table 1 UEX Corporation – Raven-Horseshoe Uranium Deposit Make-up of Horseshoe Composite A								
Sample Number	Hole	Lab Group	From (m)	To (m)	Length (m)	Total Weight (kg)	Weight to Composite (kg)	U ₃ O ₈ (%)
HU06-174.64	HU-006	2006-1066	174.64	174.94	0.30	0.454	0.347	0.236
HU06-175.69	HU-006	2006-1066	175.69	176.00	0.31	0.640	0.492	0.828
HU06-182.97	HU-006	2006-1066	182.97	183.30	0.33	0.484	0.373	0.189
HU07-167.29	HU-007	2006-1188	167.29	167.69	0.40	0.772	0.580	0.153
HU07-169.06	HU-007	2006-1188	169.06	169.38	0.32	0.684	0.531	0.682
HU07-170.3	HU-007	2006-1188	170.30	170.74	0.44	1.273	0.932	0.499
HU07-173.0	HU-007	2006-1188	173.00	173.50	0.50	0.963	0.715	0.104
HU08-164.7	HU-008	2006-1066	164.70	165.10	0.40	0.642	0.493	0.183
HU08-166.2	HU-008	2006-1066	166.20	166.50	0.30	0.602	0.468	0.955
HU08-169.9	HU-008	2006-1066	169.90	170.40	0.50	0.996	0.756	0.203
HU08-171.8	HU-008	2006-1066	171.80	172.20	0.40	0.692	0.490	0.263
HU-12-187.5	HU-012	2006-1294	187.50	188.00	0.50	1.254	0.967	0.663
HU-12-188.0	HU-012	2006-1294	188.00	188.50	0.50	1.103	0.849	0.178
HU-12-189.5	HU-012	2006-1294	189.50	190.10	0.60	1.162	0.909	0.100
HU-15-181.4	HU-015	2006-1294	181.40	181.80	0.40	1.091	0.832	0.340
HU-15-182.3	HU-015	2006-1294	182.30	182.90	0.60	0.967	0.746	0.153
HU-15-189.3	HU-015	2006-1294	189.30	190.00	0.70	1.401	1.124	1.203
68719	HU-022	2006-1588	210.64	211.03	0.39	0.539	0.427	0.113
68735	HU-022	2006-1588	218.00	218.50	0.50	0.803	0.602	0.179
68749	HU-022	2006-1588	224.00	224.40	0.40	0.571	0.445	1.498
68763	HU-022	2006-1588	228.47	228.84	0.37	0.777	0.602	0.275
68767	HU-022	2006-1588	229.45	229.78	0.33	0.515	0.413	0.526
68773	HU-022	2006-1588	231.48	231.71	0.23	0.552	0.437	0.307
68778	HU-022	2006-1588	233.00	233.50	0.50	0.956	0.755	0.137
Weighted Average					10.22	19.89	15.28	0.42

<p align="center">Table 2 UEX Corporation – Raven-Horseshoe Uranium Deposit Make-up of Horseshoe Composite B</p>								
Sample Number	Hole	Lab Group	From (m)	To (m)	Length (m)	Total Weight (kg)	Weight to Composite (kg)	U₃O₈ (%)
HU11-253.97	HU-011	2006-1188	253.97	254.47	0.50	0.862	0.684	0.167
HU-11-257.73	HU-011	2006-1294	257.73	257.85	0.12	0.272	0.216	1.604
HU-13-239.0	HU-013	2006-1294	239.00	239.50	0.50	0.971	0.752	0.127
HU-13-239.5	HU-013	2006-1294	239.50	239.90	0.40	0.786	0.588	0.390
HU-13-240.2	HU-013	2006-1294	240.20	240.70	0.50	1.309	0.996	0.149
HU-019 261.4	HU-019	2006-1462	261.40	261.70	0.30	0.603	0.477	0.745
HU020-292.45	HU-020	2006-1462	292.45	293.00	0.55	1.026	0.800	0.383
HU020-293.50	HU-020	2006-1462	293.50	294.00	0.50	0.763	0.617	0.232
HU020-292.00	HU-020	2006-1462	292.00	292.45	0.45	0.199	0.159	0.755
HU020-297.05	HU-020	2006-1503	297.05	297.55	0.50	1.013	0.797	0.206
69114	HU-024	2006-1577	308.80	309.30	0.50	0.828	0.644	0.150
69129	HU-024	2006-1577	316.50	317.35	0.85	1.667	1.295	0.276
69140	HU-024	2006-1577	322.20	322.80	0.60	1.124	0.887	0.519
69141	HU-024	2006-1577	322.80	323.40	0.60	1.193	0.959	0.213
69148	HU-024	2006-1577	326.00	326.50	0.50	1.028	0.801	0.279
69152	HU-024	2006-1577	328.00	328.50	0.50	0.882	0.714	0.329
69155	HU-024	2006-1577	329.50	330.30	0.80	1.319	1.027	0.139
69159	HU-024	2006-1577	331.55	332.00	0.45	0.879	0.688	0.104
69156	HU-024	2006-1577	330.30	330.80	0.50	1.033	0.802	0.624
69179	HU-024	2006-1577	342.60	343.00	0.40	0.779	0.617	0.419
69181	HU-024	2006-1577	343.50	343.80	0.30	0.472	0.376	0.243
Weighted Average					10.32	19.01	14.89	0.31

Table 3 UEX Corporation – Raven-Horseshoe Uranium Deposit Make-up of Horseshoe Composite HU16								
Sample Number	Hole	Lab Group	From (m)	To (m)	Length (m)	Total Weight (kg)	Weight to Composite (kg)	U ₃ O ₈ (%)
HU-16 201.5	HU-016	2006-1257	201.50	201.80	0.30	0.363	0.298	1.392
HU-16 201.8	HU-016	2006-1257	201.80	202.15	0.35	0.688	0.526	5.531
HU-16 202.15	HU-016	2006-1257	202.15	202.50	0.35	0.754	0.598	2.759
HU-16 202.5	HU-016	2006-1257	202.50	203.00	0.50	0.416	0.333	2.488
HU-16 203.0	HU-016	2006-1257	203.00	203.80	0.80	1.501	1.130	2.229
HU-16 203.8	HU-016	2006-1257	203.80	204.20	0.40	1.009	0.795	0.945
HU-16 204.2	HU-016	2006-1257	204.20	204.80	0.60	1.233	1.030	1.498
HU-16 204.8	HU-016	2006-1257	204.80	205.40	0.60	0.934	0.735	22.170
HU-16 205.4	HU-016	2006-1257	205.40	206.00	0.60	1.224	0.949	3.821
HU-16 207.0	HU-016	2006-1257	207.00	207.40	0.40	0.822	0.642	3.939
HU-16 207.4	HU-016	2006-1257	207.40	208.20	0.80	1.290	0.998	12.146
HU-16 208.2	HU-016	2006-1257	208.20	208.60	0.40	0.634	0.497	2.241
HU-16 208.6	HU-016	2006-1257	208.60	209.00	0.40	0.924	0.728	0.433
HU-16 209.0	HU-016	2006-1257	209.00	209.20	0.20	0.429	0.351	1.462
HU-16 209.2	HU-016	2006-1257	209.20	209.50	0.30	0.400	0.316	1.946
HU-16 209.5	HU-016	2006-1257	209.50	210.00	0.50	0.838	0.687	0.140
HU-16 210.5	HU-016	2006-1257	210.50	211.00	0.50	0.881	0.702	0.226
HU-16 211.0	HU-016	2006-1257	211.00	211.40	0.40	0.839	0.644	1.427
HU-16 211.4	HU-016	2006-1257	211.40	211.80	0.40	0.788	0.635	0.191
HU-16 212.25	HU-016	2006-1257	212.25	212.85	0.60	1.046	0.819	1.792
HU-16 212.85	HU-016	2006-1257	212.85	213.60	0.75	1.560	1.230	12.382
HU-16 213.6	HU-016	2006-1257	213.60	213.85	0.25	0.759	0.593	0.348
Weighted Average					10.40	19.33	15.24	4.33

Horseshoe Phase II Metallurgical Test Composites

Four composites were prepared, two each from the A Zone and the BE Zone. Each zone had a high grade (“H”), a low grade (“L”) composite prepared. Table 4, below, summarizes the characteristics of the composites.

Table 4					
UEX Corporation – Raven/Horseshoe Uranium Project					
Composite Summary					
Zone	Avg CPS.	Breakpoint, CPS	Composite	Avg CPS.	Estimated wt, kg
A	2,930	3,000	AL	677	76.9
			AH	7,436	37.2
BE	890	900	BEL	450	161
			BEH	1,969	65.0

Because assays were not available until after composite preparation, the division between high and low grade composites was estimated from the readings taken with the SPP2 analyzer (CPS = counts per second) at site.

Table 5 through Table 8, below list the samples mixed into each composite.

Table 5 UEX Corporation – Raven/Horseshoe Uranium Project Horseshoe Phase II Preparation of Composite AH						
Pail No.	Sample No.	From, m	To, m	Interval, m	Estimated wt, kg	Counts per Second
HSP-451	68544	186.0	186.5	0.5	2.3	15,000
HSP-451	68539	184.3	184.8	0.5	2.3	13,000
HSP-445	68515	175.3	175.8	0.5	2.3	10,000
HSP-449	68534	182.7	183.2	0.5	2.3	10,000
HSP-451	68536	183.5	183.8	0.3	1.4	10,000
HSP-451	68540	184.8	185.0	0.2	0.9	10,000
HSP-451	68543	185.5	186.0	0.5	2.3	7,000
HSP-449	68533	182.5	182.7	0.2	0.9	6,500
HSP-441	68495	168.8	169.1	0.3	1.3	6,000
HSP-443	68508	172.8	173.2	0.4	1.8	6,000
HSP-449	68532	182.1	182.5	0.4	1.8	5,000
HSP-449	68535	183.2	183.5	0.3	1.4	4,500
HSP-443	68507	172.5	172.8	0.3	1.4	4,000
HSP-441	68503	171.1	171.4	0.3	1.4	3,600
HSP-449	68531	181.8	182.1	0.3	1.3	3,500
HSP-441	68500	170.4	170.8	0.4	1.8	3,400
HSP-445	68519	176.8	177.3	0.5	2.3	3,100
Composite AH				6.4	28.8	7,436

Table 6 UEX Corporation – Raven/Horseshoe Uranium Project Horseshoe Phase II Preparation of Composite AL						
Pail No.	Sample No.	From, m	To, m	Interval, m	Estimated wt, kg	Counts per Second
HSP-451	68541	185.0	185.5	0.5	2.3	2,600
HSP-447	68520	177.3	177.6	0.3	1.3	2,500
HSP-445	68514	175.1	175.3	0.2	0.9	2,400
HSP-447	68521	177.6	178.0	0.4	1.8	2,000
HSP-445	68516	175.8	176.3	0.5	2.3	1,800
HSP-443	68504	171.4	171.9	0.5	2.3	900
HSP-445	68511	174.1	174.5	0.4	1.8	800
HSP-447	68523	178.0	178.5	0.5	2.3	800
HSP-445	68513	174.8	175.1	0.3	1.3	750
HSP-445	68518	176.3	176.8	0.5	2.3	700
HSP-441	68499	170.0	170.4	0.4	1.8	600
HSP-445	68512	174.5	174.8	0.3	1.4	500
HSP-451	68538	183.8	184.3	0.5	2.3	500
HSP-453	68545	186.5	187.0	0.5	2.3	500
HSP-441	68501	170.8	171.1	0.3	1.3	480
HSP-443	68506	172.3	172.5	0.2	0.9	430
HSP-443	68510	173.7	174.1	0.4	1.8	370
HSP-443	68505	171.9	172.3	0.4	1.8	300
HSP-443	68509	173.2	173.7	0.5	2.3	300
HSP-439	68493	167.8	168.2	0.4	1.8	290
HSP-447	68524	178.5	179.0	0.5	2.3	250
HSP-449	68528	180.5	181.0	0.5	2.3	250
HSP-449	68530	181.5	181.8	0.3	1.4	250
HSP-439	68494	168.2	168.8	0.6	2.7	230
HSP-447	68525	179.0	179.5	0.5	2.3	230
HSP-447	68526	179.5	180.0	0.5	2.3	220
HSP-441	68496	169.1	169.6	0.5	2.3	200
HSP-447	68527	180.0	180.5	0.5	2.3	200
HSP-449	68529	181.0	181.5	0.5	2.3	180
HSP-441	68498	169.6	170.0	0.4	1.8	150
Composite AL				12.8	57.6	677

Table 7 UEX Corporation – Raven/Horseshoe Uranium Project Horseshoe Phase II Preparation of Composite BEH						
Pail No.	Sample No.	From, m	To, m	Interval, m	Estimated wt, kg	Counts per Second
HSP-473	68570	306.5	307.0	0.5	2.3	4400
HSP-473	68571	307.0	307.5	0.5	2.3	4400
HSP-482	68581	311.0	311.4	0.4	1.8	3900
HSP-476	80074	287.0	287.5	0.5	2.3	3300
HSP-481	80100	298.2	298.6	0.4	1.8	3300
HSP-482	68580	310.7	311.0	0.3	1.4	2800
HSP-473	68572	307.5	308.0	0.5	2.3	2500
HSP-470	68550	298.6	299.0	0.4	1.8	2200
HSP-484	68593	316.0	316.4	0.4	1.8	1900
HSP-484	68594	316.4	316.9	0.5	2.3	1800
HSP-472	68564	303.7	304.1	0.4	1.8	1700
HSP-470	68551	299.0	299.4	0.4	1.8	1650
HSP-486	66601	319.4	319.9	0.5	2.3	1500
HSP-482	68583	311.4	311.8	0.4	1.8	1300
HSP-485	68598	317.9	318.3	0.4	1.8	1250
HSP-486	66603	319.9	320.4	0.5	2.3	1250
HSP-482	68578	310.0	310.3	0.3	1.4	1150
HSP-485	68600	318.8	319.4	0.6	2.7	1150
HSP-480	80096	297.0	297.5	0.5	2.3	1000
HSP-471	68555	300.9	301.4	0.5	2.3	1000
HSP-483	68584	311.8	312.3	0.5	2.3	1000
HSP-476	80072	286.0	286.5	0.5	2.3	950
HSP-471	68559	302.2	302.5	0.3	1.4	950
HSP-483	68587	313.3	313.8	0.5	2.3	950
Composite BEH				10.7	48.2	1,969

Table 8 UEX Corporation – Raven/Horseshoe Uranium Project Horseshoe Phase II Preparation of Composite BEL						
Pail No.	Sample No.	From, m	To, m	Interval, m	Estimated wt, kg	Counts per Second
HSP-476	80071	285.5	286.0	0.5	2.3	900
HSP-481	80099	297.8	298.2	0.4	1.8	900
HSP-471	68560	302.5	302.9	0.4	1.8	850
HSP-481	68573	308.0	308.5	0.5	2.3	850
HSP-481	68575	309.0	309.5	0.5	2.3	825
HSP-475	80067	283.5	284.0	0.5	2.3	800
HSP-480	80098	297.5	297.8	0.3	1.4	800
HSP-470	68552	299.4	299.9	0.5	2.3	800
HSP-483	68586	312.8	313.3	0.5	2.3	800
HSP-485	68596	317.4	317.9	0.5	2.3	800
HSP-480	80094	296.0	296.5	0.5	2.3	750
HSP-470	68554	300.4	300.9	0.5	2.3	750
HSP-479	80090	294.0	294.5	0.5	2.3	700
HSP-480	80095	296.5	297.0	0.5	2.3	700
HSP-482	68576	309.5	310.0	0.5	2.3	700
HSP-476	80073	286.5	287.0	0.5	2.3	650
HSP-479	80089	293.5	294.0	0.5	2.3	650
HSP-482	68579	310.3	310.7	0.4	1.8	650
HSP-485	68599	318.3	318.8	0.5	2.3	650
HSP-470	68553	299.9	300.4	0.5	2.3	600
HSP-485	68595	316.9	317.4	0.5	2.3	550
HSP-480	80093	295.5	296.0	0.5	2.3	500
HSP-471	68556	301.4	301.9	0.5	2.3	500
HSP-472	68563	303.4	303.7	0.3	1.4	450
HSP-483	68585	312.3	312.8	0.5	2.3	430
HSP-479	80088	293.0	293.5	0.5	2.3	400
HSP-471	68561	302.9	303.4	0.5	2.3	350
HSP-472	68566	304.5	305.0	0.5	2.3	340
HSP-472	68568	305.5	306.0	0.5	2.3	330
HSP-477	80076	288.0	288.5	0.5	2.3	320
HSP-478	80084	291.0	291.5	0.5	2.3	320
HSP-472	68567	305.0	305.5	0.5	2.3	310
HSP-476	80075	287.5	288.0	0.5	2.3	300
HSP-473	68569	306.0	306.5	0.5	2.3	280
HSP-477	80081	290.0	290.5	0.5	2.3	270
HSP-479	80091	294.5	295.0	0.5	2.3	270
HSP-481	68574	308.5	309.0	0.5	2.3	260
HSP-475	80070	285.0	285.5	0.5	2.3	240
HSP-475	80068	284.0	284.5	0.5	2.3	230
HSP-472	68565	304.1	304.5	0.4	1.8	230

Table 8 UEX Corporation – Raven/Horseshoe Uranium Project Horseshoe Phase II Preparation of Composite BEL						
Pail No.	Sample No.	From, m	To, m	Interval, m	Estimated wt, kg	Counts per Second
HSP-475	80069	284.5	285.0	0.5	2.3	220
HSP-479	80092	295.0	295.5	0.5	2.3	220
HSP-484	68591	315.0	315.5	0.5	2.3	210
HSP-478	80083	290.5	291.0	0.5	2.3	200
HSP-484	68590	314.5	315.0	0.5	2.3	200
HSP-477	80079	289.0	289.5	0.5	2.3	190
HSP-478	80085	291.5	292.0	0.5	2.3	190
HSP-471	68558	301.9	302.2	0.3	1.4	190
HSP-478	80086	292.0	292.5	0.5	2.3	185
HSP-483	68589	314.0	314.5	0.5	2.3	180
HSP-477	80080	289.5	290.0	0.5	2.3	170
HSP-484	68592	315.5	316.0	0.5	2.3	170
HSP-478	80087	292.5	293.0	0.5	2.3	150
HSP-483	68588	313.8	314.0	0.2	0.9	150
HSP-477	80078	288.5	289.0	0.5	2.3	140
Composite BEL				26.2	117.9	450

Figure 1, below, shows schematically the composite preparation and grindability testwork procedure for Horseshoe Phase II.

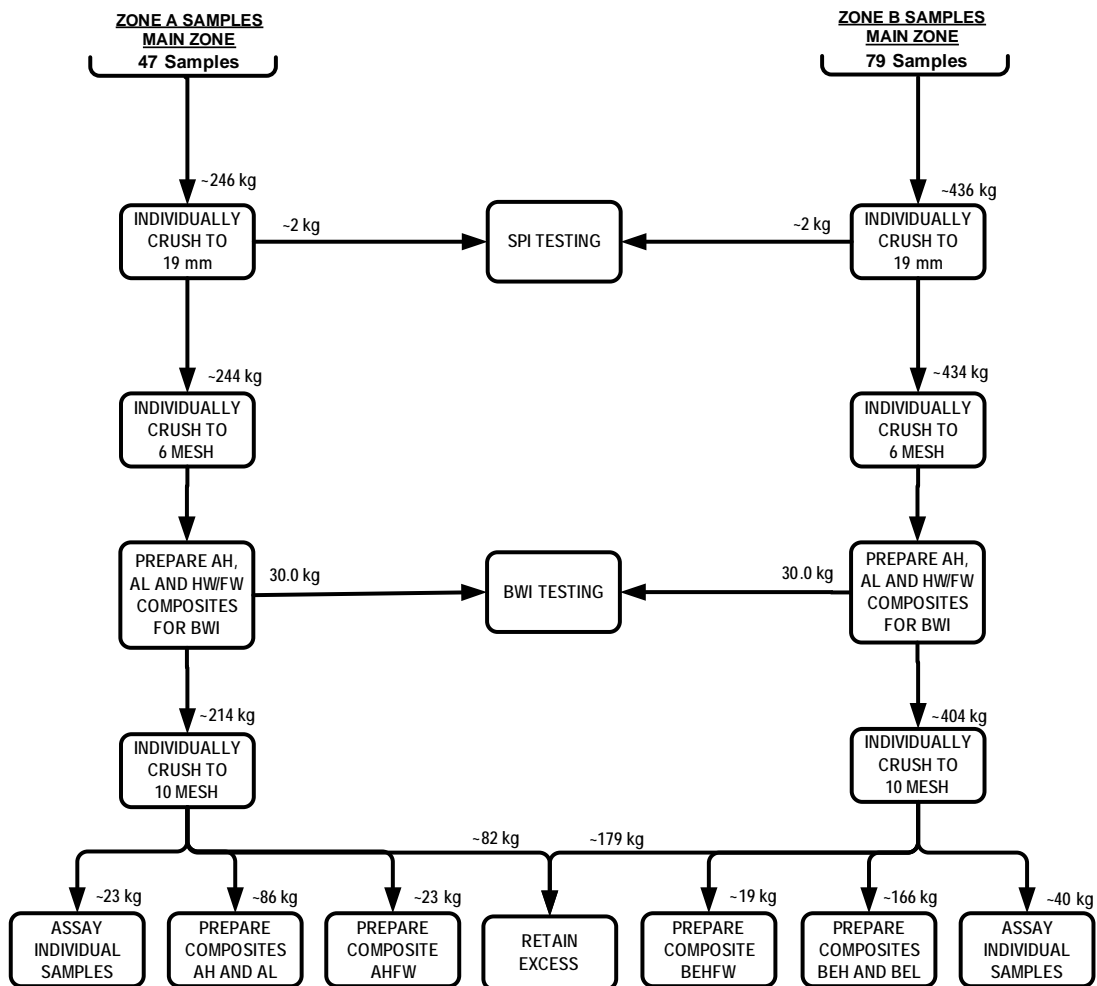


Figure 1

Horseshoe Phase II Composite Preparation and Grindability Testwork Schematic

Raven Composite Preparation Procedure

Table 9, below, lists the samples from Raven drill hole RU-130 which were selected to compose composite RU-130.

Table 9 UEX Corporation – Raven/Horseshoe Uranium Project Preparation of Raven Composite RU-130				
Sample No.	From, m	To, m	Interval, m	Weight, kg
UX006487	109	109.5	0.5	2.0
UX006488	109.5	110	0.5	2.0
UX006489	110	110.4	0.4	1.6
UX006490	110.4	111.1	0.7	2.8
UX006491	111.1	111.6	0.5	2.0
UX006492	111.6	112	0.4	1.6
UX006493	112	112.4	0.4	1.6
UX006494	112.4	112.7	0.3	1.2
UX006499	116.3	117	0.7	2.8
UX006500	117	117.7	0.7	2.8
UX011951	117.7	118.4	0.7	2.8
UX011952	118.4	118.9	0.5	2.0
UX011953	118.9	119.4	0.5	2.0
UX011954	119.4	119.9	0.5	2.0
UX011958	136.7	137.2	0.5	2.0
UX011959	137.2	138	0.8	3.2
UX011963	144.6	145.4	0.8	3.2
UX011964	145.4	146.1	0.7	2.8
UX011965	146.1	146.8	0.7	2.8
UX011966	146.8	147.1	0.3	1.2
UX011967	147.1	147.8	0.7	2.8
UX011968	147.8	148.5	0.7	2.8
UX011969	148.5	149	0.5	2.0
UX011970	149	149.5	0.5	2.0
UX011971	149.5	150	0.5	2.0
UX011972	150	150.5	0.5	2.0
UX011973	150.5	151.1	0.6	2.4
Composite RU-130			15.1	60.0

PETROGRAPHIC ANALYSIS

(Excerpted from Terra Mineralogical Services Report No. TerraMS-07NOV-02:
*Mineralogical Characterization Of U-Rich Drill Core Samples From The Raven -Horseshoe
Property, Northern Saskatchewan, January 31, 2008.*)

The geology staff of UEX Corporation submitted a series of fourteen (14) drill core samples for mineralogical examination. These samples were collected from mineralized drill cores from the Raven-Horseshoe Uranium project located in Northern Saskatchewan. The goal of this study was to conduct a detailed mineralogical characterization of these mineralized U-rich samples.

The major points of interest from this study are summarized below.

- Five uranium carriers were identified in the Raven - Horseshoe samples. The primary Uranium mineral (first deposited) is comprised of **uraninite** (UO_2). Secondary Uranium minerals, all formed as a result of alteration and remobilization of Uranium from the uraninite, are comprised of the Uranium silicates **boltwoodite** **HK** (UO_2) (SiO_4)- $1.5\text{H}_2\text{O}$, **uranophane** **Ca** [$(\text{UO}_2)\text{SiO}_3(\text{OH})$] $_2$ - $2\text{H}_2\text{O}$ and **coffinite** **U**(SiO_4) $_{1-x}$ (OH) $_{4x}$; these are accompanied by minor amounts of **carnotite** **K** $_2$ (UO_2) $_2\text{V}_2\text{O}_8$ - $3\text{H}_2\text{O}$.
- Primary uraninite predominately occurs in a network of thin fractures that have remained preserved in quartz grains, whereas secondary Uranium-bearing minerals form tight intergrowths with hydrothermal alteration assemblages that have overprinted the matrix of the protolith rock.
- In areas of the matrix that are Iron-rich, aggregates of secondary Uranium minerals are intergrown predominately with Fe-oxi-hydroxides and form medium-to very coarse-grained aggregates, whereas the replacement of micas in the matrix has resulted in extremely fine-grained textures of secondary Uranium minerals tightly intergrown with chlorite and Fe-oxi-hydroxides.
- There is a possibility that some Uranium has been incorporated into the structure of Fe-oxi-hydroxides and sheet aluminosilicates and therefore could be prevented from leaching.
- Minor amounts of clay (up to 2%) and calcite (up to ~1.5%) were identified in a few samples and would not interfere with the processing of the Uranium mineralization.
- Although a majority of the Uranium-bearing minerals occur as fine- to extremely fine grained particles (~35 μm to less than 1 μm), these are nonetheless hosted in weak

textures that are expected to break up and/ or open up even with a moderate degree of stress applied to the rock. It is therefore anticipated that a coarse primary grind (~150 μm) would result in a sufficient opening of the rocks, and expose Uranium mineralization to leaching solutions.

COMPOSITE ANALYSES

Horseshoe Phase I Composite Analysis

The four prepared composites were sampled by SRC prior to shipping and submitted for analysis. The SRC head assays are summarized in Table 10 and Table 11 below. Table 10 below lists uranium and thorium assays and the whole rock analyses completed by ICP using lithium metaborate fusion and HNO₃ dissolution.

Table 10 UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Composites - Whole Rock Analysis, %				
Analyte	Composite A	Composite B	Composite HU16	Composite Main
U ₃ O ₈	0.414	0.297	4.07	0.330
Al ₂ O ₃	6.65	8.48	8.60	7.57
CaO	0.21	0.24	0.50	0.22
Cr ₂ O ₃	0.038	0.023	0.023	0.028
Fe ₂ O ₃	2.30	5.50	4.80	3.81
K ₂ O	1.06	1.32	1.06	1.18
MgO	1.25	1.84	1.12	1.55
MnO	0.02	0.07	0.13	0.05
Na ₂ O	0.05	0.06	0.06	0.05
P ₂ O ₅	0.05	0.03	0.05	0.03
SiO ₂	83.9	76.7	73.0	80.3
TiO ₂	0.18	0.20	0.25	0.18
V ₂ O ₅	0.013	0.020	0.030	0.014
LOI	3.1	4.1	5.8	3.7
ThO ₂	0.002	0.002	0.016	0.002

The results of elemental analyses are listed in Table 11. All elements were analyzed by Total Digestion (HF/HNO₃/HClO₄ + HNO₃) ICP except for As, Bi, Hg, Sb, Se, and Te which were analyzed by Aqua Regia Digestion (3:1 HCl:HNO₃) ICP.

Table 11 UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Composites – Elemental Analyses, %				
Analyte	Composite A	Composite B	Composite HU16	Composite Main
Ag	<0.2	<0.2	<0.2	<0.2
As	0.0048	0.0083	0.0785	0.0063
Ba	0.007	0.012	0.017	0.012
Be	0.0005	0.0006	0.002	0.0005
Bi	0.0004	0.0012	0.0003	0.0003
Cd	0.00004	0.00003	0.00004	0.00003

Table 11 UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Composites – Elemental Analyses, %				
Analyte	Composite A	Composite B	Composite HU16	Composite Main
Ce	0.0027	0.0046	<0.0001	0.0034
Co	0.0025	0.0039	0.0278	0.0031
Cu	0.0031	0.0017	0.0020	0.0023
Dy	0.0005	0.0008	0.0041	0.0006
Er	0.0006	0.0006	0.0054	0.0005
Eu	0.00007	0.00019	0.00044	0.00012
Ga	0.0025	0.0029	0.0120	0.0026
Gd	0.00025	0.00029	0.0014	0.00040
Hf	<0.00005	<0.00005	<0.00005	<0.00005
Hg	<0.00002	<0.00002	<0.00002	<0.00002
Ho	<0.00004	<0.00004	<0.00004	<0.00004
La	<0.0001	0.0004	<0.0001	<0.0001
Li	0.012	0.014	0.033	0.013
Mo	0.0014	0.0008	0.0012	0.0015
Nb	<0.0001	0.0001	<0.0001	<0.0001
Nd	0.0023	0.0028	0.0122	0.0025
Ni	0.0045	0.0060	0.0175	0.0054
Pb	0.012	0.011	0.086	0.011
Pr	<0.0001	0.0002	<0.0001	0.0001
Sc	0.0002	0.0003	0.0008	0.0003
Sb	<0.0001	<0.0001	<0.0001	<0.0001
Se	<0.0001	<0.0001	<0.0001	<0.0001
Sm	0.0005	0.0008	0.0025	0.0006
Sn	<0.0001	<0.0001	0.0006	<0.0001
Sr	0.0063	0.0071	0.013	0.0064
Ta	<0.0001	0.0003	0.0008	0.0002
Tb	<0.00003	<0.00003	<0.00003	<0.00003
Te	<0.00002	<0.00002	0.0006	<0.00002
W	0.0004	0.0007	0.0007	0.0002
Y	0.0018	0.0028	0.0146	0.0022
Yb	0.00015	0.00027	0.00085	0.00020
Zn	0.0009	0.0010	0.0017	0.0009
Zr	0.012	0.014	0.011	0.012

The elemental analyses of the composites show that the Horseshoe uranium deposit is relatively low in deleterious elements such as arsenic, molybdenum, selenium and base metals; hence the Horseshoe zone should present minimal processing and environmental difficulties.

Horseshoe Phase II Composite Analysis

The results of the elemental and whole rock analyses completed on the four composites prepared as part of the Horseshoe Phase II testwork are listed in Table 12, below.

Table 12					
UEX Corporation – Raven-Horseshoe Uranium Deposit					
Horseshoe Composites – Elemental and Whole Rock Analyses					
Analyte	Unit	Composite			
		AH	AL	BEH	BEL
U ₃ O ₈	%	2.18	0.38	0.31	0.054
Ag	g/t	< 8	< 8	< 8	< 8
As	g/t	140	52	55	< 40
Ba	g/t	220	74	86	97
Be	g/t	7.1	4.5	4.0	2.3
Bi	g/t	< 20	< 20	< 20	< 20
Cd	g/t	< 2	< 2	< 2	< 2
Co	g/t	65	35	20	10
Cu	g/t	45	12	38	26
Li	g/t	120	91	97	63
Mo	g/t	25	18	24	16
Ni	g/t	42	36	42	34
Pb	g/t	600	160	160	57
Sb	g/t	< 10	< 10	< 10	< 10
Se	g/t	< 30	< 30	< 30	< 30
Sn	g/t	< 20	< 20	< 20	< 20
Sr	g/t	91	76	67	47
Tl	g/t	< 30	< 30	< 30	< 30
Y	g/t	89	22	27	11
Zn	g/t	98	96	74	33
SiO ₂	%	74.8	83.2	80.0	79.9
Al ₂ O ₃	%	8.03	7.63	9.14	9.70
Fe ₂ O ₃	%	6.00	1.84	1.99	1.04
MgO	%	0.93	1.29	1.92	2.29
CaO	%	0.31	0.14	0.23	0.18
Na ₂ O	%	0.05	0.04	0.02	0.08
K ₂ O	%	1.52	1.27	1.78	2.2
TiO ₂	%	0.15	0.15	0.18	0.16
P ₂ O ₅	%	0.04	0.05	0.05	0.06
MnO	%	0.11	0.04	0.03	< 0.01
Cr ₂ O ₃	%	0.03	0.02	0.03	0.04
V ₂ O ₅	%	0.02	0.02	0.02	< 0.01
LOI	%	4.90	3.13	3.59	3.10
Sum	%	96.9	98.8	98.9	98.7

The elemental analyses of the composites confirm that the Horseshoe uranium deposit is relatively low in deleterious elements such as arsenic, molybdenum, selenium and base metals.

Raven Composite Analysis

The results of the elemental and whole rock analyses completed on the four composites prepared as par of the Horseshoe Phase II testwork are listed in Table 13, below.

Table 13 UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Composites – Elemental and Whole Rock Analyses		
Analyte	Unit	Composite RU-130
U ₃ O ₈	%	0.21
Ag	g/t	< 2
As	g/t	< 60
Ba	g/t	92
Be	g/t	8.7
Bi	g/t	82
Cd	g/t	< 2
Co	g/t	29
Cu	g/t	15
Li	g/t	170
Mo	g/t	25
Ni	g/t	84
Pb	g/t	83
Sb	g/t	< 10
Se	g/t	< 30
Sn	g/t	< 20
Sr	g/t	51
Tl	g/t	< 30
Y	g/t	16
Zn	g/t	42
SiO ₂	%	70
Al ₂ O ₃	%	13.3
Fe ₂ O ₃	%	2.46
MgO	%	5.21
CaO	%	0.33
Na ₂ O	%	0.05
K ₂ O	%	1.40
TiO ₂	%	0.35
P ₂ O ₅	%	0.10
MnO	%	0.05
Cr ₂ O ₃	%	0.01

Table 13		
UEX Corporation – Raven-Horseshoe Uranium Deposit		
Horseshoe Composites – Elemental and Whole Rock Analyses		
Analyte	Unit	Composite RU-130
V ₂ O ₅	%	0.02
LOI	%	7.09
Sum	%	100.4

The initial analyses of the composite shows that the Raven uranium deposit is also relatively low in deleterious elements such as arsenic, molybdenum, selenium and base metals.

GRINDING CIRCUIT EVALUATION (CEET2®)

(Excerpted from the SGS Lakefield report: *Ore Characterization And Preliminary Grinding Circuit Evaluation Using CEET2® Technology Based On Samples From The Raven-Horseshoe Deposit, July 4, 2008.*)

Nine composites, representing the Raven-Horseshoe deposit, were submitted for Bond ball mill work index (BWI) and SPI® determinations. The Raven-Horseshoe composites were categorized as medium in hardness from the perspective of SAG milling, with an average SPI® value of 69 minutes. The BWI averaged 17.1 kWh/t and the composites were characterized as moderately hard. The results are summarised in Table 1 and discussed in Section 2 of the Discussion.

Table 1: Grindability Test Summary

Sample Name	CEET Ci	SPI min	kWh/t	BWI kWh/t
A Comp	11.7	59.8	6.6	<i>17.1</i>
AH Comp	-	-	-	17.1
AL Comp	-	-	-	16.4
AHFW Comp	-	-	-	17.7
BE Comp	5.9	76.7	7.6	<i>16.2</i>
BEH Comp	-	-	-	16.1
BEL Comp	-	-	-	16.3
BEHFW Comp	-	-	-	16.2
RU130 Comp	6.0	70.3	7.2	17.1
Median	6.0	70.3	7.2	16.4
Average	7.9	68.9	7.1	16.7
Standard Deviation	3.3	8.5	0.5	0.6
Rel. Std. Dev. (%)	42	12	7	4

Italicised values were averaged

Circuit Evaluation

The grindability data were used to evaluate the two existing grinding circuits using CEET2® technology. The goal of the study was to analyse throughput capacity to a final P₈₀ of 150 µm for each one of the circuits available. The two circuits were composed of SAG and ball mill (SAB), with cyclone sizing.

Combinations of SAG grates and vibrating screen apertures were simulated to examine the effect on throughput rate and power draw. The CEET2® program was used in production forecast mode to maximize the throughput rate for the specified product size target.

The Circuit 1 design, using a 20 mm grate and a 2 mm screen, is capable of treating 42 t/h (927 t/d at 92% availability) to a target P_{80} of 150 μm , with a T_{80} of 743 μm . This circuit was comprised of:

- one SAG mill of 18' diameter by 6' EGL drawing 483 kW at the shell, and
- one ball mill of 9' diameter by 12' EGL drawing 283 kW at the shell.

The Circuit 2 design, using a 70 mm grate and a 6 mm screen, is capable of treating 81 t/h (1788 t/d at 92% availability) to a target P_{80} of 150 μm and T_{80} of 1578 μm . This circuit was comprised of:

- one SAG mill of 20' diameter by 6' EGL drawing 690 kW at the shell, and
- one ball mill of 10' diameter by 20' EGL drawing 709 kW at the shell.

Sensitivity analysis

As an exercise to confirm the robustness of the design, the SPI and BWI values for each sample were increased by 20% and 10%, respectively, to investigate the effect of increased ore hardness on the selected circuit design.

For Circuit 1 design, increasing the SPI values by 20% is equivalent to 18% increase in specific energy required for the SAG mill. The increase in BWI values by 10% is equivalent to 12% increase in specific energy required for the ball mill, and, as this circuit is ball mill limited, the suggested design would be able to treat 38 t/h.

For Circuit 2 design, increasing the SPI values by 20% is equivalent to 19% increase in specific energy required for the SAG mill. The increase in BWI values by 10% is equivalent to 13% increase in specific energy required for the ball mill, and the given design would be able to treat 71 t/h.

Uncertainty and Safety Factors

It must be remembered that this preliminary design evaluation study was based on only three Raven-Horseshoe samples and no safety factor was used in these simulations.

METALLURGICAL RESULTS

Horseshoe Phase I Leaching Testwork

Eight leach tests were completed, five on the Main Composite and one on each test composite, Composite A (representing Zone A), Composite B (representing Zone B) and Composite HU-16 (a high grade composite). Test results and conditions are summarized in Table 14 and Table 15 below.

<p align="center">Table 14 UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Test Composites Summary of Horseshoe Phase I Leach Test Conditions</p>										
Test No.	Composite	Test Conditions				Reagent Additions				
		Temp. °C	Average FA g H ₂ SO ₄ /L	Avg. ORP mV (Ag/AgCl)	Grind K ₈₀ µm	H ₂ SO ₄ kg/t	NaClO ₃ kg/t	O ₂ mL/min	H ₂ O ₂ kg/t	Fe ³⁺ kg/t
RH 1	Main	50	7.5	471	90	53.4	1.14	-	-	-
RH 2	Main	52	34.6	470	90	143.5	0.88	-	-	-
RH 3	Main	38	8.6	475	135	48.5	0.55	-	-	-
RH 4	Main	52	2.4	488	135	29.2	0.42	-	-	-
RH 5	Main	50-63	8	475	200	52.7	0.5	-	-	-
RH 6	A	50-57	9	475	145	42.7	1.3	-	-	-
RH 7	B	51-58	7	422	145	67.5	1.9	-	-	-
RH 8	HU-16	51-58	7	425	145	74.7	4.5	-	-	-

Table 15 UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Test Composites								
Summary of Horseshoe Phase II Leach Test Results								
Test No.	Composite	% U ₃ O ₈		Weight Loss, %	Final Preg Sol'n g U ₃ O ₈ /L	% U ₃ O ₈ Extraction		
		Feed	Residue			8 hours	12 hours	24 hours
RH1	Main	0.32	0.008	3.1	1.54	97.6	98.0	98.1
RH2	Main	0.33	0.004	3.1	1.60	98.9	98.8	98.8
RH3	Main	0.32	0.008	-	1.59	97.6	97.8	-
RH4	Main	0.31	0.009	-	1.55	97.5	97.6	-
RH5	Main	0.35	0.009	-	1.73	97.9	98.0	-
RH6	A	0.41	0.008	-	2.02	97.7	98.1	-
RH7	B	0.34	0.014	-	1.62	97.6	97.5	-
RH8	HU-16	5.02	0.046	-	23.05	98.8	99.1	-

The above results show that the uranium in the Horseshoe zone is easily leached under relatively mild atmospheric leach conditions. Leach extractions of 98% can be achieved under the following conditions:

- grind K₈₀ of 90 to 200 μm (both yielded acceptable extractions),
- 12 hour leach retention time,
- free acid level of 10 g H₂SO₄/L, representing acid additions of approximately 50 kg H₂SO₄/t, and
- a 475 mV redox/potential controlled with NaClO₃ at addition rates of 0.5 to 1 kg NaClO₃/t.

The leach test on the Main Composite at a coarser grind (K₈₀ of 200 μm, ~80% passing 65 mesh) yielded the same uranium extraction (98%) as the leach test at a finer grind, indicating that leach efficiency is independent of mesh-of-grind, to the limits of the grind tested.

Leaching of the individual composites yielded high extractions as noted in Table 15 with reagent consumption being the only variable. The composite from Zone B consumed more acid and oxidant over a 12 hour leach compared to the material from Zone A. This was to be expected considering the higher alumina, iron and magnesium content in Zone B material (see Table 5, Melis Status Report No. 1). The high grade composite, Composite HU-16 had a higher leach residue assay but the calculated uranium extraction was still high (99.1%) due to the high uranium feed grade. The higher acid and oxidant consumptions were as expected due to the higher uranium grade and the relatively high alumina and iron content.

Horseshoe Phase II Leaching Testwork

Four leach tests were completed, one each on Phase II Horseshoe composites AH, AL, BEL and BEH. Test results and conditions are summarized in Table 16 and Table 17 below.

Table 16 UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Test Composites Summary of Horseshoe Phase II Leach Test Conditions							
Test No.	Composite	Test Conditions				Reagent Additions	
		Temp. °C	Average FA g H ₂ SO ₄ /L	Avg. ORP mV (Ag/AgCl)	Grind K ₈₀ µm	H ₂ SO ₄ kg/t	NaClO ₃ kg/t
3H-1	AH Comp	50	7.4	630	145	48.2	3.84
3H-2	AL Comp	50	8.5	590	145	41.0	3.58
3H-3	BEL Comp	50	8.4	600	145	30.6	2.71
3H-4	BEH Comp	50	8.6	700	145	68.5	0.45

Table 17 UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Test Composites Summary of Horseshoe Phase II Leach Test Results							
Test No.	Composite	% U ₃ O ₈		Weight Loss, %	Final Preg Sol'n g U ₃ O ₈ /L	% U ₃ O ₈ Extraction	
		Feed	Residue			8 hours	12 hours
3H-1	AH Comp	2.26	0.021	3.2	11.18	99.0	99.1
3H-2	AL Comp	0.41	0.004	2.9	1.92	99.2	99.2
3H-3	BEL Comp	0.06	0.004	2.2	0.29	96.1	94.2
3H-4	BEH Comp	0.30	0.004	4.1	1.44	98.5	98.9

The above results show that the uranium in these additional samples from the Horseshoe zone is also easily leached under relatively mild atmospheric leach conditions. Leach extractions of 98% or higher depending on head grade, can be achieved under the following conditions:

- grind K₈₀ of 145 µm,
- 12 hour or less leach retention time, and
- free acid level of 10 g H₂SO₄/L, representing acid additions of approximately 50 kg H₂SO₄/t.

The redox/potential in these tests was unusually high and the NaClO₃ at addition rates of 0.5 to 3.8 kg NaClO₃/t were higher than was necessary.

Raven Leaching Testwork

One leach tests was completed on the Raven composite RU130 Test results and conditions are summarized in Table 18 and Table 19 below.

Table 18 UEX Corporation – Raven-Horseshoe Uranium Deposit Raven Test Composite Summary of Leach Test Conditions							
Test No.	Composite	Test Conditions				Reagent Additions	
		Temp. °C	Average FA g H ₂ SO ₄ /L	Avg. ORP mV (Ag/AgCl)	Grind K ₈₀ µm	H ₂ SO ₄ kg/t	NaClO ₃ kg/t
3R-5	RU-130 Comp	50	8.8	530	145	63.9	0.71

Table 19 UEX Corporation – Raven-Horseshoe Uranium Deposit Raven Test Composite Summary of Leach Test Results							
Test No.	Composite	% U ₃ O ₈		Weight Loss, %	Final Preg Sol'n g U ₃ O ₈ /L	% U ₃ O ₈ Extraction	
		Feed	Residue			8 hours	12 hours
3R-5	RU-130 Comp	0.21	0.005	4.8	1.00	97.3	97.8

The above scoping test result, conducted using the same leach test conditions as were shown to be effective on the Horseshoe zone, indicates that the uranium in the Raven zone is also easily leached under relatively mild atmospheric leach conditions.

WASTE TREATMENT AND TAILINGS NEUTRALIZATION

Preparation of Waste Products

The pregnant leach solution and residues from the eight leach tests were retained to generate waste raffinate and leach residue for waste treatment testing.

The pregnant leach solution was contacted in two stages with organic to generate raffinate. The leach residues were re-pulped to 45% solids (w/w) with pH 2 sulphuric acid. Spent regeneration solution was simulated by making up a sodium carbonate solution at pH 9 and spiking it with sodium molybdate to 2.8 g Mo/L.

Raffinate Treatment

The combined raffinate and spent regeneration solution, the main liquid waste products produced in a uranium circuit, were neutralized with lime and treated in three stages with intermediate removal of waste precipitates by decanting/filtration of treated liquor. The first stage was at pH 4 with the addition of ferric sulphate (for molybdenum removal) and barium chloride (for radium removal), the second stage (treatment of the supernatant from the first stage) was at progressively increasing pH (5.0, 7.5 and 10.2) with further additions of ferric sulphate and barium chloride, and the third stage (treatment of the second stage supernatant) was at pH 7.5 (adjusted with sulphuric acid) and further additions of barium chloride. The treated water from the third stage was filtered through a Millipore filter to provide treated effluent for analysis.

Residue and Waste Precipitate Neutralization

The re-pulped leach residue was neutralized to pH 4 with lime then the first stage waste precipitate slurry, adjusted to pH 7 with lime, was added to the neutralized residue and the pH increased to 7.5 with further addition of lime. The second stage waste precipitate slurry was then added and the pH increased to 9.5 with lime to provide neutralized tailings slurry for analysis, and to provide treated tailings for supernatant aging tests.

Raffinate and Treated Effluent Analysis

The raffinate and treated effluent analyses are summarized in Table 20 below. Other than molybdenum, all elements are within environmental guidelines for treated effluent discharge.

Minor adjustments to treatment conditions will be tested in the next phase of the Raven-Horseshoe test program to reduce molybdenum to the anticipated 0.5 mg/L guideline and to confirm treated effluent quality. The treated effluent copper analysis was anomalously high

(copper is typically completely precipitated at alkaline pH, as per the tailings supernatant analysis in table 21 below) and thus is not reported.

Table 20 UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Zone Raffinate and Treated Effluent Analysis			
Parameter	Unit	Raffinate	Treated Effluent
pH	-	n/a	7.12
emf	mV	n/a	168
Ag	mg/L	< 0.08	0.00005
Al	mg/L	1100	0.38
As	mg/L	9	0.0043
Ba	mg/L	0.06	0.617
Be	mg/L	0.23	< 0.00004
B	mg/L	n/a	0.59
Bi	mg/L	< 1	0.00007
Ca	mg/L	560	617
Cd	mg/L	< 0.2	0.00082
Co	mg/L	4.8	0.0011
Cr	mg/L	7.4	0.0013
Cu	mg/L	5.9	n/a
Fe	mg/L	3500	< 0.01
Hg	mg/L	n/a	< 0.0001
K	mg/L	170	170
Li	mg/L	3	n/a
Mg	mg/L	440	0.796
Mn	mg/L	110	0.0145
Mo	mg/L	< 0.6	1.51
Na	mg/L	110	188
Ni	mg/L	7.2	0.013
P	mg/L	47	0.02
Pb	mg/L	4	0.00077
Sb	mg/L	< 1	< 0.0002
Se	mg/L	< 3	0.011
Sn	mg/L	< 2	0.0102
Sr	mg/L	9.6	2.8
Ti	mg/L	0.25	0.0006
Tl	mg/L	< 3	0.0004
U	mg/L	3	0.0123
V	mg/L	6.7	0.00014
W	mg/L	< 2	n/a
Y	mg/L	7	n/a
Zn	mg/L	1.2	0.0081

Tailings Aging Tests

The neutralized tailings slurry, combined neutralized residue and waste precipitates from raffinate treatment, was submitted to tailings supernatant aging tests. Results are summarized in Table 21 below.

Table 21 UEX Corporation – Raven-Horseshoe Uranium Deposit Horseshoe Neutralized Tailings Supernatant Aging Tests						
Parameter	Unit	Day 1	Day 2	Day 14	Day 30	Day 61
pH	-	7.1	7.54	7.65	7.81	7.91
emf	mV	-20	37	-37	108	150
Ra ²²⁶	Bq/L	n/a	n/a	n/a	n/a	9.1
Cl	mg/L	35	33	35	36	38
SO ₄	mg/L	1700	1700	1700	1700	1700
Hg	mg/L	< 0.0001	0.0053	< 0.0001	0.0001	< 0.0001
Ag	mg/L	0.00019	0.00005	0.00004	0.0001	0.00045
Al	mg/L	7.96	2.04	0.25	1.06	0.44
As	mg/L	0.0496	0.0383	0.0378	0.0518	0.0565
Ba	mg/L	0.0831	0.0587	0.0448	0.0447	0.0377
Be	mg/L	0.00096	0.00031	0.00007	0.00016	0.00004
B	mg/L	0.371	0.373	0.398	0.397	0.428
Bi	mg/L	0.00058	0.0002	0.00126	0.00102	0.00009
Ca	mg/L	620	608	574	599	590
Cd	mg/L	0.0117	0.008	0.00695	0.0116	0.0158
Co	mg/L	0.00986	0.0037	0.0021	0.00346	0.00329
Cr	mg/L	0.0111	0.0044	0.0011	0.0023	0.0024
Cu	mg/L	0.0122	0.0065	0.0028	0.0046	0.0056
Fe	mg/L	4.52	1	0.12	0.71	0.53
K	mg/L	14.4	12.5	12.7	10.5	10.9
Mg	mg/L	38.9	41	55.6	59.9	73.6
Mn	mg/L	0.142	0.0619	0.0714	0.0722	0.0488
Mo	mg/L	54.3	n/a	74.7	80	75.2
Na	mg/L	54.5	53.5	71.9	54.6	57.1
Ni	mg/L	0.0264	0.012	0.0111	0.01	0.0093
P	mg/L	0.16	0.11	0.09	0.1	0.13
Pb	mg/L	0.0479	0.0126	0.00164	0.00865	0.00460
Sb	mg/L	0.0064	0.0051	0.0118	0.0081	0.00451
Se	mg/L	0.007	0.008	0.007	0.009	0.010
Sn	mg/L	0.0038	0.0045	0.0038	0.0037	0.00932
Sr	mg/L	2.42	2.04	2.23	1.99	2.26
Ti	mg/L	0.0179	0.008	0.0041	0.007	0.0065
Tl	mg/L	< 0.0001	< 0.0001	0.0001	0.0001	0.00004
U	mg/L	0.0778	0.114	0.616	0.774	0.709
V	mg/L	0.0162	0.00559	0.00178	0.00376	0.00277
Zn	mg/L	0.0052	0.0095	0.0045	0.0023	0.003

As expected, molybdenum and residual uranium levels in the tailings supernatant increase upon aging, but excess tailings water would be re-used and/or treated in the mill process and waste treatment circuits under normal operating conditions.

REFERENCES

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2. Melis Letter Status Report No. 2, October 11, 2007.
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4. SGS Lakefield Research Limited, Ore Characterization And Preliminary Grinding Circuit Evaluation Using CEET2® Technology Based On Samples From The Raven-Horseshoe Deposit, July 4, 2008.