

# **FRANK M URANIUM PROJECT**

**43-101**

## **MINERAL RESOURCE REPORT**

**GARFIELD COUNTY, UTAH  
USA**

### **PREPARED FOR:**

**Uranium One Americas**

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## SECTION 3

## SUMMARY

The following report was prepared by BRS, Inc. a Professional Engineering and Natural Resource Corporation duly licensed in the State of Wyoming, USA. The report addresses the geology, uranium mineralization and in-place mineral resources of the mineral holdings for Uranium One Americas' (Uranium One) Frank M Uranium Project. The Frank M Uranium Project is located in Sections 2 and 3 of Township 35 South, Range 11 East, Garfield County, Utah, approximately 37° 47' 31" North longitude and 110° 40' 23" West latitude. The project is located approximately 176 highway miles east of Panguitch, Utah, the Garfield County seat, approximately 47 highway miles south of Hanksville, Utah, and eight road miles from Uranium One's Shootaring Canyon Mill, situated on the east side of the Henry Mountains.

This report is a summary of Mineral Resources. The Frank M Uranium Project was extensively explored by Plateau Resources from the 1970's through the early 1980's with the principal exploratory work and drilling completed by Plateau Resources. Plateau Resources conducted extensive drilling on the lands currently held by Uranium One with drilling on 150 foot centers. Radiometric data from some 838 drill holes is available. Historic data is available from 17 core holes. In the fall of 2007, Uranium One completed an additional nine core holes for the purposes of data verification, equilibrium evaluation, and metallurgical testing.

The data available for this report included rotary drill and core hole data from the previous Plateau Resources, Ltd. mineral holdings and data from nine additional core holes completed by Uranium One during the fall of 2007. Plateau Resources and all company data sets were acquired by U.S. Energy Corp. in the mid 1990's including the Del Monte claims which comprise a portion of the Frank M project. The Frank M library was subsequently acquired by Uranium One in the 2007 U.S. Energy Asset Acquisition. The remainder of the Frank M project including the Staal claims and Utah state lease ML 48871, Section 2, Township 35 South, Range 11 East, was acquired by Uranium One in August, 2007 in the Energy Metals Corporation Merger. Uranium One now holds all applicable land and datasets.

Uranium Mineral Resources within and in the vicinity of the project are found in the Morrison Formation (Salt Wash and Brushy Basin Members). Mineralization of the Frank M deposit occurs between 60 ft. and 100 ft. above the base of the Salt Wash Member. Mineralization occurs in three stratigraphic horizons, designated Upper, Middle, and Lower Zones. Mineralized zones move higher in the Salt Wash section from southwest to northeast. At the nearby Tony M mine, currently being operated by Denison Mines, mineralization is found in the basal portion of the Salt Wash and is the stratigraphic equivalent of the Lower Zone at the Frank M.

The surface of the Frank M property is composed of the Morrison Formation (Salt Wash and Brushy Basin Members). Underground workings will all be located within this formation, with mining efforts restricted to the Salt Wash Member.

The Morrison Formation is a complex fluvial deposit of Late Jurassic age that occupies an area of approximately 600,000 square miles, including parts of 13 western states and small portions of three Canadian provinces (Poole, 2006). The Salt Wash Member consists of a series of fluvial sandstone beds with lesser amounts of interbedded fluvial-lacustrine siltstone, mudstone, and claystone (Underhill, 1984). It was deposited on a broad fan-shaped alluvial plain that included, from southwest to northeast, dominantly low-sinuosity, sand dominated streams; high-sinuosity, mud-dominated, floodplains; and lacustrine, mudstone-limestone deposits (Sanford, 1994).

During the late Jurassic, orogenic highlands in western Utah and west central Arizona began eroding immense volumes of sediments which were carried eastward and northeastward into Utah, Arizona, and Colorado. In the southern Henry Mountains Basin (including the Frank M project area) the lower Salt Wash sandstones are fine-grained, indicating significant transport distance from their southwesterly source. In the late Salt Wash depositional phase, the source area began to rise more rapidly, contributing more coarse clastic material as can be seen in the upper fluvial facies of the Salt Wash (Milne & Associates, 1990).

Plateau Resources conducted extensive drilling on the lands currently held by Uranium One with drilling on 150 foot centers. The available data includes radiometric data from some 913 drill holes completed on the property. The historic drill hole data had 75 of the 913 drill holes that were lacking northing and easting information or mineral intercept data, and therefore were excluded from any mineralization analysis and 838 holes were utilized in the analysis. In addition, chemical assay data was available from 17 historic core holes. In the fall of 2007, Uranium One completed an additional nine core holes for the purposes of geotechnical testing, metallurgical testing, data verification, and equilibrium evaluation.

Historically a decline shaft was partially constructed to a length of 150 feet. In 1983, due to decreasing uranium prices, the project was abandoned and the shaft reclaimed. All claim to the property was subsequently relinquished by Plateau Resources. All surface workings are currently reclaimed. A network of drill roads still exists on the property and is recognized (though un-maintained) by the Bureau of Land Management. Energy Metals Corporation later staked the Staal group of claims over the Frank M mineralized body and secured State Mineral Lease of Section 2, T35S, R11E, S.L.B.M.. U.S. Energy Corp. of Riverton, Wyoming later staked the Del Monte claims, immediately adjoining to the south.

The drilling demonstrates continuity particularly along the Upper and Middle mineralized trends. Uranium One has completed 9 core holes on the property that are included in this estimate. These core holes have confirmed the validity of the previous drill data acquired from Plateau Resources LTD as discussed in Section 16 of this report.

Based on the drill density and the apparent continuity of the mineralization along trends, Mineral Resources as estimated for the Frank M project meet the standards for Indicated Mineral Resources under the CIM Standards on Mineral Resources and Reserves for the main mineralized areas in the Upper and Middle trends.

Additional surface drilling is generally not recommended with the exception of geotechnical drilling along the alignment of the proposed decline once mine permits are approved. Given the proximity of the Shootaring Canyon mill, the current Mineral Resource is adequate to warrant the expense of developing access to the deposit via a decline from the surface. Once access is developed, detailed underground sampling is recommended utilizing face sampling and longhole drilling for final delineation of the deposit for mining purposes.

**Frank M Total Indicated Resources\***

GT Cutoff	Avg. Thickness Feet	Avg. Grade eU <sub>3</sub> O <sub>8</sub>	Tons	Pounds
0.10	4.7	0.070	2,319,000	3,240,000
0.25	5.0	0.101	1,095,000	2,210,000
0.50	5.6	0.141	372,000	1,047,000
1.00	6.7	0.223	55,000	245,000

\*numbers rounded

**Frank M Total Inferred Resources\***

GT Cutoff	Avg eU <sub>3</sub> O <sub>8</sub>	Tons	Pounds
0.10	0.047	132,000	125,000
0.25	0.090	42,000	75,000
0.50	0.114	21,000	48,000

\*numbers rounded

Recommendations for the continuing exploration and development of the project include:

1. Complete the Mineral Reserve and economic feasibility study which is in progress.
2. Complete the metallurgical studies which are in progress utilizing core samples from the 2007 drilling program.
3. Complete a small mine permit compliant with State of Utah regulations and initiate the main decline and establish access to the initial mining areas.
4. Complete detailed mapping and longwall drilling of the initial mining areas; estimate resources based on this data; and compare to estimates contained herein from surface drilling. This comparison should then be utilized to determine the need, if any, for additional surface drilling and to establish procedures for underground development drilling.

## SECTION 4

## INTRODUCTION AND TERMS OF REFERENCE

This report was prepared by BRS, Inc. for Uranium One Americas to address the geology, uranium mineralization and in-place geologic resources within Uranium One's mineral holdings known as the Frank M Uranium Project. Plateau Resources conducted extensive drilling on the lands currently held by Uranium One with drilling on 150 foot centers. The available data includes radiometric data from some 913 drill holes completed on the property. The historic drill hole data had 75 of the 913 drill holes that were lacking northing and easting information or mineral intercept data, and therefore were excluded from any mineralization analysis and 838 holes were utilized in the analysis. In addition, chemical assay data was available from 17 historic core holes. In the fall of 2007, Uranium One completed an additional 9 core holes for the purposes of geotechnical testing, metallurgical testing, data verification and equilibrium evaluation.

Plateau Resources and all company data sets were acquired by U.S. Energy Corp. in the mid 1990's. The Frank M library was subsequently acquired by Uranium One USA, Inc. in the 2007 U.S. Energy Asset Acquisition. The Frank M property was acquired by Uranium One in August, 2007 in the Energy Metals Corporation Merger. Uranium One now holds all applicable land and datasets.

The co-authors of this report, Mr. Beahm and Mr. Anderson, are both Professional Geologists licensed in Wyoming and Professional Engineers licensed in Wyoming, and Registered Members of the US Society of Mining Engineers (SME). In addition, Mr. Beahm is a Professional Engineer licensed in Colorado, Utah, and Oregon. Mr. Beahm is experienced with uranium exploration and development and uranium mining including past employment with the Homestake Mining Company, Union Carbide Mining and Metals Division, and AGIP Mining USA. As a consultant and principal engineer of BRS, Inc., Mr. Beahm has provided geological and engineering services relative to the development of mining permits for ISR operations in the Gas Hills and Powder River Basin, as well as numerous Mineral Resource and economic feasibility evaluations. This experience spans a period of over thirty years dating back to 1974. Mr. Beahm has direct work experience in the Colorado Plateau Uranium district as an employee of Union Carbide and as a consultant for COCA Mining. Mr. Anderson has completed resource evaluations and participated in confirmation drilling programs on numerous uranium projects in Wyoming and Utah recently.

Both Mr. Beahm and Mr. Anderson were directly involved in the Frank M 2007 drilling program including supervision of drilling, logging and recordation of core samples, selection of core samples for testing, and delivery of core samples to Hazen Research for analysis and metallurgical testing, thereby establishing a complete chain of custody.

## SECTION 5

## RELIANCE ON OTHER EXPERTS

The author has relied on the accuracy of the historical data as itemized in Section 4 and various project reports as referenced in Section 23 of this report.

Data relative to the location of the unpatented mining lode claims and the state mineral leases, shown on Figure 2, claim and Drill Hole Map, which form the basis of the mineral holdings, was provided by Uranium One and was relied upon as defining the mineral holdings of Uranium One in the development of this report.

Included as Appendix B of this report is a memorandum titled “Frank M Resources, USA. Memorandum”, completed by AMD consulting, Andre Deiss principal. The authors relied upon the information and data provided in this memorandum in the verification of the resource model for the Frank M deposit, as described herein.

## SECTION 6

## PROPERTY DESCRIPTION AND LOCATION

The Frank M Uranium Project is located in Sections 2 and 3 of Township 35 South, Range 11 East, Garfield County, Utah, approximately 37° 47' 31" North longitude and 110° 40' 23" West latitude. The project is located approximately 176 highway miles east of Panguitch, Utah, the Garfield County seat, approximately 47 highway miles south of Hanksville, Utah, and eight road miles from Uranium One's Shootaring Canyon Mill, situated on the east side of the Henry Mountains. The Frank M Property consists of approximately 23,970 acres comprising 45 unpatented Lode Mining Claims (Staal 1 through 14 and Del Monte 1 through 32) and 1 State Mineral Lease (T35S, R11E, Sec 2), held by Energy Metals Corp. To maintain these mineral rights Uranium One must comply with the state lease provisions including annual payments with respect to State of Utah lease; and BLM and Garfield County, Utah filing and/or annual payment requirements to maintain the validity of the unpatented mining lode claims.

Uranium mining in Utah is subject to Mineral Production Tax. Mineral Production Tax Withholding was increased from 4% to its current level of 5% effective July 1, 1993. Refer to Utah Senate Bill 180, 1993. On the Section 2 State of Utah lease, a 12.5% royalty is levied on uranium, and a 4.8% royalty applies to vanadium production. Royalty is assessed at first point of sale. Royalties due to private individual include a 2.5% gross royalty on the Del Monte claims and a 5% NPI (net profits interest) on the Staal claims and the Utah State lease. Additional state taxes would include property and sales taxes.

At the federal level, profit from mining ventures is taxable at corporate income tax rates. However, for mineral properties depletion tax credits are available on a cost or percentage basis whichever is greater. For uranium the percentage depletion tax credit is 22% among the highest for mineral commodities, IRS Pub. 535.

Uranium One Utah, Inc. holds water rights to two wells in the Shootaring Canyon area, which were granted to Plateau Resources Limited and transferred as part of the U.S. Energy Asset Acquisition:

Water Right 97-1528

Amount: 0.45 sec ft

Use: Domestic and Mining

Diversion: #1 Section 3, T36S, R11E, S.L.B.M.

#2 Section 3, T36S, R11E, S.L.B.M.

Water Right 97-1555

Amount: 0.25 sec ft

Diversion: #1 Section 3, T36S, R11E, S.L.B.M.

#2 Section 3, T36S, R11E, S.L.B.M.

Uranium One conducted a drilling program on the property in 2007 under an approved Notice of Intent (NOI) to explore permit obtained from the State of Utah Department of Natural Resources, Division of Oil, Gas, and Mining (DOGM) with approval by the

Bureau of Land Management lands for federal lands within the NOI. Mine development would require a number of permits depending on the type and extent of development, the major permit being the actual mining permit issued by the DOGM. In addition, BLM would require NEPA clearances on federal lands. Utah is an agreement state with the US Nuclear Regulatory Commission (USNRC). Thus, the Utah Division of Radiation Control would regulate mineral processing activities. Uranium One has completed or has in progress a variety of baseline and mine design studies, including surface facilities for a 5 acre small mine permit. These permits have not been submitted at this time.

## SECTION 7

### ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

The Frank M Uranium Project is located in Sections 2 and 3 of Township 35 South, Range 11 East, Garfield County, Utah, approximately 37° 47' 31" North longitude and 110° 40' 23" West latitude (refer to Figure 1). The project is located approximately 176 highway miles east of Panguitch, Utah, the Garfield County seat, approximately 47 highway miles south of Hanksville, Utah, and eight road miles from Uranium One's Shootaring Canyon Mill, situated on the east side of the Henry Mountains.

Frank M property is part of the Henry Mountains and is located on the southeast flank of Mount Hillers (elevation 10,723 feet). Mount Hillers is west of Mount Holmes (elevation 7,930 feet), site of the "bullfrog" lacoloth from which the nearby community and marina draw their name. Average surface elevation in the operation area is 5,100 feet above mean seal level. The terrain is typical canyon lands topography consisting of high, flat benches cut by deep erosional gullies; many filled with thick sequences of alluvium ranging from fine sediment to >1-foot rounded boulders. In the western portion of the property, the Brushy Basin Member of the Morrison Formation forms steep, barren slopes and rounded hillocks.

Vegetative plant cover is estimated less than 25% and consists primarily of small plants including some of the major varieties of blackbrush, sagebrush, and rabbit brush, along with infrequent junipers. The Bureau of Land Management deems the area to be free of any threatened or endangered species.

The site is currently accessible via 2-wheel drive on two-track roads as follows:

- Proceed south on Utah State Highway 95, from Hanksville, Utah approximately 26 miles;
- Turn south onto State Highway 276
- Turn right approximately 0.7 miles south of mile marker 18 onto an unmaintained dirt road
- Follow county road (dirt) west approximately ¾ mile to Frank M Mine Site

In addition to the primary access roads, some infrastructure is present on the site. The site is accessible over the multiple drill trails covering the area. The Shootaring Canyon Mill is located 8 road miles southwest of the property. The main access road across the site is a county road although the road is dirt with limited improvements. A water supply well has also been established at the site. Power will be provided by diesel generators as no line power is available in the vicinity. The mine portal is planned to be located on BLM lands in Section 3, Township 35 South, Range 11 East. Such surface use is provided for in BLM regulations, subject to permitting requirements of the BLM and State of Utah.

## SECTION 8 HISTORY

This area has a history of mining dating to the discovery of gold and base metals in the Henry Mountains in the late 1800's. There are a number of small lode gold mines and prospects scattered throughout the Henry Mountains dating back to this earliest period of mining (Milne & Associates, 1990).

Uranium and vanadium mining operations have been carried out in the Henry Mountains district since the early 1900's. Early operations were conducted for recovery of radium and vanadium, with the first boom beginning in 1912 when mineralization was discovered in the Crescent Creek and Del Monte areas. During World War I, vanadium was mined from small outcrops found where canyons cut into the north-south striking Salt Wash on the eastern and southern flanks of the Henry Mountains. Small locally owned mines were the first to produce. These mines were of little interest to bigger mining companies (C. Stewart Wallis, 2005).

In the 1940s and 1950s, interest increased in both vanadium and uranium, and numerous small mines developed along the exposed Salt Wash outcrops (Poole, 2006). In April 1994, U.S. Energy Corp. of Riverton, WY stated that a historic 152 million pounds of  $U_3O_8$  have been produced within a 100-mile radius of the Shootaring Canyon Mill (U.S. Energy Corp, 1994).

The first discovery hole was drilled through what would become the Frank M mineralized body by Plateau Resources, Ltd. in 1977. The Frank M Mine was named in honor of Frank Migliaccio, a senior member of the Plateau Resources mining personnel. Surface rotary drilling together with industry-standard electric and radiometric (gamma) logging was the primary exploration method used to discover and delineate uranium on the Frank M Property. Plateau Resources conducted extensive drilling on the property, currently held by Uranium One, with drilling on 150 foot centers. The project was permitted for underground mine operations and initial development of a decline began along with development of a water supply and improvement of the main access road (county road).

In 1983, due to decreasing uranium prices, the project was abandoned and the decline reclaimed. All claim to the property was subsequently relinquished by Plateau Resources. All surface workings are currently reclaimed. A network of drill roads still exists on the property and is recognized (though un-maintained) by the Bureau of Land Management. Energy Metals Corporation later staked the Staal group of claims over the Frank M mineralization and secured State Mineral Lease of Section 2, T35S, R11E, S.L.B.M.. U.S. Energy Corp. of Riverton, Wyoming later staked the Del Monte claims, immediately adjoining to the south.

Plateau Resources, Ltd. and all company data sets were acquired by U.S. Energy Corp. in the mid 1990's. The Frank M library was subsequently acquired by Uranium One USA, Inc. in the 2007 U.S. Energy Asset Acquisition. The Frank M property was acquired by

Uranium One in August, 2007 in the Energy Metals Corporation Merger. Uranium One now holds all applicable land and datasets.

Historic Resource Estimates

In 1987 Pincock, Allen, & Holts (PAH) completed “Mineral Inventory” of the Frank M deposit with a total of 666 holes that had been completed up to that time. The PAH estimate did dilute the grade to a minimum of 4 ft but did not include any other mining related considerations. The PAH report included a variety of resource calculation methods including geostatistical methods. PAH recommended what they termed a gridded pod approach. A summary of the results for this method of calculation follows:

**PAH 1987 Recommended Gridded Pod Method**

	<b>U<sub>3</sub>O<sub>8</sub> Cut</b>	<b>Avg Thickness</b>	<b>Avg U<sub>3</sub>O<sub>8</sub></b>	<b>Tons</b>	<b>Pounds</b>
Zone 1 (Upper Trend)	0.1	2.8	0.255	136,293	696,343
Zone 2 (Middle Trend)	0.1	2.8	0.231	23,742	109,920
Zone 3 (Lower Trend)	0.1	1.5	0.375	4,020	30,086
Summary				164,055	836,349
Zone 1 (Upper Trend)	0.07	4.4	0.113	1,028,778	2,319,867
Zone 2 (Middle Trend)	0.07	4.6	0.105	230,697	485,556
Zone 3 (Lower Trend)	0.07	4.2	0.096	170,734	327,450
Summary				1,430,209	3,132,873

*THESE HISTORICAL ESTIMATES SHOULD NOT BE RELIED UPON.*

Surficial geology is shown on Figure 3, Geologic Map and Stratigraphic Column. The dominant feature of the geologic history of the Colorado Plateau has been its comparative structural stability since the close of the Precambrian. During much of the Paleozoic and Mesozoic, the Colorado Plateau was a stable shelf without major geosynclinal areas of deposition, except during the Pennsylvanian when several thousand feet of black shales and evaporates accumulated in the Paradox Basin of southwestern Colorado and adjacent Utah (Poole, 2006). The Frank M property is located on the east side of the Henry Mountains – a series of tertiary laccolithic intrusive uplifts in the central Colorado Plateau.

The Henry Mountains Basin is a subprovince of the Colorado Plateau physiographic province. The Basin is an elongate, north-south-trending doubly-plunging syncline which forms a closed basin. It is bounded by the Monument Uplift to the southeast, Circle Cliffs Uplift to the southwest, and the San Rafael Swell to the north (Poole, 2006).

During the Jurassic, the Henry Mountains Basin was an area of decreased topographic slope as indicated by thickened sediments, increased channel sandstone, high sinuosity channels, increased upper flow regime horizontal laminations, and lacustrine mudstone (Peterson, 1984, 1986). Topographic depressions within the Henry Mountains Basin are suggested by thick sediment packages, evaporate deposits, lacustrine deposits, repetition of facies, and coincidence of interpreted synclinal deposits with present-day synclines (Peterson, 1980, 1984).

The structural geology of the project area reflects a gentle westward dip off the Monument Uplift, toward the axis of the Henry Basin, except where the strata have been influenced by the adjacent Mount Hillers and Mount Ellsworth intrusive igneous bodies. As a result, dips in the vicinity of the Frank M deposit are characterized by a gentle dip (< 5 degrees) to the west-northwest.

The surface of the Frank M property is composed of the Morrison Formation (Salt Wash and Brushy Basin Members). Underground workings will all be located within this formation, with mining restricted to the lower portions of the Salt Wash Member.

The Morrison Formation is a complex fluvial deposit of Late Jurassic age that occupies an area of approximately 600,000 square miles, including parts of 13 western states and small portions of three Canadian provinces (Poole, 2006). The Salt Wash Member consists of a series of fluvial sandstone beds with lesser amounts of interbedded fluvial-lacustrine siltstone, mudstone, and claystone (Underhill, 1984). It was deposited on a broad fan-shaped alluvial plain that included, from southwest to northeast, dominantly low-sinuosity, sand dominated streams; high-sinuosity, mud-dominated, floodplains; and lacustrine, mudstone-limestone deposits (Sanford, 1994).

During the late Jurassic, orogenic highlands in western Utah and west central Arizona began eroding immense volumes of sediments which were carried eastward and

northeastward into Utah, Arizona, and Colorado. In the southern Henry Mountains Basin (including the Frank M project area) the lower Salt Wash sandstones are fine-grained, indicating significant transport distance from their southwesterly source. In the late Salt Wash depositional phase, the source area began to rise more rapidly, contributing more coarse clastic material as can be seen in the upper fluvial facies of the Salt Wash (Milne & Associates, 1990).

Sedimentary uranium deposits typically occur in medium to coarse-grained sandstones deposited in a continental fluvial environment. Impermeable shale/mudstone units are interbedded in the sequence and usually occur above and below the mineralized sandstones acting as barriers to the percolating fluids. The uranium, believed to be derived from nearby igneous rocks, is precipitated out of solution under reducing conditions caused by a variety of reducing agents in the sandstone, including carbonaceous material, sulphides, or hydrocarbons.

There are three main types of sandstone deposits:

- Tabular deposits, irregular elongate bodies deposited parallel to the depositional trend, often associated with organic trash and carbon
- Tectonic/lithologic deposits adjacent to permeable fault zones
- Rollfront deposits, arcuate bodies of mineralization that crosscut sandstone bedding.

The mineralization that is the subject of this report is found in the Salt Wash Member of the Jurassic Morrison Formation and consists of tabular deposits associated with channel sands and carbon and organic trash. The Salt Wash Member of the Upper Jurassic Morrison Formation hosts the mineralization north and west of the Shootaring mill although the deposits are more tabular in form than the Salt Wash hosted deposits in other portions of the Colorado Plateau. The mineralization occurs in altered facies rocks within reduced sandstones immediately below a horizontal boundary with overlying oxidized sandstones and mudstones. One investigator correlates the horizontal nature of this chemical boundary with marginal lacustrine (lake bed) deposits that contained abundant organic material.

Sandstone-type uranium deposits in the Henry Mountains Basin typically form in fine-to coarse-grained sediments deposited in a continental fluvial environment. The uranium is either derived from a weathered rock containing anomalously high concentrations of uranium or leached from the host and/or adjacent stratigraphic units. It is then transported in oxygenated water until it is precipitated from solution under reducing conditions at an oxidation-reduction front. The reducing conditions may be caused by such reducing agents in the sandstone as carbonaceous material, sulfides, hydrocarbons, hydrogen sulfide, or brines (Poole, 2006).

According to the literature, the vanadium content of the Henry basin deposits is relatively low compared to many of the Uravan deposits of Colorado. Furthermore, the Henry Basin deposits occur in broad alluvial sand accumulations and braided stream systems, rather than in major sandstone channels as is typical of the Uravan deposits. The Henry Basin deposits do, however, have the characteristic geochemistry of the Uravan deposits and are therefore classified as Salt Wash-type deposits (Poole, 2006). However, core assays from the 2007 drilling program show a vanadium to uranium ratio of approximately 1 to 1 (refer to Section 20 of this report).

Fluvial sand lenses in the Salt Wash Member host uranium and vanadium mineralization. The sand channels are up to 60 feet thick and one mile wide. The sand channels can be traced for a mile along strike (Wallis, 2005). The geometric and lithologic characteristics associated with tabular sandstone uranium deposits in the Morrison Formation on the Colorado Plateau suggest that deposits formed where decreasing topographic slope and topographic depressions caused shallow, relatively fresh ground water and deeper, more saline ground water to discharge and mix at a density-stratified interface (Sanford, 1994).

## SECTION 11

## MINERALIZATION

Please note the following terminology is used in this report:

1. GT is the grade thickness product.
2. Grade is expressed as weight percent.
3.  $eU_3O_8$  means radiometric equivalent  $U_3O_8$ .

Figure 4, Drill Hole map, shows the surface and downhole location of all known drill holes. This figure also highlights past core holes and 2007 confirmation drilling. Figure 5, Data Verification, highlights the results of core holes 07-FM- 07, 08, and 09 with respect to the GT mapping of the mineral deposit.

Mineral Resource estimates for the Frank M mineralization are based on radiometric data. Although comparison of closed can radiometric assays to chemical assays show enrichment of uranium values with respect to radiometric values no adjustment for radiometric equilibrium was made, as discussed in Section 20 of this report.

Collar elevation, drift, ½ foot grade data, elevation to the bottom of the mineralized intercept, thickness of mineralization, grade of mineralization, and elevation of the bottom of the hole was entered into Microsoft Excel™ from historic drill logs.

As shown on Figures 6 and 7, distinct mineralization trends are well defined in the Upper, and Middle Zones, respectively. Mineralization in Frank M is up to 500 feet deep on the west end of the trend and 200 feet deep on the east end and overall averages approximately 300 feet deep. The ½ foot grade data for each hole was summed for every mineralized interval diluting to a minimum mining height of 4 ft if needed. If mineralized height was greater than 4 ft additional sum grades were made at 6, 8, and 8 plus feet. The elevation of the mineralized zone was taken to be the bottom of the mineralization.

The summed grade locations for each hole were plotted in AutoCAD and graphically represented by a cylinder at the correct northing, easting and elevation along each drill hole's drift. The cylinders were then assigned a zone based on their spatial location and geophysical log interpretations. After reviewing the three zones in plan view it was determined that only the upper and middle zones had enough continuity to contour. Zone three (Lower Zone) was low grade and discontinuous.

The grade data for each the upper and middle zones was contoured by 4ft, 6ft, 8ft and 8 plus ft grade ranges. Only the intercepts that could be correlated to adjacent holes were used in the contouring. This dropped many intercepts that were high grade but isolated above or below the principal horizons and could not be mined. The contained pounds of uranium were calculated by multiplying the grade range average by the area covered by that range by the respective thickness and by a tonnage conversion factor and the results summed. Grade contours were used to estimate grade tonnage using grade cutoff values from 0.04 to 0.1. Average grade and thickness were then calculated. Figures 6 and 7

show the GT contours utilized to estimate Mineral Resource. Figure 8 provides an isometric view of the preliminary mine plan.

Mineralization of the Frank M deposit occurs between 60 ft. and 100 ft. above the base of the Salt Wash Member. Mineralization occurs in three stratigraphic horizons, designated Upper, Middle, and Lower Zones. Mineralized zones move higher in the Salt Wash section from southwest to northeast. At the Tony M mine to the southwest of the project, mineralization is found in the basal Salt Wash.

Mineralization at Frank M is conformable to the host sandstone. The mineralized zone is oriented along a 300-degree trend and is approximately 7,000 feet long and is commonly between 1,500 and 2,000 feet wide. The mineralized zone varies in depth from approximately 200 feet at the east end of the property to over 500 feet at the western extent. Average drilling depth on the property is approximately 400 feet (undated internal correspondence, Plateau Resources Limited). Tabular mineralized bodies are peneconcordant to bedding at a broad scale, though may locally follow other sedimentary features or chemical/porosity zones (Wanty, 1990). The greatest concentration of uranium deposits in the Salt Wash Member is where stream deposits thin from 200 to 90 feet and where the Navajo Sandstone thins from 500 feet to zero. (Craig et al, 1955).

## SECTION 12            EXPLORATION

Data available for the preparation of this report was developed by previous owners of the property and data from drilling of 9 core holes completed by Uranium One in 2007. The results of recent drilling in comparison to historic drilling are discussed in Section 16. The relevant exploration data for the current property is the drill data as previously discussed and as represented graphically in the various figures of this report. This data demonstrates that mineralization is present on the property and defines its three dimensional location.

The data available for this Mineral Resource evaluation is based upon drill and mine plan maps prepared by Plateau Resources. The drill map (Figure 4) shows drill hole locations at the surface and down hole due to vertical drift, and the thickness and radiometric grade of uranium measured in weight percent  $U_3O_8$ .

Based upon the detailed review of the historic drill data and the confirmatory drilling performed by Uranium One the drill data utilized in this evaluation is considered reliable for that purpose.

Plateau Resources conducted extensive drilling on the lands currently held by Uranium One including the delineation of 3 mineralized zones with drilling on approximating 150' centers. The available data includes radiometric data from some 838 rotary drill holes completed on the property. Historic drill hole locations were initially digitized from rectified drill maps. Ground surveys relocated approximately 20% of the drill holes. This data was then used to further rectify the drill hole locations to and convert location data to NAD 83 coordinate system. Topographic mapping of the area was also completed by aerial mapping which provide a digital terrain model. Based on the foregoing the accuracy of surface drill hole locations is within 10 feet horizontal and 2 feet vertical.

The drilling demonstrates continuity particularly along the Upper and Middle mineralized trends. The data utilized as the basis of this evaluation and in the preparation of this report was acquired from Plateau Resources, Ltd. by U.S. Energy Corp. in the mid 1990's. The Frank M library was subsequently acquired by Uranium One USA, Inc. in the 2007 U.S. Energy Asset Acquisition. Uranium One now holds all applicable land and datasets.

In 2007 nine core holes in Sections 2 and 3, T. 35 S., R. 11 E. were completed to obtain samples for metallurgical testing, geotechnical testing, and to confirm past drilling results as discussed in Section 16 of this report.

All bore holes drilled were vertical. Downhole drift was measured for each hole. The largest vertical deviation was measured in hole number 07-FM-06 at 4.9 degrees. As a result of this deviation the true depth of the hole was 398.60 feet as compared to the measured depth along the probe cable of 400.10 feet. At this declination a 10 foot mineralized thickness measured by the geophysical log would actually be 9.963 feet. In addition, the dip of the formation is approximately 5 degrees and whereas it is the tendency of the drill holes to deviate up dip this would lessen the difference between measured thickness and true thickness. Thus, the difference between measured and true thickness is not significant.

Available data includes radiometric data from some 838 drill holes and 26 core holes completed on the property. The data utilized in this report is considered accurate and reliable for the purposes of completing a Mineral Resource estimate for the property.

Geophysical logs are available for all drill holes utilized in the development of this report. The geophysical logging was completed by a commercial vendor, Century Geophysical. Log headers provide relevant calibration data for the probes including Deadtime and K Factor. Approximately 60% of the logs were analog holes with the remainder containing a digital record in addition to the analog data. Interpretation of uranium grades and thicknesses were confirmed and mineral intercepts diluted to minimum 4 foot thickness based on the anticipated mining method. The stratigraphic horizon of each mineralized intercept was interpreted from the correlation of the geophysical logs.

In addition to validation and interpretation of the historic data, 9 core holes were completed in 2007 for the purposes of geotechnical testing, data verification, equilibrium evaluation, and metallurgical testing. These core holes were logged lithologically by BRS personnel, probed geophysically using a commercial vendor, Century Geophysical, and samples through the mineralized zones as determined by the geophysical logs and radiometric scanning of the core were split delivered to a commercial laboratory, Hazen Research, for analysis. Analytical results from the 2007 core samples are summarized in Section 15 of this report, Table 15.1.

## SECTION 15

## SAMPLE PREPARATION, ANALYSIS, AND SECURITY

The majority of the data available was developed by previous mine operators. As previously discussed in Section 14 the data is considered accurate and reliable for the purposes of completing a Mineral Resource estimate for the property.

Physical samples obtained from 2007 drilling at Frank M were delivered to the Uranium One regional office in Moab, UT by BRS Engineering personnel. Mineralized core was sealed in plastic sleeves to reduce oxidation. Drill cuttings and core remnants not removed for chemical or mechanical testing are archived in the Uranium One Moab warehouse. Core was subsequently split vertically through the zones of interest and separated into nominal 1 foot samples. Where clear lithologic or mineralogic breaks were evident in the core from visual examination and/or by radiological scan such breaks were honored and samples were not mixed across boundaries. Core samples were then delivered by BRS personnel directly to Hazen Research for sample analysis and metallurgical testing. Sample results for all samples above 0.02 %U<sub>3</sub>O<sub>8</sub> are summarized on Table 15.1 that follows:

Table 15.1 2007 Frank M Core Results

Hole ID	Depth	gamma eU <sub>3</sub> O <sub>8</sub> , %	% U <sub>3</sub> O <sub>8</sub>	Carbonate reported as %C	V*
					ppm
07-FM-02	284-285	0.116	0.163	1.64	672
07-FM-02	291-292	0.024	0.024	1.92	328
07-FM-02	292-293.3	0.146	0.159	0.10	18118
07-FM-02	293.3-294.3	0.216	0.243	0.75	3903
07-FM-04	338-339	0.017	0.031	1.00	58
07-FM-04	339-340	0.029	0.053	1.71	103
07-FM-04	340-341	0.030	0.030	1.37	228
07-FM-05	313.5-314	0.044	0.134	1.02	663
07-FM-09	286-287	0.295	0.344	0.43	6253
07-FM-09	288-289	0.172	0.175	1.17	300
07-FM-09	289-289.85	0.431	0.435	0.64	12469
07-FM-09	292.5-293.5	0.044	0.034	1.87	2907
07-FM-09	293.5-294.5	0.072	0.137	0.76	1786
07-FM-09	294.5-295.5	0.343	0.462	1.41	5099
07-FM-09	296.5-297.5	0.364	0.410	1.06	2839
07-FM-09	297.5-298.5	0.136	0.136	1.32	4149

Drill data for each drill hole consisting of radiometric data was posted on drill maps including collar elevation, elevation to the bottom of the mineralized intercept, thickness of mineralization, grade of mineralization, and elevation of the bottom of the hole. Data entry was checked and confirmed. Drill hole locations were digitized from the drill maps to create a coordinate listing and then plotted. The resultant drill maps were then checked and confirmed by overlaying with the original maps.

As discussed in Section 19, once the database had been developed and data entry confirmed, individual mineralized intercepts were evaluated on a hole by hole basis and combined to represent a probable mining thickness appropriate for underground mining methods. This process eliminated some thin and/or isolated mineralized intercepts. The resultant data was then utilized to develop the Grade Thickness (GT) maps, Figures 6 and 7, for the Upper and Middle mineralized trends, respectively.

Historic data originally obtained from Plateau Resources was compared to 9 core holes drilled by Uranium One on the property in 2007. Figure 5, Data Verification, highlights 3 of these 9 core holes which were planned as twin holes and which were located in the central portion of the deposit within the Upper Trend. The figure shows the surface and downhole location of the drill holes and the GT of each drill hole on the background of the GT map. The best comparison of twinned drill holes is H-78-835 completed in 1978 and its twin 07-FM-09C completed in 2007. In this instance both holes had similar downhole drift and both holes encountered similar mineralization. H-78-835 had a GT of 2.23 and 07-FM-09C had a GT of 2.63. Drill hole 07-FM-08C was staked between holes H-78-804 and 2-35-11-79-25C. The historic holes had GT's of 1.26 and 0.89, while 07-FM-08C had a lower GT of 0.61. The poorest comparison was between holes 80-2-35-11-37 and 07-FM-07, with GT's of 3.43 and 0.44, respectively. In all cases mineralization occurred in the same stratigraphic horizons as the historic drill holes. Variations were reflected dominantly due to variations in grade.

The holes that were twinned were H-78-1141, 80-2-35-11-66, H-78-880, 79-KL-5P, 86-KL-29-1, H-77-569, 80-2-35-11-37, H-78-804, and H-78-834. The new holes were designated 07-FM-01 through 07-FM-09. The holes were cored and the mineralized intervals were sent for analysis. The results of the analysis are summarized in Section 15. The geophysical and lithologic logs taken at each hole confirm the stratigraphic correlations derived from previous drilling data.

Within the Henry Mountain District, Uranium One has a significant exploration project referred to as the Henry Mountains Project. The Henry Mountains Project is located on the eastern flank of the Henry Mountains. The claim block is situated approximately 2 miles west of Trachyte Ranch and consists of 311 unpatented Lode Mining Claims (HB 1 through HB 311) acquired from Energy Metals Corp. All Henry Mountains Project properties are reported by Uranium One to be in good standing. Holdings total approximately 6,425 acres. The center of this claim block lies approximately 9 linear miles north-northeast of the Frank M Project, and is accessed by a network of lightly maintained roads, generally 2-wheel-drive-accessible in good weather. With the exception of abandoned independently-operated small-scale adits, there has been no historic production from the Henry Mountains Project properties. Historic drilling does show uranium mineralization, however, the author is not aware of any specific historic resource estimates or reports other than statements as to potential resources which do not comply with CIM standards.

Between 1977 and 1981, Cotter Corp. drilled 175 boreholes on and around what is now the HB Claim Block. Between 1978 and 1981, Plateau Resources drilled at 87 boreholes on and around the property. Electric logs and some lithologic logs for these holes are in the possession of Uranium One. At the Henry Mountains Project, mineralization is found within 100 ft. to 150 ft. of the lower Salt Wash contact. Typically the lenses are zoned with a central zone of carbon trash surrounded by a high-grade zone of dark grey to brown sandstone containing carnotite, vanozite and roscoelite. The HB claims are in areas where highly oxidized, small mineralization occurrences in the Salt Wash project below overlying formations where conditions are similar to those hosting the known larger and higher-grade deposits. Exploration is focused on the unoxidized portions of the target Salt Wash formation. Uranium mineralization, as in Frank M Project, occurs in the Salt Wash Member of the Morrison Formation. The project area represents a downstream continuation of the same fluvial system present in Frank M. Based on the 2008 drilling, mineralization in the Henry Mountains Project appears to occur higher above the base of the Salt Wash, around 150 feet (as opposed to 60 to 100 feet, as displayed at Frank M).

In early 2008, Uranium One drilled 8 exploration holes and encountered multiple zones of mineralization in one hole. Further drilling is planned in 2008 to continue identifying favorable environments for mineralization.

The Frank M deposit is also adjacent to the Tony M mine currently controlled and being mined by Denison Mines. During the late 1970's and until 1983 when mineral rights to the Frank M were relinquished by Plateau Resources, both the Tony M and Frank M were controlled by Plateau Resources. Both mines were included in the same State of Utah mine permit. The Tony M mine was developed to a far greater extent by Plateau Resource than the Frank M mine. Pool, 2006, reports that development of the Tony M mine started on September 1, 1977 and operated until mid-1984. During this period approximately 20 miles of haulages and development drifts were completed and a total of

237,441 tons of muck with an average grade of 0.21 %U<sub>3</sub>O<sub>8</sub> was mined. Plateau Resources' Shootaring Canyon Uranium Processing Facility (Ticaboo Mill) first started production on April 13, 1982 and processed material from the Tony M mine until the mill shutdown on August 18, 1982. During the test run of the mill approximately 30,000 pounds U<sub>3</sub>O<sub>8</sub> were recovered and much, or all, of the stockpile of uranium bearing material was trucked to the Ticaboo Mill (Pool, 2006). SRK Consulting, 2007, reports some 93,141 tons of stockpiled material at the Ticaboo Mill at a grade of 0.131 %U<sub>3</sub>O<sub>8</sub> and 0.390 %V<sub>2</sub>O<sub>5</sub>. These stockpiled materials at the Ticaboo Mill are controlled by Uranium One and were transferred to Uranium One, along with other assets, through the U. S. Energy acquisition.

Mineralization at Frank M and Tony M are similar in that both deposits are hosted in the Salt Wash formation. They differ in that mineralization at the Tony M is dominantly within the lower horizon of the Salt Wash near the contact with the underlying Tidwell Formation, whereas, as discussed in Section 11, mineralization at the Frank M is located in two distinct horizons some 60 to 100 feet above the lower horizon. Pool 2006, reports historic resources for the Tony M mine ranging from 2.7 to 10.9 million pounds depending on resource calculation method and cutoff, both Grade and GT applied. The average mineralized thickness reported by Pool 2006, ranges from 5.7 to 5.8 feet as compared to average mineralized thicknesses at the Frank M of 5.0 and 5.6 feet at GT cutoffs of 0.25 and 0.50, respectively. Uranium grade is reportedly higher at Tony M in the range of 0.14 to 0.18 depending on cutoff criteria as compared to 0.117 for the Frank M at the 0.25 GT cutoff. Pool 2006, further states that the historic estimate completed by NAC in 1989, diluted for mining factors and chemically adjusted for disequilibrium (positive adjustment of 9%), " is a relevant estimate that meets the CIM classification of an Inferred Mineral Resource". This conclusion was reached without the benefit of confirmatory drilling or access to original data.

Metallurgical testing of composite samples from coring completed in 2007 is currently in progress. Preliminary recoveries from mill processing exceed 90%. It is planned that the ores from the Frank M mine would be processed at the Shootaring Canyon Mill less than 10 miles from the site. The Shootaring Canyon mill was designed for mill feed from the Frank M and Tony M mines.

Current metallurgical testing is in progress on core taken from the Frank M deposit in 2007 and 2008 focusing on conventional acid leach processing. Although additional testing of core samples is ongoing to refine the process metallurgy, leach test results for over 16 viable Frank M core samples have been completed with an average uranium extraction of 93.2% (Weizenbach, 2008). From these recent tests and other data, Lyntek, 2008, completed a feasibility report for the Shootaring Canyon Mill, owned by Uranium One. In their report Lytek projected a 93% overall recovery for the Frank M mineralized material with an expected acid consumption of approximately 140 pounds per ton. The stated recovery included both leaching efficiency and losses in the mill recovery circuit.

Mineralized material from the Frank M could be shipped to the Uranium One owned Shootaring Canyon Mill for processing or toll treated at the White Mesa Mill. Note that the White Mesa Mill is owned by Denison Mines and has published a uranium ore purchase schedule for uranium and/or uranium/vanadium ores. This ore buying schedule is available on their web site [www.denisonmines.com](http://www.denisonmines.com) along with statement that they will be receiving ores from independent mines in 2008. Denison Mines is currently transporting from the Tony M mine located less than four miles from the Shootaring Canyon Mill to the White Mesa Mill for processing.

## SECTION 19 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

The following Mineral Resource estimates were completed by Douglas Beahm, P.E., P.G., Principal Engineer, and Andrew Anderson, P.E., P.G., Senior Engineer, BRS Inc.

### Assumptions

1. A unit weight of 14.7 cubic feet per ton (2.2 tonne/m<sup>3</sup>) was assumed, based on data from feasibility studies prepared by previous operators and published reports. Geotechnical testing of 2007 core samples resulted in an average density of 134.2 pounds per cubic foot or 14.9 cubic feet per ton (2.2 tonne/m<sup>3</sup>). As the geotechnical samples were limited, for the purposes of this report, the historic density was preferred and utilized.
2. Mineral Resource estimates were developed based on radiometric equivalent data and corrected where appropriate for radiometric equilibrium.

### Terminology used in this report

1. GT is the grade thickness product.
2. Grade is expressed as weight percent.
3. eU<sub>3</sub>O<sub>8</sub> means radiometric equivalent U<sub>3</sub>O<sub>8</sub>.

### *Width and Trend Length*

Mineralization of the Frank M deposit occurs between 60 ft. and 100 ft. above the base of the Salt Wash Member. Mineralization occurs in three stratigraphic horizons, designated Upper, Middle, and Lower Zones. Mineralized zones move higher in the Salt Wash section from southwest to northeast. At the Tony M mine to the southwest of the project, mineralization is found in the very basal Salt Wash.

Mineralization at Frank M is conformable to the host sandstone. The mineralized zone is tabular and is oriented along a trend that is approximately 7,000 feet long and is commonly between 1,500 and 2,000 feet wide. The mineralized zone varies in depth from approximately 200 feet at the east end of the property to over 500 feet at the western extent. Average drilling depth on the property is approximately 400 feet. Tabular mineralized bodies are peneconcordant to bedding at a broad scale, though may locally follow other sedimentary features or chemical/porosity zones (Wanty, 1990). The greatest concentration of uranium deposits in the Salt Wash Member is where stream deposits thin from 200 to 90 feet and where the Navajo Sandstone thins from 500 feet to zero. (Craig et al, 1955).

## **Resource Calculation Methods**

### **GT Contour Method**

Collar elevation, drift, ½ foot uranium grade (eU<sub>3</sub>O<sub>8</sub>) data, elevation to the bottom of the mineralized intercept, and elevation of the bottom of the hole was entered into Microsoft Excel™ from historic drill logs.

As shown on Figures 6 and 7, a distinct mineralization trend is well defined in the Upper, and Middle Zones. Mineralization in Frank M is up to 500 feet deep on the west end of the trend and 200 feet deep on the east end and overall averages approximately 300 feet deep. The ½ foot grade data greater than 0.02 %eU<sub>3</sub>O<sub>8</sub> for each hole was summed for every mineralized interval diluting to a minimum mining height of 4 ft. If mineralized height was greater than 4 ft additional sum grades were made at 6, 8, and 8 plus feet. The elevation of the mineralized zone was taken to be the bottom of the mineralization.

The composite grade locations for each hole was plotted in AutoCAD and graphically represented by a cylinder at the correct northing, easting and elevation along each drill hole's drift. The cylinders were then assigned a zone based on their spatial location and geophysical log interpretations. After reviewing the three zones in plan view it was determined that only the upper and middle zones had enough continuity to contour. Zone three (Lower Zone) was low grade and discontinuous.

The grade data for each the upper and middle zones was contoured by 4ft, 6ft, 8ft and 8 plus ft grade ranges. Only the intercepts that could be correlated to adjacent holes were used in the contouring. This dropped many intercepts that were high grade but isolated above or below the main mineralized zone and could not be mined. The contained pounds of uranium were calculated by multiplying the grade range average by the area covered by that range by the respective thickness and by a tonnage conversion factor and the results summed. Average grade and thickness were then calculated. Figures 6 and 7 show the grade thickness contours (GT) and Figure 8 shows the conceptual mine layout on the Upper and Middle Zones.

### **Resource Model Verification Utilizing Geostatistical Resource Estimation Methods**

Following the completion of the resource estimate utilizing the GT contour method, AMD Consulting's, principle Andre Deiss, was commissioned to conduct an independent verification of the resource model and estimation emphasizing the use of Datamine software with Kriging and Inverse Distance Squared (IDS) methods. The main objective of the study was to validate existing resource estimates and if possible apply Geostatistics to the Frank M orebody. A brief summary of the methods and results follows with the full report and figures attached in Appendix B.

*“Both the uranium (U) and thickness (T or LENGTH) composites were tested to determine whether Geostatistics could be applied. Experimental variograms were created for both variables and contoured for each zone respectively. On investigation of the*

variograms [for Zone 1] a two structure spherical variogram model could be fitted in Datamine Studio 3<sup>TM</sup> software. This model yielded a short range of 63.10 feet and a long range of 111.38 feet. On investigation of the experimental variograms and contours for Zone 2 a two structure spherical variogram model was fitted in Datamine Studio 3<sup>TM</sup> software. This model yielded a short range of 75.17 feet and a long range of 89.02 feet

A wireframe model was created in Datamine Studio 3<sup>TM</sup> from the top and bottom positions of each borehole orebody composite for each Zone. These wireframes were then filled with blocks of cell size 25 feet x 25 feet in the X and Y direction. There is only one cell in the Z direction hence its dimension and it has value of the thickness between the two wireframe surfaces. The Z dimension is equated to the thickness (T) of the orebody.

Two main estimates were run namely:

- An Inverse Distance to the power 2 on U, utilising variogram parameters applied to the search for each Zone respectively
- An Ordinary Kriging run on U, utilising variogram parameters applied to the search for each Zone respectively

A minimum of 2 samples and a maximum of 12 were utilised. 3 searches were applied. The first as previously discussed, the second doubling the values and a third tripling the first search ellipses values.

Utilising all available data facilitated the use of Geostatistical processes, which produced search ranges, which in turn could be applied with confidence in the estimation of the Frank M orebody. Furthermore, the methodology applied allowed for a disclosure of an Inferred Resources outside of the previously defined 0.25 GT boundary.

The estimation process has produced comparable results with respect to historical estimates according to BRS Inc. The exercise has proved that Geostatistics can be applied in varying degrees to the Frank M orebodies. Furthermore it improves the confidence of the Resource categorisation.”

Table 19.1 compares the GT Contour, Kriging, and IDS Mineral Resource estimation results.

Table 19.1 – Comparison of Resource Estimates

Frank M – Upper Zone*				
Resource Calculation Method	Pounds eU <sub>3</sub> O <sub>8</sub>	Tons	Average Grade % eU <sub>3</sub> O <sub>8</sub>	Resource Category
GT Contour (BRS)	1,510,000	735,000	0.103	Indicated
Inverse Distance Squared	1,736,000	735,000	0.118	Indicated
Ordinary Kriging	1,674,000	737,000	0.114	Indicated

\*numbers rounded

Frank M – Middle Zone*				
Resource Calculation Method	Pounds eU <sub>3</sub> O <sub>8</sub>	Tons	Average Grade % eU <sub>3</sub> O <sub>8</sub>	Resource Category
GT Contour (BRS)	700,000	360,000	0.097	Indicated
Inverse Distance Squared	658,000	303,000	0.109	Indicated
Ordinary Krigging	590,000	297,000	0.099	Indicated

\*numbers rounded

The resource model verification completed by AMD, 2008 and relied upon by the authors for verification of the resource estimation completed by them, yielded similar but slightly higher results with respect to total contained pounds of uranium and slightly higher estimated grades. The Mineral Resource estimate completed using the GT Contour method is preferred in this case as it is considered to better reflect the minable portion of the Mineral Resource with respect to total pounds and average grade.

The interpreted mineralized trends, shown on Figures 6 and 7 in plan view are based on reasonably spaced drill data. Mineralization is concentrated at continuous stratigraphic horizons related to erosional unconformities and/or transgressive/regressive sedimentary depositional sequences. Uranium and vanadium concentrations vary in thickness and grade at these stratigraphic horizons, apparently controlled by a combination of local variations in permeability and the availability of organic reductant.

Based on the drill density and the apparent continuity of the mineralization along trends, Mineral Resources as estimated for the Frank M project meet the standards for Indicated Mineral Resources under the CIM Standards on Mineral Resources and Reserves for the main mineralized areas in the Upper and Middle trends.

Additional surface drilling is generally not recommended with the exception of geotechnical drilling along the alignment of the proposed decline once mine permits are approved. Given the proximity of the Shootaring Canyon mill, the current Mineral Resource is adequate to warrant the expense of developing access to the deposit via a decline from the surface. Once access is developed, detailed underground sampling is recommended utilizing face sampling and longhole drilling for final delineation of the deposit for mining purposes. A Summary of Indicated Mineral Resources follows.

#### **Frank M Upper 4ft Minimum Mining Thickness\***

GT Cutoff	Average Thickness	Average eU <sub>3</sub> O <sub>8</sub>	Tons	Pounds
0.10	4.6	0.069	1,650,000	2,273,000
0.25	4.9	0.103	735,000	1,510,000
0.50	5.5	0.147	243,000	714,000
1.00	6.5	0.234	40,000	187,000

\*numbers rounded

**Frank M Middle 4ft Minimum Mining Thickness\***

GT Cutoff	Average Thickness	Average eU <sub>3</sub> O <sub>8</sub>	Tons	Pounds
0.10	4.8	0.072	668,000	967,000
0.25	5.1	0.097	360,000	700,000
0.50	5.9	0.129	129,000	333,000
1.00	7.3	0.193	15,000	58,000

\*numbers rounded

**Frank M Total Indicated Resources\***

GT Cutoff	Average Thickness	Average eU <sub>3</sub> O <sub>8</sub>	Tons	Pounds
0.10	4.7	0.070	2,319,000	3,240,000
0.25	5.0	0.101	1,095,000	2,210,000
0.50	5.6	0.141	372,000	1,047,000
1.00	6.7	0.223	55,000	245,000

\*numbers rounded

**Inferred Mineral Resources**

In addition to the main portions of the Upper and Middle Trends shown on Figures 6 and 7, respectively, additional mineralization is demonstrated by drilling outside these trends and in the Lower Trend. Based on the drill density and the apparent continuity of the mineralization along trends, these Mineral Resources meet the standards for Inferred Mineral Resources under the CIM Standards on Mineral Resources and Reserves.

**A Summary of Indicated Mineral Resources follows:**

Mineral Resources were estimated for three separate areas outside the established boundaries for Indicated Mineral Resources, as follows:

In the southwest portion of the deposit mineralization, outside the mineralization envelope for Indicated Mineral Resources, Mineral Resources were calculated by the contouring method previously described. Due to the relatively low grade of this area a cutoff of 0.25 GT was the highest cutoff used.

GT Cutoff	0.10	0.25
Total lbs	18,106	12,585
Tons	15,216	7,497
Avg G	0.059	0.084
Avg T	5.0	5.8
Avg GT	0.298	0.489

Inside the boundary mineralization in the Lower Trend was highly scattered and did not lend itself to the GT contour method. Instead, radiuses of influence were used to estimate the grade. Each drill hole, and therefore its grade, was given a radius of 50 feet based on the drill hole spacing.

GT Cutoff	0.10	0.25	0.50
Total lbs	56,781	18,426	12,481
Tons	82,278	10,685	6,411
Avg G	0.035	0.086	0.097
Avg T	5.5	5.0	6.0
Avg GT	0.193	0.430	0.582

The mineralization represented in the remainder of the drill holes outside of these boundaries was also estimated by using the same 50 feet radius.

GT Cutoff	0.10	0.25	0.50
Total lbs	50,046	44,270	35,668
Tons	34,194	23,508	14,960
Avg G	0.073	0.094	0.119
Avg T	8.0	11.0	14.0
Avg GT	0.584	1.034	1.666

Substantially higher values for inferred resources were calculated using statistical methods and are shown in the AMD report of June 9, 2008. These higher values were not reported herein due to their low level of confidence. A summary of the recommended Inferred Resources for the purposes of this report follows.

#### Frank M Total Inferred Resources

GT Cutoff	Avg U <sub>3</sub> O <sub>8</sub>	Tons	Pounds
0.10	0.047	132,000	125,000
0.25	0.089	42,000	75,000
0.50	0.114	21,000	48,000

### Radiometric Equilibrium

The dominant data available for the evaluation of Mineral Resources was radiometric equivalent uranium data. This data consisted of radiometric geophysical logging data of each drill hole from which the uranium content was calculated using standard industry methods and calibration. Such calculations of equivalent uranium content from geophysical log data are based on the assumption that the uranium is in radiometric equilibrium with its daughter products. Under certain geologic, hydrologic, and/or geochemical conditions uranium or its daughter products may be mobilized differentially, resulting in an imbalance in the ratio of uranium to its daughter products. When this occurs it is referred to as disequilibrium and difference between radiometric equivalent uranium content and actual chemical uranium content may be positive, enriched; or negative, depleted. The adjustment factor for conversion of radiometric equivalent grade to is referred to in this report as the Disequilibrium Factor or DEF. Data from historical core drilling and the 2007 coring program is provided in Appendix A. The location of the core holes are highlighted on the Drill Hole Map, Figure 4.

The data provided in Appendix A includes only the “Closed Can” radiometric equivalent assays and the directly comparable chemical assay from the core samples. Core recovery from both the historic and 2007 coring program was not considered adequate to complete a comparison of the chemical assay results directly to the geophysical logs. Although the closed can to chemical comparison generally shows an enrichment in chemical values as compared to radiometric equivalent, no correction of the Mineral Resource estimate which was based on the geophysical log data for disequilibrium is recommended due to the poor core recovery.

### Vanadium

Vanadium was present in all of the samples containing uranium above cutoff grades. Vanadium concentrations range from 300 ppm to over 18,000 ppm. Vanadium to uranium ratios ranged from 0.18 to over 11 to one and averages just over 2 to 1. Four values showed very high vanadium associated with samples with high organic content. Excluding these samples the average vanadium to uranium ratio is 0.82 to 1. It is recommended for planning purposes that a vanadium to uranium ratio of 1:1 be assumed.

This report summarizes the Mineral Resources within the property known as the Frank M Mine Uranium Project and held via 45 unpatented Lode Mining Claims (Staal 1 through 14 and Del Monte 1 through 32) and 1 State Mineral Lease (T35S, R11E, Sec 2), held by Uranium One Americas. It was the objective of this report to complete the estimate of Mineral Resources, and that objective was met. Mineral Resources as estimated for the Frank M project meet the standards for Indicated Mineral Resources under the CIM Standards on Mineral Resources and Reserves. It should be noted that previous operators prepared mine plans, feasibility studies and had initiated a decline to mine this area prior to the collapse of the uranium market in the 1980's with little or no additional drilling recommended at that time.

Uranium One has prepared preliminary mine plans and is in the process of preparing mine permit documents to permit the mine as a small mine operation. Additional surface drilling is generally not recommended with the exception of geotechnical drilling along the alignment of the proposed decline once mine permits are approved. Given the proximity of the Shootaring Canyon mill, the current mineral resource is adequate to warrant the expense of developing access to the deposit via a decline from the surface. Once access is developed, detailed underground sampling is recommended utilizing face sampling and longhole drilling for final delineation of the deposit for mining purposes.

## SECTION 22

## RECOMMENDATIONS

The following recommendations are appropriate as the property moves toward development and/or production.

1. Complete the Mineral Reserve and economic feasibility study which is in progress.
2. Complete the metallurgical studies which are in progress utilizing core samples from the 2007 drilling program.
3. Complete a small mine permit compliant with State of Utah regulations and initiate the main decline and establish access to the initial mining areas.
4. Develop access to the deposit via a decline from the surface.
5. Complete detailed mapping and longwall drilling of the initial mining areas; estimate resources based on this data; and compare to estimates contained herein from surface drilling. This comparison should then be utilized to determine the need, if any, for additional surface drilling and to establish procedures for underground development drilling.
6. Currently the Shootaring Canyon mill does not have a vanadium circuit, however, evaluation of adding a vanadium circuit is recommended. It is also recommended that future sampling programs, surface and/or underground, consider assay for vanadium to better determine the vanadium content of the deposit.

## FRANK M

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SECTION 24

CERTIFICATIONS

I, Douglas L. Beahm, P.E., P.G., do hereby certify that:

1. I am the principal owner and president of BRS Inc., 1225 Market, Riverton, Wyoming 82501.
2. I graduated with a Bachelor of Science degree in Geological Engineering from the Colorado School of Mines in 1974.
3. I am a licensed Professional Engineer in Wyoming, Colorado, Utah, and Oregon, and a licensed Professional Geologist in Wyoming.
4. I have worked as an engineer and a geologist for over 32 years.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 and certify that by reason of my education, professional registration, and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am responsible as co-author for the preparation of the entire Technical Report entitled “Frank M Uranium Project, Garfield County, Utah, USA” prepared for Uranium One and dated June 10, 2008.
7. I have prior working experience on the property as stated in the report.
8. As of the date of this report I am not aware of any material fact or material change with respect to the subject matter of this Technical Report that would affect the conclusions of this report that is not reflected in the Technical Report.
9. I am independent of the issuer applying all of the tests in NI 43-101.
10. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with same.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority.

***Signed and Sealed***

*June 10, 2008*

Douglas L. Beahm, PE, PG

I Andrew C. Anderson, P.E., P.G., do hereby certify that:

1. I am a geological engineer of BRS Inc., 1225 Market, Riverton, Wyoming 82501.
2. I graduated with a Bachelor of Science degree in Geological Engineering from the Colorado School of Mines in 1999, and a Master of Science degree in Geology from the University of Wyoming in 2002.
3. I am a licensed Professional Engineer in Wyoming, and a licensed Professional Geologist in Wyoming.
4. I have worked as an engineer and a geologist for a total of 8 years.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 and certify that by reason of my education, professional registration, and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am responsible as co-author for the preparation of the entire Technical Report entitled “Frank M Uranium Project, Garfield County, Utah, USA” prepared for Uranium One and dated June 10, 2008.
7. I have prior working experience on the property as stated in the report.
8. As of the date of this report I am not aware of any material fact or material change with respect to the subject matter of this Technical Report that would affect the conclusions of this report that is not reflected in the Technical Report.
9. I am independent of the issuer applying all of the tests in NI 43-101.
10. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with same.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority.

***Signed and Sealed***

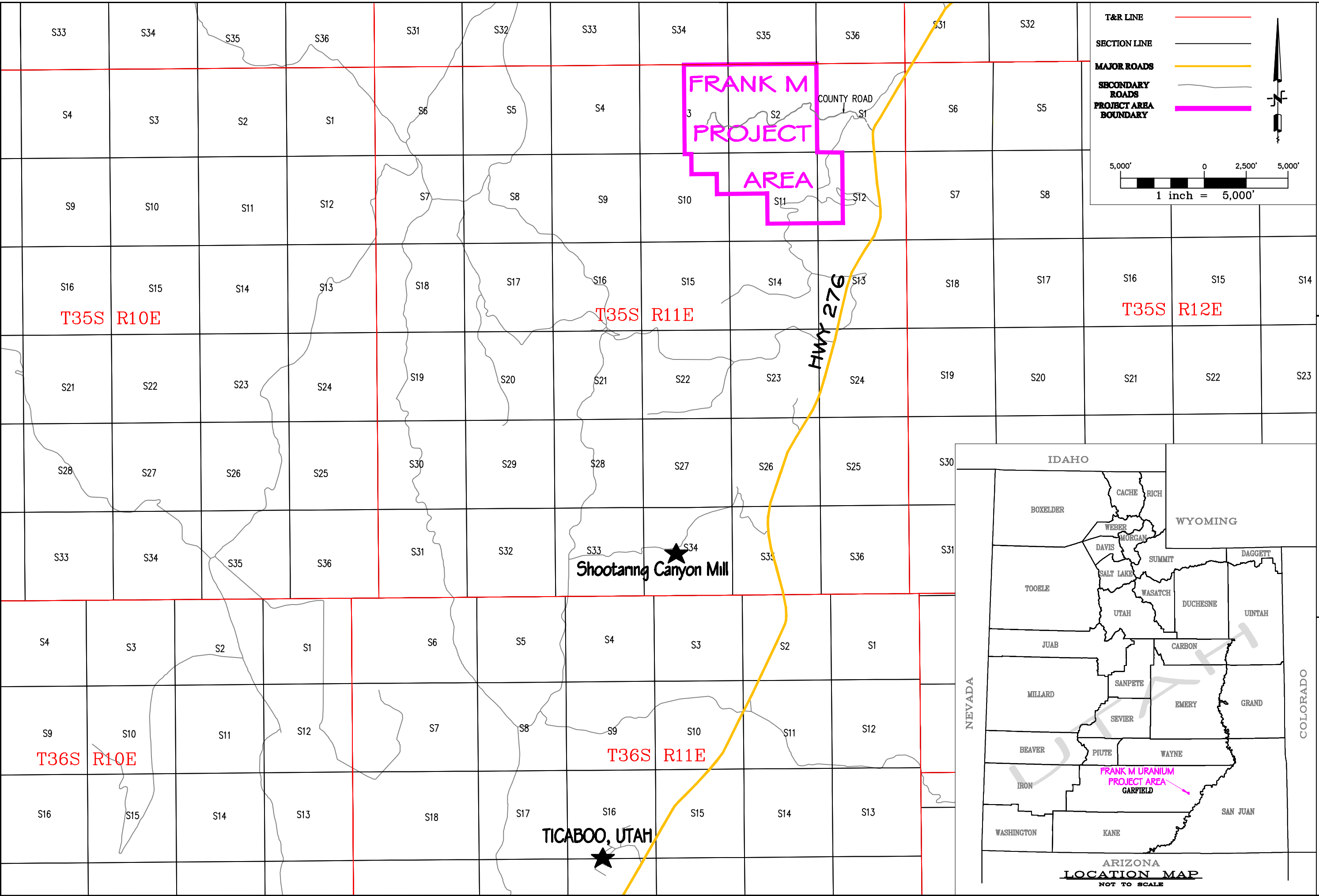
*June 10, 2008*

Andrew C. Anderson, PE, PG

SECTION 25 ADDITIONAL REQUIREMENTS FOR TECHNICAL REPORTS ON  
DEVELOPMENT PROPERTIES AND PRODUCTION PROPERTIES

NOT APPLICABLE FOR MINERAL RESOURCES. APPLICABLE ONLY TO  
MINERAL RESERVES.





**T&R LINE**

**SECTION LINE**

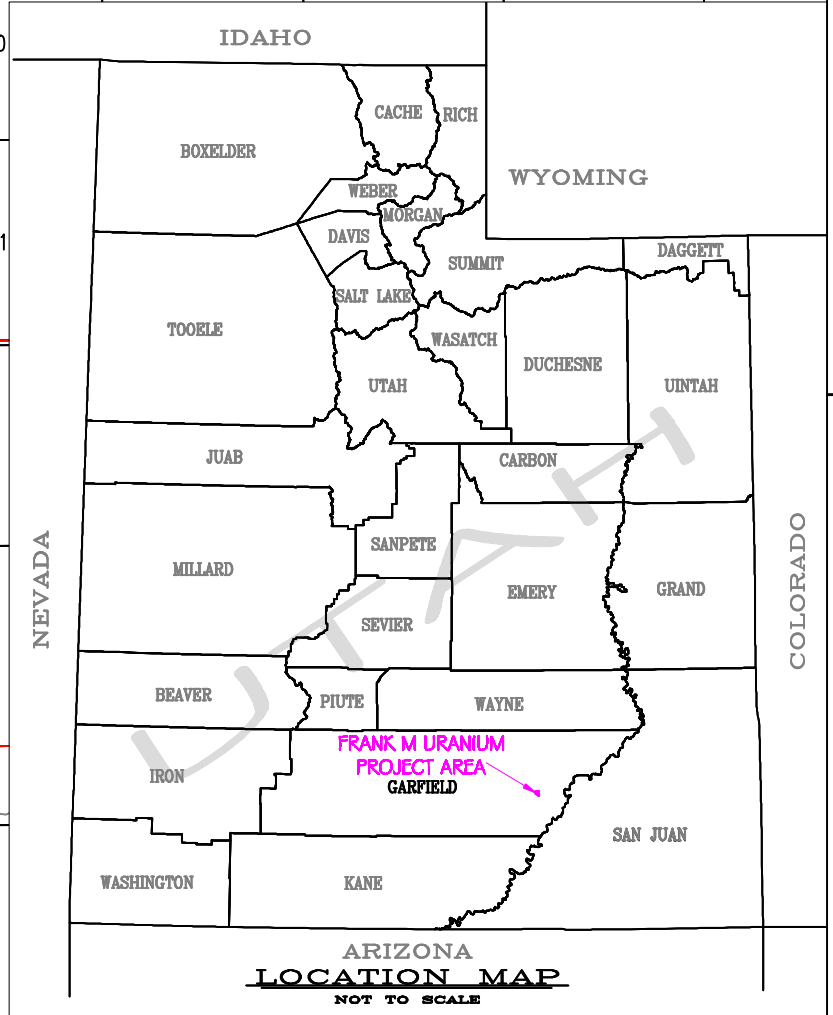
**MAJOR ROADS**

**SECONDARY ROADS**

**PROJECT AREA BOUNDARY**

5,000' 0 2,500' 5,000'

1 inch = 5,000'

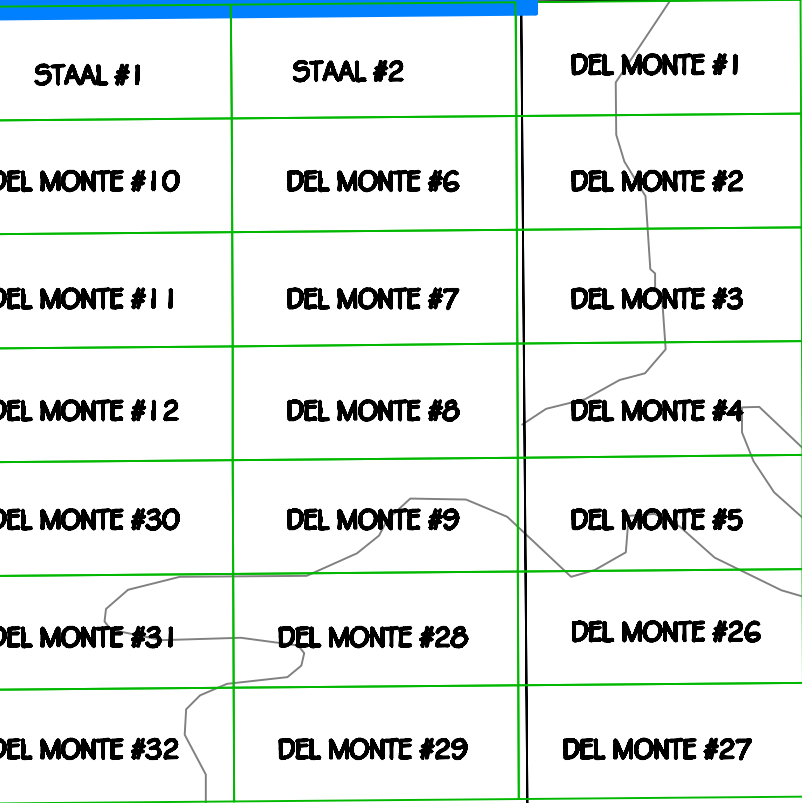
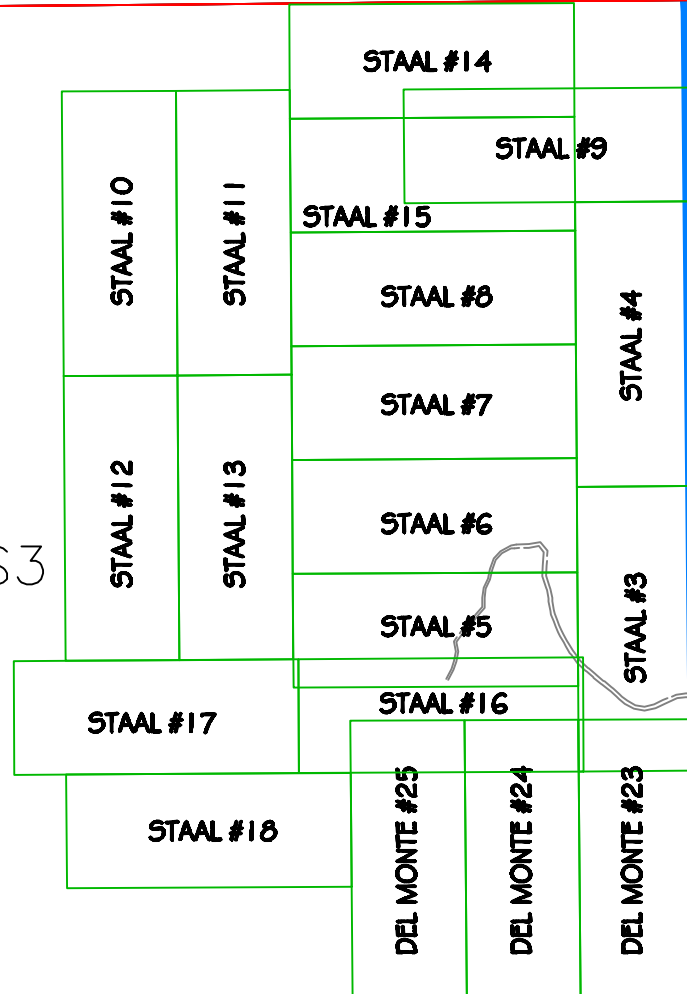


NO.	REVISION DATE: None	ISSUED FOR	DATE
LAST PLOT DATE: 2/28/08	FRANK M URANIUM PROJECT		
CAD FILENAME: FIG 1 LOCATION.dwg	43-101 MINERAL RESOURCE REPORT		
GARFIELD COUNTY, UTAH			
SCALE: 1"=500'	DRAWN BY: CHUCK SHAW	DATE: 12/13/07	REV.
CHECKED:	FIGURE 1		
APPROVED:			



T35S, R11E

S3



S10

S11

S12

COUNTY ROAD  
SITE ACCESS

HWY 276

T&R LINE - - - - -

SECTION LINE - - - - -

MAJOR ROADS - - - - -

SECONDARY ROADS - - - - -

CLAIM BLOCK - Claim Number: DELMONTE #1

Lease Number: ML 48871

STATE MINING LEASE - Effective Date: 11/21/2001

1,000' 0 500' 1000'

1 inch = 1,000'

CLAIM MAP

FRANK M URANIUM PROJECT  
43-101 MINERAL RESOURCE REPORT  
GARFIELD COUNTY, UTAH

SCALE: 1"=1000'

DRAWN BY: CHECK SHAW

CHECKED: [ ]

APPROVED: [ ]

DATE: 12/13/07

REV. NO. 2

FIGURE 2

NO. [ ] REVISION DATE: None

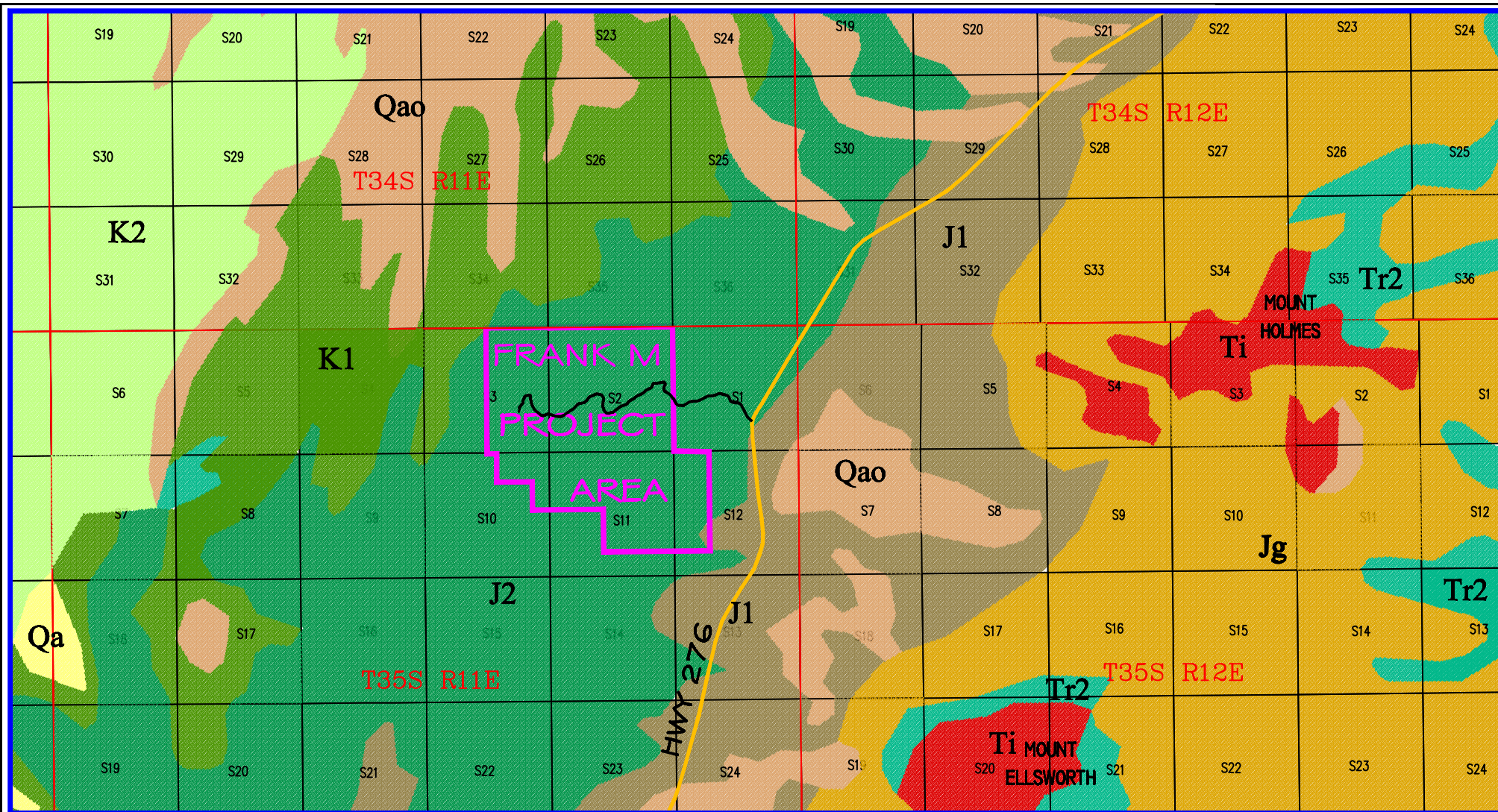
DATE [ ] ISSUED FOR: uraniumone™ investing in our energy

DATE [ ]

LAST PLOT DATE: 2/28/08

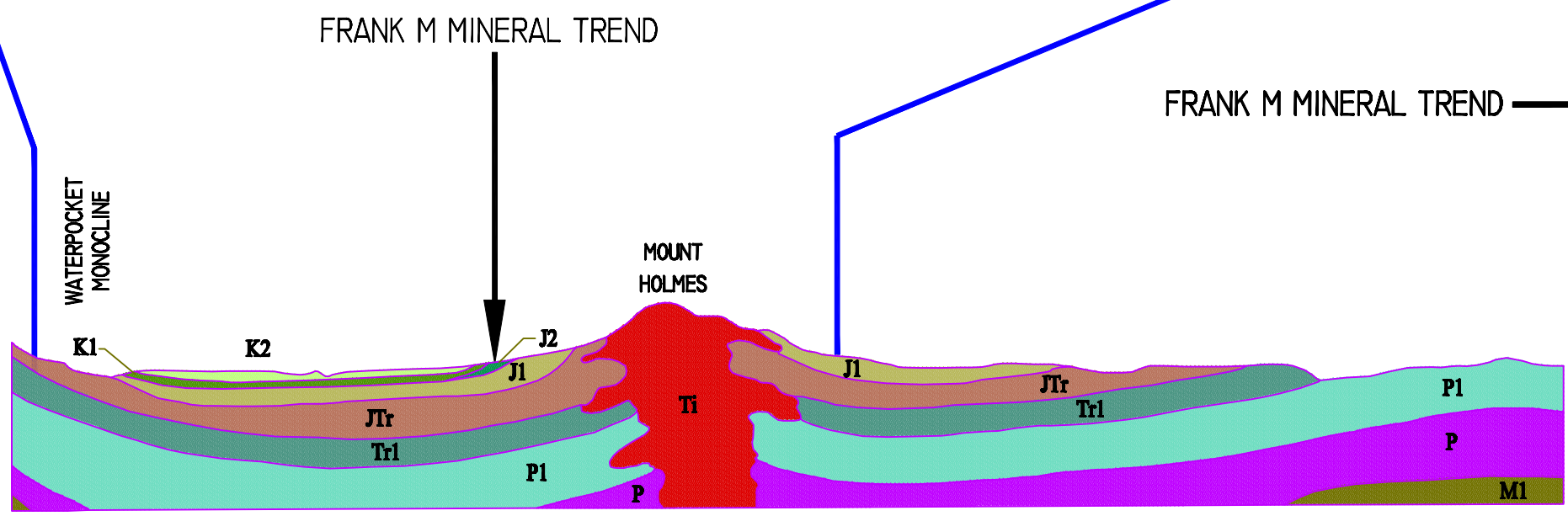
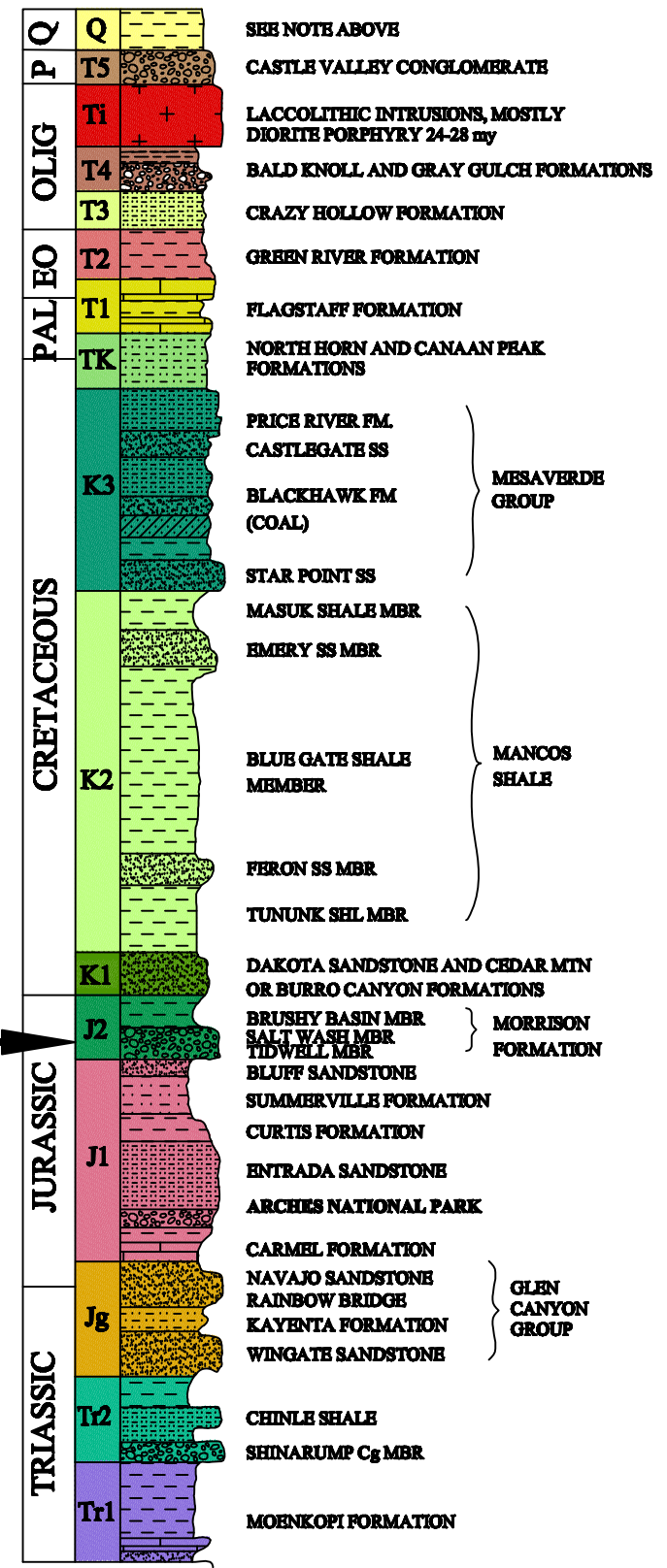
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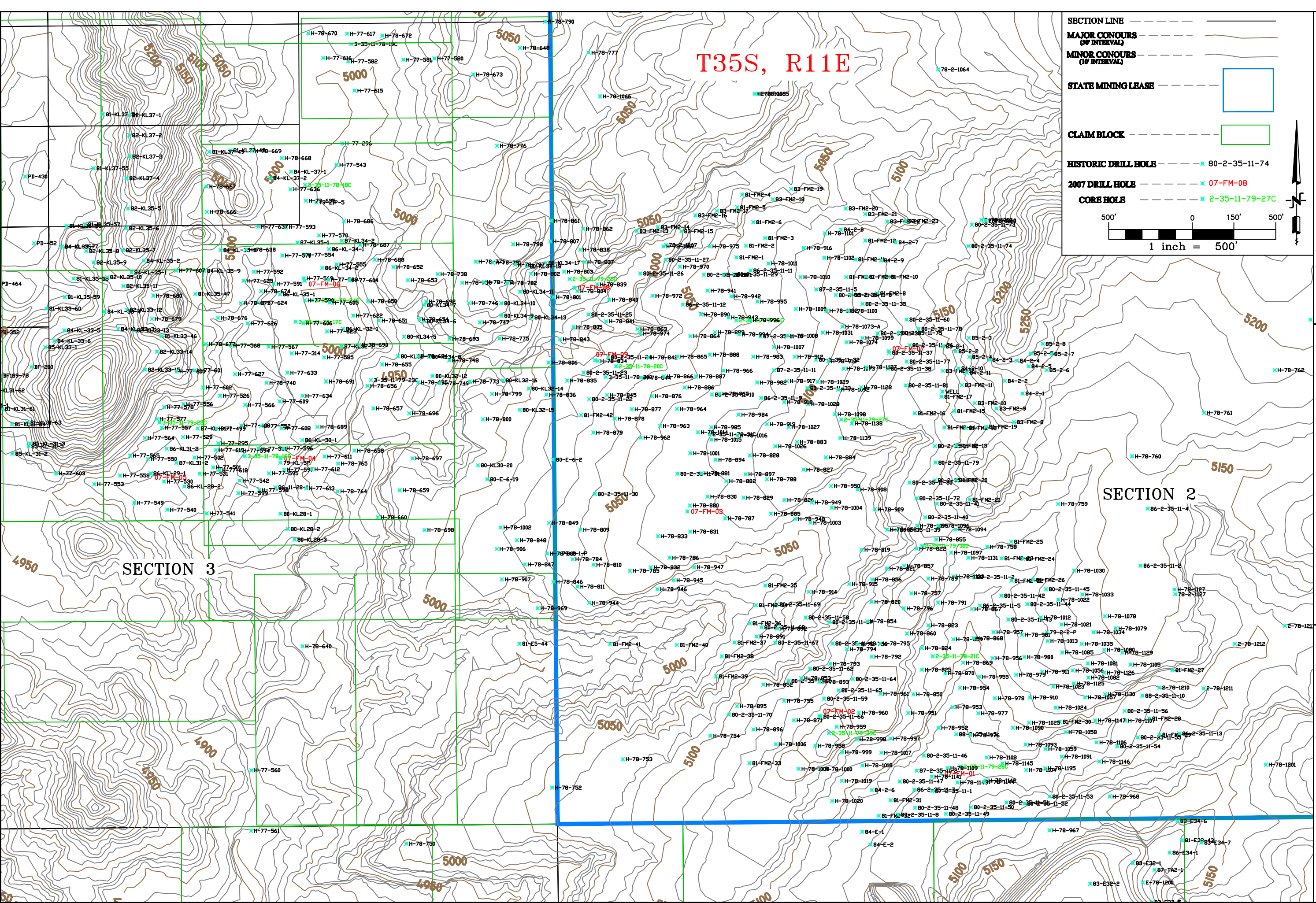
BRS ENGINEERING



**KEY TO GEOLOGIC MAP**

- Qa** ALLUVIUM AND COLLUVIUM
- Qao** OLDER ALLUVIAL DEPOSITS
- Ti** TERTIARY INTRUSIVE ROCKS





T35S, R11E

**SECTION LINE** - - - - -

**MAJOR CONOURS (50' INTERVAL)** - - - - -

**MINOR CONOURS (10' INTERVAL)** - - - - -

**STATE MINING LEASE** - - - - -

**CLAIM BLOCK** - - - - -

**HISTORIC DRILL HOLE** - - - - - x 80-2-35-11-74

**2007 DRILL HOLE** - - - - - x 07-FM-08

**CORE HOLE** - - - - - x 2-35-11-79-27C

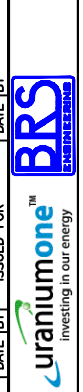
500' 0 150' 500'

1 inch = 500'

NO.	REVISION DATE:	None
DATE	ISSUED FOR	DATE
12/13/07	DRILL HOLE MAP	12/13/07
DRAWN BY:	CHECK SHAW	
CHECKER:		
APPROVED:		

FRANK M URANIUM PROJECT  
43-101 MINERAL RESOURCE REPORT  
GARFIELD COUNTY, UTAH

FIGURE 4

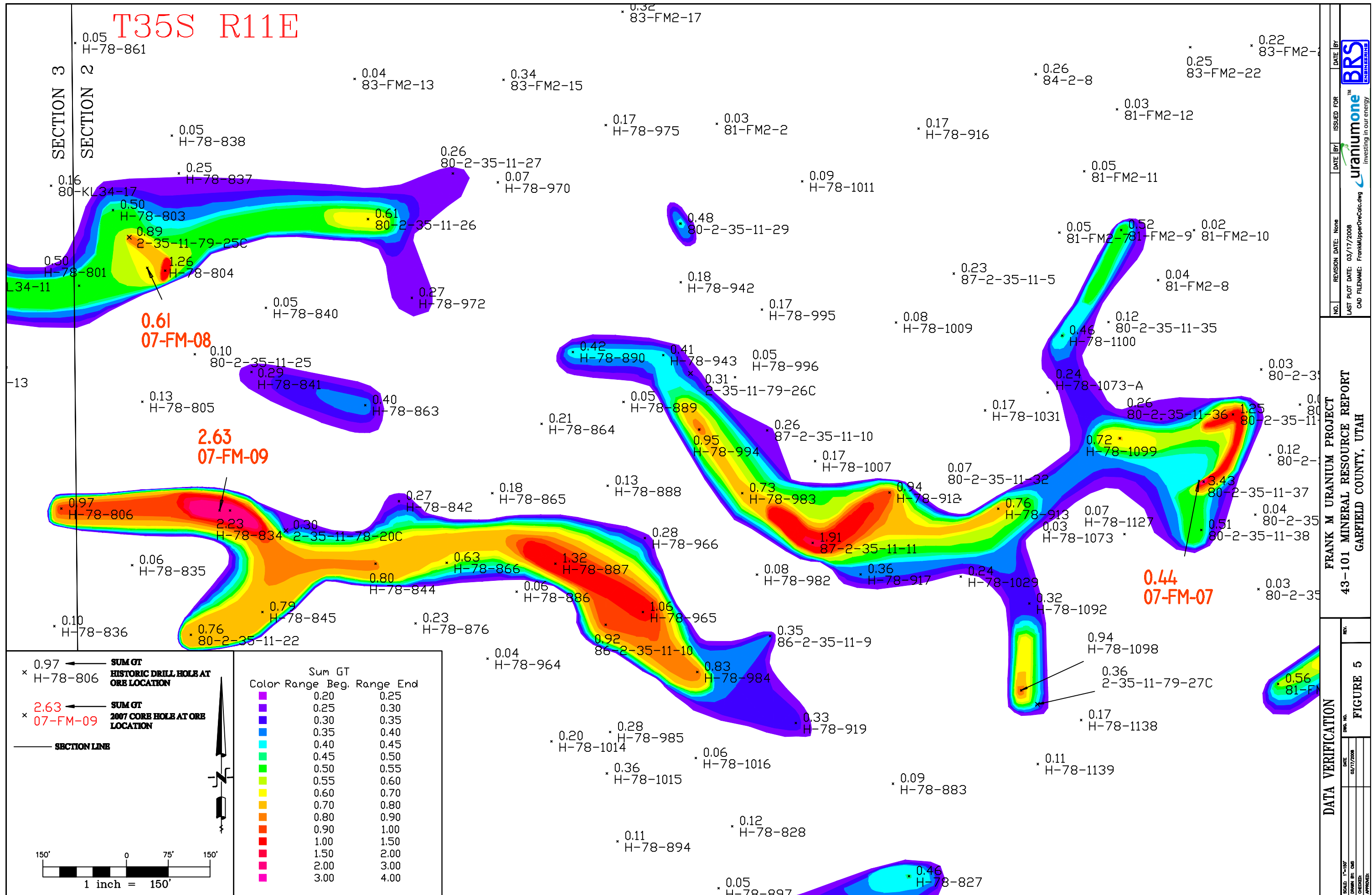


SECTION 3

SECTION 2

DRILL HOLE MAP

# T35S R11E



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 LAST PLOT DATE: 03/17/2008  
 CAD FILENAME: FrankMUrpeOreCalc.dwg  
 ISSUED FOR: \_\_\_\_\_ DATE BY: \_\_\_\_\_  
 BRS ENGINEERING  
 uraniumone™  
 investing in our energy

FRANK M URANIUM PROJECT  
 43-101 MINERAL RESOURCE REPORT  
 GARFIELD COUNTY, UTAH

DATA VERIFICATION  
 FIGURE 5  
 SCALE: 1"=150'  
 DRAWN BY: CME  
 CHECKED: \_\_\_\_\_  
 DATE: 03/17/2008  
 APPROVED: \_\_\_\_\_

T35S, R11E

Color Range	Sum GT Beg.	Range End
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0.25	0.30	
0.30	0.35	
0.35	0.40	
0.40	0.45	
0.45	0.50	
0.50	0.55	
0.55	0.60	
0.60	0.70	
0.70	0.80	
0.80	0.90	
0.90	1.00	
1.00	1.50	
1.50	2.00	
2.00	3.00	
3.00	4.00	

SECTION LINE - - - - -

STATE MINING LEASE - - - - -

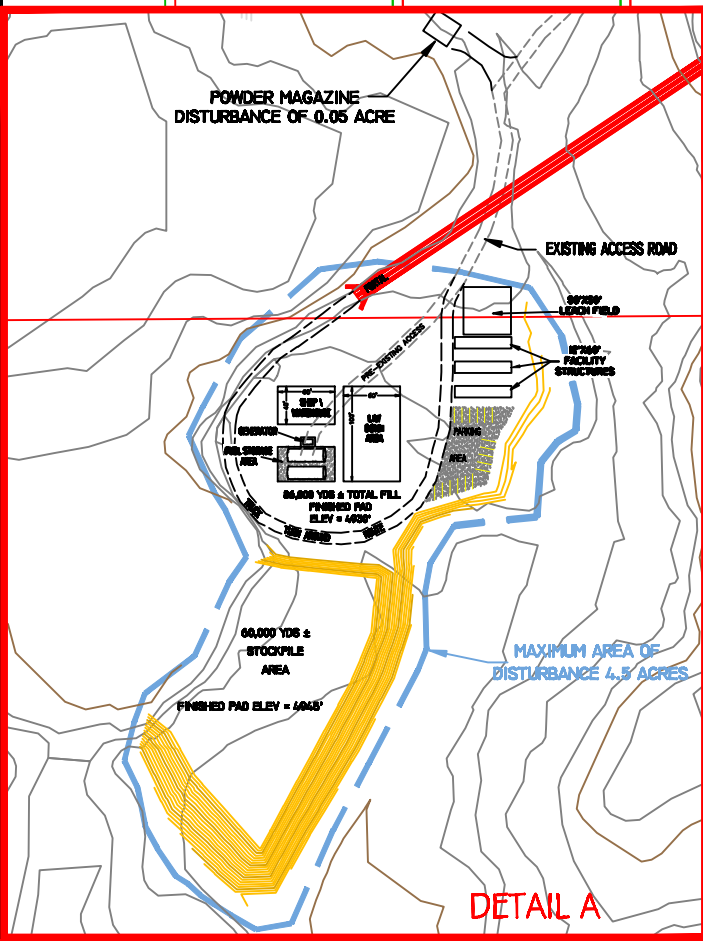
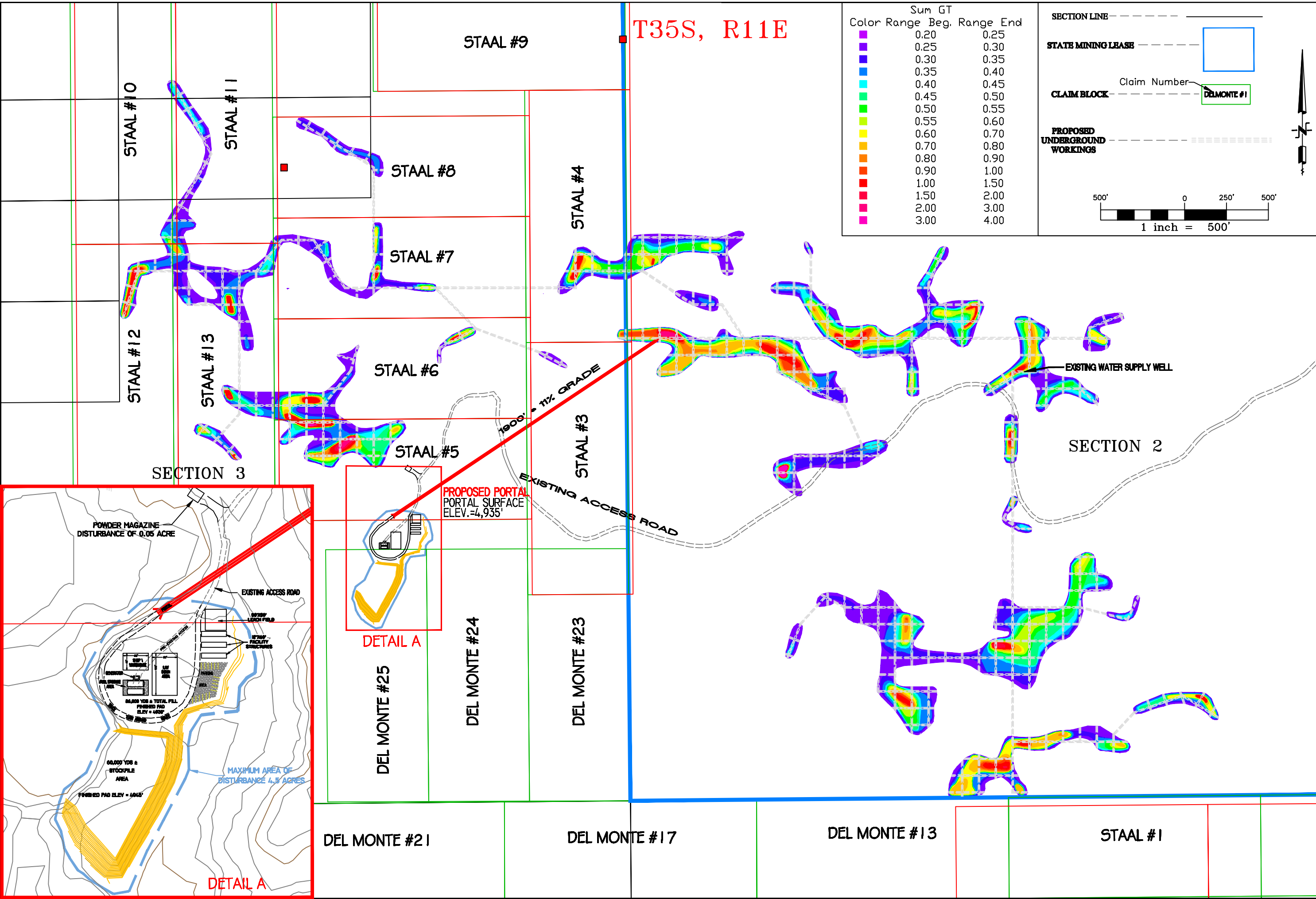
CLAIM BLOCK - - - - - Claim Number DELMONTE #1

PROPOSED UNDERGROUND WORKINGS - - - - -

NO. \_\_\_\_\_ REVISION DATE: None  
 DATE: \_\_\_\_\_ ISSUED FOR: \_\_\_\_\_  
 LAST PLOT DATE: 2/28/08  
 CAD FILENAME: FIG BASE.dwg

FRANK M URANIUM PROJECT  
 43-101 MINERAL RESOURCE REPORT  
 GARFIELD COUNTY, UTAH

FRANK M UPPER GT TREND  
 FIGURE 6  
 DATE: 12/13/07  
 DRAWN BY: CHECK SHAW  
 CHECKED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_



T35S, R11E

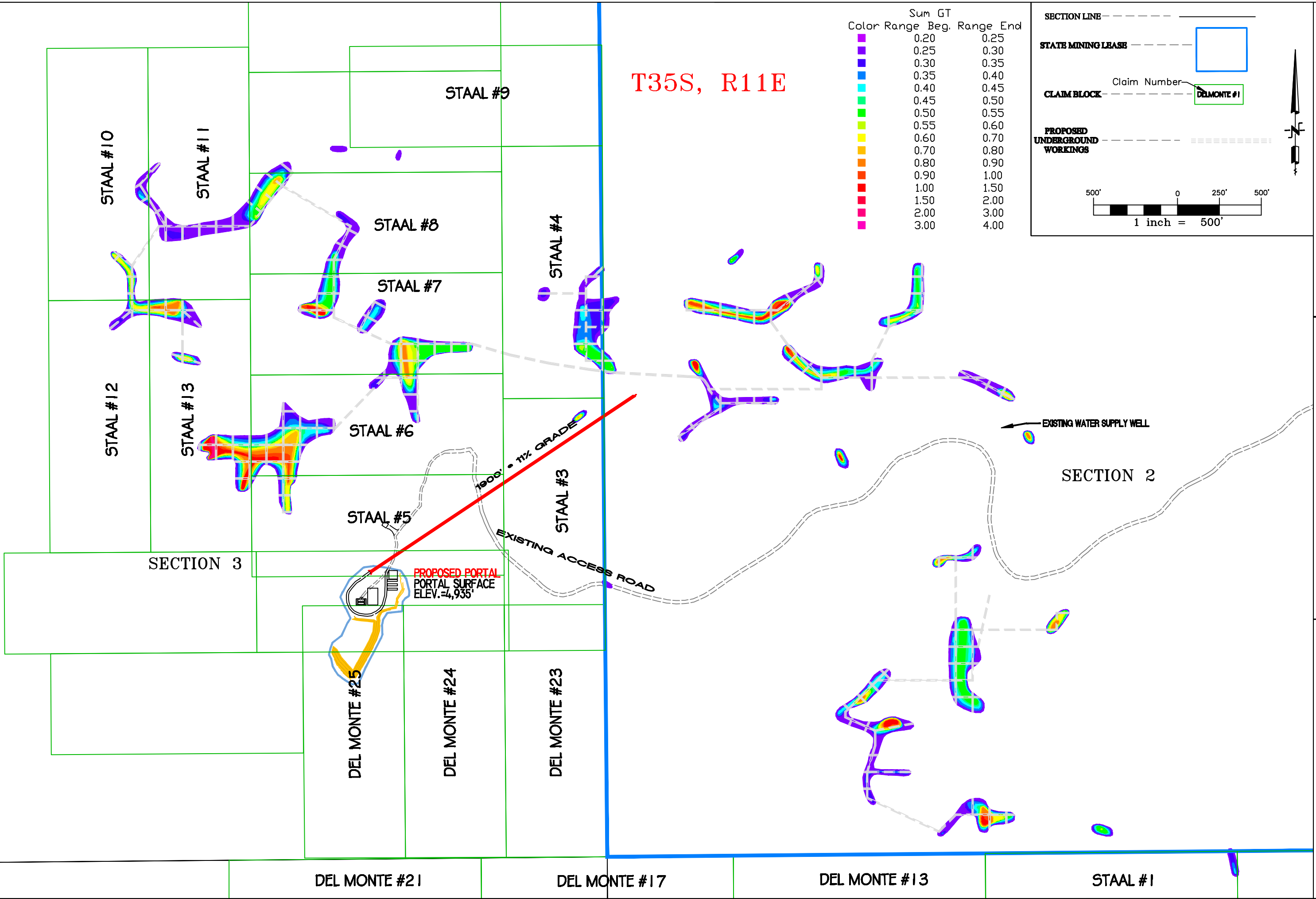
Color	Sum GT Range	Beg. Range	End
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Green	0.25 - 0.30	0.25	0.30
Yellow	0.30 - 0.35	0.30	0.35
Orange	0.35 - 0.40	0.35	0.40
Red	0.40 - 0.45	0.40	0.45
Pink	0.45 - 0.50	0.45	0.50
Light Blue	0.50 - 0.55	0.50	0.55
Light Green	0.55 - 0.60	0.55	0.60
Light Yellow	0.60 - 0.70	0.60	0.70
Light Orange	0.70 - 0.80	0.70	0.80
Light Red	0.80 - 1.00	0.80	1.00
Red	1.00 - 1.50	1.00	1.50
Orange	1.50 - 2.00	1.50	2.00
Yellow	2.00 - 3.00	2.00	3.00
Green	3.00 - 4.00	3.00	4.00

SECTION LINE - - - - -

STATE MINING LEASE - - - - -

CLAIM BLOCK - - - - - Claim Number DELMONTE #1

PROPOSED UNDERGROUND WORKINGS - - - - -



PROPOSED PORTAL  
PORTAL SURFACE  
ELEV. = 4,935'

1900' • 11% GRADE  
EXISTING ACCESS ROAD

EXISTING WATER SUPPLY WELL

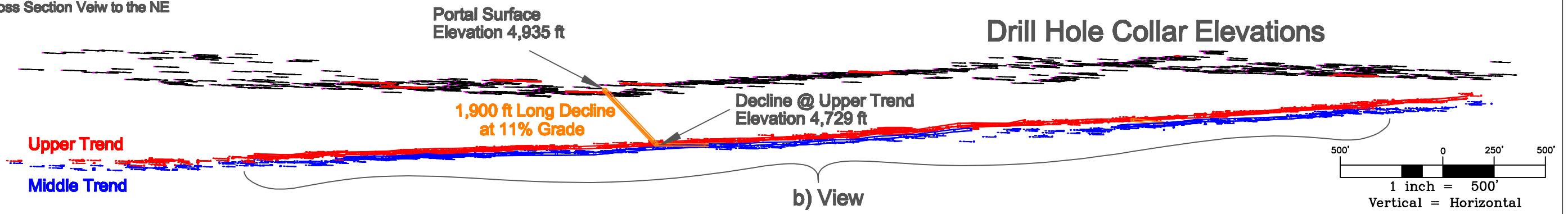
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	LAST PLOT DATE:	2/28/08				
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FRANK M URANIUM PROJECT  
43-101 MINERAL RESOURCES REPORT  
GARFIELD COUNTY, UTAH

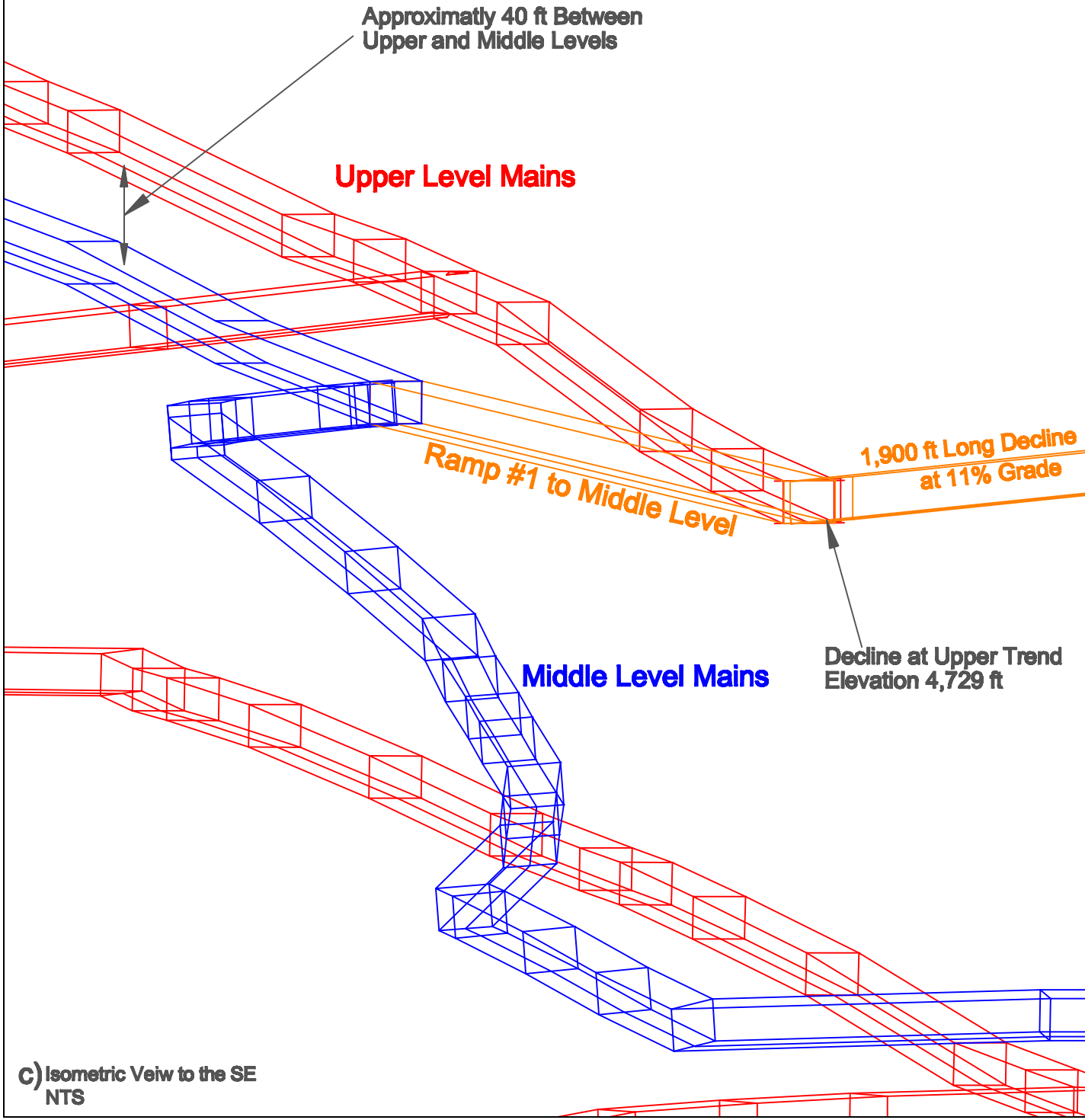
FRANK M MIDDLE GT TREND  
DWR. NO. FIGURE 7

SCALE:	1"=500'
DRAWN BY:	CHUCK SHAW
CHECKED:	
DATE:	12/13/07
APPROVED:	

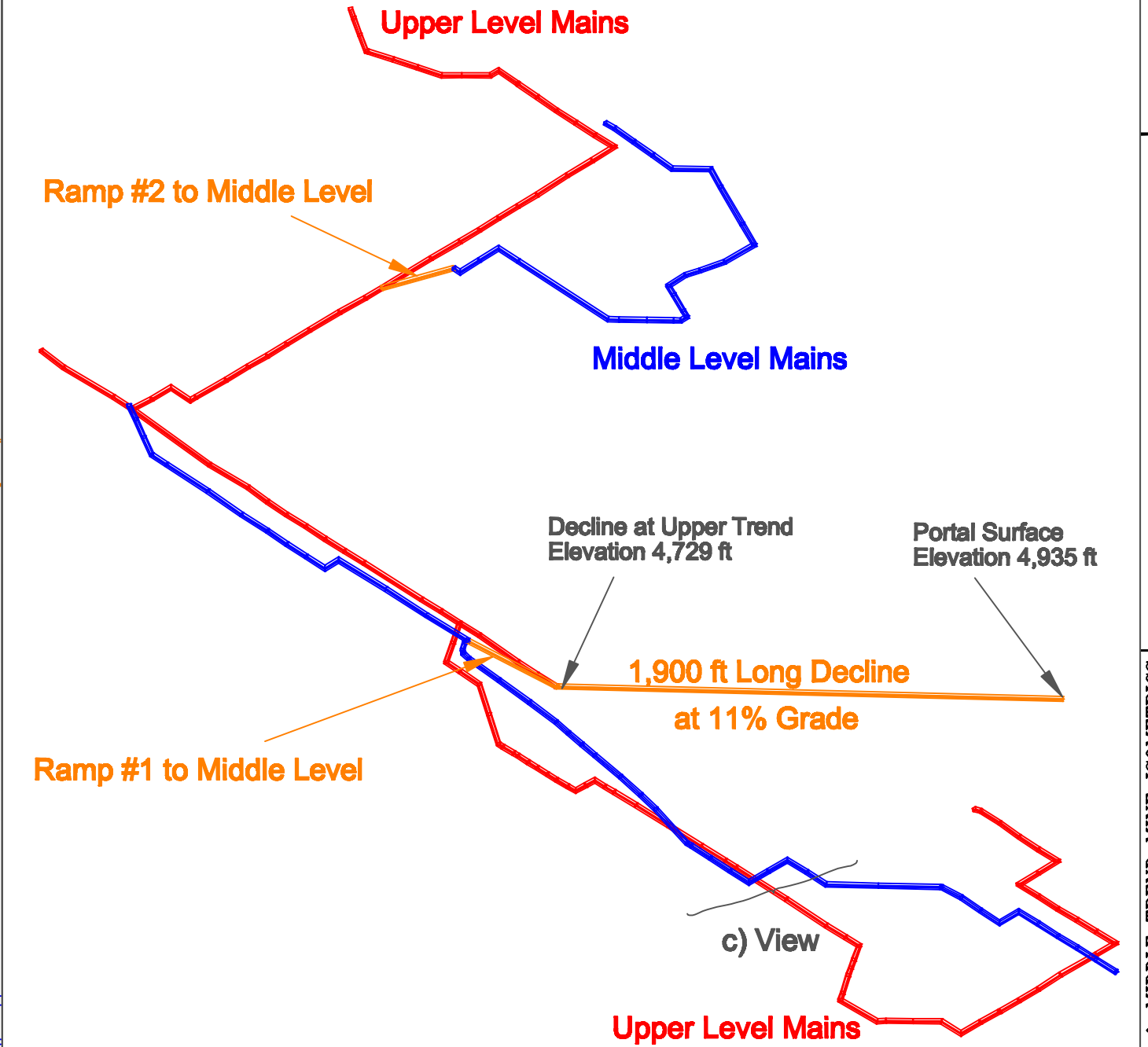
a) Cross Section Veiw to the NE



b) View



c) Isometric Veiw to the SE  
NTS



b) Isometric Veiw to the SE  
NTS

REVISION DATE: None LAST PLOT DATE: 03/18/2008 CAD FILENAME: Frank M Figure 3.dwg	NO. _____ DATE BY _____ ISSUED FOR _____ DATE BY _____
FRANK M URANIUM PROJECT 43-101 MINERAL RESOURCE REPORT GARFIELD COUNTY, UTAH	
UPPER & MIDDLE TREND MINE ISOMETRICS FIGURE 8	
SCALE: IN: A3A DRAWN BY: ACA CHECKED BY: _____ APPROVED: _____	DATE: 03/17/2008

## **APPENDIX A**

### **RADIOMETRIC EQUILIBRIUM DATA**

#### **CLOSED CAN EQUIVALENT VERSUS CHEMICAL URANIUM ASSAYS FROM CORE SAMPLES**

Hole #	Interval	%U3O8 Fluometric	%eU3O8 Sealed	Disequilibrium Factor (DEF)	COMMENTS
2-35-11-78-20C	285.1-285.3	0.026	0.031	0.84	Upper Zone
2-35-11-78-20C	287.3-287.8	0.083	0.036	2.31	
2-35-11-78-20C	289.3-291.3	0.047	0.052	0.90	
2-35-11-78-20C	292.8-293.5	0.044	0.036	1.22	
2-35-11-78-20C	293.5-293.8	0.450	0.305	1.48	
2-35-11-78-20C	295.1-295.3	0.041	0.046	0.89	
2-35-11-78-20C	296.9-298.1	0.003	0.024	0.11	
2-35-11-78-20C	298.1-299.1	0.077	0.095	0.81	
	Weighted average			1.04	Weighted by Grade x Thickness of Sample
2-35-11-78-21C	232.6-233.1	0.014	0.027	0.52	Upper Zone
2-35-11-78-21C	234.4-234.6	0.089	0.086	1.03	
2-35-11-78-21C	235.5-236	0.025	0.033	0.76	1.19 DEF
2-35-11-78-21C	236-236.5	0.071	0.044	1.61	
2-35-11-78-21C	236.5-236.7	0.295	0.210	1.40	
2-35-11-78-21C	264.4-264.7	0.026	0.025	1.04	Middle Zone
2-35-11-78-21C	265.2-265.3	0.195	0.094	2.07	
2-35-11-78-21C	265.8-266.3	0.044	0.021	2.10	1.80 DEF
	Weighted average				Weighted by Grade x Thickness of Sample
2-35-11-79-25C	266-266.5	0.001	0.029	0.04	
2-35-11-79-25C	266.5-267	0.010	0.022	0.43	Upper Zone
2-35-11-79-25C	267.5-267.8	0.004	0.041	0.10	
2-35-11-79-25C	267.8-268.2	1.700	1.010	1.68	
2-35-11-79-25C	268.3-268.7	0.505	0.355	1.42	
2-35-11-79-25C	268.7-269.2	0.190	0.125	1.52	
2-35-11-79-25C	269.2-269.7	0.046	0.046	1.00	
2-35-11-79-25C	269.7-270.2	0.037	0.032	1.16	
2-35-11-79-25C	270.5-270.9	0.115	0.067	1.72	
2-35-11-79-25C	271.4--271.8	0.012	0.021	0.57	
	Weighted average			1.49	Weighted by Grade x Thickness of Sample
2-35-11-79-26C	295-295.5	0.120	0.230	0.52	
2-35-11-79-26C	296.4-296.6	0.022	0.031	0.71	Upper Zone
2-35-11-79-26C	314.2-314.4	0.006	0.020	0.30	
2-35-11-79-26C	320.9-321.4	0.003	0.021	0.13	Note depletion in upper portions and enrichment in lower portion
2-35-11-79-26C	323.7-324	0.007	0.058	0.11	
2-35-11-79-26C	327.6-328.2	0.003	0.040	0.08	
2-35-11-79-26C	328.2-328.5	3.000	1.830	1.64	
2-35-11-79-26C	328.7-329	0.295	0.215	1.37	
2-35-11-79-26C	329-329.2	1.200	1.040	1.15	
	Weighted			1.31	Weighted by Grade x Thickness of

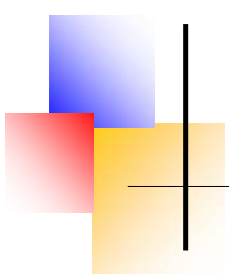
average		Sample			
Hole #	Interval	%U3O8 Flurometric	%eU3O8 Sealed	Disequilibrium Factor (DEF)	COMMENTS
2-35-11-79-27C	290.9-291.4	0.006	0.033	0.18	
2-35-11-79-27C	291.4-291.9	0.003	0.021	0.16	Upper Zone
2-35-11-79-27C	291.9-292.5	0.031	0.019	1.63	
2-35-11-79-27C	294.5-294.7	0.048	0.063	0.76	0.89 DEF
2-35-11-79-27C	294.7-295.4	0.175	0.175	1.00	Poor recovery
2-35-11-79-27C	295.4-296	0.018	0.021	0.86	
2-35-11-79-27C	357.9-358.2 Weighted average	0.245	0.120	2.04	Middle Zone Weighted by Grade x Thickness of Sample
2-35-11-79-28C	153.3-153.8	0.006	0.035	0.17	
2-35-11-79-28C	153.8-154.3	0.160	0.110	1.45	Upper Zone
2-35-11-79-28C	154.3-154.8	0.009	0.022	0.39	
2-35-11-79-28C	155.8-156.3	0.200	0.145	1.38	
2-35-11-79-28C	156.3-156.8	0.061	0.028	2.18	
2-35-11-79-28C	156.8-157.2	0.100	0.040	2.50	
2-35-11-79-28C	157.2-157.7	0.012	0.030	0.40	
2-35-11-79-28C	157.7-158.1	0.415	0.325	1.28	
2-35-11-79-28C	158.1-158.6	0.032	0.190	0.17	Poor recovery
2-35-11-79-28C	158.6-159.1	0.037	0.064	0.58	
2-35-11-79-28C	159.1-159.6 Weighted average	0.026	0.053	0.49	Weighted by Grade x Thickness of Sample
				1.04	
2-35-11-79-29C	300.8-301.3	0.230	0.205	1.12	
2-35-11-79-29C	301.3-301.8	0.175	0.150	1.17	Upper Zone
2-35-11-79-29C	301.8-302.3	0.125	0.115	1.09	
2-35-11-79-29C	302.3-302.8	0.015	0.023	0.65	
2-35-11-79-29C	303.3-303.9	0.130	0.068	1.91	1.01 DEF
2-35-11-79-29C	303.9-304.2	0.560	0.355	1.58	
2-35-11-79-29C	304.2-304.5	0.027	0.052	0.52	
2-35-11-79-29C	304.5-305	0.021	0.215	0.10	
2-35-11-79-29C	346-346.2	0.120	0.079	1.52	Middle Zone
2-35-11-79-29C	346.2-346.3 Weighted average	0.011	0.037	0.30	1.29 DEF Weighted by Grade x Thickness of Sample
2-35-11-79-30C	274.4-275	0.014	0.034	0.41	
2-35-11-79-30C	275.5-276.1	0.014	0.031	0.45	Upper Zone
2-35-11-79-30C	312.1-312.6	0.050	0.053	0.94	
2-35-11-79-30C	312.6-313.1	0.011	0.028	0.39	Poor recovery
2-35-11-79-30C	316.1-316.6	0.035	0.015	2.33	
2-35-11-79-30C	355.7-356.2	0.065	0.035	1.86	
2-35-11-79-30C	357.7-358 Weighted average	0.054	0.032	1.69	Weighted by Grade x Thickness of Sample
				1.01	
3-35-11-78-15C	360.4-360.6	0.061	0.092	0.66	Only 0.2ft of core recovered DEF not appropriate

Hole #	Interval	%U3O8 Flurometric	%eU3O8 Sealed	Disequilibrium Factor (DEF)	COMMENTS
3-35-11-78-16C	313-313.5	0.044	0.032	1.38	
3-35-11-78-16C	313.5-314	0.068	0.050	1.36	
3-35-11-78-16C	314-314.5	0.083	0.059	1.41	
3-35-11-78-16C	314.5-315	0.120	0.075	1.60	Upper Zone
3-35-11-78-16C	315-315.6	0.094	0.058	1.62	
3-35-11-78-16C	315.6-316.1	0.027	0.029	0.93	
3-35-11-78-16C	316.1-316.6	0.380	0.270	1.41	
3-35-11-78-16C	318.5-319	0.071	0.049	1.45	
3-35-11-78-16C	320.4-320.7	0.037	0.031	1.19	
3-35-11-78-16C	320.7-321.4	0.190	0.083	2.29	
3-35-11-78-16C	321.4-322	0.015	0.030	0.50	
3-35-11-78-16C	333.9-334.4	0.130	0.061	2.13	
3-35-11-78-16C	337.4-337.9	0.032	0.021	1.52	
3-35-11-78-16C	337.9-338.4	0.035	0.028	1.25	
	Weighted average			1.54	Weighted by Grade x Thickness of Sample
3-35-11-78-17C	405.3-405.8	0.047	0.033	1.42	
3-35-11-78-17C	406.3-406.8	0.470	0.220	2.14	Middle Zone
3-35-11-78-17C	406.8-407.3	0.004	0.025	0.14	
3-35-11-78-17C	422-422.5	0.260	0.097	2.68	
	Weighted average			2.08	Weighted by Grade x Thickness of Sample
3-35-11-78-18C	351.6-352.1	0.002	0.021	0.11	
3-35-11-78-18C	357.3-358	0.002	0.021	0.07	Upper Zone
3-35-11-78-18C	358-358.7	0.120	0.096	1.25	
3-35-11-78-18C	358.7-359.6	0.190	0.145	1.31	
	Weighted average			1.15	Weighted by Grade x Thickness of Sample
3-35-11-79-22C	334.4-334.5	0.007	0.029	0.24	
3-35-11-79-22C	334.5-335	0.355	0.255	1.39	
3-35-11-79-22C	335-335.5	0.220	0.145	1.52	Upper Zone
3-35-11-79-22C	335.5-336	0.015	0.044	0.34	
3-35-11-79-22C	336-336.5	0.825	0.450	1.83	
3-35-11-79-22C	336.5-337	0.009	0.034	0.25	
3-35-11-79-22C	337-337.4	0.110	0.105	1.05	
3-35-11-79-22C	337.4-337.9	1.120	0.515	2.17	
3-35-11-79-22C	337.9-338.4	1.300	0.845	1.54	
3-35-11-79-22C	338.4-338.9	0.190	0.170	1.12	
3-35-11-79-22C	338.9-339.4	0.255	0.120	2.13	
3-35-11-79-22C	339.4-339.9	0.165	0.100	1.65	
3-35-11-79-22C	339.9-340.4	0.190	0.105	1.81	
3-35-11-79-22C	340.4-340.9	0.099	0.047	2.11	
	Weighted average			1.64	Weighted by Grade x Thickness of Sample

Hole #	Interval	%U3O8 Fluometric	%eU3O8 Sealed	Disequilibrium Factor (DEF)	COMMENTS
3-35-11-79-24C	344-344.5	0.025	0.021	1.19	
3-35-11-79-24C	373.5-374	0.003	0.093	0.04	Upper Zone
3-35-11-79-24C	374-374.5	0.590	0.440	1.34	
3-35-11-79-24C	374.5-375	0.003	0.028	0.11	
	Weighted average			1.07	Weighted by Grade x Thickness of Sample
07-FM-02	284-285	0.163	0.116	1.41	
07-FM-02	291-292	0.024	0.024	1.00	Upper Zone
07-FM-02	292-293.3	0.159	0.146	1.09	
07-FM-02	293.3-294.3	0.243	0.216	1.13	
	Weighted average			1.19	Weighted by Grade x Thickness of Sample
07-FM-04	338-339	0.031	0.017	1.82	
07-FM-04	339-340	0.053	0.029	1.83	Upper Zone
07-FM-04	340-341	0.030	0.030	1.00	Below Cutoff Grade
	Weighted average			1.50	Not included in DEF
07-FM-05	313.5-314	0.134	0.044	3.05	Upper Zone
	Weighted average			3.05	0.5 ft recovered DEF not applied
07-FM-09	286-287	0.344	0.295	1.17	
07-FM-09	288-289	0.175	0.172	1.02	Upper Zone
07-FM-09	289-289.85	0.435	0.431	1.01	
07-FM-09	292.5-293.5	0.034	0.044	0.77	lost 2.5 feet in zone
07-FM-09	293.5-294.5	0.137	0.072	1.90	
07-FM-09	294.5-295.5	0.462	0.343	1.35	
07-FM-09	296.5-297.5	0.410	0.364	1.13	
07-FM-09	297.5-298.5	0.136	0.136	1.00	
	Weighted average			1.15	Weighted by Grade x Thickness of Sample

**APPENDIX B**

**FRANK M RESOURCES, USA MEMORANDUM  
AMD CONSULTING  
9 JUNE, 2008**



9 June 2008

Re: Frank M Resources, USA. Memorandum

Dear All

The results and discussions that follow relate to the Frank M Resources. There are two stratigraphic zones that have been modelled and estimated for the purpose of this resource estimate. The upper unit has been designated a zonal value of one (1) and the lower unit, which relates to a mid mineralised zone, has been designated a zonal value of two (2). The areas are subdivided geographically and by a grade thickness (GT) of 0.25, gridded by BRS Inc. A FAREA="IN" indicates areas that lie within this 0.25 GT boundary and an FAREA="OUT" indicates areas outside of this boundary.

**1. Introduction**

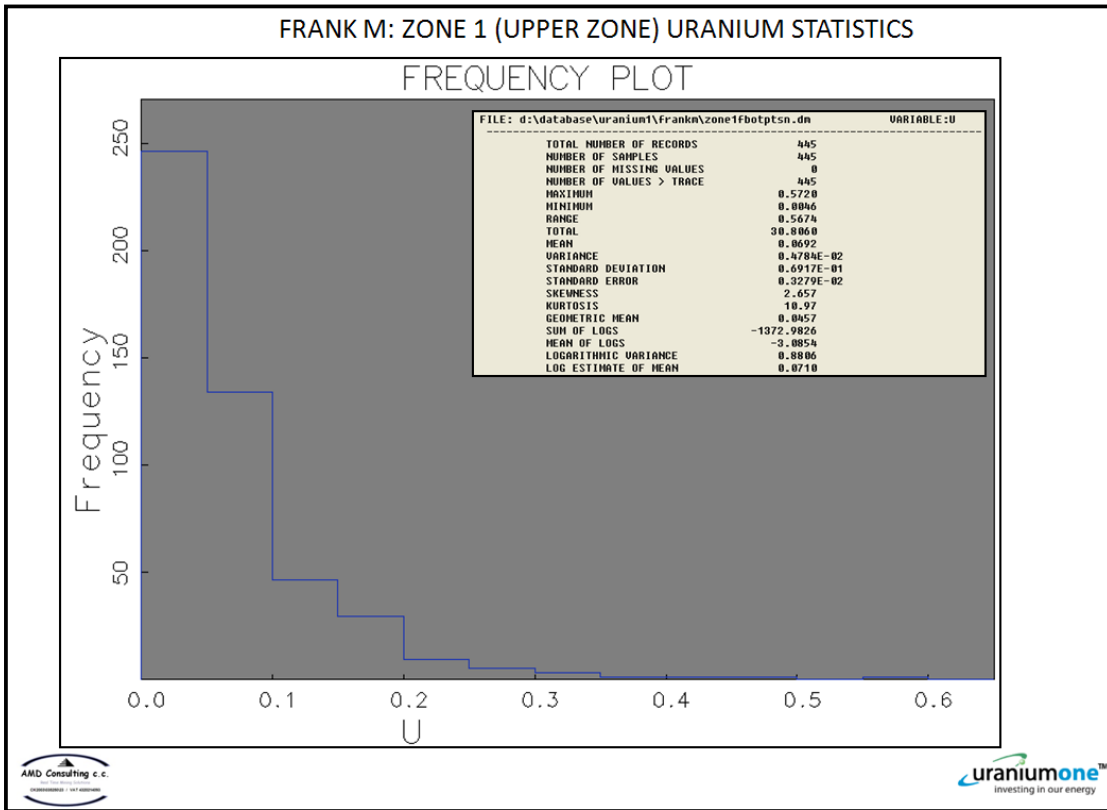
The borehole composites as supplied by BRS Inc. were validated and problem intersections were corrected. Additional borehole composites were added to the Zone 1 and Zone 2 composite databases in the process. A total of 445 borehole composites were utilised for the Zone 1 estimate and 361 borehole composites were utilised for Zone 2 estimate. No individual borehole samples were supplied as the majority of the borehole composites are of historical nature, drilled by other companies. The main objective of the study was to do a Mineral Resource estimate utilising 3-dimensional modelling software, Datamine Studio 3™. The main concerns lay with the search ranges to be utilised and whether geostatistics could be applied to such orebodies, which traditionally has not been the case.

**2. Geostatistics**

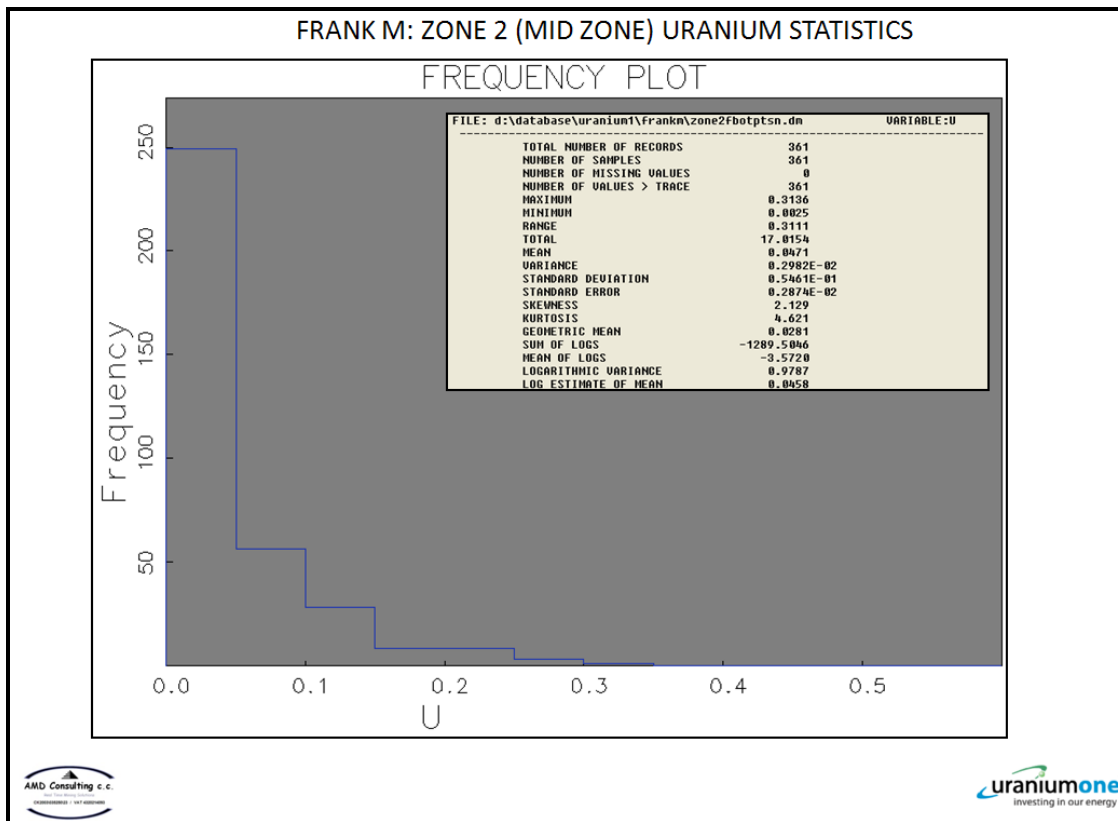
Both the uranium (U) and thickness (T or LENGTH) composites were tested to determine whether Geostatistics could be applied. The histogram for the uranium demonstrates a typical lognormal distribution for both Zone 1 and Zone 2 orebodies (see Figure 1 and Figure 2). The thickness histogram demonstrates a fragmented lognormal distribution for both Zone 1 and Zone 2 orebodies (see Figure 3 and Figure 4). This non continuous distribution is as a direct result of the compositing methodology (4, 6, 8 feet composites). The sample population statistics for uranium and thickness are shown in Figures 1 to 4 respectively.

Experimental variograms were created for both variables and contoured for each zone respectively. These variograms are not clearly defined, due to a spatial distributed set of composites (see Figures 5 and 6). The experimental variogram contour for uranium in Zone 1 indicates a major direction of 135/315 degrees (see Figure 7). On investigation of the variograms a two structure spherical variogram model could be fitted in Datamine Studio 3™. This model yielded a short range of 63.10 feet and a long range of 111.38 feet (see Figure 8). On investigation of the experimental variograms and contours for Zone 2 a two structure spherical variogram model was fitted in Datamine Studio 3™ software. This model yielded a short range of 75.17 feet and a long range of 89.02 feet in a direction of 0/180 degrees (see Figures 9 and 10).

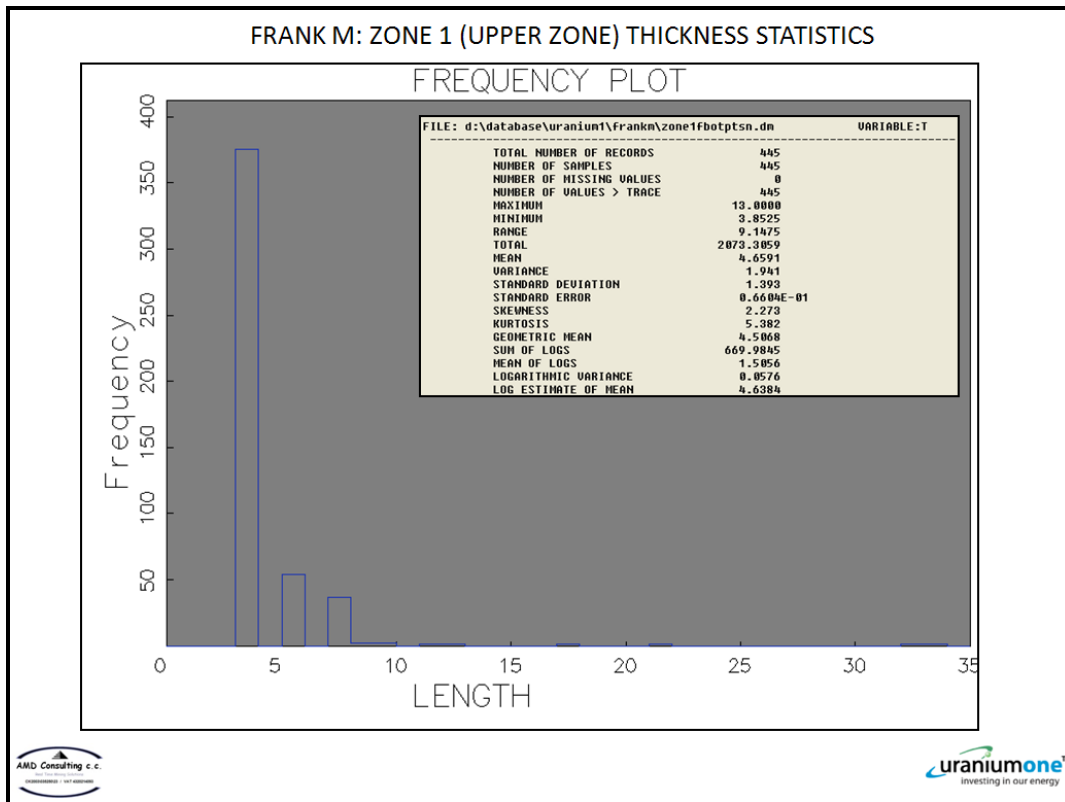
The contoured experimental variograms for thickness for each zone respectively, demonstrates that sample relationships do occur in preferential directions (see Figures 11 and 13). For both zones no model could be fitted, hence one cannot apply Kriging (see Figures 12 and 14). An attempt was made to fit a model in log space, without any success.



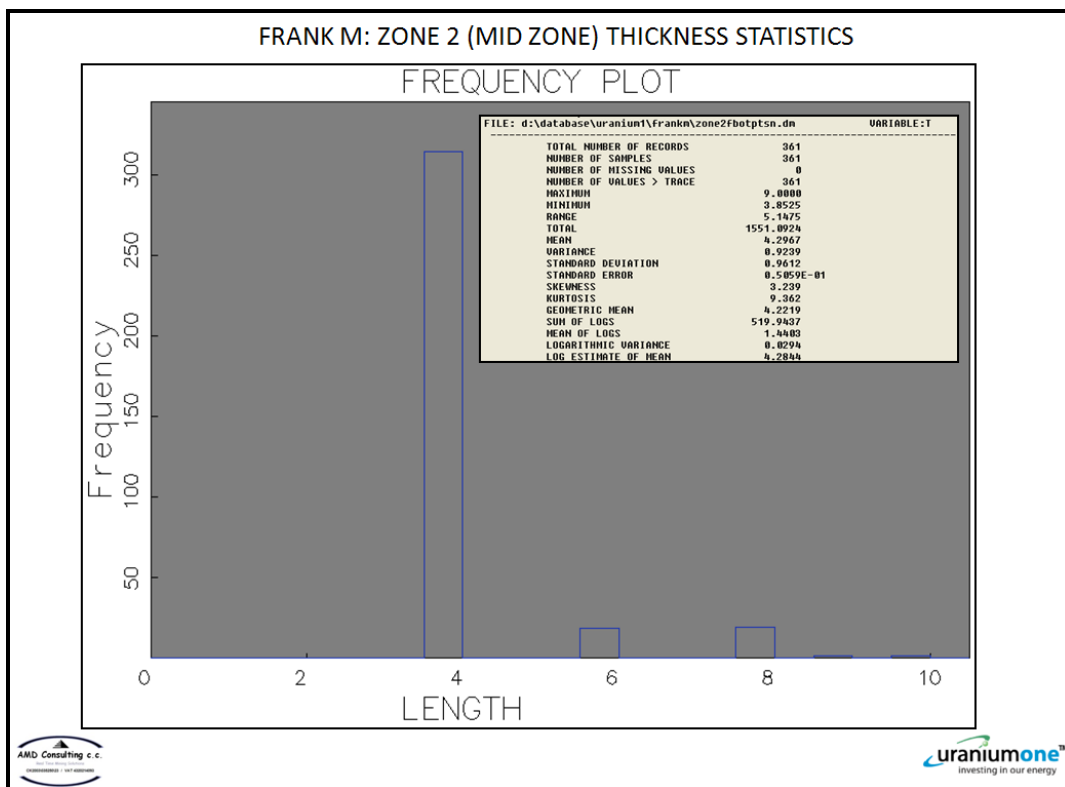
**Figure 1. :** Uranium borehole composites statistics for Zone 1



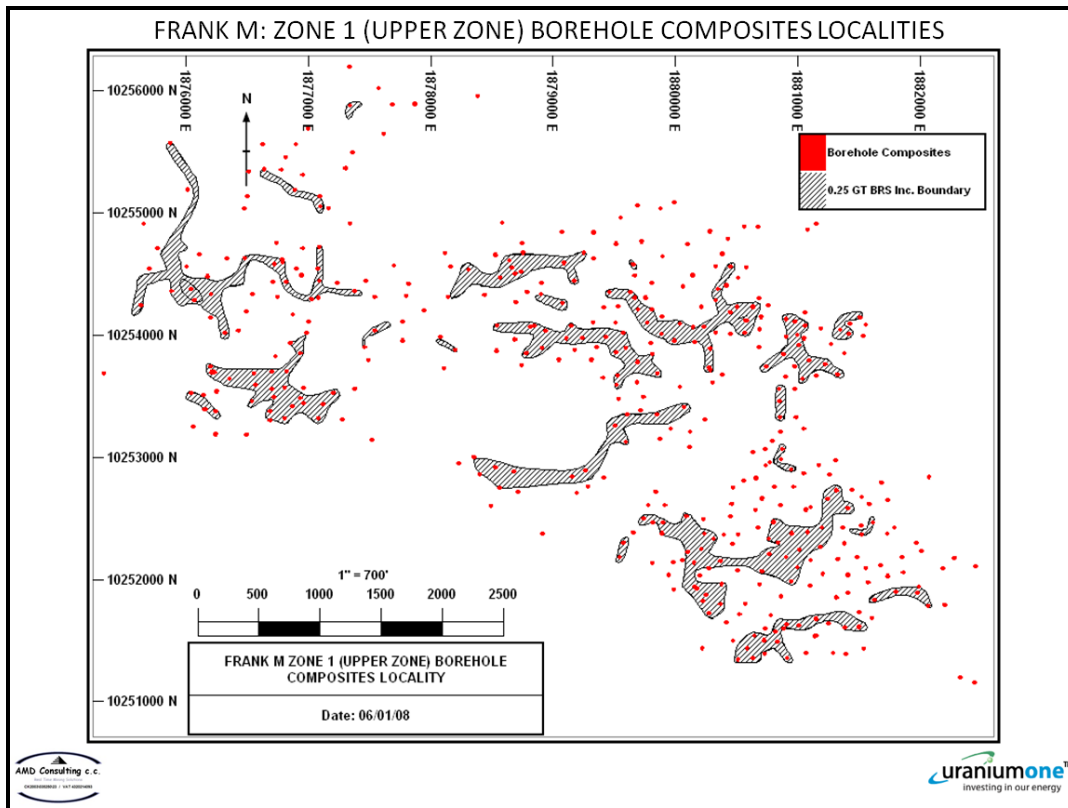
**Figure 2. :** Uranium borehole composites statistics for Zone 2



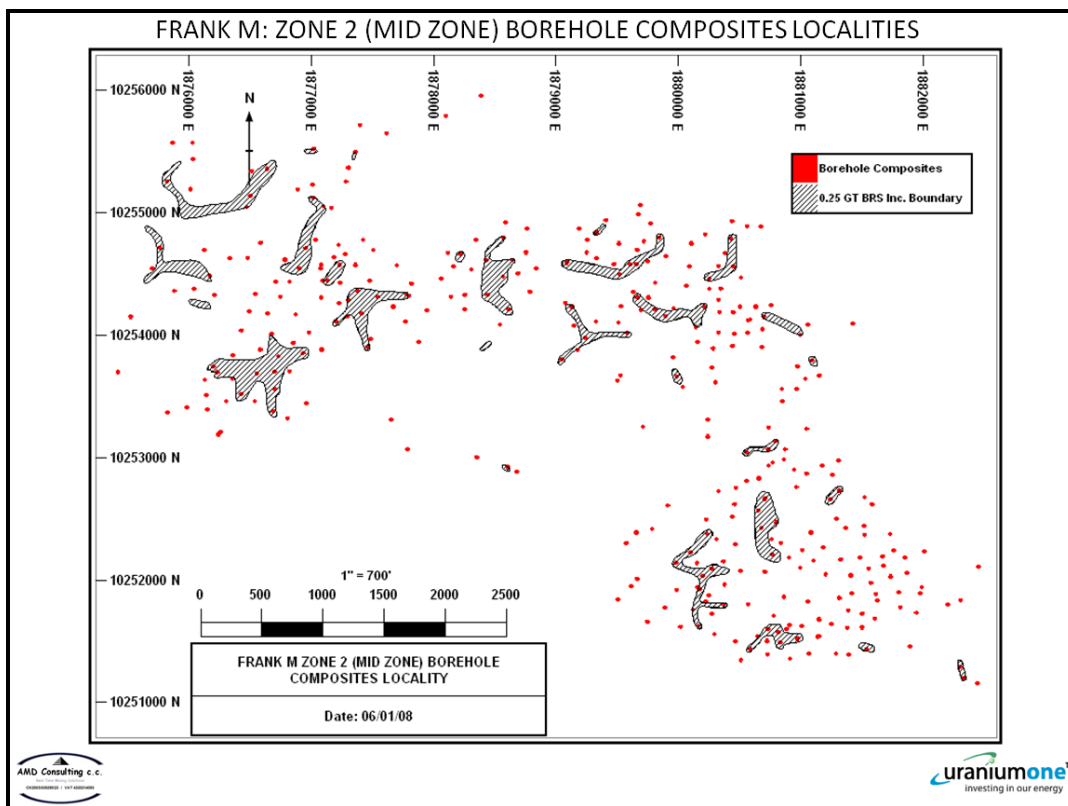
**Figure 3. :** Thickness borehole composites statistics for Zone 1



**Figure 4. :** Thickness borehole composites statistics for Zone 2



**Figure 5. :** Borehole composite localities for Zone 1



**Figure 6. :** Borehole composite localities for Zone 2

FRANK M: ZONE 1 (UPPER ZONE) U3O8 EXPERIMENTAL VARIOIGRAM CONTOURS

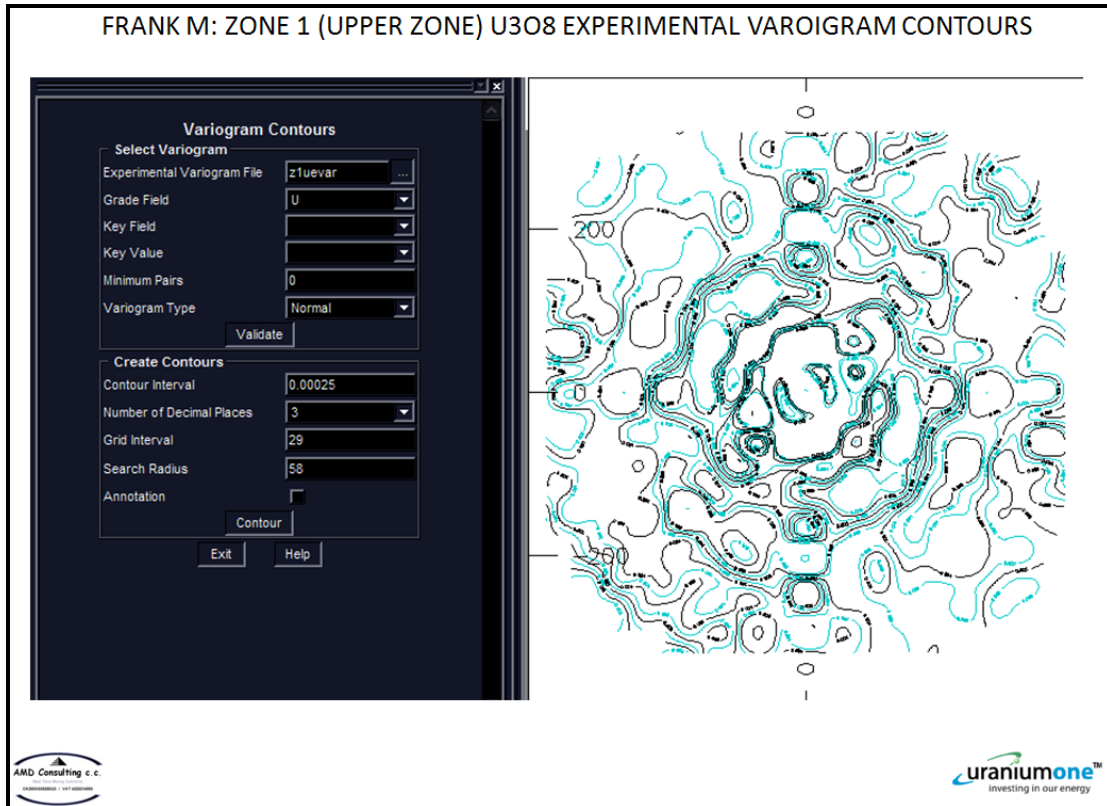


Figure 7. : Experimental variograms contours for uranium for Zone 1

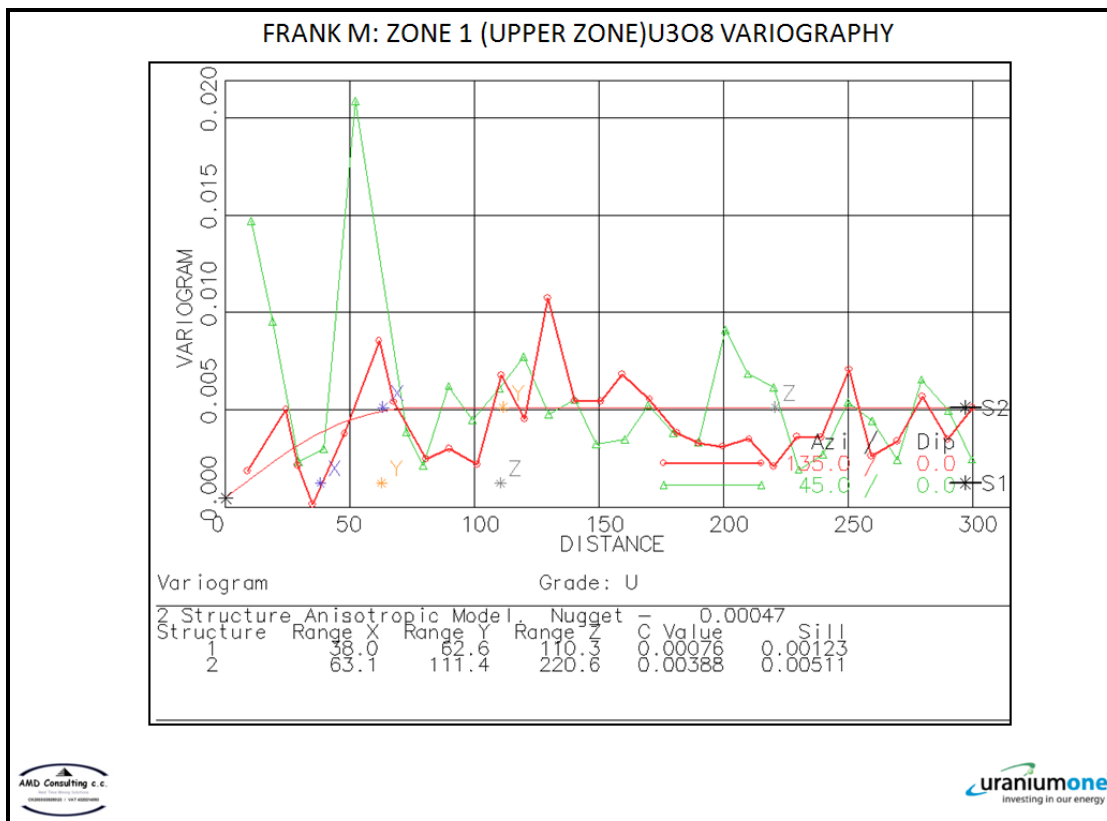


Figure 8. : Variograms and fitted variogram model for uranium for Zone 1

FRANK M: ZONE 2 (MID ZONE) U3O8 EXPERIMENTAL VARIOIGRAM CONTOURS

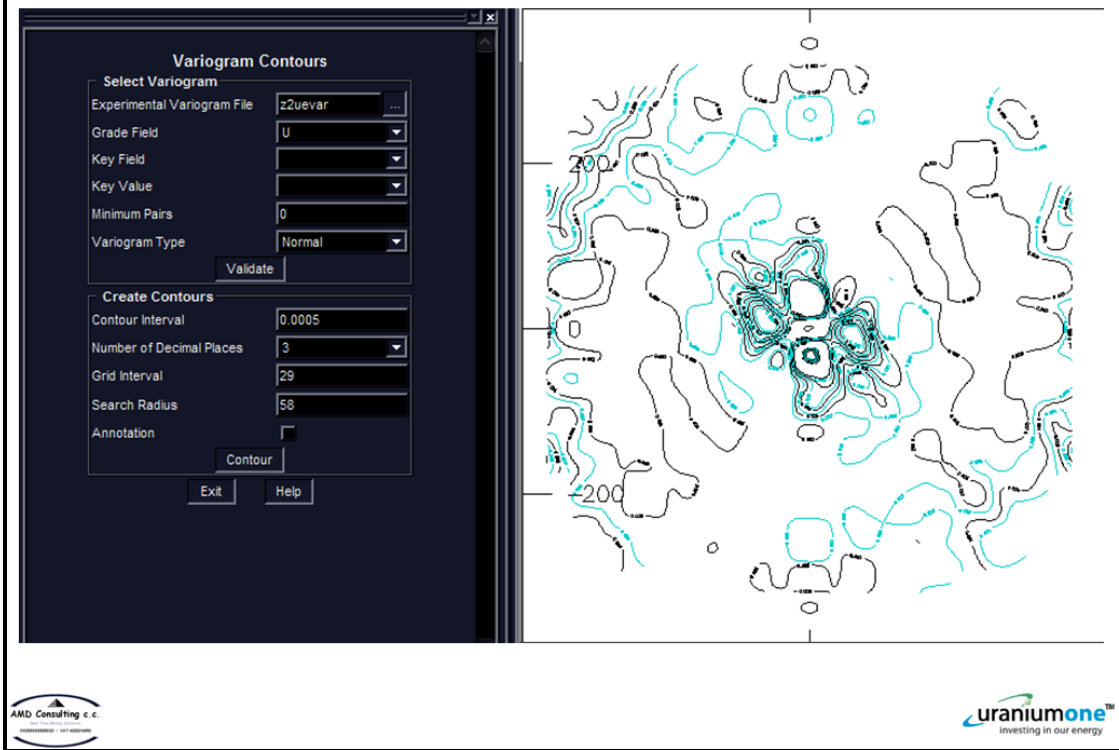


Figure 9. : Experimental variograms contours for uranium for Zone 2

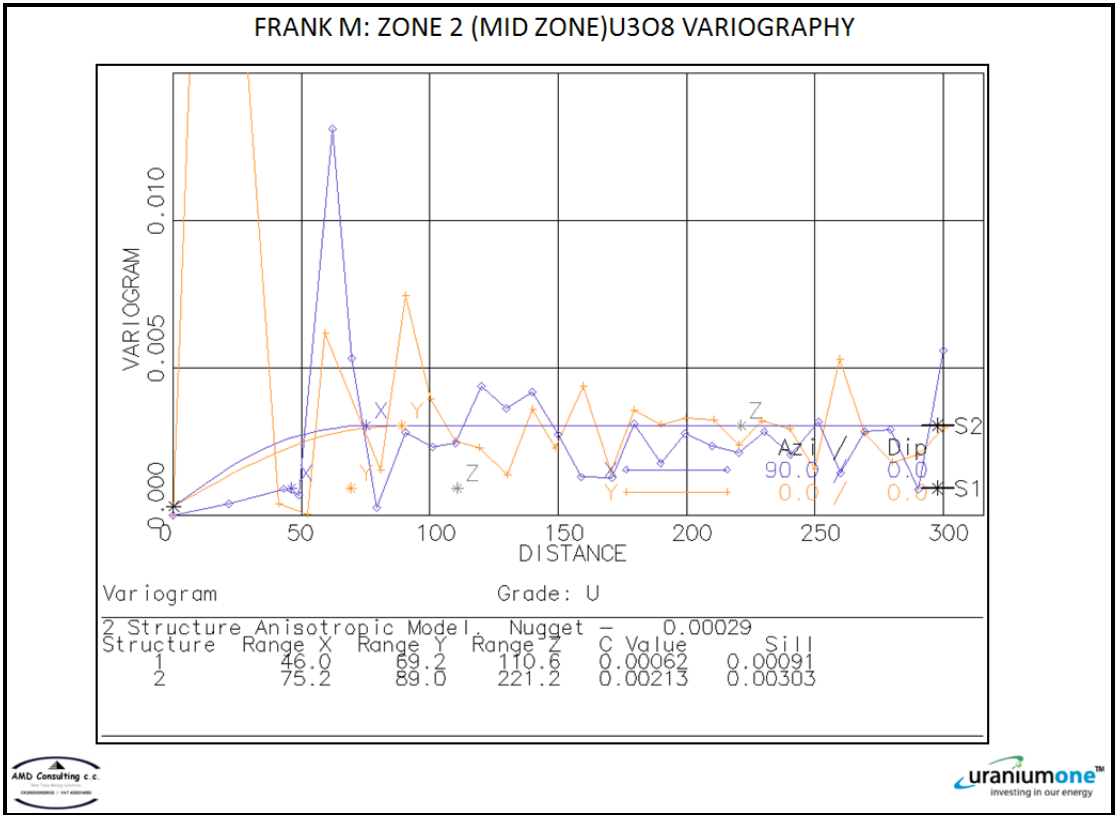


Figure 10. : Variograms and fitted variogram model for uranium for Zone 2

FRANK M: ZONE 1 (UPPER ZONE) THICKNESS EXPERIMENTAL VARIOIGRAM CONTOURS

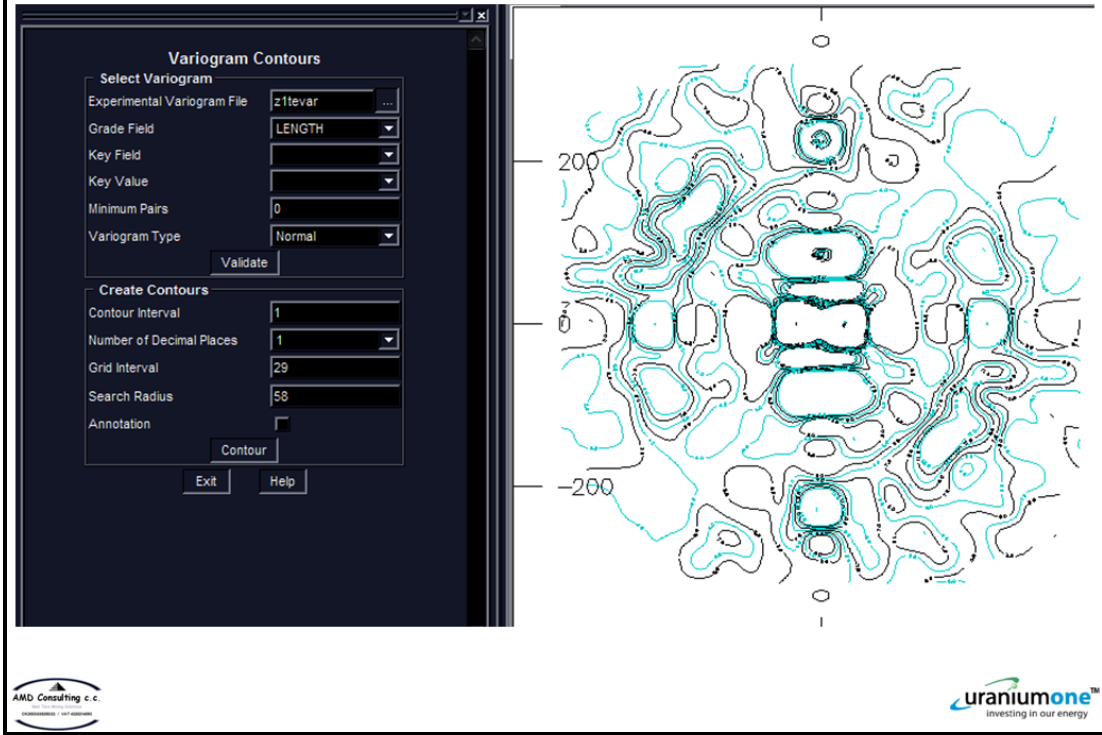


Figure 11. : Experimental variograms contours for thickness for Zone 1

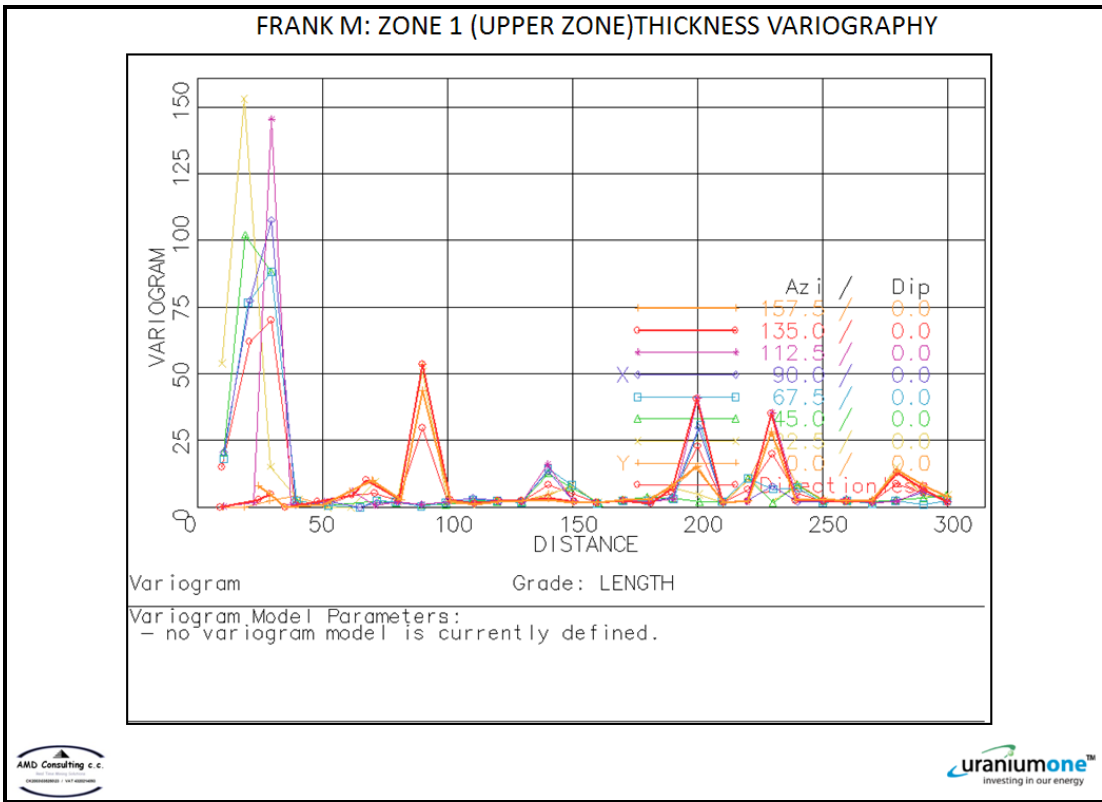
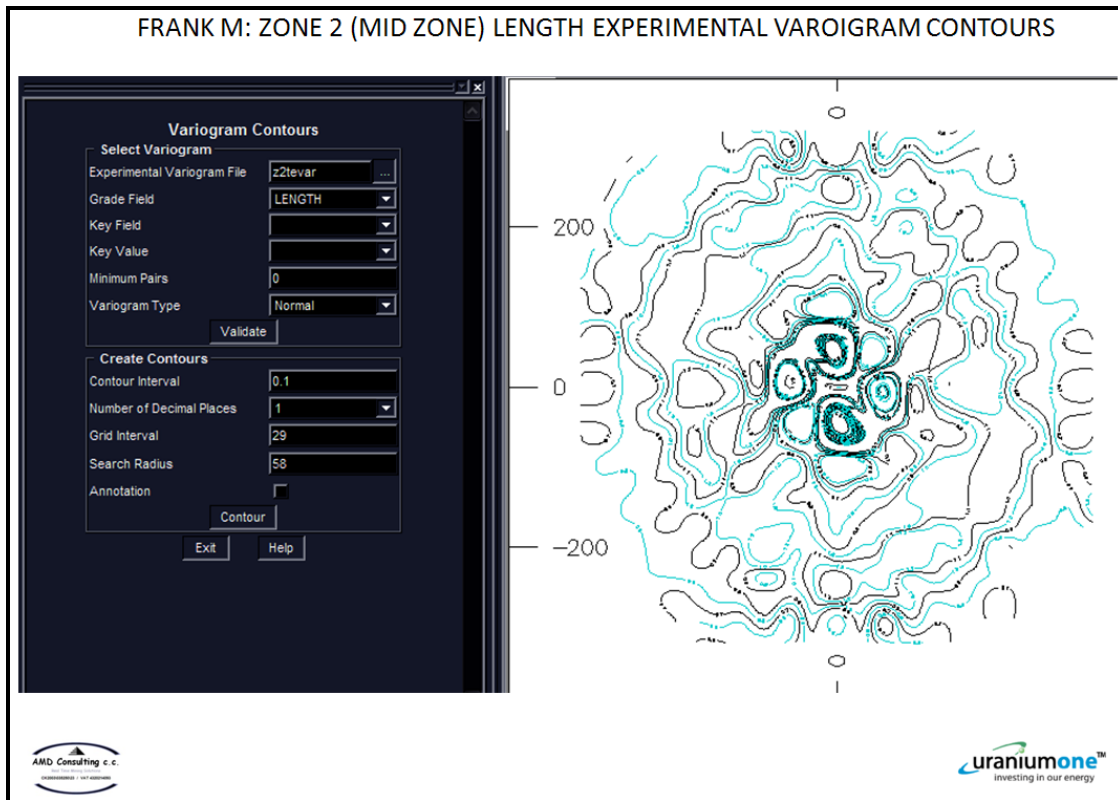
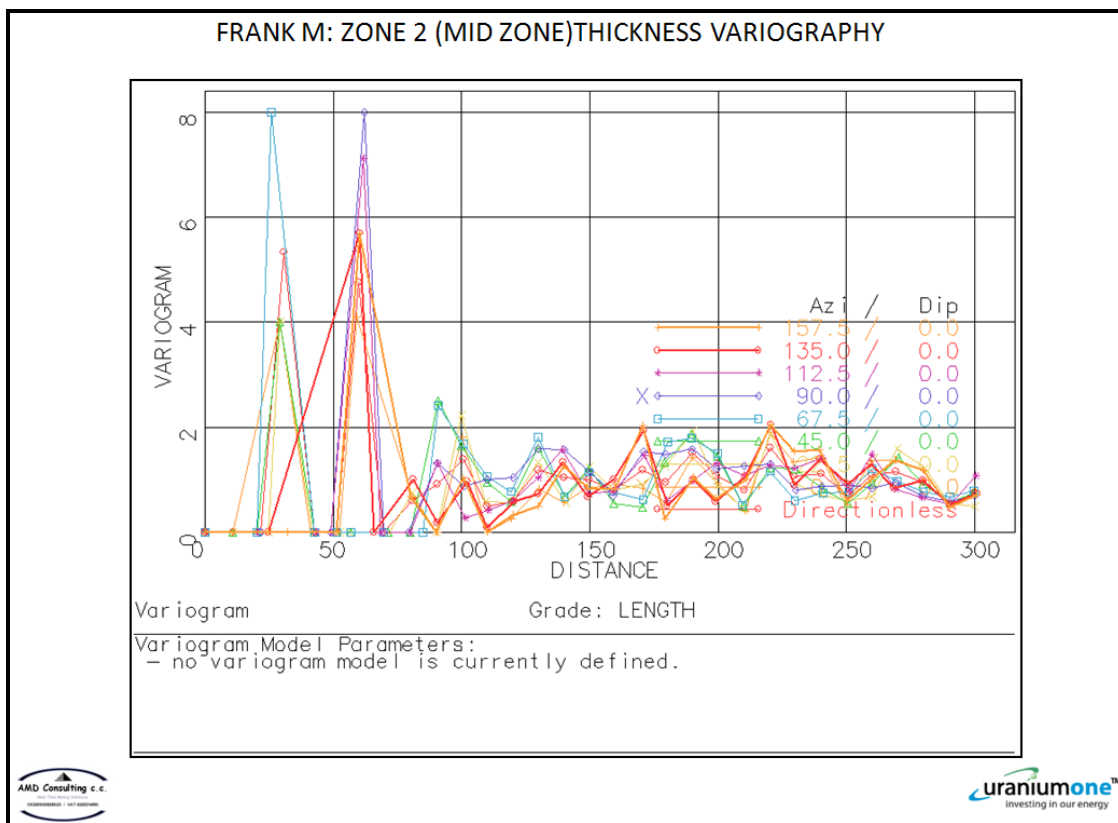


Figure 12. : Variograms for thickness for Zone 1



**Figure 13. :** Experimental variograms contours for thickness for Zone 2



**Figure 14. :** Variograms for thickness for Zone 2

### 3. Estimation

A wireframe model was created in Datamine Studio 3<sup>TM</sup> from the top and bottom positions of each borehole orebody composite for each Zone. Hence this produced a straight line interpolation between points. These wireframes were then filled with blocks of cell size 25 feet x 25 feet in the X and Y direction. This is as per BRS Inc. minimum mining unit. It is my opinion that for the estimation purposes a larger cell should have been utilised as the data support for such a small cell is not present. There is only one cell in the Z direction hence its dimension and it has value of the thickness between the two wireframe surfaces. The Z dimension is equated to the thickness (T) of the orebody.

No cutting of the uranium values was applied before the estimation. Estimation into parent cell was only allowed, even though sub-cells do occur in the blockmodel to facilitate precise boundary splitting. Discretisation of 3 x 3 in the X and Y directions was applied respectively. No discretisation was applied in the Z direction as only one composite exists in the vertical per Zone. The block variances for a 25 x 25 feet parent cell, with the variogram parameters as per Figures 8 and 10 were determined utilising Dr. M. Harley's proprietary software. This provides Block Variance for the Kriging Efficiency calculation {KE = (Block Variance-Estimate variance)/Block Variance}. This parameter provides a tool for classification of Resource estimates. A positive value is a valid Kriged estimate and a value above 0.15 or 0.2 is accepted in industry as an indicated resource estimate.

Two main estimates were run namely:

- An Inverse Distance to the power 2 on U, utilising variogram parameters applied to the search for each Zone respectively (see Figures 15 and 20).
- An Ordinary Kriging run on U, utilising variogram parameters applied to the search for each Zone respectively (Figures 17 and 22).

A minimum of 2 samples and a maximum of 12 were utilised. 3 searches were applied. The first as previously discussed, the second doubling the values and a third tripling the first search ellipses values.

### 4. Results

All results are summarised in Table 1 according to Zone and resource category. When looking at the distribution and magnitude of the Kriging Efficiency for both Zones 1 and 2 it is evident that the Ordinary Kriging results are invalid. This is largely due to the parent cell size. The Block Variance for such a 25 x 25 feet cell size is very small, hence producing an extremely negative Kriging Efficiency. If this is increased to 100 x 100 these results will improve significantly.

For classification purposes all values which were estimated utilising the 3rd search ellipse and were located outside of the BRS Inc. 0.25 GT boundary and all non-estimated values were discarded as invalid for each respective estimate. Values lying within the 0.25 GT boundaries, as per BRS Inc. are treated as Indicated if search ellipse 1 utilised or search ellipse 2 was utilised and Inferred if search ellipse 3 utilised. In the tabulation the search volume is indicated to identify areas with higher confidence, 1 is the highest confidence. No Measured Resources occur due to the low minimum number of samples applied, due to the spatial array of composites. All values estimated with search ellipses 1 and 2 outside of the boundary in question were treated as Inferred resources. The spatial array of the Mineral Resource categorisation for Zones 1 and 2 are shown in Figures 16, 19, 21, 24. The Kriging Efficiency, which is a measure of the validity of the Kriging process, can be seen in Figures 18 and 23.

A value of 14.7 cubic feet per US ton was utilised to determine the Resource tonnage.

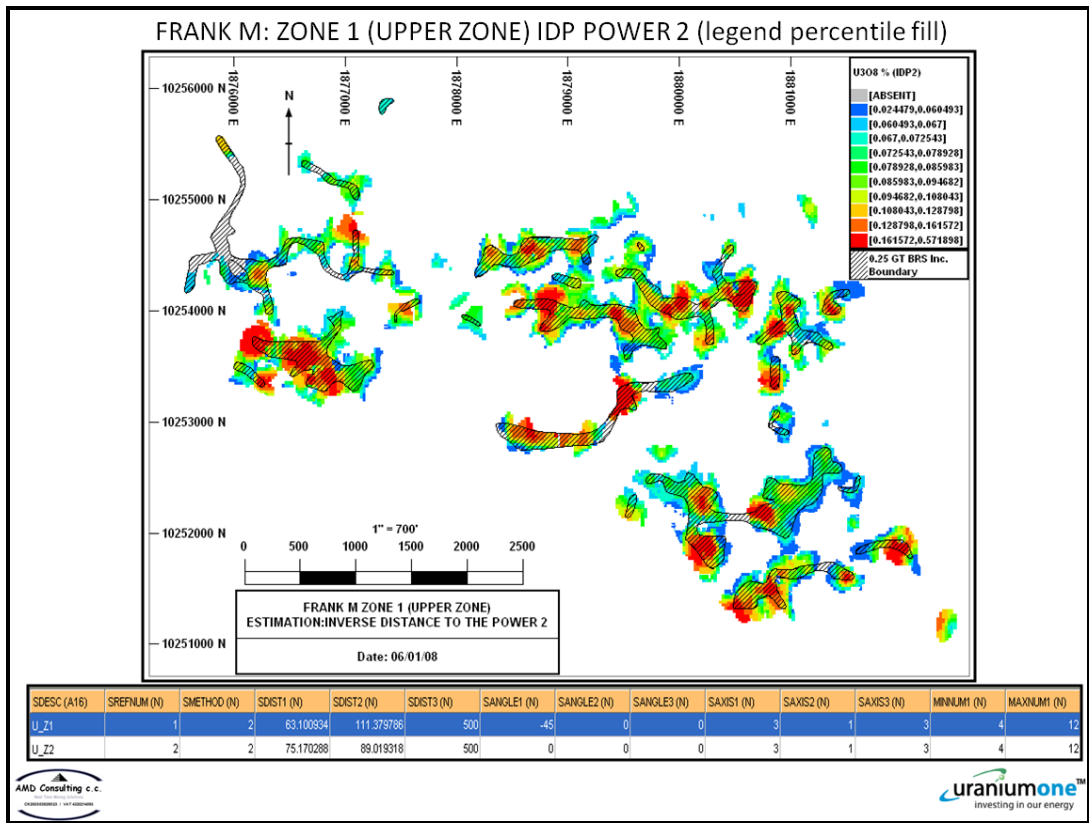


Figure 15. : Datamine Inverse Distance to the power 2 estimate for Zone 1.

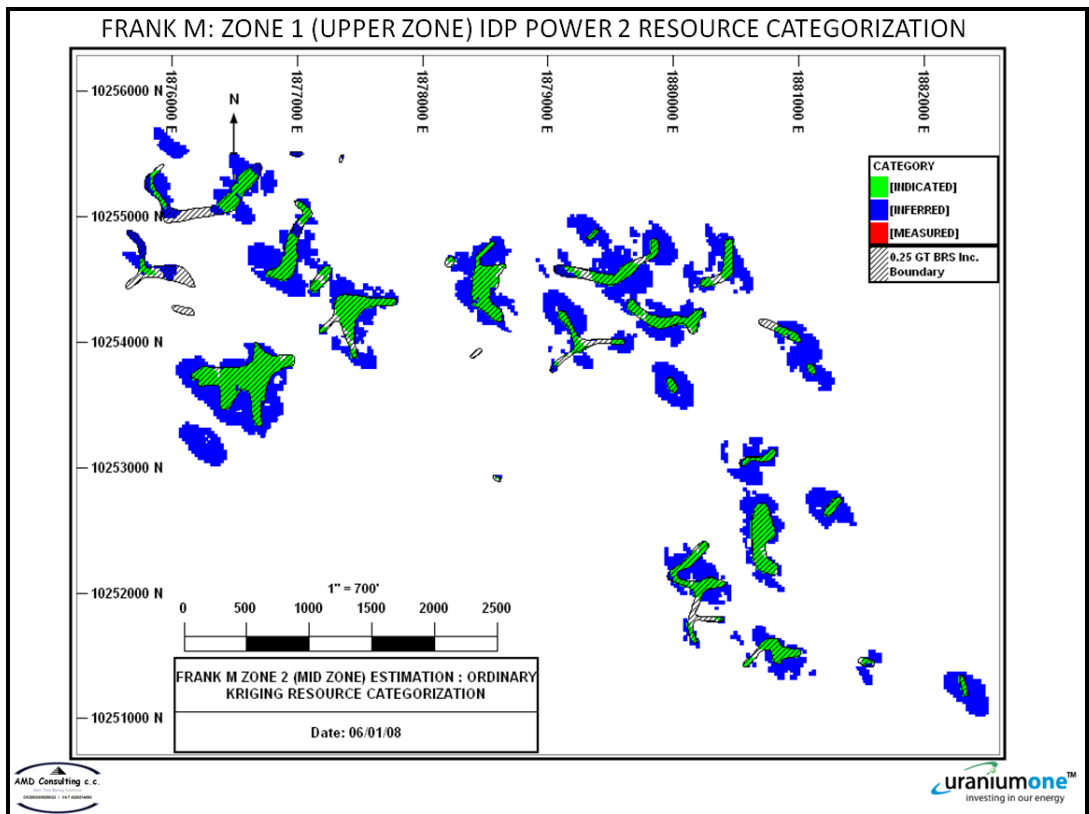


Figure 16. : Resource classification for Zone 1 Inverse Distance to the Power 2 estimate.

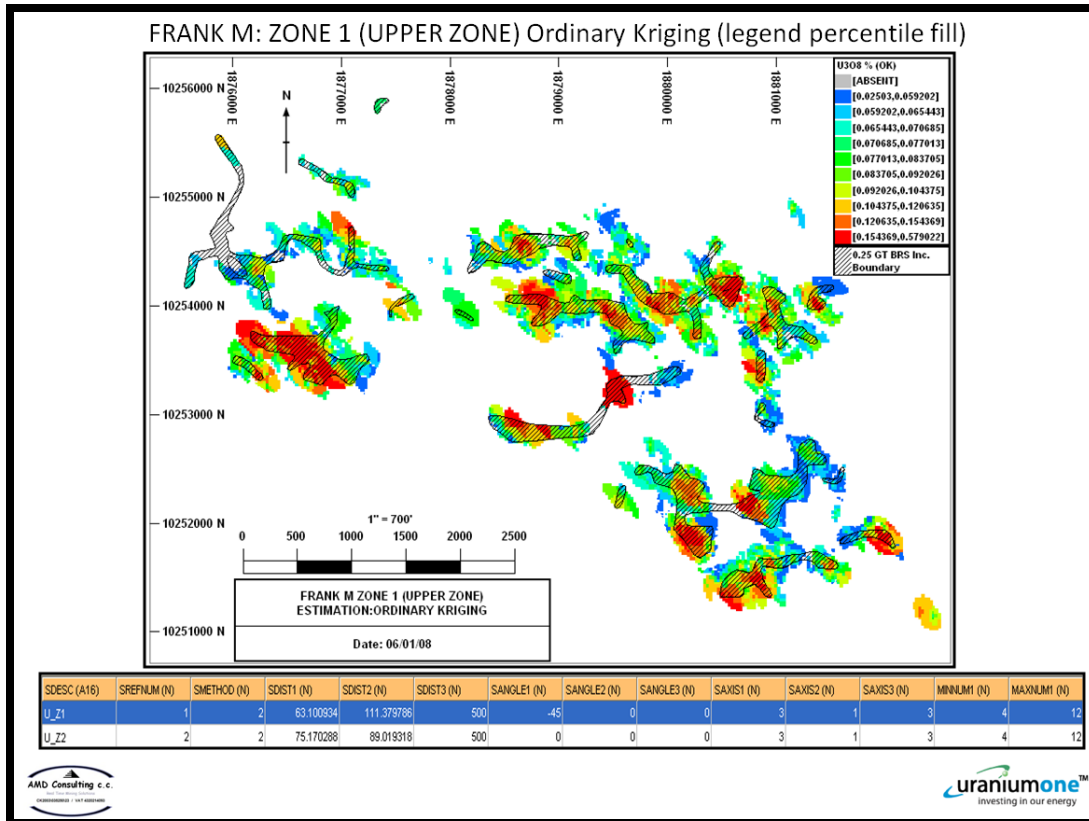


Figure 17. : Datamine Ordinary Kriging estimate for Zone 1.

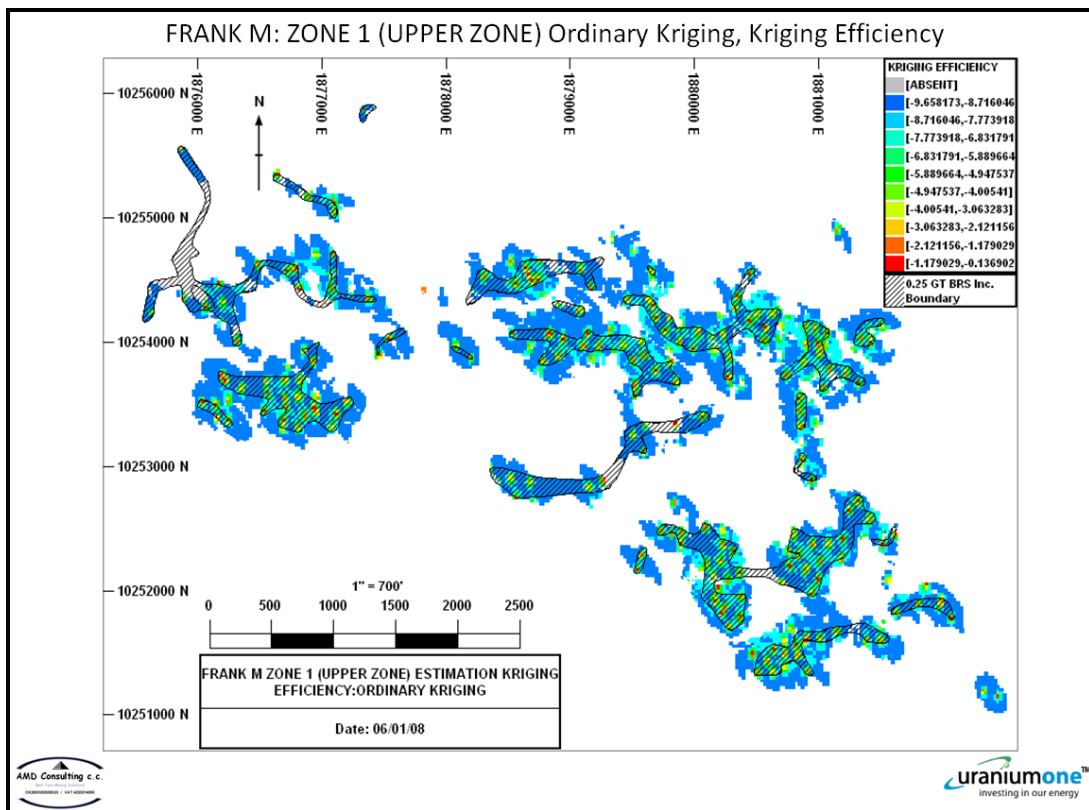


Figure 18. : Kriging Efficiency for Ordinary Kriging estimation done for Zone 1.

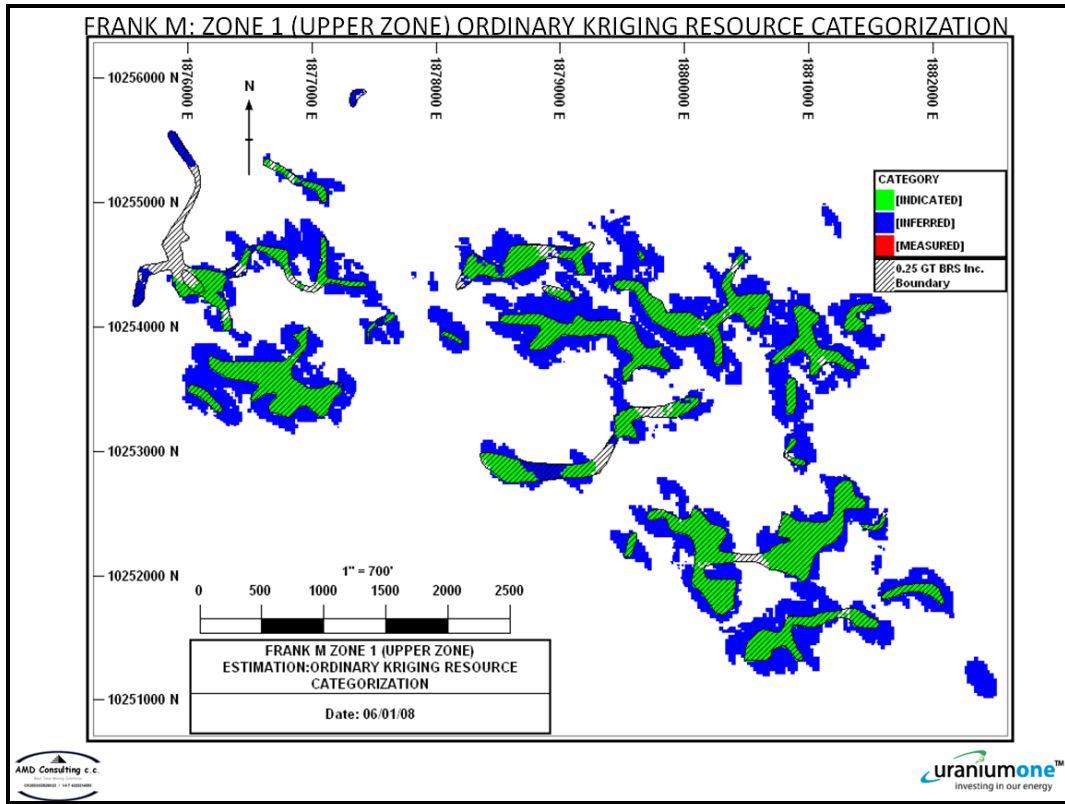


Figure 19. : Resource classification for Zone 1 Ordinary Kriging estimate.

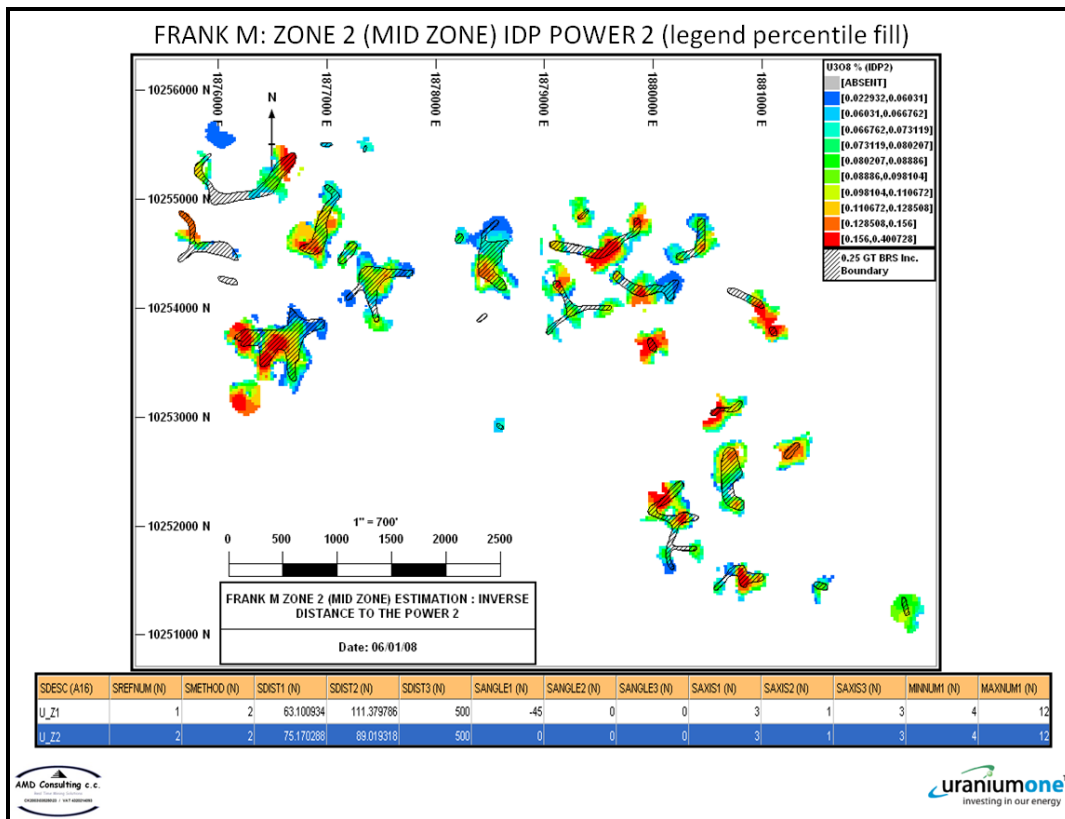


Figure 20. : Datamine Inverse Distance to the power 2 estimate for Zone 2.

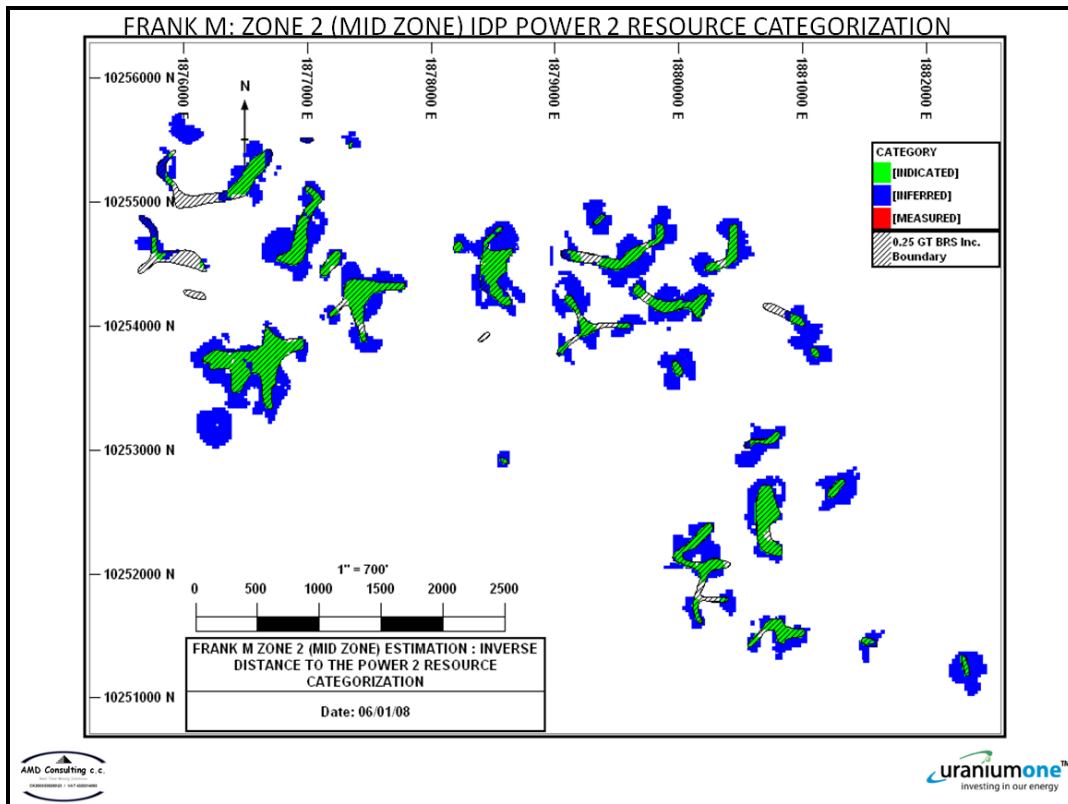


Figure 21. : Resource classification Zone 2 Inverse Distance to the Power 2 estimate.

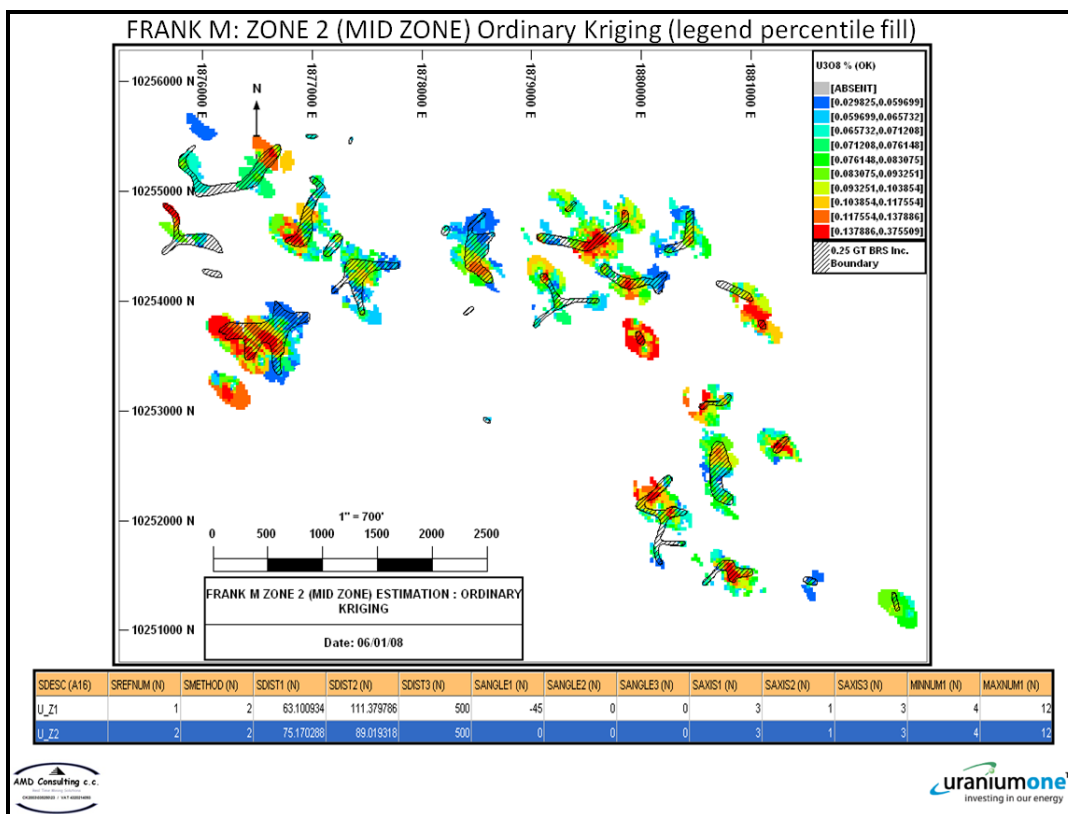


Figure 22. : Datamine Ordinary Kriging estimate for Zone 2.

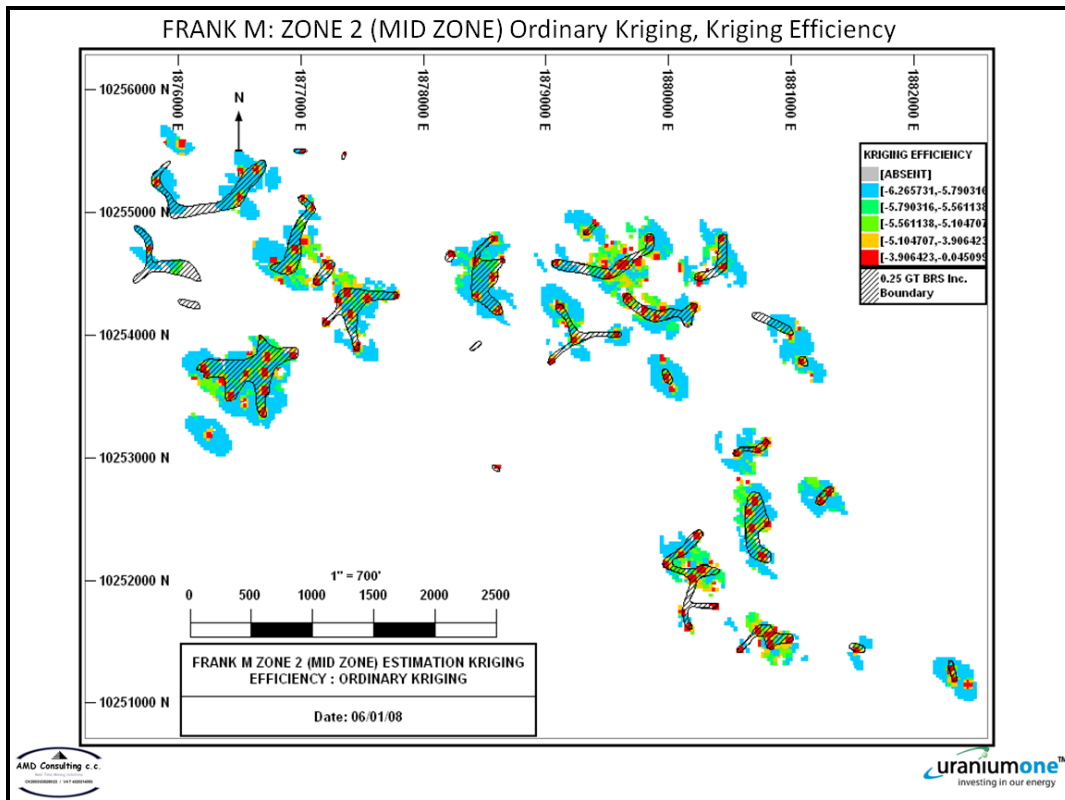


Figure 23. : Kriging Efficiency for Ordinary Kriging estimation done for Zone 2.

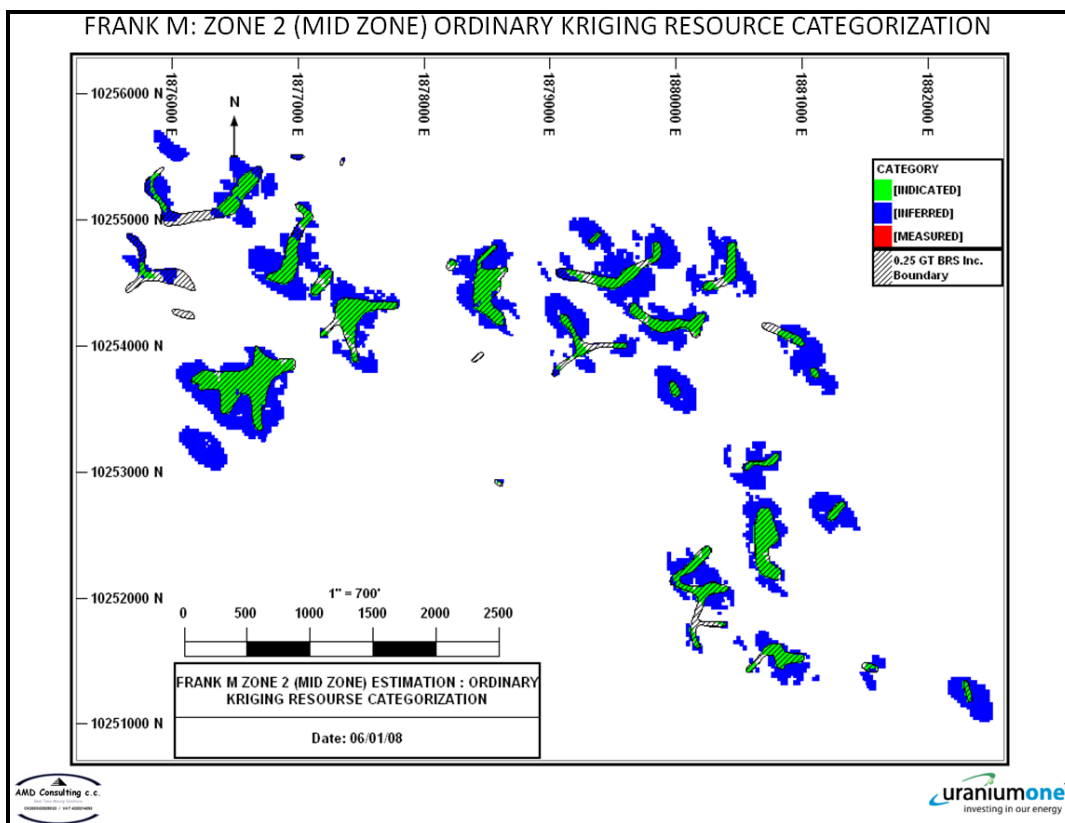


Figure 24. : Resource classification Zone 2 Ordinary Kriging estimate.

Uranium One Frank M Datamine Resource Estimate June 2008

ZONE	FAREA	CATEGORY	ESTIMATE	SEARCH VOLUME	VOLUME	TONNES	DENSITY	U3O8	T	GT	POUNDS	AVERAGE U3O8	AVERAGE T	AVERAGE GT	TOTAL TONNES	TOTAL POUNDS
1	IN	INDICATED	IDP2	1	3,080,226	209,539	0.068	0.134	0.809	5.917	561,972					
1	IN	INDICATED	IDP2	2	7,721,529	525,274	0.068	0.112	0.667	5.822	1,174,492	0.118	0.707	5.850	734,813	1,736,463
1	IN	INFERRED	IDP2	3	913,458	62,140	0.068	0.113	0.652	5.446	140,738					
1	OUT	INFERRED	IDP2	1	1,470,936	100,064	0.068	0.095	0.518	5.506	190,275					
1	OUT	INFERRED	IDP2	2	12,714,472	864,930	0.068	0.090	0.470	5.228	1,558,172	0.092	0.485	5.269	1,027,134	1,889,185
<b>TOTALS</b>					<b>25,900,621</b>	<b>1,761,947</b>					<b>3,625,648</b>					
1	IN	INDICATED	OK	1	3,437,415	233,838	0.068	0.130	0.791	5.960	606,257					
1	IN	INDICATED	OK	2	7,400,353	503,425	0.068	0.106	0.629	5.839	1,068,007	0.114	0.681	5.877	737,263	1,674,264
1	IN	INFERRED	OK	3	707,114	48,103	0.068	0.093	0.503	5.312	89,667					
1	OUT	INFERRED	OK	1	1,764,530	120,036	0.068	0.089	0.475	5.400	212,586					
1	OUT	INFERRED	OK	2	14,471,293	984,442	0.068	0.088	0.452	5.144	1,735,354	0.088	0.457	5.177	1,152,581	2,037,607
<b>TOTALS</b>					<b>27,780,704</b>	<b>1,889,844</b>					<b>3,711,871</b>					
2	IN	INDICATED	IDP2	1	951,452	64,725	0.068	0.120	0.651	5.288	155,391					
2	IN	INDICATED	IDP2	2	3,509,100	238,714	0.068	0.105	0.583	5.525	502,465	0.108	0.598	5.474	303,439	657,856
2	IN	INFERRED	IDP2	3	339,342	23,085	0.068	0.119	0.557	4.621	54,924					
2	OUT	INFERRED	IDP2	1	930,655	63,310	0.068	0.101	0.541	5.831	127,390					
2	OUT	INFERRED	IDP2	2	7,459,908	507,477	0.068	0.089	0.535	7.012	898,366	0.091	0.537	6.793	593,871	1,080,679
<b>TOTALS</b>					<b>13,190,457</b>	<b>897,310</b>					<b>1,738,535</b>					
2	IN	INDICATED	OK	1	1,007,343	68,527	0.068	0.117	0.638	5.305	160,727					
2	IN	INDICATED	OK	2	3,359,534	228,540	0.068	0.094	0.525	5.571	429,719	0.099	0.551	5.509	297,066	590,445
2	IN	INFERRED	OK	3	414,888	28,224	0.068	0.088	0.397	4.492	49,769					
2	OUT	INFERRED	OK	1	1,086,305	73,898	0.068	0.100	0.519	5.329	147,733					
2	OUT	INFERRED	OK	2	8,251,389	561,319	0.068	0.086	0.465	6.085	968,792	0.088	0.468	5.933	663,441	1,166,293
<b>TOTALS</b>					<b>14,119,460</b>	<b>960,508</b>					<b>1,756,739</b>					

Notes

1. FAREA=IN indicates area within BRS Inc. gridded 0.25 GT boundary.
2. FAREA=OUT indicates area outside BRS Inc. gridded 0.25 GT boundary.
3. All searches applied from initial variography.
4. Thickness (T) determined from wireframe generated from composites.
5. 25 x 25 ft parent cell utilised.
6. IDP2=Inverse Distance to the Power 2 estimate.
7. OK=Ordinary Kriging estimate.
8. ZONE=1 indicates upper orebody.
9. ZONE=2 indicates mid orebody.
10. All GT values less than 0.25 have been removed



Table 1. : Mineral Resources per Zone per category per estimation method.

## **5. Conclusions**

Utilising all available data facilitated the use of Geostatistical processes, which produced search ranges, which in turn could be applied with confidence in the estimation of the Frank M orebody. Furthermore, the methodology applied allowed for a disclosure of an Inferred Resources outside of the previously defined 0.25 GT boundary.

The estimation process has produced comparable results with respect to historical estimates according to BRS Inc. The estimation block size may need to be increased for Resource estimation purposes, due to sample support. If the parent cell dimensions are kept at the current size then it is recommended that the variography be utilised for search range purposes only, and the actual estimate is done utilising an Inverse Distance to the Power 2 technique.

This 3-Dimensional block model created in the process can now be utilised in a Reserving process to define a mine plan for pre-feasibility studies.

The exercise has proved that Geostatistics can be applied in varying degrees to the Frank M orebodies. Furthermore it improves the confidence of the Resource categorisation.

# André Marcel Deiss Resume

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- Profile** A graduate geologist with 14 years' experience in the minerals extraction industry, gained in Southern Africa. A pragmatic and logical person with good interpersonal skills. Having worked in demanding and harsh environments has developed self-sufficiency and confidence as an energetic leader who is action orientated and resourceful.
- Capabilities** Geological modelling, seismic interpretation, database administration, mine planning, geological mapping, borehole core logging, works efficiently and independently, communicates technical concepts persuasively and makes sound decisions in a balanced judgement cycle.
- Experience**
- May 2003 – current AMD Consulting cc. Gauteng, RSA**  
**Consultant / Director**
- Borehole Database creation, training, administration and sign-off (Wesizwe Platinum Ltd., Afriore (Pty) Ltd., PTM (Pty) Ltd.).
  - Mine planning and reserve determination utilising Datamine and Vulcan software; seismic interpretation utilising Kingdom Suite – South Deep Mine (Placer Dome - Western Areas Joint Venture)
  - Mine planning and scheduling using Vulcan software – Messina Platinum Mines Ltd. (Southern Era Resources Ltd.)
  - Grade Control system developed in Datamine and implemented – Thabazimbi Iron Ore Mine (Kumba Resources)
  - Geological and resource modelling, scripting, database administration and training (Platinum Group Metals (Pty) Ltd., Pan Palladium, Hunter Dickinson Inc., Durban Roodepoort Deep, AVGOLD, Harmony, AVMIN, ASSMANG, Nkomati Mine, Ingcambu Investments (Pty) Ltd., Global Geo Services (Pty) Ltd., SRK, Sable Data Works (Pty) Ltd., Lower Quartile Solutions (Pty) Ltd.)
- May 2003 – October 2007 Geologix MRC (Pty) Ltd. Gauteng, RSA**  
**Director**
- April 2000 – April 2003 Datamine S.A. (Pty) Ltd. Gauteng, RSA**  
**Geologist / Software Consultant**
- Exploration and Mining Software sales, support, training, implementation and consulting. Last major implementation undertaken at Kumba Resources, Thabazimbi Iron Ore Mine, which included implementation scoping, geological modelling, departmental data and software integration, scripted front-end programming, training and software development.
- 1997 – March 2000 AVGOLD Free State, RSA**  
 Exploration Geologist
- Logging and sampling of surface boreholes in the Sun project area to the north of Target Gold Mine. This involves the liaison with the drilling contractors and farmers in the area.
  - Environmental rehabilitation of boreholes and the liaison with the DMEA.
  - Computer duties involve SABLE drilling database administration, 3D seismic interpretation on IESX, Datamine orebody modelling, sample database management and the evaluation of software packages for site use.
  - Seismic data, Datamine orebody models and sedimentological models are combined to site boreholes and shafts in favourable target areas. Seismic data is also employed to resolve complex structural and stratigraphic borehole problems.
- 1994 - 1996 ASSMANG Northern Cape, RSA**  
 Sectional Mine Geologist
- Monitored the drilling of surface and underground boreholes, which involved the liaison with the drilling companies and farm owners regularly, and borehole rehabilitation. Logging and sampling of core, and data input onto a computer database.
  - Geological and grade models were generated, validated and reconciled on a routine basis.
  - Routine underground mapping was undertaken to ensure the correct manganese horizons were being mined.
  - Mineralogical research was done on the orebody to determine the effect of the production cycle on the various ore types.
  - Planning of mine development to access remote high-grade ores by manipulating geological structural features and existing mine development.
- Education 1990 – 1993 University of the Witwatersrand Johannesburg, RSA**
- B. Sc. Hons. Geology
- Affiliations SACNASP**