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Report to:

## **BTU METALS CORP.**

### 2019-2020 Geochem Program on the Dixie Halo South Property

Ontario, CANADA

Effective Date: July 27, 2021

***Prepared by:***

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### Abbreviations and Units of Measure

asl	Above sea level		in	Inch(es)
Au	gold		Kg	Kilogram(s)
%	Percent		m	Metre(s)
<	Less than		Ma	Million years ago
>	Greater than		m <sup>2</sup>	Square metre(s)
Cm	Centimetre		mm	Millimetre(s)
Cu	copper		NI 43-101	Canadian National Instrument 43-101
DDH	Diamond drill hole		P.Geo.	Professional Geoscientist
EM	Electromagnetic		ppb	Parts per billion
GPS	Global positioning system		ppm	Parts per million
ha	Hectare(s)		QA	Quality Assurance
ICP-MS	Inductively coupled plasma mass spectrometry		QC	Quality Control
ICP	Inductively coupled plasma		QP	Qualified Person

## 1. SUMMARY

The Dixie Halo South Property is located in the Red Lake Mining Camp of northwestern Ontario and is centred at coordinates 456,000 mE and 5,629,000 mN, UTM Zone 15N. The site appears on NTS map sheet 52K/13. The town The Property is comprised of 932 unpatented mining claims located in the Red Lake Area of Ontario, Canada, covering 19763.29 hectares in a single contiguous block. The property is highly prospective for gold and VMS style base metal mineralization.

### Work Carried Out

A Spatiotemporal Geochemical Hydrocarbon Interpretation program(s) was carried out starting October 22, 2019 and completed July 27, 2021, Actlabs of Ancaster Ontario performed the work for BTU Metals. Due to the nature of the geochemical survey a sample area that extends beyond the area of potential anomalies was necessary to capture all potential anomalies on the BTU property. The details of the survey are included in the attached Actlabs report, including details of the work. The sample locations are as indicated in in **Figure 1.1** below. The data is included in spread sheet format in **Appendix** attached hereto.

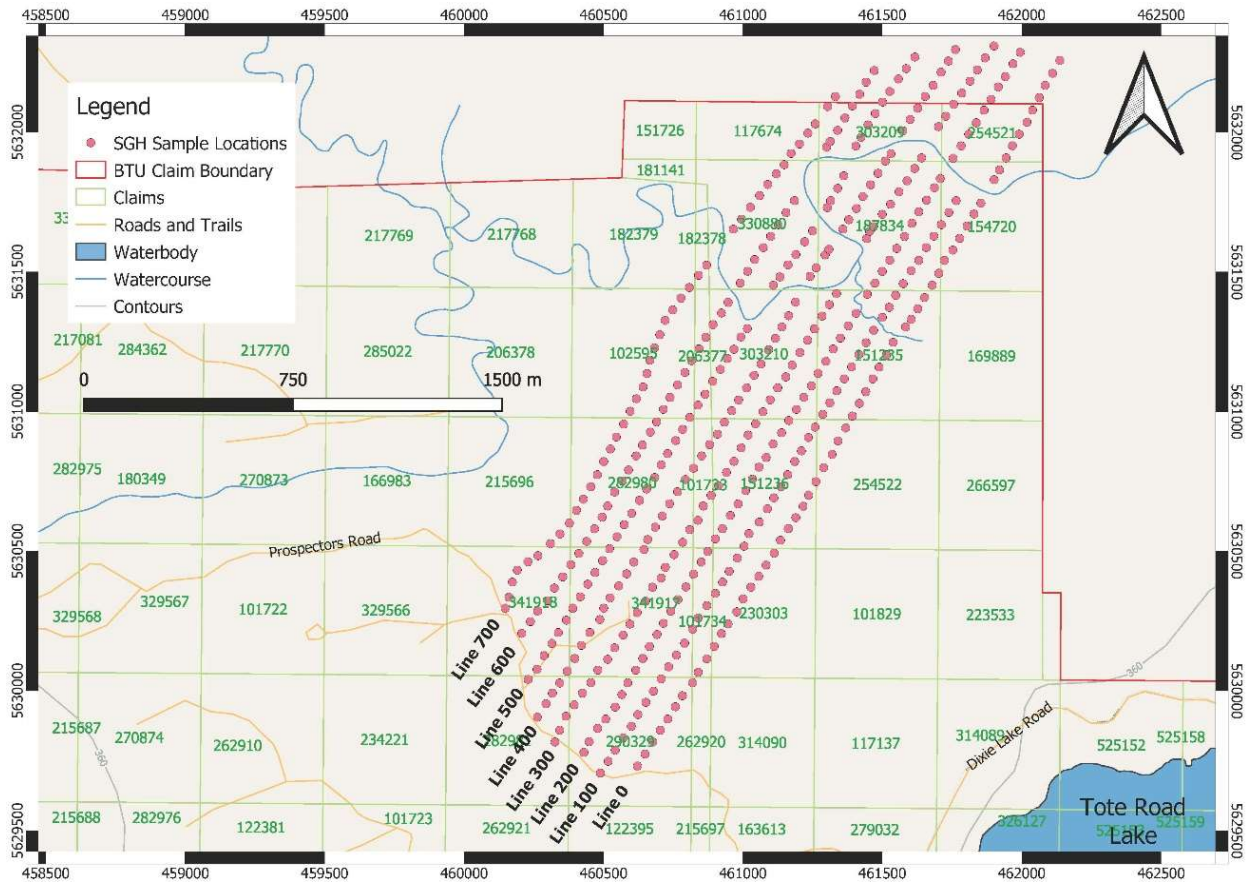


Figure 1.1. Sample Location Map

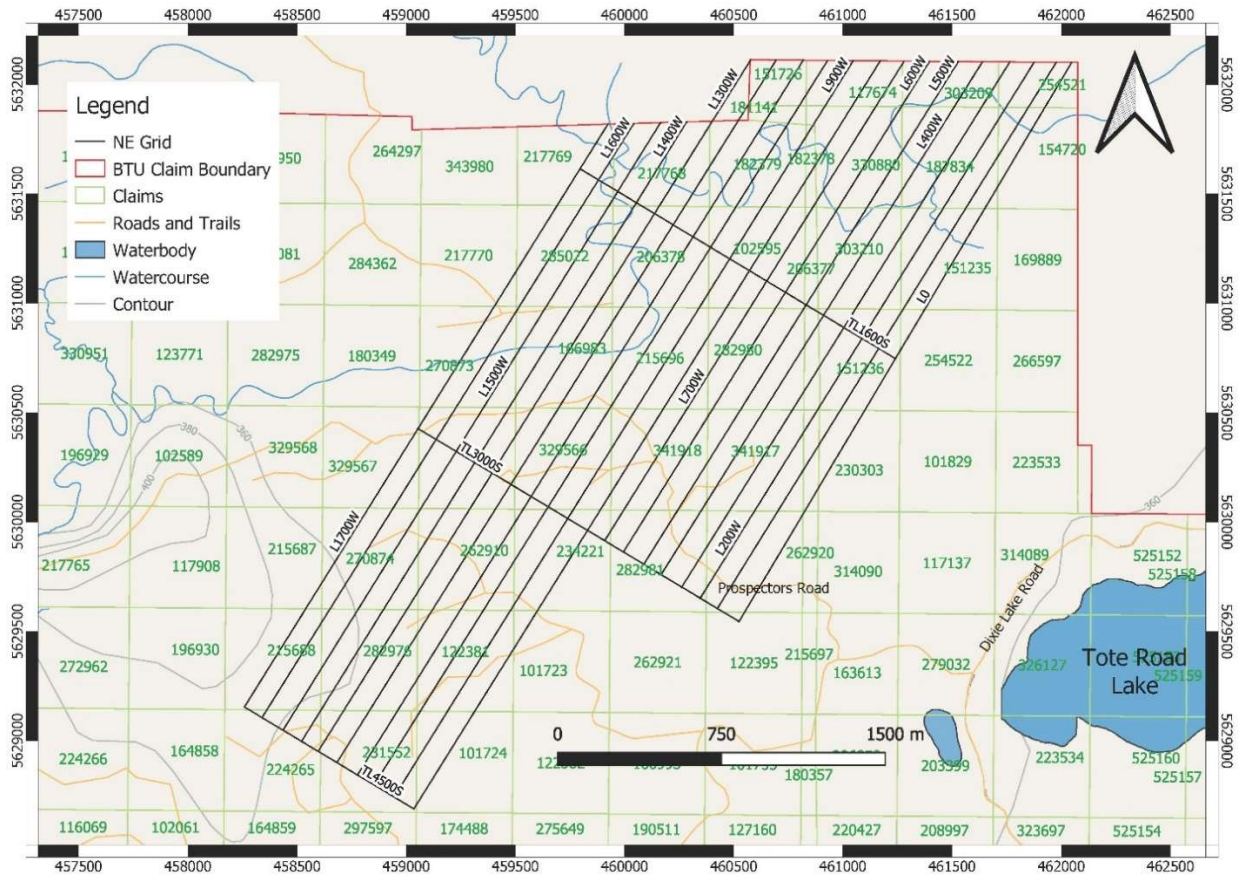


Figure 1.2. Sample Grid Map (NorthEast Grid)

**Permits**

PR-18-000294

PR-18-000295

PR-19-000264

PR-19-000306

PR-19-000316

## **Property Geology and Mineralization**

The Property lies to the southeast of the main Red Lake gold mining camp in a "...broadly east-west trending belt of mafic to felsic meta-volcanics and associated metasediments, which are infolded between a series of granulitic batholiths" (Fingler and Middleton, 2003, p.16). The favourable geologic package of rocks containing the mineralization on the Dixie property appears to trend southwesterly across the Dixie Halo South Property. This variably metamorphosed package of rocks consists of bedded iron formation units interbedded with volcanic horizons.

The general geologic trend on the Property is roughly 045 to 070 degrees. A series of faults in the north-central section of the Property has been interpreted from local mapping and property-wide geophysics, trending roughly northwest-southeast. These faults have been interpreted to be offsetting a mineralized trend crossing into the Property from the north.

Narrow iron formations manifest throughout the mapped area on the Property. Their extent is largely inferred from localized outcrops, but two bands extend southwesterly across the central portion of the Dixie Halo South property, interbedded with varied volcanics and sediments. The north-central portion of the Dixie Halo South Property is underlain by an area of felsic intrusives. Similarly the area along the western side of the Property is dominantly underlain by mafic and felsic metavolcanics, which have been subsequently intruded by felsic intrusives. Intrusives occupying the western portion of the property are characterized as foliated tonalites and gneissic tonalites.

The Dixie Halo South property holds considerable potential for the occurrence of both gold deposits and volcanogenic massive sulphide (VMS) deposits. Reserve drilling in the current program of Great Bear Mining has been directed towards the eastern projection of the previously outlined mineralized zone. This renewed activity impels exploration activity on the Dixie Halo South property holdings.

## **Status of Exploration**

The Dixie Halo South area has been the location of numerous exploration programs since the 1960's. Early exploration included soil, lake water and lake sediment sampling, geophysical surveys, and diamond drilling. More recently, airborne geophysics (HLEM) interpretation, surface sampling, and mapping have been carried out on the Property. The Property is still at a relatively early stage of exploration, with several targets of interest across the Property still underexplored.



## Units Used in this Report

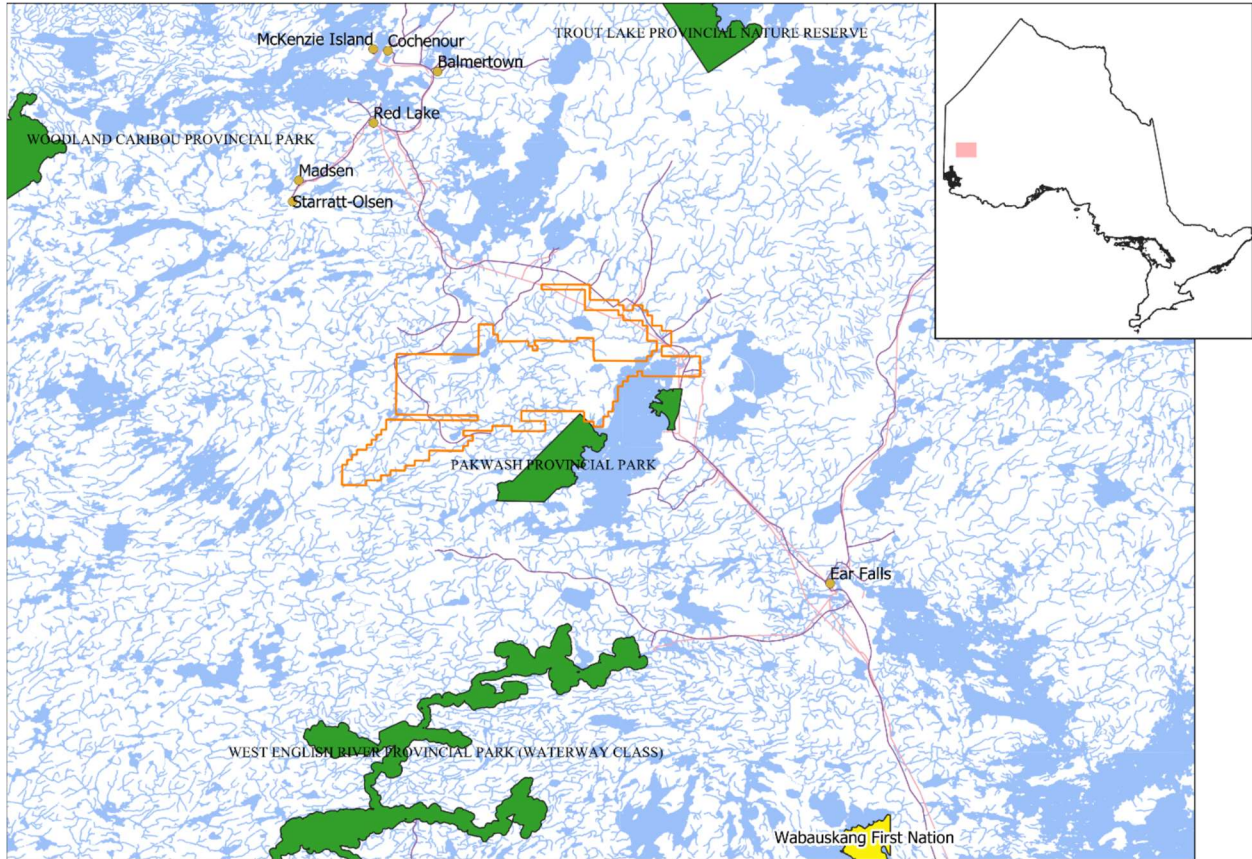
Unless otherwise indicated, all units of measurement used in this Technical Report are metric, amounts are in Canadian Dollars, and coordinates are in the UTM system, NAD 83, Zone 15N.

## 2. PROPERTY DESCRIPTION AND LOCATION

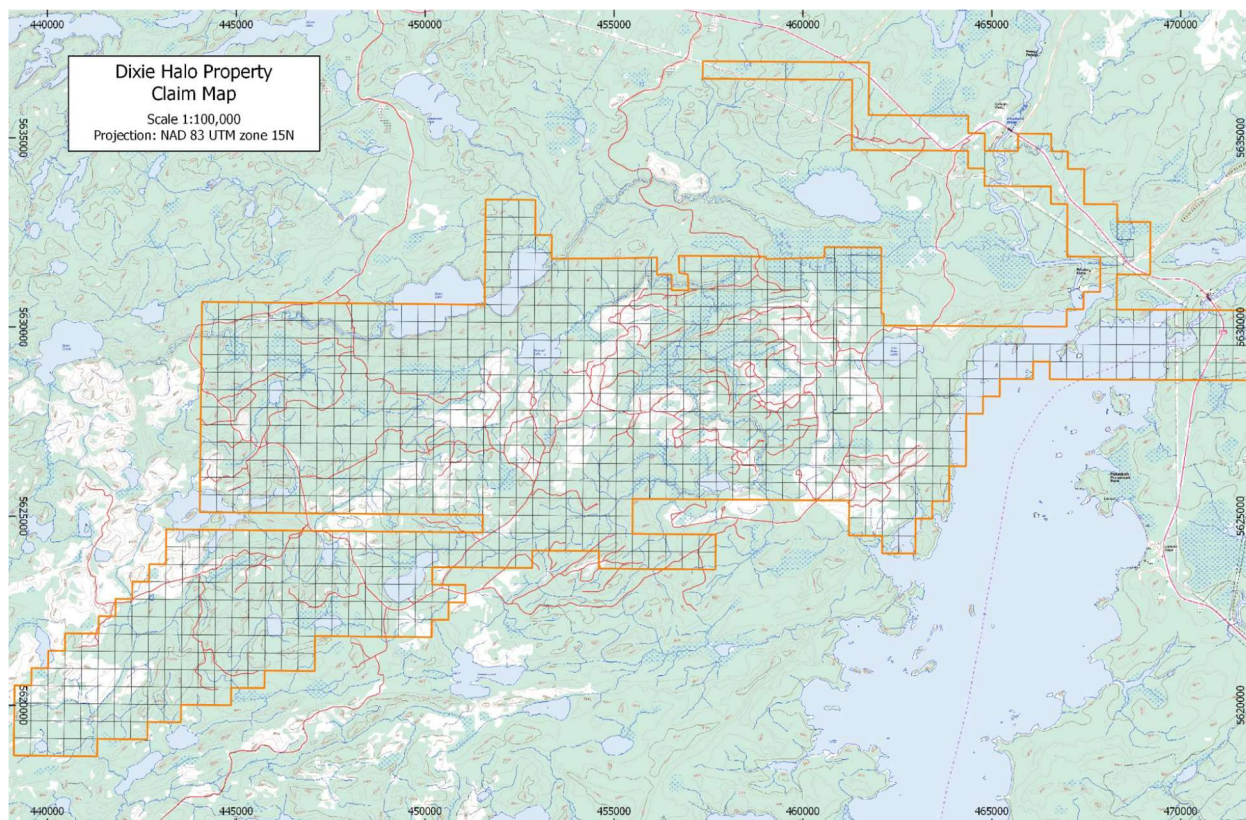
The Dixie Halo South Property is located in the Red Lake Mining Camp of northwestern Ontario and is centred at coordinates 456,000 mE and 5,629,000 mN, UTM Zone 15N. The site appears on NTS map sheet 52K/13. The Property is comprised of 318 unpatented mining claims located in the Red Lake Area of Ontario, Canada, covering 6196.56 hectares in a single contiguous block. Claim renewal anniversaries range from April 18, 2021 through August 23, 2022. All claims are currently controlled by BTU Metals. The property lies within the Dixie Lake, Deedee Lake, Bruce Lake, Longlegged Lake, Cabin Bay and South of Byshe Areas.

BTU has unrestricted access to the claims to perform exploration work or any other works required to investigate the land. In order to maintain the claims, \$451,200 worth of work must be applied to the Property between April 18, 2021 and August 23, 2022. There is currently \$262,603 reserve on the Property which can be applied to annual work requirements.

Property location is shown in **Figure 2.1** and **Figure 2.2**.



**Figure 2.1. Property Location Map**



**Figure 2.2. Claim Area.**

On October 15<sup>th</sup>, 2018, BTU Metals Corp (the “Optionee”) entered into an Option to Purchase Agreement with Larry Herbert (“Herbert”) and Bruce Lavigne (“Lavigne”), collectively referred to as the “Optioners”, wherein the Optioners have agreed to grant an Option to the Optionee to acquire one hundred percent (100%) undivided interest in the unpatented mining claims associated with the Property (the “Option”) upon the terms and conditions set forth below. See **Appendix** for claim table.

### **3. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

#### **3.1. Overview**

The Property is located in the Red Lake Area of Ontario, Canada. The nearest major population centre is the town of Red Lake, with circa 4,100 inhabitants, located approximately 17 kilometres north of the Property by Highway ON-105. The property can be accessed year-round. Exploration can be conducted all year, while snow cover restricts surface exposure for mapping from mid-October through May.

#### **3.2. Accessibility**

The Property can be reached by vehicle, year-round, from the town of Red Lake, Ontario, by travelling 17 kilometres south along highway ON-105 to Dixie Lake Road, which encircles the Property, providing access at various points along its total length of 50 kilometres. Additional access to the northern part of the property can be achieved from an active logging road 26 kilometres south along Highway ON-105 from Red Lake.

#### **3.3. Climate**

The climate of the area is typical of the northern continental interior with a wide range of temperatures from -40's in the winter to +40's in the summer. Precipitation averages 634 mm in total with 455 mm falling as rain in the summer and the remainder falling as snow in the winter.

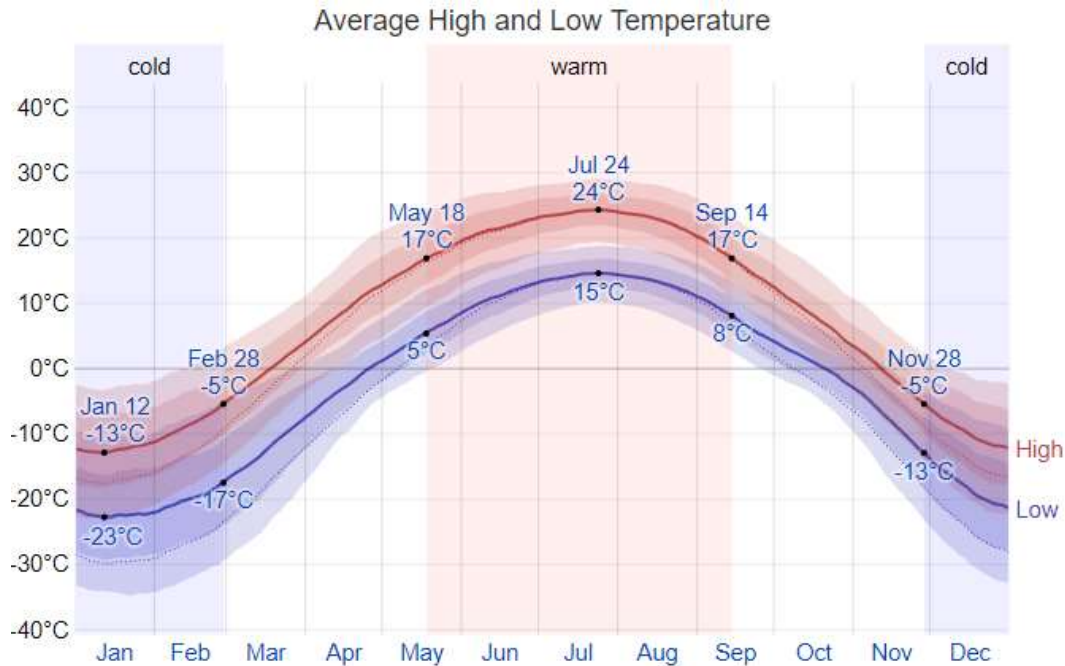


Figure 3.1. Average high and low temperature for Red Lake, Ontario.



Figure 3.2. Average daily precipitation for Red Lake, Ontario. Dashed line represents rainfall, solid line represents snowfall.

### 3.4. Infrastructure

#### 3.4.1. Roads

Highway ON-105 passes about 5 kilometres along north the side of the Property, from which the Dixie Lake Road, an unpaved but maintained gravel road, can be accessed at two points on the

highway and encircles the Property, terminating again at the highway. Several dirt roads and logging trails branch off from Dixie Lake Road providing good access to most of the Property.

#### **3.4.2. Air Transport**

The Red Lake Airport is located 27 kilometres north along Highway ON-105 from the turnoff to the Property at Dixie Lake Road.

#### **3.4.3. Rail**

The nearest rail line crosses Highway ON-105 approximately 126 kilometres south of the southern access to the Dixie Lake Road loop on Highway ON-105, at the Red Lake Road train station.

#### **3.4.4. Power**

A 115 kV transmission line passes roughly north-south along the edge of the property, parallel to Highway ON-105.

### **3.5. Local Resources**

As it is a significant mining town, all resources are available at the town of Red Lake, including housing and accommodation, fuel, mechanic, supplies and food, local skilled workers, heavy equipment, and assay labs. The Ministry of Northern Development and Mines (MNDM) Office of the Resident Geologist at Red Lake is also located in the town of Red Lake.

### **3.6. Physiography**

The property area is covered by mature boreal forest consisting of mostly black spruce and lesser stands of poplar, birch, jackpine, and balsam. Large areas on the property have been deforested over the years and have been replanted with spruce and pine. The topography of the area is characteristic of the southern part of the Canadian Shield with low rolling hills and intervening lowlands with lakes, muskeg and marsh. Relief on the property is subdued with elevations ranging from 350 to 400 metres. There is little outcrop in the area of the property.

## 4. HISTORY

### 4.1. History of Property Acquisition

The Property was formerly operated by Caravelle Mines in the late 1960s-70s, followed by Newmont, Cominco in the 70s, Golden Terrace Resources Ltd in 80s, Canadian Patricia Explorations and Teck in early 1990s, Fronteer Development Group in early 2000s, Grandcru Resources Corp in mid 2000s. The current claim holder is Larry Herbert.

In April 2017, BTU entered into an agreement with Larry Herbert, in which BTU may earn up to a 100% interest in the Property.

### 4.2. Exploration History

The Dixie Halo South area has been the location of numerous exploration programs since the 1960's. Early exploration included soil, lake water and lake sediment sampling, geophysical surveys, and diamond drilling. The record of this historical work is contained in the Ontario MNM Assessment file archives and in other public documents (such as NI 43-101 technical reports) generated by explorers in the area. The assessment files do not contain digital data, but in some cases useful images of the primary geophysical data and interpreted outcomes are included.

The following sections summarize geophysical surveys, drilling and physical work which have significant overlap with the Dixie Halo South property

#### **Airborne Geophysics**

The assessment report covering the 2003 fixed-wing horizontal magnetic gradiometer survey over the northern third of the Dixie project as well as the 88-04 gold deposit (Valenta, 2004) (AFRI 52K13NE2008) includes good quality plots. The survey was flown at nominal 100 m ground clearance; 75 m traverse line spacing at a flight line orientation of 0°. A Terraquest report (2005) (AFRI 20001087) provides good quality plots showing magnetic response mostly outside the mineral tenure area to the east. A summary of historic airborne geophysical work overlapping the project area is included in **Table 4.1** below.

**Table 4.1. A summary of assessment reports on airborne geophysical surveys overlapping the Dixie Halo South property**

Exploration Company	Survey Company	Year	Survey Method	AFRI Number
Caravelle Mines	Questor Surveys	1969	MAG, TDEM (Input Mark V)	52K13SE0057
Cominco	Questor Survey	1977	MAG	52K14SW0003
Golden Terrace Resources Ltd.	Aerodat	1985	MAG, FDEM, VLF-EM	52K13NW0053
Teck	DIGHem Surveys	1990	FDEM (Dighem IV)	52K13SE0010, 52K13SSE0011, 52K13SSE0014, 52K13SSE0015, 52K13SSE0021
Fronteer Development Group	Fugro Airborne Surveys	2003	MAG (Horizontal Gradient)	52K13NE2008
Grandcru Resources Corp.	Terraquest	2005	MAG	20001087

The most recent report and analysis on HELITEM airborne EM data carried out by Condor North Consulting ULC in 2015 provides a comprehensive summary of previous geophysical surveys and presents the best analysis and coverage of geophysical data on the Property to date. The following figures, **Figure 4.1.** and **Figure 4.2** are from this report.

Based on examination of the background information on the project the best prospect for economic mineralization in the project area was determined to be gold mineralization analogous to the known 88-04 deposit. The geophysical data were reviewed for Target Zones (TZ) based on the geophysical characteristics of the 88-04 Au deposit as well as those of generic quartz-carbonate-hosted gold, BIF-hosted gold, and VMS-style base metal mineralization. Twenty-three VMS TZ and seven Au TZ were selected.



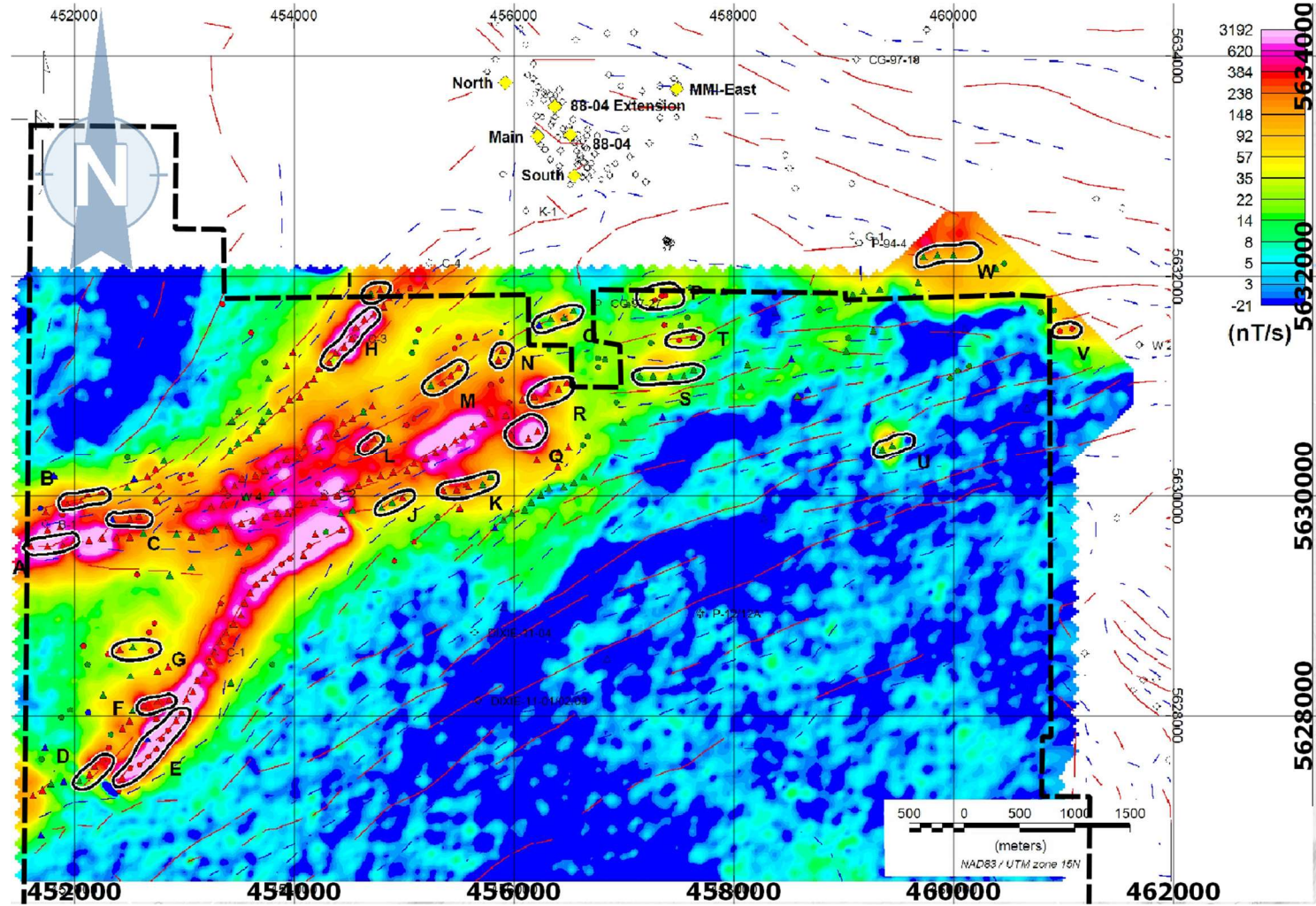


Figure 4.1. VMS TZ with EM Z dB/dt channel 15 response amplitude (logarithmic color distribution). Magnetic high and low lineaments are red and blue lines respectively, airborne EM conductor axes are yellow lines (features outside the survey boundary were digitized from assessment report images).

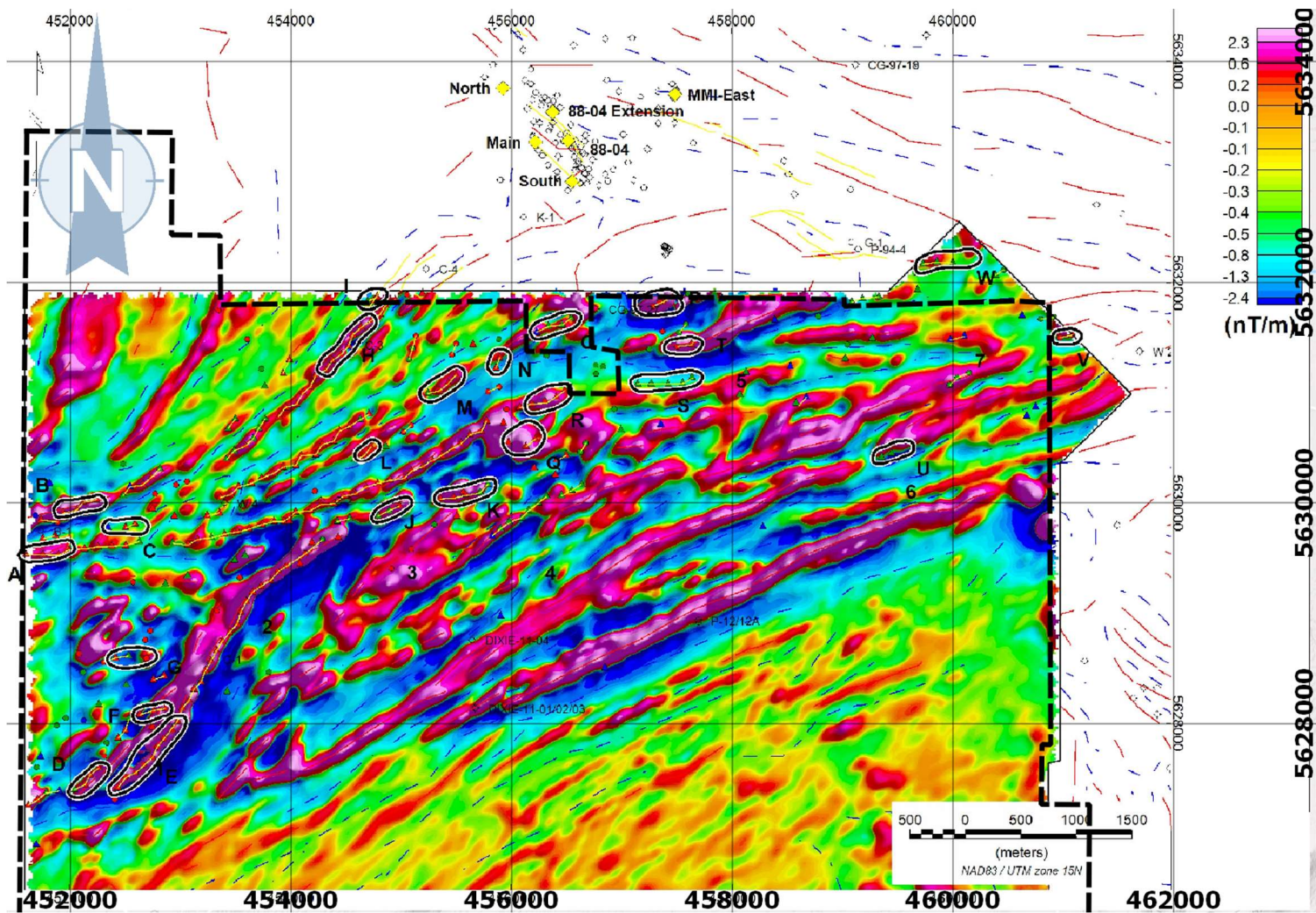


Figure 4.2. VMS TZ with TMI-RTP 1VD (histogram equalization distribution, shaded 45°). Magnetic high and low lineaments are red and blue lines respectively, airborne EM conductor axes are yellow lines (features outside the survey boundary were digitized from assessment report images).

## Ground Geophysics

A significant amount of ground survey work (primarily magnetic surveys and shallow EM in the form of HLEM or VLF surveys) has been conducted in the project area. A single IP survey is documented by Grandcru Resources Corp. (2005) (AFRI 20001419). A summary of ground geophysical work overlapping the project area is included in **Table 4.2** below. The outline of the various ground geophysical surveys overlapping the project area is presented in **Figure 4.3**.

**Table 4.2. A summary of assessment reports on ground geophysical surveys overlapping the Dixie Halo South property**

Exploration Company	Survey Company	Year	Survey Method	AFRI Number
Newmont Mining Corporation of Canada	Caravelle Mines Ltd.	1970	Physical property measurements	52K13SE0055
Caravelle Mines Ltd.	Caravelle Mines Ltd.	1972	MAG, HLEM, VEM	52K13SE0053
St. Joseph Explorations Ltd.	St. Joseph Explorations Ltd.	1977	MAG, HLEM	52K13SE0049
Canadian Patricia Exploration Ltd.	Derry, Michener, Booth and Wahl	1990	MAG, HLEM	52K13SE0024
Teck	Independent Exploration Services Ltd.	1990	MAG, VLF	52K13SE0016, 52K13SE0025
C.D.Huston	C.D.Huston	1991	MAG, VLF	52K13SE0009
Grandcru Resources Corp.	Dan Patrie Exploration Ltd.	2005	MAG, IP (PDP)	20001419

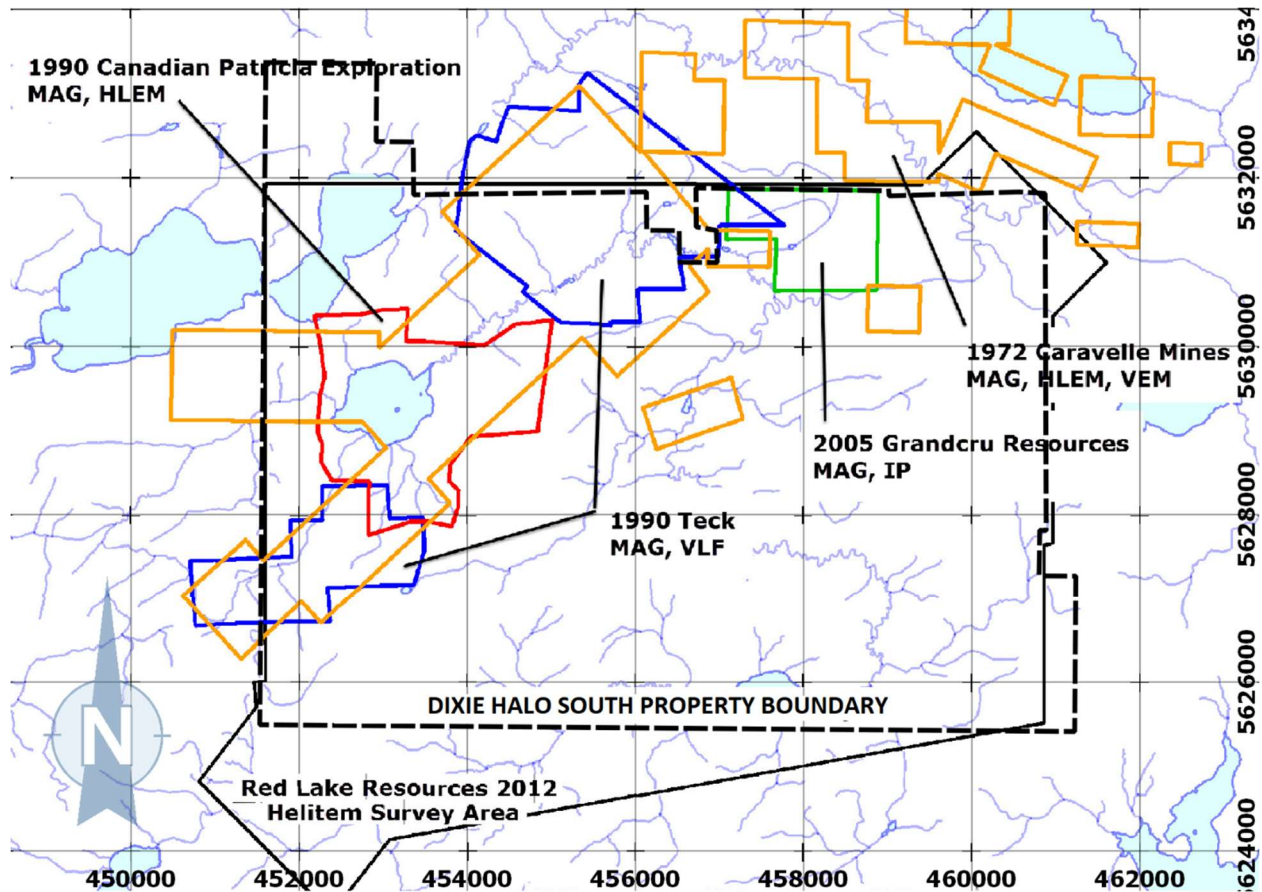


Figure 4.3. Historical ground geophysical surveys overlapping the Dixie Halo South project area. The 2012 HELITEM survey area is shown as a black polygon with colored polygons defining the extent of the ground surveys. DASHED LINE represents claim boundary. (modified from Condor North Consulting ULC, 2015)

### Drilling and other work

A very limited amount of drilling has been completed in the project area with most holes located in the area of the gold occurrences to the north. In addition to the drilling, overburden stripping, mapping and sampling was reported by Herbert and Pryslak (2010, and 2012) in AFRI 20009303 and 20011532, respectively. Stripped areas are identified in the following map (Figure 4.4).

#### AFRI 20009303

43 stripped areas in 10 groups were mapped by A.P. Pryslak from a stripping program that was carried out by Larry Herbert, claim owner, from 2009 to 2010. This report notes several zones of favourable lithologies and veining and several anomalous gold values up to 390ppb.

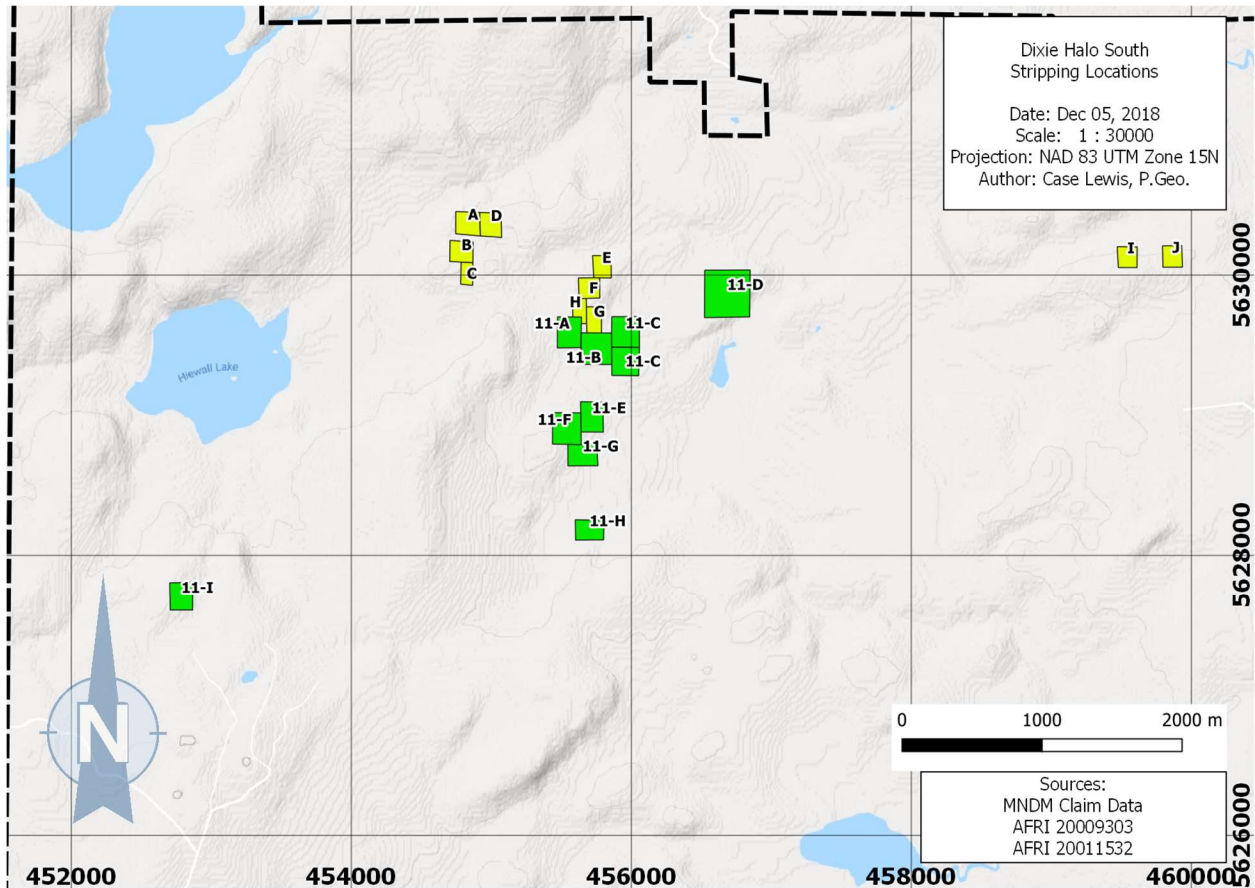
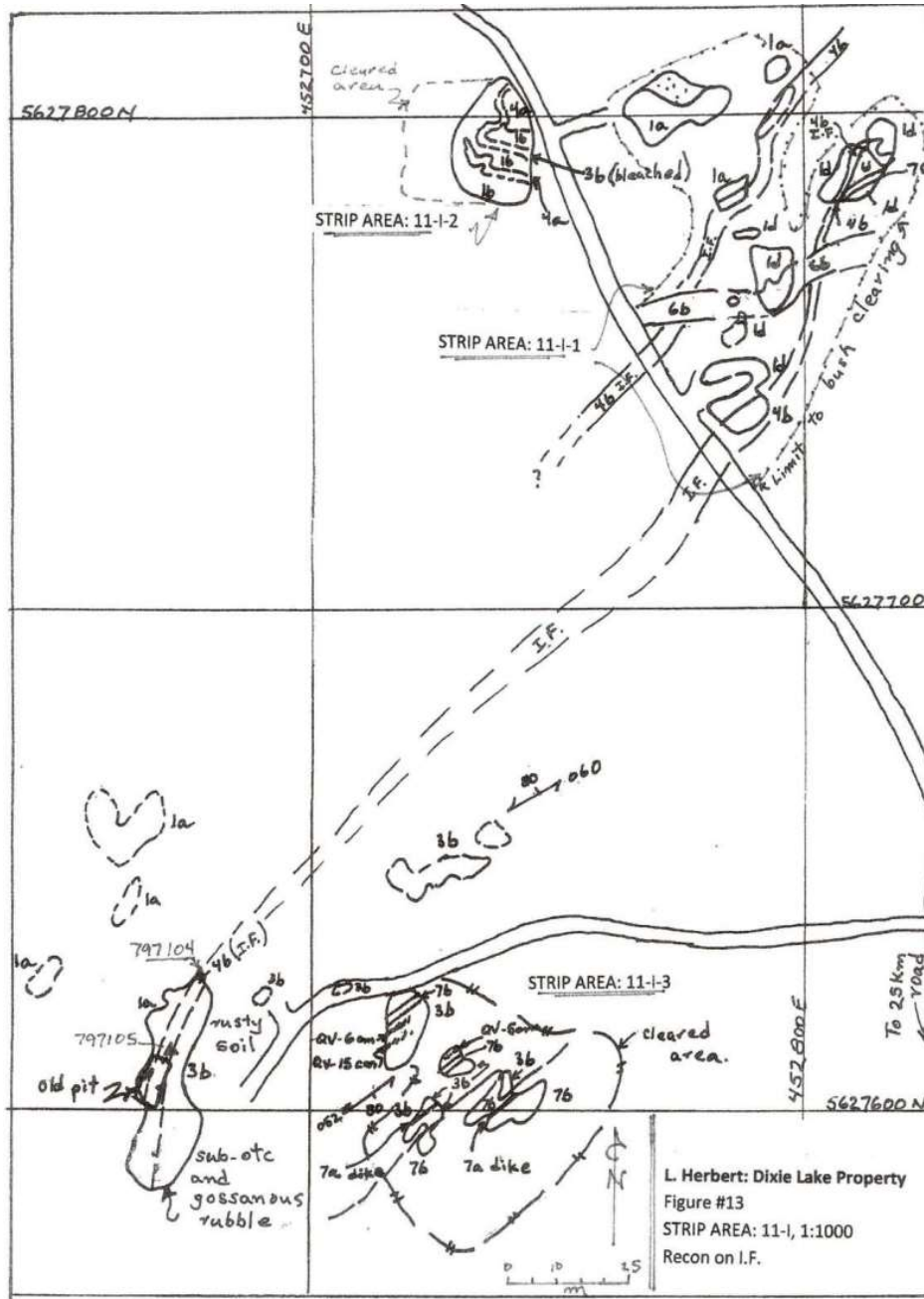


Figure 4.4. Stripping locations for AFRI 20009303 (YELLOW) and AFRI 20011532 (GREEN).

### AFRI 20011532

This Phase II stripping program met with some immediate success. Backhoe excavations uncovered a 30 metre wide carb zone in a rhyolite sequence (**Figure 4.6**). Initial sampling returned anomalous values in Au (30ppb) and As (141 ppm). Further west, stripping was carried out in an area that hosted an old trench in a strongly gossanous I.F. (see **Figure 4.5**).



**Figure 4.5. Stripped Area, 11-I, from AFRI 20011532.**

In April, 2011, the new stripping season commenced in the area located approximately 500-600 metres due south of Carb Zone, but on the east side of the north-east flowing creek. (**Figure 4.6**) The starting point was a small outcrop of strongly epidotized breccias. The outcrop was extended approximately 50 metres southwest and north-east. The excavation revealed the presence of a series of north trending, shallow west dipping (20-30 degrees) quartz-calcite-tourmaline veins, 5-

30cm thick and mineralized with minor chalcopyrite. Trenching uncovered near massive chalcopyrite in the northeast vein. Assays returned up to 4.5 g/t Au and 11.5% Cu.

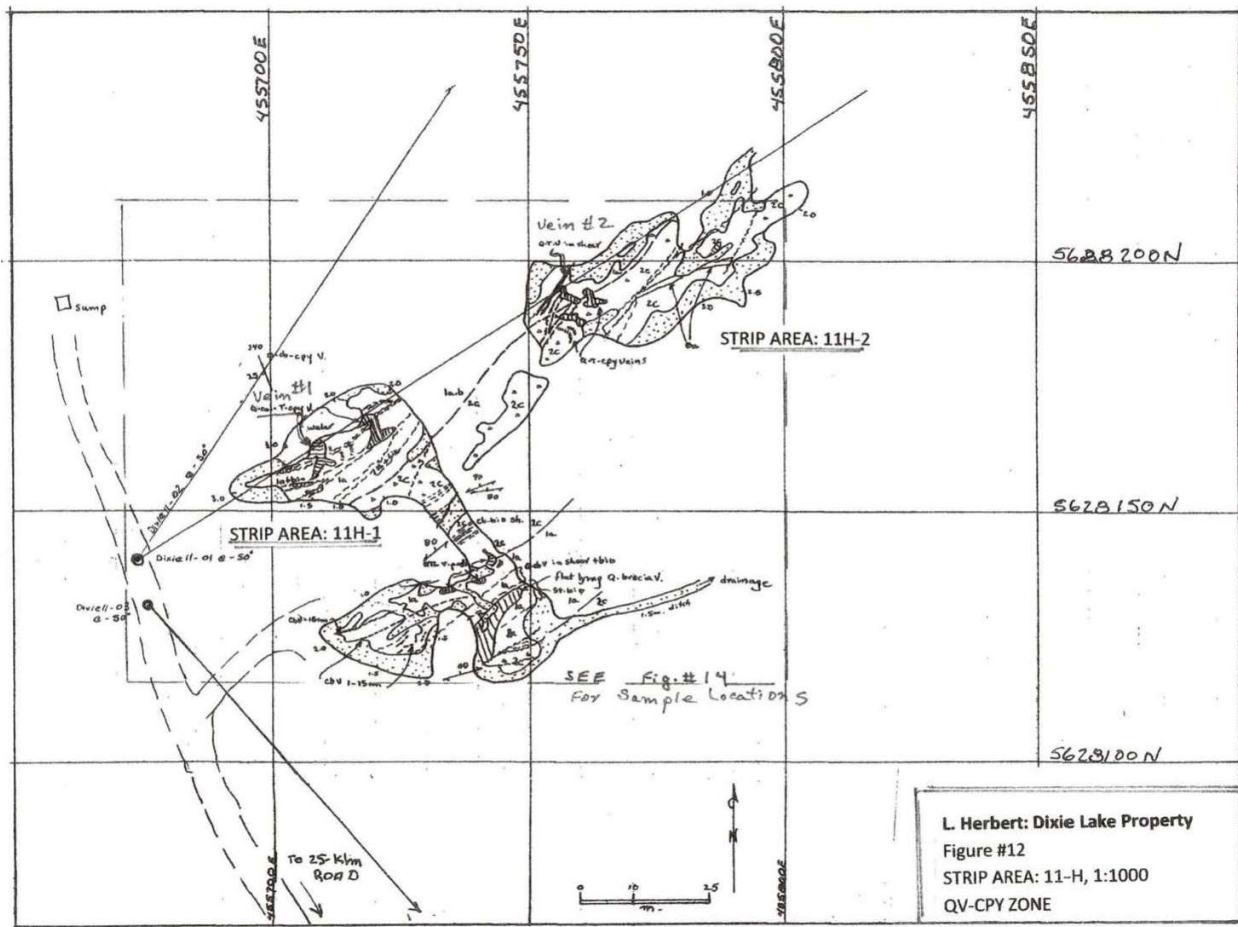


Figure 4.6. Stripped area, 11-H, from AFRI 20011532.

A summary of drilling campaigns in the project area is presented in **Table 4.3** below; the locations of the collars compared to the property boundary are presented in **Figure 4.7**.

**Table 4.3. Summary of Assessment reports on drilling overlapping the Dixie Halo South property**

Exploration Company	Year	Targets	AFRI Number
Newmont	1970	HLEM Anomalies (target descriptions in 52K13SE0047 only)	52K13SE0044, 52K13SE0045, 52K13SE0046, 52K13SE0047, 52K13SE0048
Caravelle Mines	1972		52K13SE0040
Teck	1991	IP Anomaly	52K13SE0003
L. Herbert	2012		20011439

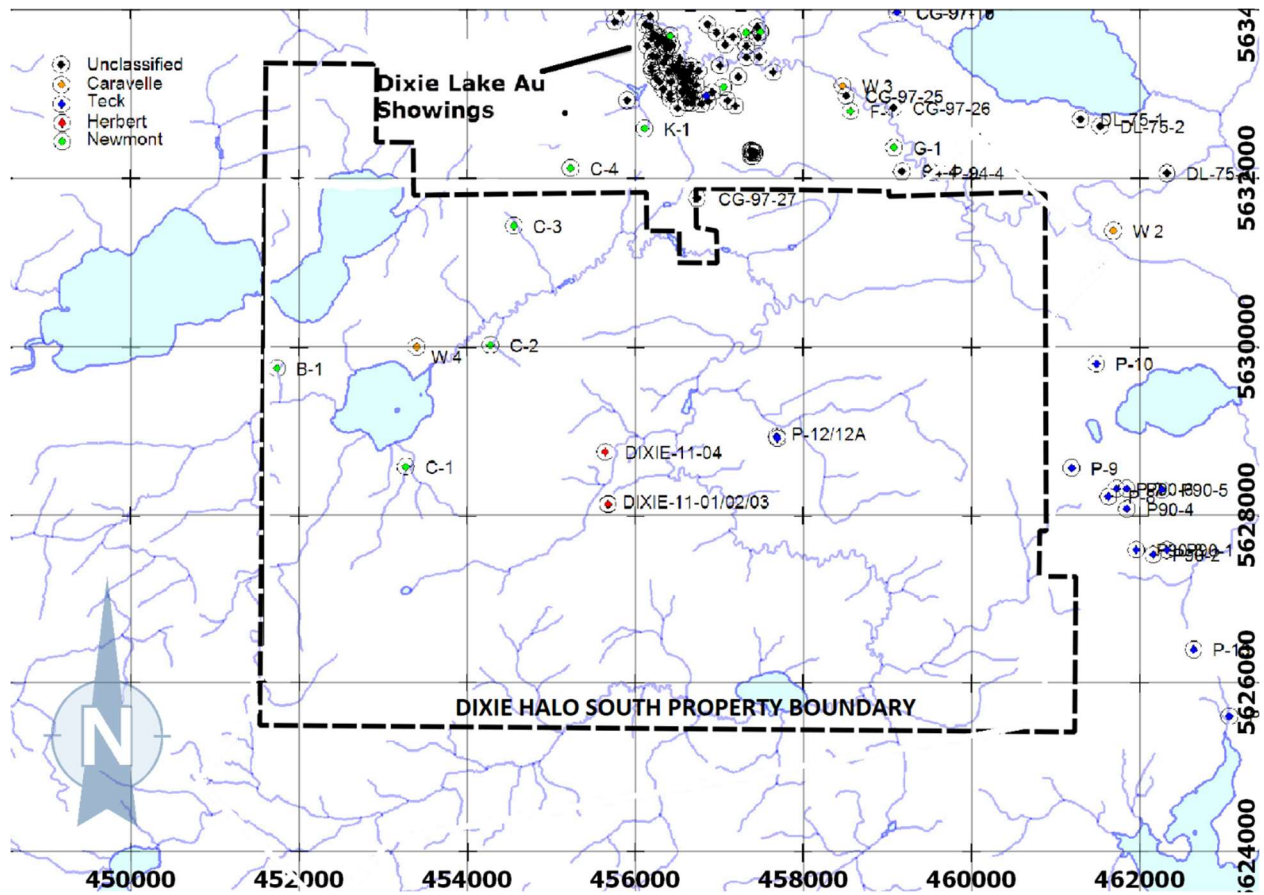


Figure 4.7. Historical drilling overlapping the Dixie Halo South property area. The 2012 HELITEM survey area is shown as a black polygon with colored collar markers defining the company responsible for the drilling. (modified from Condor North Consulting ULC, 2015)



## 5. GEOLOGICAL SETTING AND MINERALIZATION

### 5.1. Regional Geology

*The following is largely derived from Technical Review of Recent Exploration Activities on the Dixie Lake Project, Red Lake, Ontario, prepared for Alberta Star Development Corp by SRK Consulting, September 2004.*

The Red Lake metavolcanic/metasedimentary belt in Northwestern Ontario forms part of the Uchi sub-province of the Archean Superior Province (**Figure 5.1**).

The rocks of the Red Lake belt record a protracted (ca. 300 Ma) history of episodic magmatism, sedimentation, and techno-thermal activity (Sanborn-Barrie, et al., 2001). Greenstone belt assemblages have been sub-divided into seven distinct units, comprising tholeiitic and calc-alkaline basalts, komatiite, intermediate through felsic tuffs and flows, interlayered or disconformable with quartz-magnetite iron formation, fine to coarse grained clastic rocks and polymictic conglomerates.

Mesoarchean (3200-2800 Ma) and Neoproterozoic (2800-2500 Ma) rocks are separated by a regionally extensive angular unconformity, marked by the basal polymictic conglomerate of the Heyson Assemblage (Sanborn-Barrie, et al., 2001). This unit displays extreme thickness variations from a “thin veneer of clastic detritus” to more than 500 metres of argillite and turbiditic wacke. Such variability in thickness requires an erosional surface of considerable relief, and may suggest desposition in active, fault bounded basins. This stratigraphic horizon is believed to play an important role in gold mineralization in the belt, since more than 90% of the belt’s 27.6 Mozs Au are found adjacent to this unconformity (Dube, et al. 2003). Such an empirical spatial relationship is well-known in other prolific gold belts in Canada – e.g. Timiskaming conglomerates in the Abitibi belt, and the Jackson Lake Fm in the Yellowknife belt, but the exact nature of the relationship between Au and unconformities remains unknown.

Balmer assemblage rocks “...host several of the largest and most prolific gold mines” (Fingler and Middleton, op cit. p. 14), including the Campbell, Red Lake, and Cochenour mines, whereas, the Madsen mine occurs at the contact between Balmer and Confederation assemblage rocks (Dube et al. 2000). Rocks of the Confederation assemblage dominate the region south of the main Red Lake Belt, including the area of the Dixie Halo South property.

Formations in the Red Lake area have been profoundly affected by events leading up to, and culminating in, the Kenoran Orogeny, which marks collision of the Winnipeg River terrane, to the south, at ca. 2718 Ma (Sanborn-Barrie, et al., 2001). Early, non-penetrative deformation (D<sub>0</sub>) which resulted in overturning and recumbent folding of Balmer assemblage rocks, is overprinted by two ductile deformation events (D<sub>1</sub> and D<sub>2</sub>) recorded by two generations of folds and

penetrative L-S fabrics throughout the belt. D<sub>1</sub> fabrics and folds generally strike northerly, whereas, D<sub>2</sub> structures are dominantly east to northeast striking, except in the Cochenour-Campbell-Red Lake 'mine trend', where a high D<sub>2</sub> strain zone strikes east-southeast. Subsequent brittle and semi-brittle structures occur at micro to macro scales and have both localized and offset gold mineralization (Dube et al., 2003).

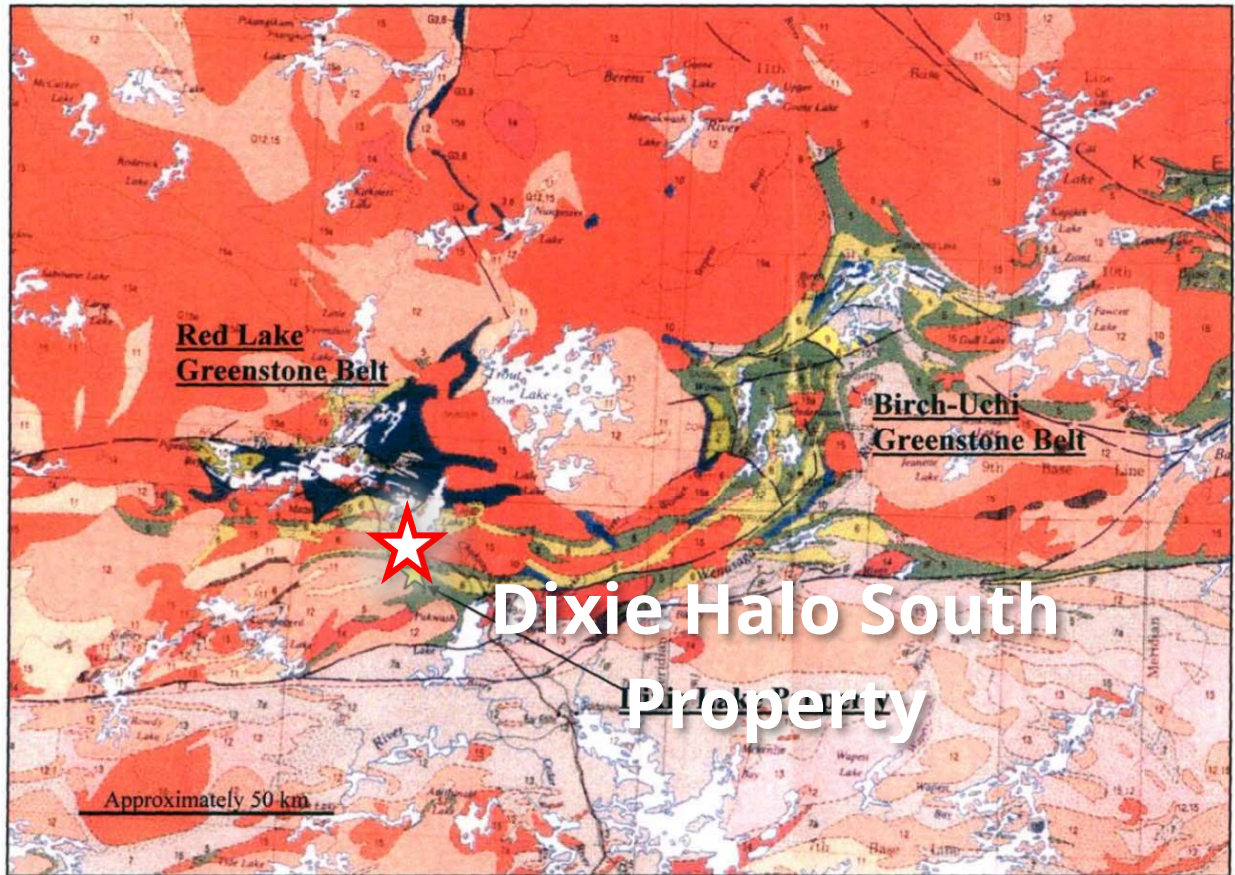


Figure 5.1. Generalized regional geologic map of Red Lake and surrounding area. Modified from Report on Drilling Programme, Dixie Lake Property, Grandview Gold Inc, by T.N.J. Hughes, 2005.

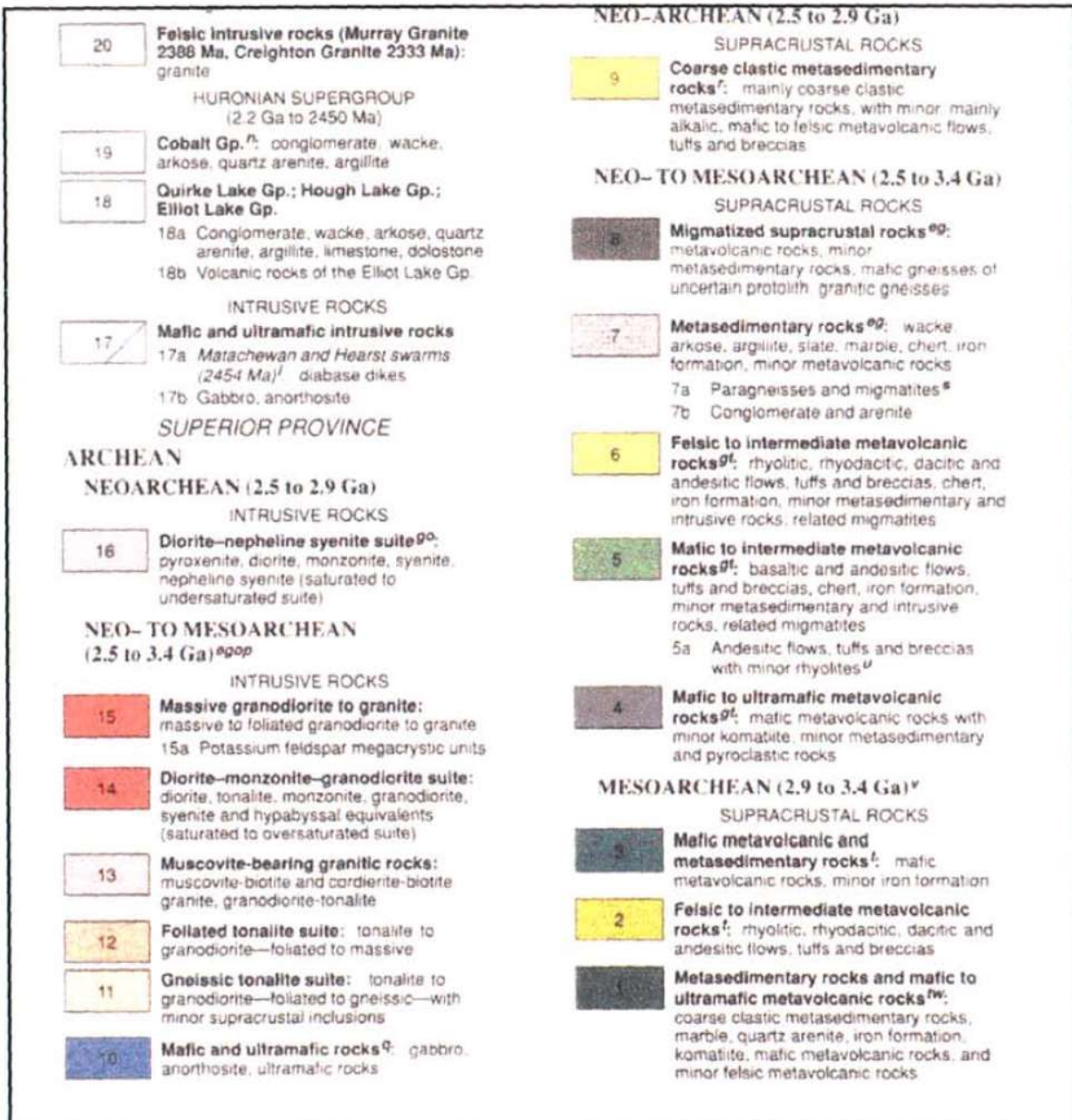


Figure 5.2. Legend for Figure 5.1. Modified from Report on Drilling Programme, Dixie Lake Property, Grandview Gold Inc, by T.N.J. Hughes, 2005.

## 5.2. Local Geology

The Local Geology of the Property is covered in detail in the Property Geology section, as the Dixie Halo South Property covers the local region to the south of the Dixie Lake belt. The Dixie property and the Dixie Halo South Property lie southeast of the main Red Lake gold mining camp in a "...broadly east-west trending belt of mafic to felsic meta-volcanics and associated metasediments, which are infolded between a series of granulitic batholiths" (Fingler and Middleton, 2003, p.16). Fingler and Middleton's (2003) discussion was largely based on Ontario Geological Survey Open File Report 5904. The Dixie Halo South property lies immediately adjacent to the south of the Dixie property, thus the detailed geological descriptions are applicable to the current discussion of the Dixie Halo South Property.

The calc-alkaline mafic to intermediate volcanic rocks of the belt, including pillowed flows and intermediate to felsic pyroclastic members, have been metamorphosed to **amphibolite grade**. Meta-sedimentary members include wacke, siltstone, conglomerate, and magnetite iron formation.

**Mafic volcanic rocks** on the Dixie property to the north have been referred to by a profusion of different names, including for example: amphibolite, mafic flow, mafic tuff, intermediate tuff and lapilli tuff. Many of these names imply either volcanic (e.g. flow) or volcanoclastic (e.g. tuff) origins, while conclusive evidence for either is commonly obscured by deformation, metamorphism or metasomatism. Where sedimentary layering (bedding) is evident the rocks are referred to as sedimentary.

**Felsic volcanic rocks** in the area have been referred to by numerous names, including for example: andesite, dacite, quartz-feldspar porphyry, feldspar porphyry and felsic volcanics. Felsic volcanic rocks range from pale to medium grey, typically have an aphanitic or finely recrystallized groundmass and commonly contain phenocrysts up to 1cm diameter of quartz and/or feldspar. It is recognized that some porphyritic rocks may be shallow intrusives and as such not strictly volcanic in origin. As for mafic volcanic rocks, felsic volcanic rocks undoubtedly include both volcanic and volcanoclastic lithologies.

**Ultramafic rocks** on the property have been previously referred to as talc-carbonate schist. These rocks are characterized by their dark grey to green color and chlorite and talc-rich metamorphic mineral assemblages. An intrusive or extrusive origin to these rocks has not been apparent to date.

**Clastic sedimentary rocks** in the region have been referred to by numerous names including: siltstone, inter-flow sediments, mixed sediments, tuff and felsic ash tuff. These rocks are characterized by fine grain size and pale to medium gray colour. All lithologies included as **clastic sedimentary rocks** have preserved sedimentary layering. Sedimentary layers typically occur on the mm- to cm-scale. While historical references to tuffs have also been included, it is unclear what criteria were used to distinguish tuffs from other lithologies.

Laminated to thinly bedded, very fine-grained sedimentary rocks that lack graphite are referred to as **mudstone**. These are typically medium green to dark brown in color and can be difficult to distinguish from mafic volcanic rocks, the distinguishing criteria being whether layering is sedimentary or tectonic in origin. Mudstones may be comprised of mafic volcanoclastic material, rendering the distinction from mafic volcanic rocks somewhat arbitrary.

The term **argillite** has been extensively used in the region, and refers to dark grey to black, weakly graphitic, very fine grained, laminated sedimentary rocks. These are commonly sulphide-bearing, with both stratiform disseminated to massive and fracture-fill sulphides common, and sulphide concentrations. In decreasing order of abundance, the argillite-hosted sulphide minerals are: pyrrhotite, pyrite, sphalerite, chalcopyrite and arsenopyrite.

**Banded iron formation (BIF)**, as referred to in historical reports from the Dixie property and occurring regionally, comprises banded black and white to grey, alternating magnetite- and quartz- (chert) rich sedimentary layers.

The term **dyke** has been used loosely to refer to intrusive igneous rocks of a range in composition. An intrusive origin is inferred through poorly developed foliation relative to adjacent lithologies, and/or discordant intrusive contacts.

In the region, **lamprophyres** are typically medium to dark brown, fine grained intrusive rocks with biotite, commonly in concentrations >5%. Lamprophyres exhibit a range in foliation intensity and in degree of alteration, indicating broadly syn-kinematic and syn-metasomatic emplacement. Where little deformed, lamprophyres typically exhibit discordant intrusive contacts with adjacent lithologies, and as such can be termed dykes. In other examples lamprophyres are strongly deformed and transposed parallel to the shear fabric.

**Felsic intrusive rocks** occur in several localities in the region. Historical references include aplite and granite dykes.

**Mafic intrusive rocks** can be difficult to distinguish from mafic volcanic rocks. Regionally previously used names for mafic intrusive rocks include: dolerite, mafic dyke, diabase dyke and amphibolite dyke.

### **5.3. Property Geology**

Although outcrop exposure on the Property is generally poor, stripping carried out by the claim owner and previous operators has created some local zones of good exposure, which have identified favourable lithologies for gold mineralization. Mapping on the area has produced a comprehensive, but early stage geological framework across the northwestern two thirds of the property.

The southeastern portion of the property is not known in detail and was interpreted formerly to be mainly granitic intrusive. However, as mapping progresses it is shown to be more and more underlain by bands of sediments and volcanics.

As shown on the regional map and derived from geophysical magnetic coverage map as well as mapping on the Dixie Halo South Property, the favourable geologic package of rocks containing the mineralization on the Dixie property appears to trend southwesterly across the Dixie Halo South Property. This variably metamorphosed package of rocks consists of bedded iron formation units interbedded with volcanic horizons. Quartzose zones occur both as sedimentary bands parallel the bedding in the iron formation, and as mobilized silica in veins and masses that contain both gold and sulphides.

Narrow iron formations manifest throughout the mapped area. Their extent is largely inferred from localized outcrops, but two bands extend southwesterly across the central portion of the Dixie Halo South property, interbedded with varied volcanics and sediments. Such bands present targets for more detailed exploration and analysis.

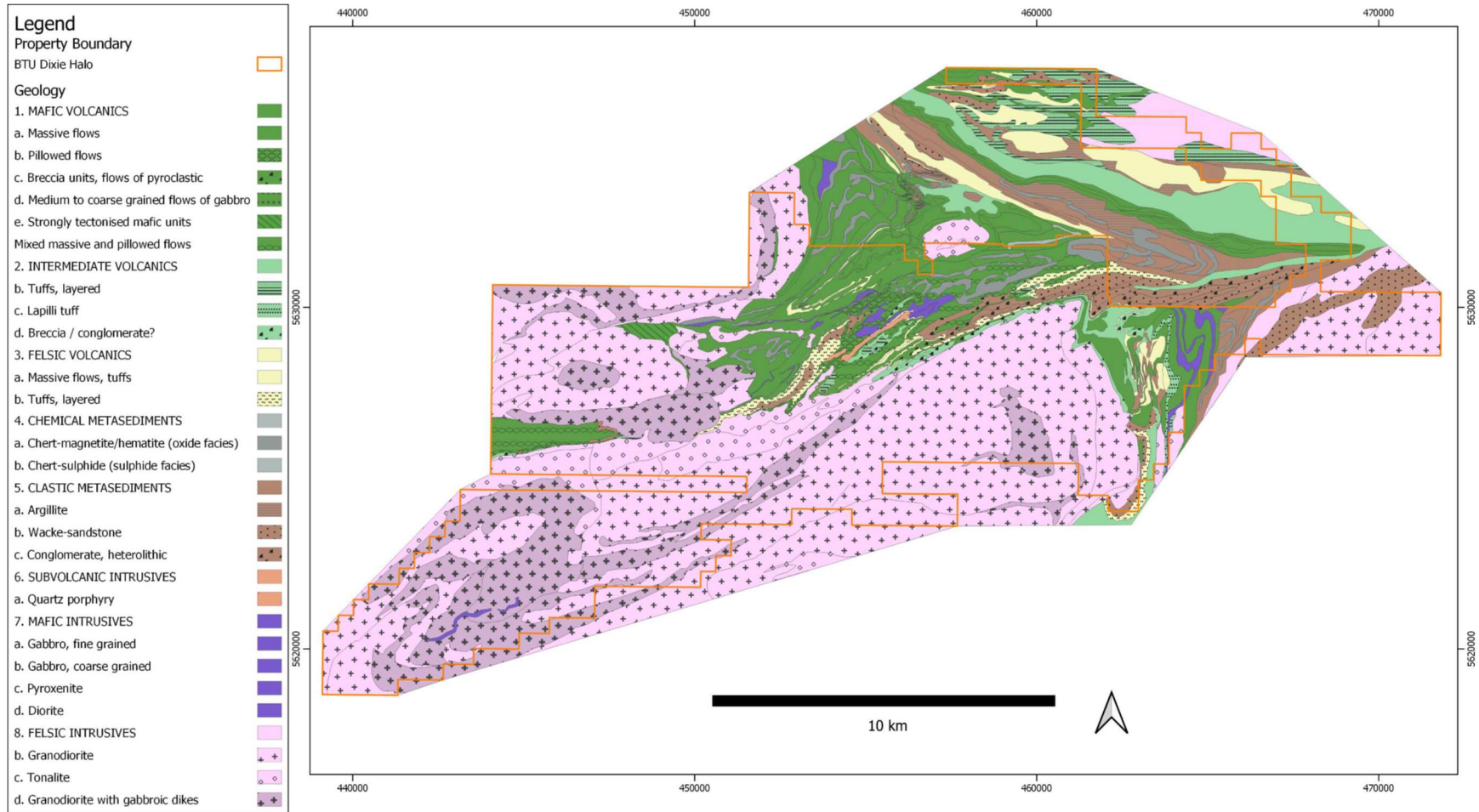
The primary zone of interest, where much of the historical work on the Property has focused, is the area directly adjacent to the Dixie property to the north, covering the projected possible extension of the Dixie property mineralized zone. Mapping of the north-central portion of the Dixie Halo South Property shows that this area is underlain by an area of felsic intrusives. Similarly, the area along the western side of the Property is dominantly underlain by mafic and felsic metavolcanics, which have been subsequently intruded by felsic intrusives.

Of particular interest for renewed exploration are the subvolcanic units (Unit 6) which warrant considerable attention, as such units have been established to host major gold deposits within the greenstone belt of northwestern Quebec, particularly the Malartic deposit of Osisko Gold.

Intrusives occupying the western portion of the property are characterized as foliated tonalites and gneissic tonalites. This is of particular exploration interest as tonalites have received increasing attention in recent exploration programs as large tonnage low grade gold deposits have been developed in recent exploration programs within tonalites in multiple Archaean belts of the world.

### **Structural Geology**

The general geologic trend on the Property is roughly 045 to 070 degrees. A series of faults in the north-central section of the Property has been interpreted from local mapping and property-wide geophysics, trending roughly northwest-southeast, offsetting the rock types identified on the Property shown in **Table 4.1** below. In general, they are similar to the units described on the Dixie property to the north, but there appears to be considerably more detailed differentiation of the volcanic lithologies from the more recent mapping carried out on the Dixie Halo South property.





**Table 5.1. Detailed legend for Figure 5.3.**

<b>8</b>	<b>FELSIC INTRUSIVES</b>	<b>3</b>	<b>FELSIC VOLCANICS</b>
a	Fine grained dikes	a	Massive flows, tuffs
b	Granodiorite	b	Tuffs, layered
<b>7</b>	<b>MAFIC INTRUSIVES</b>	c	Spherulitic flows, tuffs
a	Gabbro, fine grained	<b>2</b>	<b>INTERMEDIATE VOLCANICS</b>
b	Gabbro, coarse grained	a	Massive flows
c	Pyroxenite	b	Tuffs, layered
d	Diorite	c	Lapilli tuff
<b>6</b>	<b>SUBVOLCANIC INTRUSIVES</b>	d	Breccia/congl?
a	Quartz porphyry	<b>1</b>	<b>MAFIC VOLCANICS</b>
b	Quartz-feldspar porphyry	a	Massive flows
c	Feldspar porphyry	b	Pillowed flows
<b>5</b>	<b>CLASTIC METASEDIMENTS</b>	c	Breccia units, flow or pyroclastic?
a	Argillite	d	Medium to coarse grained flows or gabbro
b	Wacke-sandstone	e	Strongly tectonized mafic units
c	Conglomerate, heterolithic		
<b>4</b>	<b>CHEMICAL METASEDIMENTS</b>		
a	Chert-magnetite/hematite (oxide facies)		
b	Chert-sulphide (sulphide facies)		

#### **5.4. Mineralization**

Mineralization in the region has dominantly been identified in a favourable package of rocks consisting of banded iron formation and sulphide-bearing volcanogenic horizons. Exploration within this package established that gold occurred both within the banded iron formation and within quartzose materials interpreted to have been generated by remobilization of gold from the host lithology. Also, within the package, sulphidic volcanic horizons indicate the potential for volcanogenic massive sulphides, also potentially gold-bearing.

Recent exploration on the adjacent Dixie property to the north is establishing what is apparently a significant gold occurrence within a folded portion of this favourable lithologic package. Whether the gold is in remobilized or original bedded format is unknown at the present time.

From the personal observation of author Dr. Stewart A. Jackson on drilling conducted by Canadian Golden Dragon resources on the Dixie Property, the Dixie Halo South Property has the potential for both syngenetic and remobilized gold mineralization.

*The qualified persons have been unable to verify the information above and the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report.*

More information on the Dixie property mineralization can be found in **Section 23**.

## **6. DEPOSIT TYPES**

There are four mineral deposits types that may occur on the Dixie Halo South Property:

*The following is largely cited from Processing and Analysis of Helitem Airborne EM Data, Dixie Lake, Red Lake, Ontario, for Red Lake Resources, by Condor North Consulting ULC, 2015*

### **Greenstone-hosted quartz-carbonate vein deposits (gold)**

These deposits are described as networks of gold-bearing quartz-carbonate veins commonly distributed along major fault zones in deformed greenstone terranes of all ages (Ridley, 1997). While deposits may be found in a range of host lithologies and metamorphic grades, the majority of deposits are associated with mafic rocks metamorphosed to greenschist-facies. The veins or vein networks typically have strike and dip lengths of 100 m to 1,000 m and are hosted by steeply dipping brittle-ductile shear zones and locally in related extensional features in a wide variety of lithologies. The mineralization is dominated by quartz and carbonate, with sulphides (pyrite, chalcopyrite, and pyrrhotite) comprising less than 10% by volume (op. cit.).

Airborne magnetic and EM data are used as indirect targeting vectors to delineate bedding and lithology. The airborne magnetic response (and to a limited extent EM response) may be used to brittle-ductile faults and shear zones which are possible permeable conduits for ore-bearing hydrothermal fluid. Similarly, these responses may be used to identify extensional features, fold hinges, and fracture zones which may have allowed increased fluid mixing and ore deposition.

Local magnetic lows on deposit scale (1 – 2 km) may indicate areas of magnetite destruction associated with carbonate alteration.

### **Iron-formation-hosted (BIF) vein and disseminated deposits (gold)**

BIF-associated gold deposits occur as strata-bound, disseminated to massive sulphides (pyrite, pyrrhotite, and arsenopyrite) and as discordant quartz veins. The deposits preferentially form at sites of structural complexity, such as fold hinges and discordant shear zones, in regionally extensive iron formations (IF). The IF may be oxide, carbonate or sulphide facies and is commonly located proximal to contacts between volcanic and sedimentary rocks.

Local alteration associated with deposits may include sulphidation of the IF adjacent to quartz veins or more distal chloritic and carbonate alteration. (Ridley, 1997). The airborne magnetic and EM responses may be used to indirectly target BIF-hosted gold deposits by mapping IF as well

as structure. The IF is typically a magnetic and EM high but response may be variable depending on the IF facies (while magnetite and pyrrhotite have very high magnetic susceptibilities, the magnetic susceptibility of hematite is relatively low). Local variations in responses may indicate local sulphidation of the IF (possible increase in magnetic and EM response) or carbonate alteration (possible decrease in magnetic response).

### **Volcanogenic Massive Sulphides (base metals + gold)**

These deposits are typically stratabound bodies of massive sulphide hydrothermal ore and other sulphidic ores which formed near the seafloor in relatively deep marine volcanic environments

(Ridley, 1997). The most common sulphide mineral in VMS deposits is pyrite, which may be accompanied by pyrrhotite, chalcopyrite, sphalerite and galena (Galley et al, 2007); additional, nonsulphide, metallic minerals may include magnetite, hematite, and cassiterite (Ford et al., 2007).

The generic, simplified deposit model is a concordant lens of massive sulphide underlain by a discordant stockwork of vein-type sulphide mineralization in a pipe of hydrothermally altered rock (Ridley, 1997). A set of lithologically classified VMS models is presented in Galley et al. (2007). In some models, VMS deposits may be spatially and temporally associated with IF. The massive sulphide portion of the body varies from lenticular to podiform; if podiform, the plan view area of the body is up to 100 m x 100 m (Ridley, 1997). In deformed rocks the VMS deposit may have greater strike length and down-dip extent. Ford et al. (2007) presents the example of the Caber deposit near Matagami, Quebec which is 200 m – 250 in strike and 150 m – 250 m downdip. Host rocks are typically submarine volcanic rocks, or less commonly turbidites or other deep-sea sedimentary rocks, intercalated with volcanic rocks (Ridley, 1997). Many deposits are adjacent to faults, including caldera rim faults, or localized volcanic features such as rhyolite domes (op. cit.).

The airborne magnetic and EM responses may be used to directly target VMS mineralization due to: the relatively high magnetic susceptibilities of most sulphide minerals (primarily pyrrhotite and excluding sphalerite and galena); and the relatively high conductivity of metallic sulphide minerals. Isolated magnetic highs and mid- to late-time EM responses with strike extent on the order of

several hundred meters are prospective. Prospect of a given target would be increased when located in interpreted mafic volcanics or in proximity to IF, faults or intrusions. Given the spatial

and temporal association between IF and VMS variation in magnetic and EM response along the strike of an inferred IF should also be considered prospective.

## **7. CURRENT PROGRAM**

During the October 22, 2019, survey, 417 samples were taken and processed by Actlabs. These samples are summarized in the **Appendix** and **Figure 7.1** below. The Survey was carried out under the supervision of Bruce Durham, P.Geol from October 22, 2019 to July 27, 2021 Analysis was performed by Actlabs for BTU Metals. Details of the procedures and analysis of the survey are included in the Actlabs report.

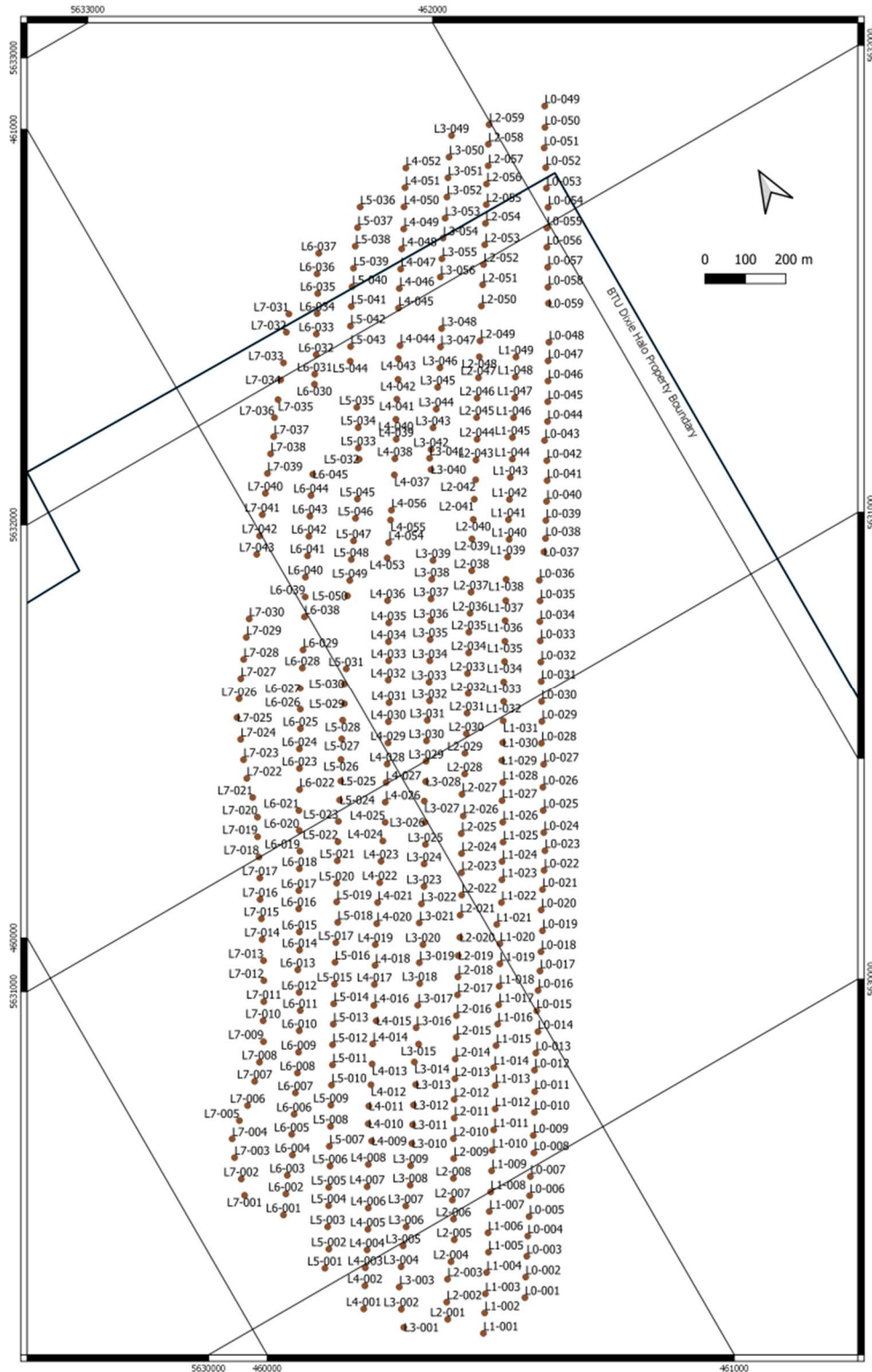


Figure 7.1. Sample Locations

## **8. INTERPRETATION AND CONCLUSIONS**

The SGH report resulted in the identification of several anomalous zones that justify ground truthing and if warranted diamond drilling. For further details see the Actlabs report included with this submission.

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## 10. STATEMENTS OF QUALIFICATIONS

I, Jamal Amin, of the city Toronto, in Ontario, Canada,

Hereby Certify:

1. I am a consultant at the Dixie Halo Project in Red Lake, Ontario, Canada.
2. That I graduated with a Bachelor of Science (Earth Science Specialization) from the University of Waterloo in 2008.
3. That I graduated with a Master of Science (Geosciences) from the State University of New York in 2013.
4. That I visited the property on a number of occasions during the drill program.

Dated this 6 day of August, 2021 at Toronto, Ontario, Canada

---

Jamal Amin, M.Sc.

I, Mark Hall, of the city of Sudbury, in Ontario, Canada,

Hereby Certify:

1. I am a consultant at the Dixie Halo Project in Red Lake, Ontario, Canada.
2. That I graduated with a Bachelor of Science degree in Geology from McMaster University in 1980.
3. That I am a member of the Association of Professional Geoscientists of Ontario.
4. That I am a member of the American Association of Professional Landmen.

Dated this 6 day of August, 2021 at Sudbury, Ontario, Canada

---

Mark Hall, B.Sc., P.Geo., AAPL

I, Mark Porasz, of the city Toronto, in Ontario, Canada,

Hereby Certify:

1. I am a consultant at the Dixie Halo Project in Red Lake, Ontario, Canada.
2. That I graduated with a Bachelor of Science (Earth Science Specialization) from Brock University in 2016.
3. That I am a member of the Association of Professional Geoscientists of Ontario
4. That I visited the property on a number of occasions during the drill program.

Dated this 6 day of August, 2021 at Toronto, Ontario, Canada



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Mark Porasz, B.Sc., GIT

## 11. Appendix

### 11.1. Sample Details

BTU SGH GRID UTM  
Map Datum WGS 84

Sample Number	Position	Easting	Northing	Elevation In Meters	Sample Depth	Sample Description	Foliage	Sample Method
L0-001	15 U	460622	5629731	390	25cm	brown to red sandy soil	jack pine plantation	Shovel
L0-002	15 U	460649	5629774	390	25cm	brown to red sandy soil	jack pine plantation	shovel
L0-003	15 U	460677	5629817	390	25cm	brown to red sandy soil	jack pine plantation	Shovel
L0-004	15 U	460704	5629859	388	25cm	brown to red sandy soil	jack pine plantation	Shovel
L0-005	15 U	460731	5629899	384	25cm	brown to red sandy soil	jack pine plantation	Shovel
L0-006	15 U	460758	5629943	384	25cm	brown to red sandy soil	jack pine plantation	Shovel
L0-007	15 U	460783	5629983	382	25cm	brown to red sandy soil	jack pine plantation	Shovel
L0-008	15 U	460820	5630029	384	25cm	brown to red sandy till with round and angular fragments 3mm-10cm	jack pine plantation	Shovel
L0-009	15 U	460840	5630067	384	30cm	brown red sandy soil	jack pine plantation	Shovel
L0-010	15 U	460871	5630115	385	35cm	red to dark brown sandy soil	jack pine plantation	Shovel
L0-011	15 U	460897	5630159	378	25cm	light brown sandy soil	jack pine plantation	Shovel
L0-012	15 U	460923	5630205	371	35cm	grey sandy clay	spruce,poplar mix	Shovel
L0-013	15 U	460947	5630240	368	20cm	light brown sandy clay	jack pine plantation	Shovel
L0-014	15 U	460978	5630283	368	28cm	light brown sandy fine soil	mature spruce forest	Shovel
L0-015	15 U	461001	5630329	364	30cm	light brown clay,soil mix	jack pine plantation	Shovel
L0-016	15 U	461029	5630371	359	27cm	light gray fine silty clay	jack pine plantation	shovel
L0-017	15 U	461057	5630410	359	40cm	light brown sandy clay mix	mature spruce forest	Shovel
L0-018	15 U	461083	5630450	359	22cm	light brown clay silt mix	jack pine spruce mix	Shovel
L0-019	15 U	461112	5630493	358	24cm	light brown silty clay mix	jack pine spruce mix	Shovel
L0-020	15 U	461135	5630539	358	31cm	gray to brown soil mix	jack pine spruce mix	shovel
L0-021	15 U	461163	5630581	358	20cm	light brown sandy clay	poplar spruce jack pine mix	Shovel
L0-022	15 U	461190	5630620	360	23cm	light brown silty clay mix	spruce poplar mix	Shovel
L0-023	15 U	461216	5630661	362	23cm	fine brown to red soil	jack pine plantation	Shovel
L0-024	15 U	461236	5630701	357	35cm	dark brown silty soil	spruce poplar birch mix	Shovel
L0-025	15 U	461262	5630749	348	22cm	fine brown soil	jack and spruce plantation	Shovel
L0-026	15 U	461290	5630799	338	27cm	dark brown fine soil	mature spruce forest	Shovel
L0-027	15 U	461320	5630847	286	85cm	dark brown to black humus peat mix	jack spruce mix	Auger hole
L0-028	15 U	461341	5630895	285	90cm	light grey clay	jack spruce mix	Auger hole
L0-029	15 U	461369	5630941	287	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-030	15 U	461393	5630984	285	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-031	15 U	461418	5631029	286	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-032	15 U	461441	5631071	287	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-033	15 U	461466	5631117	290	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-034	15 U	461489	5631159	288	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-035	15 U	461515	5631203	288	95cm	dark brown to black humus peat	jack spruce mix	Auger hole

Sample Number	Position	Easting	Northing	Elevation In Meters	Sample Depth	Sample Description	Foliage	Sample Method
L0-036	15 U	461539	5631248	289	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-037	15 U	461584	5631303	287	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-038	15 U	461604	5631330	292	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-039	15 U	461627	5631368	292	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-040	15 U	461652	5631408	293	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-041	15 U	461679	5631452	294	95cm	dark brown to black humus peat	jack spruce mix	Auger hole
L0-042	15 U	461703	5631495	294	110cm	dark grey to brown clay	jack spruce mix	Auger hole
L0-043	15 U	461723	5631541	296	42cm	light brown silty clay mix	jack pine plantation	Shovel
L0-044	15 U	461753	5631578	293	37cm	dark brown sandy till	jack pine plantation	Shovel
L0-045	15 U	461778	5631620	300	37cm	brown sandy silt	spruce jack mix	Shovel
L0-046	15 U	461804	5631664	302	30cm	light brown to grey clay	poplar alder mix	Shovel
L0-047	15 U	461829	5631707	301	45cm	fine grey clay	tag alder swamp	Auger hole
L0-048	15 U	461854	5631746	303	50cm	light grey clay	tag alder swamp	Auger hole
L0-049	15 U	462137	5632257	346	27cm	light brown silty sand	spruce plantation	Shovel
L0-050	15 U	462111	5632211	343	27cm	light brown silty sand	spruce plantation	Shovel
L0-051	15 U	462084	5632168	345	40cm	light brown silty clay mix	spruce plantation	Auger hole
L0-052	15 U	462063	5632124	346	80cm	fine grey clay	alder spruce mix	Auger hole
L0-053	15 U	462039	5632079	349	90cm	fine grey clay	alder spruce mix	Auger hole
L0-054	15 U	462019	5632036	349	90cm	fine grey clay	alder spruce mix	Auger hole
L0-055	15 U	461991	5631993	348	90cm	fine grey clay	alder spruce mix	Auger hole
L0-056	15 U	461967	5631952	350	90cm	fine grey clay	alder spruce mix	Auger hole
L0-057	15 U	461944	5631908	350	90cm	fine grey clay	alder spruce mix	Auger hole
L0-058	15 U	461920	5631865	352	105cm	dark broen to black humus clay mix	tag alder swamp	Auger hole
L0-059	15 U	461901	5631830	352	85cm	light brown to grey clay	tag alder swamp	Auger hole
L1-001	15 U	460489	5629706	364	27cm	brown to red sandy soil	jack pine plantation	Shovel
L1-002	15 U	460517	5629748	362	32cm	red to brown sandy soil	jack pine plantation	Shovel
L1-003	15 U	460542	5629788	359	25cm	red to brown sandy soil	jack pine plantation	Shovel
L1-004	15 U	460571	5629832	358	31cm	light brown to red sandy soil	jack pine plantation	Shovel
L1-005	15 U	460600	5629873	359	32cm	brown to red sandy soil	spruce poplar birch mix	Shovel
L1-006	15 U	460623	5629915	354	28cm	light brown sandy soil	jack pine plantation	Shovel
L1-007	15 U	460652	5629959	355	35cm	red to brown sandy soil	jack pine plantation	shovel
L1-008	15 U	460679	5629999	355	30cm	red to brown sandy soil	jack pine plantation	Shovel
L1-009	15 U	460707	5630043	351	28cm	light brown to red fine sandy soil	jack pine plantation	Shovel
L1-010	15 U	460734	5630086	346	31cm	light brown sandy soil	jack pine plantation	Shovel
L1-011	15 U	460762	5630128	348	21cm	light brown to gray clay	jack pine plantation	shovel
L1-012	15 U	460791	5630171	347	22cm	brown to red sandy till with round and angular fragments 3mm-10cm	jack and spruce plantation	Shovel
L1-013	15 U	460820	5630221	345	22cm	light brown silty soil	jack and spruce plantation	Shovel
L1-014	15 U	460839	5630261	339	22cm	fine light gray to brown silty clay	jack and spruce plantation	Shovel
L1-015	15 U	460871	5630305	341	21cm	light brown silty clay mix	jack and spruce plantation	Shovel
L1-016	15 U	460901	5630349	340	25cm	light gray silty clay	spruce and poplar mix	Shovel
L1-017	15 U	460927	5630389	339	27cm	light brown soil clay mix	jack pine plantation	Shovel
L1-018	15 U	460951	5630428	341	21cm	light brown clay	jack and spruce plantation	Shovel
L1-019	15 U	460980	5630475	338	25cm	light brown silty clay mix	jack and spruce plantation	Shovel
L1-020	15 U	461005	5630518	338	25cm	light brown silty clay mix	jack and spruce plantation	Shovel

Sample Number	Position	Easting	Northing	Elevation In Meters	Sample Depth	Sample Description	Foliage	Sample Method
L1-021	15 U	461022	5630563	339	26cm	light brown sandy clay	jack pine plantation	Shovel
L1-022	15 U	461059	5630604	341	19cm	light brown fine sandy silt	jack poplar alder mix	Shovel
L1-023	15 U	461088	5630652	343	22cm	light brown to red sandy till	jack pine plantation	Shovel
L1-024	15 U	461111	5630691	339	21cm	dark brown sandy till	jack pine plantation	Shovel
L1-025	15 U	461137	5630731	333	23cm	light gray to brown clay soil mix	poplar spruce jack mix	Shovel
L1-026	15 U	461161	5630774	332	26cm	light gray to brown compact clay	jack and spruce plantation	Shovel
L1-027	15 U	461186	5630821	337	27cm	light brown sandy clay	spruce alder mix	Shovel
L1-028	15 U	461210	5630859	331	60cm	dark grey silty clay	spruce alder mix	Auger hole
L1-029	15 U	461235	5630907	326	100cm	dark brown to black humus peat	spruce alder mix	Auger hole
L1-030	15 U	461259	5630944	326	90cm	dark brown to black humus peat	jack spruce mix	Auger hole
L1-031	15 U	461287	5630990	322	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L1-032	15 U	461312	5631031	322	100cm	dark brown to black humus peat	spruce plantation	Auger hole
L1-033	15 U	461337	5631074	322	110cm	dark brown to black humus peat	spruce plantation	Auger hole
L1-034	15 U	461364	5631117	322	110cm	dark brown to black humus peat	spruce plantation	Auger hole
L1-035	15 U	461390	5631160	324	110cm	light grey silty clay	spruce plantation	Auger hole
L1-036	15 U	461416	5631204	323	95cm	dark brown to black humus peat	spruce plantation	Auger hole
L1-037	15 U	461442	5631246	318	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L1-038	15 U	461469	5631291	317	90cm	dark brown to black humus peat	alder spruce swamp	Auger hole
L1-039	15 U	461500	5631337	317	110cm	dark brown to black humus peat	alder spruce swamp	Auger hole
L1-040	15 U	461525	5631373	314	95cm	dark brown to black humus peat	alder spruce swamp	Auger hole
L1-041	15 U	461548	5631416	314	95cm	dark brown to black humus peat	alder spruce swamp	Auger hole
L1-042	15 U	461575	5631458	314	100cm	dark brown to black humus peat	alder spruce swamp	Auger hole
L1-043	15 U	461604	5631504	314	95cm	dark brown to black humus peat	alder spruce swamp	Auger hole
L1-044	15 U	461631	5631541	311	85cm	dark brown to black humus peat	spruce plantation	Auger hole
L1-045	15 U	461658	5631587	311	85cm	light grey clay	spruce plantation	Auger hole
L1-046	15 U	461685	5631628	309	75cm	light grey to brown clay	spruce plantation	Auger hole
L1-047	15 U	461712	5631669	311	35cm	light brown silty clay mix	spruce plantation	Shovel
L1-048	15 U	461739	5631713	314	50cm	light grey clay	tag alder swamp	Auger hole
L1-049	15 U	461765	5631755	306	110cm	light grey clay	tag alder swamp	Auger hole
L2-001	15 U	460430	5629780	349	21cm	brown to red sandy soil	jack pine plantation	Shovel
L2-002	15 U	460449	5629818	349	21cm	brown to red sandy soil	jack pine plantation	Shovel
L2-003	15 U	460479	5629866	347	26cm	fine brown to red sandy soil	jack and spruce plantation	Shovel
L2-004	15 U	460508	5629899	343	28cm	brown to red fine sandy soil	jack and spruce plantation	Shovel
L2-005	15 U	460542	5629942	344	42cm	light brown to grey sandy soil	birch poplar mix	Shovel
L2-006	15 U	460566	5629987	340	27cm	light brown grey fine compact clay soil mix	spruce birch mix	Shovel
L2-007	15 U	460587	5630029	343	24cm	light brown clay soil mix	spruce poplar mix	Shovel
L2-008	15 U	460616	5630074	340	24cm	light brown clay soil mix	jack pine plantation	shovel
L2-009	15 U	460641	5630116	338	25cm	light brown clay soil mix	jack pine plantation	Shovel
L2-010	15 U	460665	5630159	336	23cm	fine light gray to brown silty clay	mature spruce forest	Shovel
L2-011	15 U	460692	5630202	335	23cm	fine light gray to brown silty clay	mature spruce forest	Shovel
L2-012	15 U	460715	5630242	335	28cm	brown to red silty sand	mature spruce forest	shovel
L2-013	15 U	460742	5630285	333	22cm	fine light brown silty soil	spruce poplar mix	Shovel
L2-014	15 U	460767	5630327	335	22cm	light brown silty clay mix	poplar spruce mix	Shovel
L2-015	15 U	460796	5630372	336	21cm	fine grey clay	spruce and jack plantation	Shovel

Sample Number	Position	Easting	Northing	Elevation In Meters	Sample Depth	Sample Description	Foliage	Sample Method
L2-016	15 U	460823	5630418	337	22cm	light brown clay	jack and spruce plantation	Shovel
L2-017	15 U	460851	5630461	337	22cm	light brown clay	jack and spruce plantation	Shovel
L2-018	15 U	460874	5630499	337	35cm	light brown clay	poplar alder mix	Shovel
L2-019	15 U	460901	5630544	337	19cm	brown clay	jack pine plantation	Shovel
L2-020	15 U	460927	5630581	338	19cm	fine light brown silty clay	spruce and jack plantation	Shovel
L2-021	15 U	460955	5630628	338	21cm	fine light brown silty clay	spruce poplar jack mix	Shovel
L2-022	15 U	460983	5630669	336	20cm	fine brown to red silty soil	jack spruce poplar mix	Shovel
L2-023	15 U	461010	5630717	335	19cm	hard compact grey clay	jack spruce mix	Shovel
L2-024	15 U	461034	5630758	336	19cm	hard compact grey clay	jack spruce mix	Shovel
L2-025	15 U	461058	5630801	335	21cm	light brown clay	spruce jack plantation	Shovel
L2-026	15 U	461084	5630836	325	22cm	fine brown sandy soil	spruce jack plantation	Shovel
L2-027	15 U	461108	5630884	362	100cm	light grey clay	spruce plantation	Auger hole
L2-028	15 U	461139	5630924	363	110cm	dark brown to black humus peat	spruce plantation	Auger hole
L2-029	15 U	461165	5630968	361	95cm	dark brown to black humus peat	spruce plantation	Auger hole
L2-030	15 U	461192	5631008	362	95cm	dark brown to black humus peat	spruce plantation	Auger hole
L2-031	15 U	461219	5631051	360	95cm	dark brown to black humus peat	spruce plantation	Auger hole
L2-032	15 U	461246	5631092	361	110cm	light grey silty clay	spruce plantation	Auger hole
L2-033	15 U	461270	5631137	360	37cm	light brown sandy clay mix	spruce plantation	Shovel
L2-034	15 U	461298	5631180	357	95cm	dark brown to black humus peat	spruce alder mix	Auger hole
L2-035	15 U	461324	5631224	357	95cm	dark brown to black humus peat	spruce alder mix	Auger hole
L2-036	15 U	461350	5631263	357	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L2-037	15 U	461378	5631307	357	100cm	dark brown to black humus peat	spruce plantation	Auger hole
L2-038	15 U	461406	5631352	355	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L2-039	15 U	461446	5631420	307	100cm	dark brown to black humus peat	tag alder swamp	Auger hole
L2-040	15 U	461473	5631460	304	90cm	dark brown to black humus peat	tag alder swamp	Auger hole
L2-041	15 U	461500	5631502	304	95cm	dark brown to black humus peat	tag alder swamp	Auger hole
L2-042	15 U	461527	5631542	305	90cm	dark brown to black humus peat	tag alder swamp	Auger hole
L2-043	15 U	461552	5631584	307	90cm	dark brown to black humus peat	tag alder swamp	Auger hole
L2-044	15 U	461580	5631627	306	100cm	fine grey clay	spruce alder mix	Auger hole
L2-045	15 U	461606	5631674	305	42cm	light brown sandy till	spruce alder mix	Shovel
L2-046	15 U	461631	5631715	306	37cm	brown to red sandy till	spruce plantation	Shovel
L2-047	15 U	461659	5631757	305	85cm	light grey clay	spruce plantation	Auger hole
L2-048	15 U	461687	5631801	305	110cm	dark brown to black humus peat	tag alder swamp	Auger hole
L2-049	15 U	461708	5631834	306	110cm	dark brown to black humus peat	tag alder swamp	Auger hole
L2-050	15 U	461754	5631907	355	110cm	brown humus clay mix	tag alder swamp	Auger hole
L2-051	15 U	461783	5631951	359	100cm	brown humus clay mix	tag alder swamp	Auger hole
L2-052	15 U	461810	5631993	358	110cm	fine grey clay	tag alder swamp	Auger hole
L2-053	15 U	461837	5632034	360	110cm	fine light grey clay	tag alder swamp	Auger hole
L2-054	15 U	461865	5632079	365	90cm	fine light brown to grey clay	tamarack alder swamp	Auger hole
L2-055	15 U	461890	5632118	363	90cm	fine light brown to grey clay	tamarack alder swamp	Auger hole
L2-056	15 U	461916	5632162	362	75cm	fine light brown to grey clay	tamarack alder swamp	Auger hole
L2-057	15 U	461942	5632199	362	35cm	fine brown clay	spruce poplar tag alder mix	Auger hole
L2-058	15 U	461969	5632245	363	40cm	brown to light brown clay	spruce poplar tag alder mix	shovel
L2-059	15 U	461995	5632286	366	27cm	light brown fine silty clay	spruce poplar tag alder mix	shovel

Sample Number	Position	Easting	Northing	Elevation In Meters	Sample Depth	Sample Description	Foliage	Sample Method
L3-001	15 U	460326	5629817	369	25cm	light brown silty clay mix	jack pine plantation	Shovel
L3-002	15 U	460343	5629859	371	21cm	brown soil clay mix	jack pine plantation	Shovel
L3-003	15 U	460366	5629909	367	20cm	light brown to red sandy soil	jack pine plantation	shovel
L3-004	15 U	460395	5629950	366	24cm	light brown sandy silt mix	spruce jck mix	Shovel
L3-005	15 U	460425	5629992	366	35cm	light brown sandy silt mix	mature spruce forest	Shovel
L3-006	15 U	460455	5630029	363	41cm	light brown silty sand	mature spruce forest	Shovel
L3-007	15 U	460480	5630074	364	46cm	fine brown silty clay	mature spruce forest	Shovel
L3-008	15 U	460515	5630113	363	21cm	compact light brown soil clay mix	mature spruce forest	Shovel
L3-009	15 U	460540	5630154	362	19cm	light brown sandy clay	mature spruce forest	Shovel
L3-010	15 U	460570	5630200	364	32cm	red to light brown silty clay	mature spruce forest	Shovel
L3-011	15 U	460595	5630239	362	27cm	light brown sandy silt mix	mature spruce forest	Shovel
L3-012	15 U	460621	5630280	362	29cm	grey silty sand	mature spruce forest	Shovel
L3-013	15 U	460651	5630321	365	45cm	light brown clay	mature spruce forest	Shovel
L3-014	15 U	460676	5630371	367	52cm	light brown clay	mature spruce forest	Shovel
L3-015	15 U	460707	5630404	368	46cm	fine light brown clay	mature spruce forest	Shovel
L3-016	15 U	460722	5630442	366	32cm	light brown fine clay	poplar alder mix	Shovel
L3-017	15 U	460753	5630488	372	25cm	dark brown fine clay	spruce alder mix	Shovel
L3-018	15 U	460784	5630532	375	21cm	light brown fine soil clay mix	spruce poplar mix	Shovel
L3-019	15 U	460809	5630577	372	26cm	light brown clay	spruce poplar mix	Shovel
L3-020	15 U	460839	5630611	374	21cm	light brown clay	spruce poplar mix	Shovel
L3-021	15 U	460858	5630662	374	24cm	dark brown clay	spruce poplar mix	Shovel
L3-022	15 U	460886	5630700	374	24cm	fine light brown sandy clay	jack spruce plantation	Shovel
L3-023	15 U	460913	5630734	380	19cm	light brown clay	jack pine plantation	Shovel
L3-024	15 U	460941	5630782	378	19cm	light brown clay	jack pine plantation	Shovel
L3-025	15 U	460968	5630822	374	21cm	dark brown clay rich soil	jack spruce plantation	Shovel
L3-026	15 U	460994	5630870	354	75cm	fine grey clay	spruce alder mix	Auger hole
L3-027	15 U	461019	5630916	354	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L3-028	15 U	461046	5630956	354	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L3-029	15 U	461072	5630999	354	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L3-030	15 U	461098	5631042	354	85cm	fine grey clay	spruce plantation	Auger hole
L3-031	15 U	461125	5631085	356	37cm	light brown sandy clay	spruce plantation	Shovel
L3-032	15 U	461154	5631124	359	32cm	dark brown sandy till	spruce plantation	Shovel
L3-033	15 U	461177	5631166	354	42cm	light brown to red sandy clay	spruce plantation	Shovel
L3-034	15 U	461205	5631211	355	90cm	drk brown to black humus peat	spruce plantation	Auger hole
L3-035	15 U	461232	5631256	355	100cm	drk brown to black humus peat	spruce plantation	Auger hole
L3-036	15 U	461257	5631296	354	90cm	drk brown to black humus peat	spruce plantation	Auger hole
L3-037	15 U	461284	5631342	355	90cm	drk brown to black humus peat	spruce plantation	Auger hole
L3-038	15 U	461310	5631383	354	90cm	drk brown to black humus peat	spruce plantation	Auger hole
L3-039	15 U	461336	5631422	355	40cm	brown silty fine clay	tag alder swamp	Auger hole
L3-040	15 U	461444	5631619	304	100cm	dark brown to black humus peat	tag alder swamp	Auger hole
L3-041	15 U	461455	5631645	305	90cm	dark brown to black humus peat	tag alder swamp	Auger hole
L3-042	15 U	461469	5631662	306	90cm	dark brown to black humus peat	tag alder swamp	Auger hole
L3-043	15 U	461500	5631706	307	110cm	fine grey clay	tag alder swamp	Auger hole
L3-044	15 U	461530	5631742	307	95cm	dark brown to black humus peat	tag alder swamp	Auger hole



Sample Number	Position	Easting	Northing	Elevation In Meters	Sample Depth	Sample Description	Foliage	Sample Method
L3-045	15 U	461560	5631787	308	95cm	dark brown to black humus peat	tag alder swamp	Auger hole
L3-046	15 U	461589	5631826	306	95cm	dark brown to black humus peat	tag alder swamp	Auger hole
L3-047	15 U	461616	5631870	304	95cm	dark brown to black humus peat	tag alder swamp	Auger hole
L3-048	15 U	461641	5631908	303	95cm	dark brown to black humus peat	tag alder swamp	Auger hole
L3-049	15 U	461901	5632309	366	22cm	light brown fine silty clay	spruce poplar mix	shovel
L3-050	15 U	461869	5632266	369	27cm	brown to grey silty fine clay	spruce poplar mix	shovel
L3-051	15 U	461841	5632223	369	45cm	brown to grey fine clay	alder spruce swamp	Auger hole
L3-052	15 U	461815	5632183	372	35cm	fine light brown silty clay	alder spruce swamp	Shovel
L3-053	15 U	461785	5632140	371	32cm	light brown fine sandy clay	spruce swamp	shovel
L3-054	15 U	461756	5632100	371	42cm	light brown fine silty clay	spruce swamp	Shovel
L3-055	15 U	461728	5632057	371	55cm	light brown fine clay	spruce swamp	Auger hole
L3-056	15 U	461702	5632020	371	95cm	light grey to brown fine clay	tag alder swamp	Auger hole
L4-001	15 U	460263	5629906	330	22cm	light brown sandy clay	jack pine plantation	Shovel
L4-002	15 U	460294	5629954	327	25cm	light brown sandy clay	jack poplar alder mix	Shovel
L4-003	15 U	460317	5629992	324	30cm	light brown to red sandy clay	jack poplar mix	Shovel
L4-004	15 U	460343	5630028	321	28cm	light brown sandy red soil	jack poplar mix	Shovel
L4-005	15 U	460370	5630071	322	27cm	brown to light red fine sandy soil	spruce jack plantation	Shovel
L4-006	15 U	460397	5630116	319	30cm	fine light brown reddish sandy soil	spruce plantation	Shovel
L4-007	15 U	460421	5630163	318	30cm	fine light brown reddish sandy soil	spruce plantation	Shovel
L4-008	15 U	460451	5630209	316	30cm	fine light brown reddish sandy soil	spruce plantation	Shovel
L4-009	15 U	460487	5630255	317	32cm	brown sandy clay	spruce plantation	Shovel
L4-010	15 U	460501	5630296	313	32cm	dark brown clay	mature spruce forest	Shovel
L4-011	15 U	460524	5630333	313	47cm	brown sandy clay	spruce alder mix	Shovel
L4-012	15 U	460555	5630376	312	46cm	dark grey sandy clay	mature spruce forest	Shovel
L4-013	15 U	460583	5630419	311	66cm	dark brown to grey clay	spruce swamp	Shovel
L4-014	15 U	460609	5630461	313	62cm	light brown to grey silty clay	spruce swamp	Shovel
L4-015	15 U	460645	5630506	311	37cm	brown to grey silty clay	spruce alder poplar mix	Shovel
L4-016	15 U	460659	5630542	311	32cm	fine grey clay	mature spruce forest	Shovel
L4-017	15 U	460686	5630586	330	75cm	light brown clay	jack spruce mix	Auger hole
L4-018	15 U	460711	5630626	335	90cm	light brown silty clay mix	jack spruce mix	Auger hole
L4-019	15 U	460737	5630670	331	85cm	light grey clay	spruce jack mix	Auger hole
L4-020	15 U	460766	5630713	331	90cm	dark brown to black humus clay mix	jack spruce mix	Auger hole
L4-021	15 U	460794	5630757	332	90cm	dark brown to black humus peat	jack spruce mix	Auger hole
L4-022	15 U	460823	5630797	329	100cm	dark grey silty clay	spruce jack mix	Auger hole
L4-023	15 U	460852	5630841	329	90cm	dark brown humus peat	jack pine plantation	Auger hole
L4-024	15 U	460881	5630882	330	92cm	dark brown humus peat	jack spruce mix	Auger hole
L4-025	15 U	460909	5630919	330	100cm	dark brown to black humus peat	jack spruce mix	Auger hole
L4-026	15 U	460934	5630962	330	120cm	fine grey clay	jack pine spruce tamarack mix	Auger hole
L4-027	15 U	460960	5631003	353	90cm	dark brown to black humus peat	spruce alder mix	Auger hole
L4-028	15 U	460985	5631041	353	90cm	dark brown to black humus peat	spruce alder mix	Auger hole
L4-029	15 U	461013	5631085	351	100cm	dark brown to black humus peat	spruce plantation	Auger hole
L4-030	15 U	461040	5631130	350	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L4-031	15 U	461065	5631170	350	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L4-032	15 U	461092	5631221	349	90cm	dark brown to black humus peat	spruce plantation	Auger hole

Sample Number	Position	Easting	Northing	Elevation In Meters	Sample Depth	Sample Description	Foliage	Sample Method
L4-033	15 U	461117	5631262	349	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L4-034	15 U	461140	5631303	349	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L4-035	15 U	461164	5631343	349	90cm	dark brown to black humus peat	spruce plantation	Auger hole
L4-036	15 U	461189	5631392	348	95cm	dark brown humus clay mix	tag alder swamp	Auger hole
L4-037	15 U	461359	5631653	301	80cm	light brown humus clay mix	tag alder swamp	Auger hole
L4-038	15 U	461380	5631687	297	85cm	dark brown to black humus peat	tag alder swamp	Auger hole
L4-039	15 U	461407	5631727	299	90cm	fine grey clay	tag alder swamp	Auger hole
L4-040	15 U	461431	5631770	300	90cm	fine brown to grey humus mix	tag alder swamp	Auger hole
L4-041	15 U	461458	5631812	300	90cm	dark brown to black humus peat	tag alder swamp	Auger hole
L4-042	15 U	461485	5631853	301	90cm	dark brown to black humus peat	tag alder swamp	Auger hole
L4-043	15 U	461511	5631897	301	90cm	dark brown to black humus peat	tag alder swamp	Auger hole
L4-044	15 U	461531	5631923	300	90cm	dark brown to black humus peat	tag alder swamp	Auger hole
L4-045	15 U	461574	5632005	374	90cm	light grey to brown clay	tag alder swamp	Auger hole
L4-046	15 U	461600	5632046	377	95cm	fine grey clay	tag alder swamp	Auger hole
L4-047	15 U	461627	5632086	377	50cm	fine brown clay	tag alder swamp	Auger hole
L4-048	15 U	461654	5632128	377	50cm	light brown silty clay	spruce swamp	Auger hole
L4-049	15 U	461683	5632168	379	42cm	light brown silty clay	spruce swamp	Shovel
L4-050	15 U	461711	5632215	382	50cm	fine light brown silty clay	spruce swamp	Shovel
L4-051	15 U	461737	5632255	379	32cm	light brown silty clay	spruce plantation	Shovel
L4-052	15 U	461763	5632296	379	42cm	light brown silty clay	birch poplar spruce mix	Shovel
L4-053	15 U	461241	5631484	366	90cm	dark brown humus clay mix	tag alder swamp	Auger hole
L4-054	15 U	461263	5631515	367	90cm	dark brown humus clay mix	tag alder swamp	Auger hole
L4-055	15 U	461295	5631561	365	90cm	dark brown humus clay mix	tag alder swamp	Auger hole
L4-056	15 U	461309	5631581	365	90cm	dark brown humus clay mix	tag alder swamp	Auger hole
L5-001	15 U	460230	5630041	246	21cm	light brown clay	jack pine plantation	Shovel
L5-002	15 U	460262	5630077	366	21cm	dark brown to red sandy soil	jack pine plantation	Shovel
L5-003	15 U	460287	5630126	364	25cm	light brown silty sand	jack pine plantation	Shovel
L5-004	15 U	460315	5630170	361	31cm	light brown silty sand	jack pine plantation	Shovel
L5-005	15 U	460338	5630209	363	38cm	dark brown to red fine silty clay	jack pine plantation	Shovel
L5-006	15 U	460367	5630253	358	27cm	drk brown fine silty clay	spruce jack plantation	Shovel
L5-007	15 U	460390	5630296	360	52cm	light brown fine silty clay	spruce jack plantation	Shovel
L5-008	15 U	460417	5630337	358	72cm	fine light brown silty clay	spruce jack plantation	Auger hole
L5-009	15 U	460444	5630382	358	55cm	light brown silty fine clay	spruce alder mix	auger hole
L5-010	15U	460470	5630424	358	45cm	dark brown silty clay	spruce jack plantation	auger hole
L5-011	15 U	460497	5630466	357	35cm	dark brown fine silty clay	spruce alder jack mix	auger hole
L5-012	15 U	460522	5630509	356	42cm	light brown fine silty clay	jack spruce m ix	auger hole
L5-013	15 U	460549	5630552	358	105cm	dark brown fine clay	spruce jck mix	auger hole
L5-014	15 U	460575	5630595	357	85cm	dark brown fine clay	spruce alder mix	auger hole
L5-015	15 U	460601	5630636	358	41cm	dark brown fine clay	alder spruce mix	auger hole
L5-016	15 U	460629	5630682	359	185cm	fine light grey clay	alder spruce jack mix	auger hole
L5-017	15 U	460655	5630723	358	147cm	fine light grey clay	alder spruce mix	auger hole
L5-018	15 U	460684	5630764	354	240cm	dark brown silty clay	spruce alder mix	auger hole
L5-019	15 U	460707	5630809	355	320cm	fine light grey clay	alder spruce mix	auger hole
L5-020	15 U	460730	5630849	353	340cm	light grey clay	alder spruce mix	auger hole

Sample Number	Position	Easting	Northing	Elevation In Meters	Sample Depth	Sample Description	Foliage	Sample Method
L5-021	15 U	460759	5630896	392	90cm	dark brown to black humus peat mix		Auger hole
L5-022	15 U	460784	5630936	392	90cm	dark brown to black humus peat mix	tag alder spruce mix	Auger hole
L5-023	15 U	460810	5630979	394	45cm	light brown silty clay	jack pine plantation	Shovel
L5-024	15 U	460839	5631023	392	40cm	light brown silty clay	jack pine plantation	Auger hole
L5-025	15 U	460865	5631062	387	90cm	dark brown to black humus peat	jack pine plantation	Auger hole
L5-026	15 U	460892	5631108	346	100cm	dark brown to black humus peat	spruce plantation	auger hole
L5-027	15 U	460919	5631151	345	100cm	dark brown to black humus peat	spruce alder mix	Auger hole
L5-028	15 U	460944	5631190	345	95cm	dark brown to black humus peat	spruce alder mix	Auger hole
L5-029	15 U	460968	5631223	346	95cm	dark brown to black humus peat	spruce alder mix	Auger hole
L5-030	15 U	460993	5631267	346	85cm	dark brown to black humus peat	spruce plantation	Auger hole
L5-031	15 U	461016	5631297	346	95cm	dark brown to black humus peat	spruce plantation	Auger hole
L5-032	15 U	461303	5631730	299	70cm	light brown to grey clay	tag alder swamp	Auger hole
L5-033	15 U	461315	5631755	299	100cm	dark brown humus clay mix	tag alder swamp	Auger hole
L5-034	15 U	461340	5631799	299	100cm	grey to brown clay	tag alder swamp	Auger hole
L5-035	15 U	461362	5631844	301	95cm	dark brown humus clay mix	tag alder swamp	Auger hole
L5-036	15 U	461617	5632269	377	45cm	light brown clay	spruce alder mix	Auger hole
L5-037	15 U	461586	5632228	376	42cm	brown to light brown sandy till	spruce alder mix	Shovel
L5-038	15 U	461558	5632191	377	50cm	fine grey silty clay	spruce alder mix	Auger hole
L5-039	15 U	461527	5632146	376	60cm	light brown to grey clay	spruce alder mix	Auger hole
L5-040	15 U	461501	5632108	378	90cm	light grey clay	tag alder swamp	Auger hole
L5-041	15 U	461475	5632067	382	110cm	fine grey clay	tag alder swamp	Auger hole
L5-042	15 U	461449	5632026	378	100cm	dark brown to black humus	tag alder swamp	Auger hole
L5-043	15 U	461424	5631982	380	100cm	dark brown to black humus peat	tag alder swamp	Auger hole
L5-044	15 U	461405	5631951	382	110cm	dark brown humus peat	tag alder swamp	Auger hole
L5-045	15 U	461250	5631647	366	100cm	dark brown humus peat	tag alder swamp	Auger hole
L5-046	15 U	461222	5631608	365	100cm	dark brown humus peat	tag alder swamp	Auger hole
L5-047	15 U	461190	5631562	365	100cm	dark brown humus peat	tag alder swamp	Auger hole
L5-048	15 U	461162	5631525	362	100cm	dark brown humus peat	tag alder swamp	Auger hole
L5-049	15 U	461133	5631482	364	100cm	dark brown humus peat	tag alder swamp	Auger hole
L5-050	15 U	461109	5631452	363	100cm	dark brown humus clay mix	tag alder swamp	Auger hole
L6-001	15 U	460207	5630206	378	25cm	fine light brown sandy soil	jack pine plantation	Shovel
L6-002	15 U	460238	5630248	375	22cm	fine brown to red sandy clay	jack pine plantation	Shovel
L6-003	15 U	460264	5630286	378	23cm	light brown to red fine silty sand	jack pine plantation	Shovel
L6-004	15 U	460300	5630323	379	20cm	light brown fine compact clay	jack pine plantation	Shovel
L6-005	15 U	460324	5630368	377	26cm	light brown fine silty clay	spruce jack pine plantation	shovel
L6-006	15 U	460354	5630408	376	20cm	light brown compact clay	spruce jack mix	Shovel
L6-007	15 U	460383	5630452	372	32cm	light brown clay	spruce jack mix	Shovel
L6-008	15 U	460412	5630492	372	80cm	fine grey clay	spruce jack mix	auger hole
L6-009	15 U	460440	5630535	370	75cm	light brown fine compact clay	alder spruce poplar mix	auger hole
L6-010	15 U	460468	5630580	370	80cm	fine grey compact clay	alder spruce poplar mix	auger hole
L6-011	15 U	460495	5630622	372	110cm	light grey fine clay	spruce alder mix	auger hole
L6-012	15 U	460515	5630662	373	70cm	fine grey clay	alder spruce mix	auger hole
L6-013	15 U	460540	5630712	375	120cm	fine grey clay	alder spruce mix	auger hole
L6-014	15 U	460568	5630752	374	110cm	fine grey clay	alder spruce mix	auger hole

Sample Number	Position	Easting	Northing	Elevation In Meters	Sample Depth	Sample Description	Foliage	Sample Method
L6-015	15 U	460590	5630791	374	110cm	dark brown clay	alder spruce mix	auger hole
L6-016	15 U	460617	5630841	377	90cm	dark brown to black humus	alder spruce mix	auger hole
L6-017	15 U	460640	5630880	380	85cm	dark broen to blk humus peat mix	alder spruce mix	auger hole
L6-018	15 U	460668	5630926	377	90cm	fine light grey silty clay	spruce swamp	auger hole
L6-019	15 U	460691	5630963	377	60cm	dark brown fine clay	spruce jack mix	auger hole
L6-020	15 U	460715	5631008	381	30cm	brown sandy fine clay	jack pine plantation	Shovel
L6-021	15 U	460739	5631051	384	32cm	brown sandy soil till	jack pine plantation	Shovel
L6-022	15 U	460766	5631095	385	80cm	dark brown to black humus	spruce jack mix	auger hole
L6-023	15 U	460792	5631140	382	90cm	dark brown to black humus	spruce jack mix	auger hole
L6-024	15 U	460816	5631182	382	85cm	dark brown to black humus	spruce jack mix	auger hole
L6-025	15 U	460843	5631224	382	80cm	dark brown to black humus	spruce jack mix	auger hole
L6-026	15 U	460867	5631266	382	80cm	dark brown to black humus	spruce jack mix	auger hole
L6-027	15 U	460893	5631311	381	90cm	dark brown to black humus	spruce jack mix	auger hole
L6-028	15 U	460923	5631353	383	90cm	fine dark brown to black humus peat mix	spruce jack mix	auger hole
L6-029	15 U	460947	5631391	383	90cm	fine dark brown to black humus peat mix	spruce jack mix	auger hole
L6-030	15 U	461300	5631946	387	100cm	dark brown humus peat	tag alder swamp	Auger hole
L6-031	15 U	461313	5631967	382	100cm	dark brown humus peat	tag alder swamp	Auger hole
L6-032	15 U	461340	5632007	382	110cm	dark brown humus peat mix	tag alder swamp	Auger hole
L6-033	15 U	461366	5632051	382	110cm	dark brown humus peat mix	tag alder swamp	Auger hole
L6-034	15 U	461393	5632094	383	110cm	dark brown humus peat mix	tag alder swamp	Auger hole
L6-035	15 U	461419	5632136	382	100cm	dark grey clay	tag alder swamp	Auger hole
L6-036	15 U	461442	5632179	382	50cm	light brown clay	spruce alder mix	Auger hole
L6-037	15 U	461471	5632221	384	50cm	light brown silty clay	spruce alder mix	Shovel
L6-038	15 U	460991	5631460	367	60cm	light to dark brown clay	tag alder swamp	Auger hole
L6-039	15 U	461017	5631502	369	85cm	dark brown humus clay mix	tag alder swamp	Auger hole
L6-040	15 U	461042	5631544	374	90cm	dark brown humus clay mix	tag alder swamp	Auger hole
L6-041	15 U	461073	5631587	367	100cm	dark brown to black humus peat	tag alder swamp	Auger hole
L6-042	15 U	461100	5631627	367	100cm	dark brown to black humus peat	tag alder swamp	Auger hole
L6-043	15 U	461127	5631669	367	100cm	dark brown to black humus peat	tag alder swamp	Auger hole
L6-044	15 U	461155	5631712	368	100cm	dark brown to black humus peat	tag alder swamp	Auger hole
L6-045	15 U	461185	5631755	367	100cm	dark brown to black humus peat	tag alder swamp	Auger hole
L7-001	15 U	460148	5630296	358	17cm	light brown silty clay mix	jack pine plantation	Shovel
L7-002	15 U	460161	5630335	362	17cm	light brown clay	jack pine plantation	Shovel
L7-003	15 U	460173	5630389	361	19cm	red to brown sandy till	jack pine plantation	Shovel
L7-004	15 U	460191	5630432	361	25cm	dark brown to red sandy till soil	jack pine plantation	Shovel
L7-005	15 U	460229	5630462	356	19cm	dark brown to red sandy till	jack pine plantation	Shovel
L7-006	15 U	460265	5630484	350	55cm	dark grey silty clay	jack pine plantation	auger hole
L7-007	15 U	460310	5630527	346	50cm	light brown fine silty clay	jack pine plantation	auger hole
L7-008	15 U	460344	5630562	345	95cm	light grey fine compact clay	jack pine plantation	auger hole
L7-009	15 U	460378	5630601	343	90cm	light grey compact clay	jack pine plantation	auger hole
L7-010	15 U	460403	5630646	341	95cm	light grey clay	jack pine plantation	auger hole
L7-011	15 U	460428	5630686	342	100cm	light grey clay	jack pine plantation	auger hole
L7-012	15 U	460454	5630731	341	110cm	light grey clay	jack pine plantation	auger hole
L7-013	15 U	460478	5630774	339	100cm	light grey clay	jack pine plantation	auger hole

Sample Number	Position	Easting	Northing	Elevation In Meters	Sample Depth	Sample Description	Foliage	Sample Method
L7-014	15 U	460501	5630821	339	90cm	light grey clay	jack pine plantation	auger hole
L7-015	15 U	460525	5630866	338	100cm	light grey clay	jack pine plantation	auger hole
L7-016	15 U	460546	5630909	337	100cm	dark brown to black humus peat	alder spruce mix	auger hole
L7-017	15 U	460572	5630955	337	110cm	dark brown to black humus peat	alder spruce mix	auger hole
L7-018	15 U	460596	5631001	334	70cm	light grey clay	spruce tamarack mix	auger hole
L7-019	15 U	460618	5631046	337	62cm	light brown to grey clay	spruce jack mix	auger hole
L7-020	15 U	460642	5631088	336	90cm	dark brown to black humus peat	spruce jack pine mix	auger hole
L7-021	15 U	460656	5631136	336	95cm	dark brown to black humus peat	spruce jack oine mix	auger hole
L7-022	15 U	460667	5631184	337	92cm	dark brown to black humus peat	spruce jack pine mix	auger hole
L7-023	15 U	460683	5631228	334	90cm	dark brown to black humus peat	jack pine plantation	auger hole
L7-024	15 U	460702	5631275	333	90cm	dark brown to black humus peat mix	jack pine plantation	auger hole
L7-025	15 U	460721	5631326	334	90cm	dark brown to black humus peat	jack pine plantation	auger hole
L7-026	15 U	460749	5631364	333	90cm	dark brown to black humus peat	jack pine plantation	auger hole
L7-027	15 U	460778	5631406	332	90cm	dark brown to black humus peat	jack pine plantation	auger hole
L7-028	15 U	460808	5631444	331	90cm	dark brown to black humus peat	jack pine plantation	auger hole
L7-029	15 U	460841	5631488	332	90cm	dark brown to black humus peat	jack pine plantation	auger hole
L7-030	15 U	460870	5631524	331	100cm	dark brown to black humus peat	mostly alders	auger hole
L7-031	15 U	461332	5632128	368	100cm	dark brown to black humus peat	alders swamp	auger hole
L7-032	15 U	461304	5632092	369	100cm	dark brown to black humus peat	alders swamp	auger hole
L7-033	15 U	461260	5632030	369	100cm	dark brown to black humus peat	alders swamp	auger hole
L7-034	15 U	461233	5631997	368	100cm	dark brown to black humus peat	alders swamp	auger hole
L7-035	15 U	461203	5631958	370	100cm	dark brown to black humus peat	alders swamp	auger hole
L7-036	15 U	461173	5631924	371	100cm	dark brown to black humus peat	alders swamp	auger hole
L7-037	15 U	461148	5631884	371	100cm	dark brown to black humus peat	alders swamp	auger hole
L7-038	15 U	461120	5631851	370	100cm	dark brown to black humus peat	alders swamp	auger hole
L7-039	15 U	461089	5631813	370	100cm	dark brown to black humus peat	alders swamp	auger hole
L7-040	15 U	461060	5631773	370	100cm	dark brown to black humus peat	alders swamp	auger hole
L7-041	15 U	461027	5631731	372	100cm	dark brown to black humus peat	alders swamp	auger hole
L7-042	15 U	460995	5631689	370	100cm	dark brown humus clay mix	tag alder swamp	Auger hole
L7-043	15 U	460966	5631653	369	70cm	dark brown humus clay mix	tag alder swamp	Auger hole

11.2. Claim Table

Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
4253436	DIXIE LAKE AREA	100220	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4252904	DIXIE LAKE AREA	101256	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4241241	DIXIE LAKE AREA	101296	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241246	DIXIE LAKE AREA	101722	Single Cell Mining Claim	2021-12-18	Active	100	400	1200	0	33135	33135	0	Larry Herbert
4241246	DIXIE LAKE AREA	101723	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241246	DIXIE LAKE AREA	101724	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241212	DIXIE LAKE AREA	101733	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4241248	DIXIE LAKE AREA	101734	Boundary Cell Mining Claim	2021-12-18	Active	100	200	400	0	86	86	0	Larry Herbert
4241247	DIXIE LAKE AREA	101735	Single Cell Mining Claim	2021-12-18	Active	100	400	1020	0	172	172	0	Larry Herbert
4267871	DIXIE LAKE AREA	101829	Single Cell Mining Claim	2021-05-16	Hold Special Circumstances Apply	100	400	800	0	172	172	0	BTU
1184106	DIXIE LAKE AREA	101894	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
4241245	DIXIE LAKE AREA	102061	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4253213	DIXIE LAKE AREA	102140	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4229753	DIXIE LAKE AREA	102141	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	0	0	0	Larry Herbert
4253213	DIXIE LAKE AREA	102142	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4229750	DIXIE LAKE AREA	102583	Single Cell Mining Claim	2022-02-11	Active	100	400	400	0	172	172	0	Larry Herbert
4241244	DIXIE LAKE AREA	102589	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241212	DIXIE LAKE AREA	102595	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4229755	DIXIE LAKE AREA	114300	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4282959	DIXIE LAKE AREA	114458	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4253212	DIXIE LAKE AREA	114996	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4241241	DIXIE LAKE AREA	116068	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4241245	DIXIE LAKE AREA	116069	Single Cell Mining Claim	2021-12-18	Active	100	400	935	0	172	172	0	Larry Herbert
4229753	DIXIE LAKE AREA	116355	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	150	150	0	Larry Herbert
4229751	DIXIE LAKE AREA	116829	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4229751	DIXIE LAKE AREA	116830	Boundary Cell Mining Claim	2022-02-11	Active	100	200	400	0	161	161	0	Larry Herbert
4229752	DIXIE LAKE AREA	117051	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4252904	DIXIE LAKE AREA	117052	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4252905	DIXIE LAKE AREA	117053	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4282958	DIXIE LAKE AREA	117137	Single Cell Mining Claim	2021-05-16	Hold Special Circumstances Apply	100	400	800	0	172	172	0	BTU
4253213	DIXIE LAKE AREA	117144	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	0	0	0	Larry Herbert
1184106	DIXIE LAKE AREA	117207	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
1184106	DIXIE LAKE AREA	117208	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
1184106	DIXIE LAKE AREA	117209	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
4267871	DIXIE LAKE AREA	117674	Boundary Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	200	400	0	77	77	0	BTU
4241211	DIXIE LAKE AREA	117738	Boundary Cell Mining Claim	2021-04-18	Hold Special Circumstances Apply	100	200	400	0	140	140	0	Larry Herbert
4241241	DIXIE LAKE AREA	117786	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4261458	DIXIE LAKE AREA	117813	Boundary Cell Mining Claim	2021-04-18	Hold Special Circumstances Apply	100	200	400	0	0	0	0	Larry Herbert
4252904	DIXIE LAKE AREA	117816	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4261456	DIXIE LAKE AREA	117874	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4261456	DIXIE LAKE AREA	117875	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert

Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
4229750	DIXIE LAKE AREA	117896	Single Cell Mining Claim	2022-02-11	Active	100	400	400	0	172	172	0	Larry Herbert
4241244	DIXIE LAKE AREA	117908	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241241	DIXIE LAKE AREA	120430	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4241242	DIXIE LAKE AREA	120431	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4229754	DIXIE LAKE AREA	121913	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4241246	DIXIE LAKE AREA	122381	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241246	DIXIE LAKE AREA	122382	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	168	168	0	Larry Herbert
4241248	DIXIE LAKE AREA	122395	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4229752	DIXIE LAKE AREA	122414	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	172	172	0	Larry Herbert
4229753	DIXIE LAKE AREA	123034	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	0	0	0	Larry Herbert
4252904	DIXIE LAKE AREA	123770	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4241211	DIXIE LAKE AREA	123771	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4229750	DIXIE LAKE AREA	123795	Single Cell Mining Claim	2022-02-11	Active	100	400	400	0	172	172	0	Larry Herbert
4252904	DIXIE LAKE AREA	124364	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4261456	DIXIE LAKE AREA	124426	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4261456	DIXIE LAKE AREA	124427	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4261457	DIXIE LAKE AREA	126418	Boundary Cell Mining Claim	2022-03-21	Active	100	200	400	0	27	27	0	Larry Herbert
4261457	DIXIE LAKE AREA	126419	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4229755	DIXIE LAKE AREA	126994	Boundary Cell Mining Claim	2022-03-26	Active	100	200	400	0	0	0	0	Larry Herbert
4253436	DIXIE LAKE AREA	126995	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4229755	DIXIE LAKE AREA	126996	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4241247	DIXIE LAKE AREA	127160	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	171	171	0	Larry Herbert
4252905	DIXIE LAKE AREA	128224	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4253213	DIXIE LAKE AREA	129647	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	0	0	0	Larry Herbert
4253213	DIXIE LAKE AREA	143494	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4253436	DIXIE LAKE AREA	144682	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4253436	DIXIE LAKE AREA	144683	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4267871	DIXIE LAKE AREA	151235	Single Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	400	800	0	172	172	0	BTU
4267871	DIXIE LAKE AREA	151236	Boundary Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	200	400	0	86	86	0	BTU
4267872	DIXIE LAKE AREA	151726	Boundary Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	200	400	0	46	46	0	BTU
4253212	DIXIE LAKE AREA	152265	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	118	118	0	Larry Herbert
4253212	DIXIE LAKE AREA	152266	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	172	172	0	Larry Herbert
4241211	DIXIE LAKE AREA	152281	Single Cell Mining Claim	2021-04-18	Hold Special Circumstances Apply	100	400	800	0	0	0	0	Larry Herbert
4229750	DIXIE LAKE AREA	152310	Single Cell Mining Claim	2022-02-11	Active	100	400	400	0	172	172	0	Larry Herbert
4261456	DIXIE LAKE AREA	152926	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4241247	DIXIE LAKE AREA	154364	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4261457	DIXIE LAKE AREA	154365	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4267871	DIXIE LAKE AREA	154720	Boundary Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	200	400	0	35244	35244	0	BTU
4282963	DIXIE LAKE AREA	155078	Single Cell Mining Claim	2021-08-01	Active	100	400	800	0	172	172	0	BTU
4252905	DIXIE LAKE AREA	157525	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
1184107	DIXIE LAKE AREA	157526	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
1184106	DIXIE LAKE AREA	158140	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
1184106	DIXIE LAKE AREA	158141	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
1184106	DIXIE LAKE AREA	158142	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
4229751	DIXIE LAKE AREA	160260	Boundary Cell Mining Claim	2021-04-18	Hold Special Circumstances Apply	100	200	400	0	31	31	0	Larry Herbert
4229754	DIXIE LAKE AREA	160392	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert

Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
4229755	DIXIE LAKE AREA	161432	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4282959	DIXIE LAKE AREA	162072	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4282959	DIXIE LAKE AREA	162073	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4252905	DIXIE LAKE AREA	163533	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4252905	DIXIE LAKE AREA	163534	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4282958	DIXIE LAKE AREA	163613	Boundary Cell Mining Claim	2021-05-16	Hold Special Circumstances Apply	100	200	400	0	86	86	0	BTU
1184106	DIXIE LAKE AREA	164171	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
4241244	DIXIE LAKE AREA	164858	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241245	DIXIE LAKE AREA	164859	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4253213	DIXIE LAKE AREA	164920	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	0	0	0	Larry Herbert
4229751	DIXIE LAKE AREA	166275	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4241212	DIXIE LAKE AREA	166983	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4241247	DIXIE LAKE AREA	166993	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4282959	DIXIE LAKE AREA	167399	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4282959	DIXIE LAKE AREA	167411	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4229753	DIXIE LAKE AREA	167639	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	172	172	0	Larry Herbert
4229753	DIXIE LAKE AREA	167640	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	109	109	0	Larry Herbert
4229753	DIXIE LAKE AREA	167641	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	0	0	0	Larry Herbert
4253212	DIXIE LAKE AREA	168354	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	172	172	0	Larry Herbert
4229750	DIXIE LAKE AREA	168914	Single Cell Mining Claim	2022-02-11	Active	100	400	400	0	172	172	0	Larry Herbert
4252904	DIXIE LAKE AREA	168969	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4261456	DIXIE LAKE AREA	169551	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4261456	DIXIE LAKE AREA	169572	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4267871	DIXIE LAKE AREA	169889	Boundary Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	200	400	0	143	143	0	BTU
4261457	DIXIE LAKE AREA	171005	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4241247	DIXIE LAKE AREA	172238	Boundary Cell Mining Claim	2021-12-18	Active	100	200	400	0	86	86	0	Larry Herbert
4261457	DIXIE LAKE AREA	173191	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4241247	DIXIE LAKE AREA	174488	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	75	75	0	Larry Herbert
4241245	DIXIE LAKE AREA	177683	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	77	77	0	Larry Herbert
4229754	DIXIE LAKE AREA	179882	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4229754	DIXIE LAKE AREA	179912	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4229754	DIXIE LAKE AREA	179913	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4241211	DIXIE LAKE AREA	180349	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4241247	DIXIE LAKE AREA	180357	Boundary Cell Mining Claim	2021-12-18	Active	100	200	400	0	86	86	0	Larry Herbert
4229753	DIXIE LAKE AREA	180472	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	0	0	0	Larry Herbert
4229753	DIXIE LAKE AREA	180473	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	0	0	0	Larry Herbert
4267872	DIXIE LAKE AREA	181141	Boundary Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	200	400	0	103	103	0	BTU
4253212	DIXIE LAKE AREA	181690	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	172	172	0	Larry Herbert
4241211	DIXIE LAKE AREA	181701	Boundary Cell Mining Claim	2021-04-18	Hold Special Circumstances Apply	100	200	400	0	0	0	0	Larry Herbert
4241241	DIXIE LAKE AREA	181747	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4252904	DIXIE LAKE AREA	181778	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4261456	DIXIE LAKE AREA	182361	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4241212	DIXIE LAKE AREA	182378	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4241212	DIXIE LAKE AREA	182379	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4267871	DIXIE LAKE AREA	187834	Single Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	400	800	0	172	172	0	BTU
4261457	DIXIE LAKE AREA	189776	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4241247	DIXIE LAKE AREA	190511	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	76	76	0	Larry Herbert



Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
4261458	DIXIE LAKE AREA	196839	Boundary Cell Mining Claim	2021-04-18	Hold Special Circumstances Apply	100	200	400	0	0	0	0	Larry Herbert
4252904	DIXIE LAKE AREA	196843	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4241244	DIXIE LAKE AREA	196929	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241244	DIXIE LAKE AREA	196930	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4253212	DIXIE LAKE AREA	198288	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	172	172	0	Larry Herbert
4241211	DIXIE LAKE AREA	198305	Single Cell Mining Claim	2021-04-18	Hold Special Circumstances Apply	100	400	800	0	34753	34753	0	Larry Herbert
4252904	DIXIE LAKE AREA	202822	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4282958	DIXIE LAKE AREA	203399	Single Cell Mining Claim	2021-08-01	Active	100	400	800	0	172	172	0	BTU
1184106	DIXIE LAKE AREA	203458	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
4241245	DIXIE LAKE AREA	204148	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	17	17	0	Larry Herbert
4229753	DIXIE LAKE AREA	205009	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	169	169	0	Larry Herbert
4253212	DIXIE LAKE AREA	205694	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	169	169	0	Larry Herbert
4261456	DIXIE LAKE AREA	206349	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4241212	DIXIE LAKE AREA	206377	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4241212	DIXIE LAKE AREA	206378	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4261457	DIXIE LAKE AREA	206958	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4261457	DIXIE LAKE AREA	206959	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4282963	DIXIE LAKE AREA	208997	Single Cell Mining Claim	2021-08-01	Active	100	400	800	0	172	172	0	BTU
4253436	DIXIE LAKE AREA	210168	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4253212	DIXIE LAKE AREA	210169	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4252905	DIXIE LAKE AREA	211418	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4252905	DIXIE LAKE AREA	211419	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4253213	DIXIE LAKE AREA	211490	Single Cell Mining Claim	2021-12-15	Active	100	400	925	0	0	0	0	Larry Herbert
1184107	DIXIE LAKE AREA	211491	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	0	0	0	Larry Herbert
1184106	DIXIE LAKE AREA	211551	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
4241242	DIXIE LAKE AREA	212771	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4253213	DIXIE LAKE AREA	212832	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	0	0	0	Larry Herbert
4241242	DIXIE LAKE AREA	213508	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4229755	DIXIE LAKE AREA	214085	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
1184107	DIXIE LAKE AREA	214176	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	0	0	0	Larry Herbert
4282959	DIXIE LAKE AREA	214751	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4229750	DIXIE LAKE AREA	214978	Single Cell Mining Claim	2022-02-11	Active	100	400	400	0	172	172	0	Larry Herbert
4229755	DIXIE LAKE AREA	215601	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4229755	DIXIE LAKE AREA	215602	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4229755	DIXIE LAKE AREA	215603	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4241244	DIXIE LAKE AREA	215687	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241244	DIXIE LAKE AREA	215688	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241212	DIXIE LAKE AREA	215696	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4241248	DIXIE LAKE AREA	215697	Boundary Cell Mining Claim	2021-12-18	Active	100	200	400	0	86	86	0	Larry Herbert
4282959	DIXIE LAKE AREA	216263	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4253212	DIXIE LAKE AREA	217080	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	172	172	0	Larry Herbert
4241211	DIXIE LAKE AREA	217081	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	42042	42042	0	Larry Herbert
4241244	DIXIE LAKE AREA	217765	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241212	DIXIE LAKE AREA	217768	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4241212	DIXIE LAKE AREA	217769	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4241212	DIXIE LAKE AREA	217770	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4261457	DIXIE LAKE AREA	219725	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4261457	DIXIE LAKE AREA	219726	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4282963	DIXIE LAKE AREA	220427	Boundary Cell Mining Claim	2021-08-01	Active	100	200	400	0	86	86	0	BTU
4253436	DIXIE LAKE AREA	222219	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert

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4229755	DIXIE LAKE AREA	222220	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4267871	DIXIE LAKE AREA	223533	Boundary Cell Mining Claim	2021-05-16	Hold Special Circumstances Apply	100	200	400	0	163	163	0	BTU
4282958	DIXIE LAKE AREA	223534	Single Cell Mining Claim	2021-08-01	Active	100	400	800	0	172	172	0	BTU
4253213	DIXIE LAKE AREA	223541	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	0	0	0	Larry Herbert
4241244	DIXIE LAKE AREA	224265	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241244	DIXIE LAKE AREA	224266	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4253213	DIXIE LAKE AREA	224844	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	0	0	0	Larry Herbert
4241241	DIXIE LAKE AREA	225524	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4261456	DIXIE LAKE AREA	225696	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4282963	DIXIE LAKE AREA	225767	Boundary Cell Mining Claim	2021-08-01	Active	100	200	400	0	85	85	0	BTU
4282963	DIXIE LAKE AREA	225768	Single Cell Mining Claim	2021-08-01	Active	100	400	800	0	163	163	0	BTU
4241247	DIXIE LAKE AREA	227171	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	65	65	0	Larry Herbert
4261457	DIXIE LAKE AREA	227172	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4252905	DIXIE LAKE AREA	230240	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
1184107	DIXIE LAKE AREA	230241	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4267871	DIXIE LAKE AREA	230303	Boundary Cell Mining Claim	2021-05-16	Hold Special Circumstances Apply	100	200	400	0	86	86	0	BTU
4229753	DIXIE LAKE AREA	230305	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	0	0	0	Larry Herbert
1184106	DIXIE LAKE AREA	230357	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
1184106	DIXIE LAKE AREA	230860	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
4241245	DIXIE LAKE AREA	231552	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
1184107	DIXIE LAKE AREA	232948	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	0	0	0	Larry Herbert
4229754	DIXIE LAKE AREA	233738	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4241246	DIXIE LAKE AREA	234221	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4253212	DIXIE LAKE AREA	235614	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	71	71	0	Larry Herbert
4241241	DIXIE LAKE AREA	235666	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4267871	DIXIE LAKE AREA	254521	Boundary Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	200	400	0	21090	21090	0	BTU
4267871	DIXIE LAKE AREA	254522	Single Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	400	800	0	172	172	0	BTU
4253436	DIXIE LAKE AREA	258186	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4253212	DIXIE LAKE AREA	258187	Single Cell Mining Claim	2022-03-26	Active	100	200	400	0	0	0	0	Larry Herbert
4229753	DIXIE LAKE AREA	258887	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4252905	DIXIE LAKE AREA	258888	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4241242	DIXIE LAKE AREA	258891	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	108	108	0	Larry Herbert
4253213	DIXIE LAKE AREA	259476	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	0	0	0	Larry Herbert
1184106	DIXIE LAKE AREA	259544	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
1184106	DIXIE LAKE AREA	259545	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4241245	DIXIE LAKE AREA	260208	Single Cell Mining Claim	2021-12-18	Active	100	400	900	0	48	48	0	Larry Herbert
4241242	DIXIE LAKE AREA	261488	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	465	465	0	Larry Herbert
4241242	DIXIE LAKE AREA	261489	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	147	147	0	Larry Herbert
4229751	DIXIE LAKE AREA	262162	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	172	172	0	Larry Herbert
4253212	DIXIE LAKE AREA	262284	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4282959	DIXIE LAKE AREA	262686	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4241246	DIXIE LAKE AREA	262910	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241248	DIXIE LAKE AREA	262920	Boundary Cell Mining Claim	2021-12-18	Active	100	200	400	0	86	86	0	Larry Herbert
4241248	DIXIE LAKE AREA	262921	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241211	DIXIE LAKE AREA	264297	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4261456	DIXIE LAKE AREA	264947	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4261456	DIXIE LAKE AREA	264976	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4282963	DIXIE LAKE AREA	265536	Boundary Cell Mining Claim	2021-08-01	Active	100	200	400	0	27	27	0	BTU

Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
4267871	DIXIE LAKE AREA	266597	Boundary Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	200	400	0	143	143	0	BTU
4253213	DIXIE LAKE AREA	268301	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4253213	DIXIE LAKE AREA	268302	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	0	0	0	Larry Herbert
4241242	DIXIE LAKE AREA	268967	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4229755	DIXIE LAKE AREA	270240	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4241212	DIXIE LAKE AREA	270873	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4241246	DIXIE LAKE AREA	270874	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4229754	DIXIE LAKE AREA	271146	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	28217	28217	0	Larry Herbert
4241241	DIXIE LAKE AREA	272297	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241241	DIXIE LAKE AREA	272323	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241241	DIXIE LAKE AREA	272324	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4261456	DIXIE LAKE AREA	272954	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4241244	DIXIE LAKE AREA	272962	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4282963	DIXIE LAKE AREA	272996	Single Cell Mining Claim	2021-08-01	Active	100	400	800	0	172	172	0	BTU
4282963	DIXIE LAKE AREA	272997	Single Cell Mining Claim	2021-08-01	Active	100	400	800	0	172	172	0	BTU
4241247	DIXIE LAKE AREA	274388	Boundary Cell Mining Claim	2022-03-21	Active	100	200	400	0	85	85	0	Larry Herbert
4241247	DIXIE LAKE AREA	274883	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4241247	DIXIE LAKE AREA	275649	Single Cell Mining Claim	2021-12-18	Active	100	400	850	0	12	12	0	Larry Herbert
4253212	DIXIE LAKE AREA	276181	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
4252904	DIXIE LAKE AREA	277422	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4253213	DIXIE LAKE AREA	277508	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	0	0	0	Larry Herbert
1184106	DIXIE LAKE AREA	278065	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
1184106	DIXIE LAKE AREA	278066	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
4252904	DIXIE LAKE AREA	278958	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4252905	DIXIE LAKE AREA	278959	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4252905	DIXIE LAKE AREA	278960	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
1184107	DIXIE LAKE AREA	278961	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4282958	DIXIE LAKE AREA	279032	Single Cell Mining Claim	2021-05-16	Hold Special Circumstances Apply	100	400	800	0	172	172	0	BTU
1184106	DIXIE LAKE AREA	279604	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
4253213	DIXIE LAKE AREA	280350	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	0	0	0	Larry Herbert
4229753	DIXIE LAKE AREA	280351	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	34	34	0	Larry Herbert
4241241	DIXIE LAKE AREA	281026	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	497	497	0	Larry Herbert
4241211	DIXIE LAKE AREA	282975	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4241246	DIXIE LAKE AREA	282976	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241212	DIXIE LAKE AREA	282980	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4241248	DIXIE LAKE AREA	282981	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241211	DIXIE LAKE AREA	284362	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4241241	DIXIE LAKE AREA	284408	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4252904	DIXIE LAKE AREA	284942	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4241212	DIXIE LAKE AREA	285022	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4241248	DIXIE LAKE AREA	290329	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4253212	DIXIE LAKE AREA	291681	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	172	172	0	Larry Herbert
4241241	DIXIE LAKE AREA	291707	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4252904	DIXIE LAKE AREA	291759	Single Cell Mining Claim	2022-03-29	Active	100	400	807	0	0	0	0	Larry Herbert
4229750	DIXIE LAKE AREA	292355	Single Cell Mining Claim	2022-02-11	Active	100	400	400	0	172	172	0	Larry Herbert
4252905	DIXIE LAKE AREA	296279	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4282958	DIXIE LAKE AREA	296858	Boundary Cell Mining Claim	2021-08-01	Active	100	200	400	0	86	86	0	BTU
1184106	DIXIE LAKE AREA	296905	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
4241245	DIXIE LAKE AREA	297597	Single Cell Mining Claim	2021-12-18	Active	100	400	850	0	140	140	0	Larry Herbert
4253213	DIXIE LAKE AREA	297654	Single Cell Mining Claim	2021-12-15	Active	100	400	800	0	0	0	0	Larry Herbert

Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
4241241	DIXIE LAKE AREA	298328	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4241242	DIXIE LAKE AREA	298329	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	6025	6025	0	Larry Herbert
4282959	DIXIE LAKE AREA	299975	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4282959	DIXIE LAKE AREA	299989	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4267871	DIXIE LAKE AREA	303209	Boundary Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	200	400	0	77	77	0	BTU
4267871	DIXIE LAKE AREA	303210	Boundary Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	200	400	0	86	86	0	BTU
4229755	DIXIE LAKE AREA	309928	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4253436	DIXIE LAKE AREA	312130	Single Cell Mining Claim	2022-03-26	Active	100	400	800	0	0	0	0	Larry Herbert
1184106	DIXIE LAKE AREA	312648	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
1184106	DIXIE LAKE AREA	312649	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
1184106	DIXIE LAKE AREA	312650	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4229753	DIXIE LAKE AREA	314016	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4229753	DIXIE LAKE AREA	314017	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4252905	DIXIE LAKE AREA	314018	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4252905	DIXIE LAKE AREA	314019	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4282958	DIXIE LAKE AREA	314089	Single Cell Mining Claim	2021-05-16	Hold Special Circumstances Apply	100	400	800	0	172	172	0	BTU
4282958	DIXIE LAKE AREA	314090	Boundary Cell Mining Claim	2021-05-16	Hold Special Circumstances Apply	100	200	400	0	86	86	0	BTU
4241245	DIXIE LAKE AREA	314691	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4229755	DIXIE LAKE AREA	316643	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4252904	DIXIE LAKE AREA	320983	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4261456	DIXIE LAKE AREA	321051	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4282963	DIXIE LAKE AREA	323697	Single Cell Mining Claim	2021-08-01	Active	100	400	800	0	172	172	0	BTU
4282958	DIXIE LAKE AREA	326127	Single Cell Mining Claim	2021-05-16	Hold Special Circumstances Apply	100	400	800	0	172	172	0	BTU
1184106	DIXIE LAKE AREA	326177	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
1184106	DIXIE LAKE AREA	326178	Single Cell Mining Claim	2021-11-10	Active	100	400	400	0	172	172	0	Larry Herbert
4229750	DIXIE LAKE AREA	328803	Single Cell Mining Claim	2022-02-11	Active	100	400	400	0	172	172	0	Larry Herbert
4241246	DIXIE LAKE AREA	329566	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241246	DIXIE LAKE AREA	329567	Single Cell Mining Claim	2021-12-18	Active	100	400	1136	0	172	172	0	Larry Herbert
4241244	DIXIE LAKE AREA	329568	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4282959	DIXIE LAKE AREA	330624	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4267871	DIXIE LAKE AREA	330880	Boundary Cell Mining Claim	2021-04-28	Hold Special Circumstances Apply	100	200	400	0	86	86	0	BTU
4252904	DIXIE LAKE AREA	330949	Single Cell Mining Claim	2022-03-29	Active	100	400	800	0	0	0	0	Larry Herbert
4241211	DIXIE LAKE AREA	330950	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert
4241211	DIXIE LAKE AREA	330951	Single Cell Mining Claim	2022-03-23	Active	100	400	800	0	0	0	0	Larry Herbert
4282959	DIXIE LAKE AREA	332596	Single Cell Mining Claim	2021-07-17	Active	100	400	800	0	0	0	0	Larry Herbert
4241242	DIXIE LAKE AREA	339961	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4241242	DIXIE LAKE AREA	339962	Single Cell Mining Claim	2021-12-18	Active	100	400	400	0	172	172	0	Larry Herbert
4229751	DIXIE LAKE AREA	340662	Single Cell Mining Claim	2022-02-11	Active	100	400	800	0	172	172	0	Larry Herbert
4241248	DIXIE LAKE AREA	341917	Single Cell Mining Claim	2021-12-18	Active	100	400	936	0	172	172	0	Larry Herbert
4241248	DIXIE LAKE AREA	341918	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4241241	DIXIE LAKE AREA	343333	Single Cell Mining Claim	2021-12-18	Active	100	400	800	0	172	172	0	Larry Herbert
4261458	DIXIE LAKE AREA	343367	Boundary Cell Mining Claim	2021-04-18	Hold Special Circumstances Apply	100	200	400	0	36149	36149	0	Larry Herbert
4261456	DIXIE LAKE AREA	343947	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4261456	DIXIE LAKE AREA	343969	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4241212	DIXIE LAKE AREA	343980	Boundary Cell Mining Claim	2022-03-23	Active	100	200	400	0	0	0	0	Larry Herbert

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4241247	DIXIE LAKE AREA	345393	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4261457	DIXIE LAKE AREA	345394	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
4261457	DIXIE LAKE AREA	345395	Single Cell Mining Claim	2022-03-21	Active	100	400	800	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513575	Single Cell Mining Claim	2022-04-10	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513576	Single Cell Mining Claim	2022-04-10	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513577	Single Cell Mining Claim	2022-04-10	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513578	Single Cell Mining Claim	2022-04-10	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513579	Single Cell Mining Claim	2022-04-10	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513580	Single Cell Mining Claim	2022-04-10	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513581	Single Cell Mining Claim	2022-04-10	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513745	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513746	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513747	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513748	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513749	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	513750	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	514303	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	514304	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	514305	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	5	5	0	Larry Herbert
	DIXIE LAKE AREA	514306	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	514307	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	514308	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	514309	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	514310	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	514311	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	514312	Single Cell Mining Claim	2022-04-11	Active	100	400	400	0	0	0	0	Larry Herbert
	DIXIE LAKE AREA	525152	Single Cell Mining Claim	2021-07-04	Active	100	400	400	0	172	172	0	BTU
	DIXIE LAKE AREA	525153	Single Cell Mining Claim	2021-07-04	Active	100	400	400	0	172	172	0	BTU
	DIXIE LAKE AREA	525154	Single Cell Mining Claim	2021-07-04	Active	100	400	400	0	172	172	0	BTU
	DIXIE LAKE AREA	525155	Single Cell Mining Claim	2021-07-04	Active	100	400	400	0	172	172	0	BTU
	DIXIE LAKE AREA	525156	Single Cell Mining Claim	2021-07-04	Active	100	400	400	0	172	172	0	BTU
	DIXIE LAKE AREA	525157	Single Cell Mining Claim	2021-07-04	Active	100	400	400	0	172	172	0	BTU
	DIXIE LAKE AREA	525158	Single Cell Mining Claim	2021-07-04	Active	100	400	400	0	172	172	0	BTU
	DIXIE LAKE AREA	525159	Single Cell Mining Claim	2021-07-04	Active	100	400	400	0	172	172	0	BTU
	DIXIE LAKE AREA	525160	Single Cell Mining Claim	2021-07-04	Active	100	400	400	0	172	172	0	BTU
	DIXIE LAKE AREA	525161	Single Cell Mining Claim	2021-07-04	Active	100	400	400	0	172	172	0	BTU
	BRUCE LAKE AREA,DIXIE LAKE AREA,SOUTH OF BYSHE AREA	527704	Multi-cell Mining Claim	2021-08-20	Active	100	9200	9200	0	0	0	0	EMX Properties
	BRUCE LAKE AREA,DIXIE LAKE AREA	527705	Multi-cell Mining Claim	2021-08-20	Active	100	10000	10000	0	0	0	0	EMX Properties
	BRUCE LAKE AREA,DIXIE LAKE AREA	527706	Multi-cell Mining Claim	2021-08-20	Active	100	10000	10000	0	0	0	0	EMX Properties
	DIXIE LAKE AREA	527707	Single Cell Mining Claim	2021-08-20	Active	100	400	400	0	0	0	0	EMX Properties
	SOUTH OF BYSHE AREA	527756	Multi-cell Mining Claim	2021-08-23	Active	100	2000	2000	0	0	0	0	EMX Properties
	BRUCE LAKE AREA	527757	Multi-cell Mining Claim	2021-08-23	Active	100	2000	2000	0	0	0	0	EMX Properties
	DIXIE LAKE AREA	527764	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	EMX Properties
	DIXIE LAKE AREA	527765	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	EMX Properties
	DIXIE LAKE AREA	527766	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	EMX Properties
	DIXIE LAKE AREA	527767	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	EMX Properties
	DIXIE LAKE AREA	527768	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	EMX Properties
	DIXIE LAKE AREA	528016	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528017	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU

Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
	BRUCE LAKE AREA	528018	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528019	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA,DIXIE LAKE AREA	528020	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528021	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528022	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528023	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528024	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528025	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528026	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528027	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528028	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528029	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528030	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA,DIXIE LAKE AREA	528031	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528032	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA,DIXIE LAKE AREA	528033	Single Cell Mining Claim	2022-08-23	Active	100	400	800	0	0	0	0	BTU
	BRUCE LAKE AREA,DIXIE LAKE AREA	528034	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528035	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528036	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA,DIXIE LAKE AREA	528037	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA,DIXIE LAKE AREA	528038	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528039	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528040	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528041	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528042	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528043	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528044	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528045	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528046	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528047	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528048	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528049	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528050	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528051	Single Cell Mining Claim	2021-08-23	Active	100	400	400	0	0	0	0	BTU
	DIXIE LAKE AREA	528102	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528103	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528104	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528105	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528106	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528107	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528108	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528109	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528110	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528111	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528112	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528113	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU

Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
	DIXIE LAKE AREA	528114	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528115	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	528116	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528117	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528118	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528119	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528120	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528121	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528122	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528123	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528124	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528125	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528126	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528127	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528128	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528129	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528130	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528131	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528132	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528133	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528134	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528135	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528136	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528137	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528138	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528139	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528140	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528141	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528142	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528143	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528144	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528145	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528146	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528147	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528148	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528149	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	528152	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528156	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	528157	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528160	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528161	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528162	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528163	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528164	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528165	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528166	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528169	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528170	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528171	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU

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	DEDEE LAKE AREA	528172	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	528173	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528174	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528175	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528176	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	528177	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528178	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	528181	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528182	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528183	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528184	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528185	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528186	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	528187	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	528188	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528189	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528190	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528191	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528192	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528228	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528284	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528290	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528291	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528302	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528326	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528327	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528328	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528329	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528330	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528331	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528332	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528333	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528334	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528335	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528336	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528337	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528338	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528339	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528340	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528341	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528342	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528343	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528344	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528345	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528346	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528347	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528348	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	528349	Single Cell Mining Claim	2021-08-23	Active	100	400	0	0	0	0	0	BTU





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	BRUCE LAKE AREA	528744	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528745	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528752	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528753	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528755	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528756	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528757	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528759	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528760	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528761	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528762	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	BRUCE LAKE AREA	528763	Single Cell Mining Claim	2021-08-24	Active	100	400	400	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529646	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	529648	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	529658	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	529661	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	529662	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529666	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529672	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529674	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529676	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529681	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529682	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529683	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529684	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529685	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529686	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529687	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529688	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529689	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	529690	Single Cell Mining Claim	2021-08-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529779	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529782	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529783	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529784	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529785	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529787	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU

Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
	DEDEE LAKE AREA	529788	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529793	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529794	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529800	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529802	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529803	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529805	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529806	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529807	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529808	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529809	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529810	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529811	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529812	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529813	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529814	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529815	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529816	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529817	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529818	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529819	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529820	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529821	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529822	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529823	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529824	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529826	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529827	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529831	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529832	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529834	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529835	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529837	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529838	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529847	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529854	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529859	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529863	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529892	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529893	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529899	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529900	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529901	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529902	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529911	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529913	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529914	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	529923	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	530024	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	530025	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	530026	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	530027	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU

Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
	DIXIE LAKE AREA	530028	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	530029	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	530030	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	530031	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	530032	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	530033	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	530034	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	530035	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	530036	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	530037	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	530038	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	530039	Single Cell Mining Claim	2021-08-28	Active	100	400	0	0	0	0	0	BTU
	BRUCE LAKE AREA,DIXIE LAKE AREA	541647	Multi-cell Mining Claim	2022-02-10	Active	100	6400	0	0	0	0	0	Goldon
	BRUCE LAKE AREA	541651	Multi-cell Mining Claim	2022-02-10	Active	100	8000	0	0	0	0	0	Goldon
	BRUCE LAKE AREA	541652	Multi-cell Mining Claim	2022-02-10	Active	100	8400	0	0	0	0	0	Goldon
	BRUCE LAKE AREA	541653	Multi-cell Mining Claim	2022-02-10	Active	100	9200	0	0	0	0	0	Goldon
	BRUCE LAKE AREA	554406	Multi-cell Mining Claim	2021-07-16	Active	100	6400	0	0	0	0	0	Goldon
	BRUCE LAKE AREA,CAMPING LAKE AREA	554407	Multi-cell Mining Claim	2021-07-16	Active	100	3200	0	0	0	0	0	Goldon
	BRUCE LAKE AREA,DIXIE LAKE AREA	554408	Multi-cell Mining Claim	2021-07-16	Active	100	9600	0	0	0	0	0	Goldon
	BRUCE LAKE AREA	563093	Multi-cell Mining Claim	2021-10-31	Active	100	9600	0	0	0	0	0	Goldon
	DIXIE LAKE AREA	564643	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564644	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564645	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564646	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564647	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564648	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564649	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564650	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564651	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564652	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564653	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564654	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564655	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564656	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564657	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564658	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564659	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564660	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564661	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564662	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564663	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564664	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564665	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564666	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564667	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564668	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564669	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU

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	DIXIE LAKE AREA	564670	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564671	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564672	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564673	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564674	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564675	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564676	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564677	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	564678	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564679	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564680	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564681	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	CABIN BAY AREA,DEDEE LAKE AREA,DIXIE LAKE AREA,LONGLEGGED LAKE AREA	564682	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564683	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564684	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564685	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564686	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564687	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	564688	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564689	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	CABIN BAY AREA,DIXIE LAKE AREA	564690	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564691	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	564692	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564693	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564694	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	CABIN BAY AREA,DIXIE LAKE AREA	564695	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564696	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	564697	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	CABIN BAY AREA,DIXIE LAKE AREA	564698	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	CABIN BAY AREA,DIXIE LAKE AREA	564699	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564700	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564701	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564702	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564703	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564704	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	CABIN BAY AREA,DIXIE LAKE AREA	564705	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564706	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564707	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564708	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564709	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU

Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
	DEDEE LAKE AREA,DIXIE LAKE AREA	564710	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564711	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564712	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564713	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564714	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564715	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	CABIN BAY AREA,DIXIE LAKE AREA	564716	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564717	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564718	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564719	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564720	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564721	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564722	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564723	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564724	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564725	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564726	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564727	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564728	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564729	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564730	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564731	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564732	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564733	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564734	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DIXIE LAKE AREA	564735	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564736	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564737	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564738	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564739	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564740	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564741	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564742	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	564743	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564744	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564745	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564746	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564747	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564748	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564749	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
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	DEDEE LAKE AREA,DIXIE LAKE AREA	564756	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
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Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
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	DEDEE LAKE AREA	564761	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564762	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564763	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564764	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564765	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	564766	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA,DIXIE LAKE AREA	564767	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564768	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
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	DEDEE LAKE AREA	564770	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564771	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564772	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564773	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564774	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
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	DEDEE LAKE AREA, LONGLEGGED LAKE AREA	564776	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA, LONGLEGGED LAKE AREA	564777	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564778	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564779	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
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	CABIN BAY AREA, LONGLEGGED LAKE AREA	564781	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA, LONGLEGGED LAKE AREA	564782	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564783	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
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	LONGLEGGED LAKE AREA	564788	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564789	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564790	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
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	DEDEE LAKE AREA, LONGLEGGED LAKE AREA	564793	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564794	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564795	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA, LONGLEGGED LAKE AREA	564796	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564797	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564798	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA, LONGLEGGED LAKE AREA	564799	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564800	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU

Legacy Claim ID	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage	Work Required	Work Applied	Available Consultation Reserve	Available Exploration Reserve	Total Reserve	Conversion Bank Credit	Holder
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	DEDEE LAKE AREA	564802	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564803	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA, LONGLEGGED LAKE AREA	564804	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564805	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564806	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564807	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564808	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564809	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564810	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA, LONGLEGGED LAKE AREA	564811	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564812	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA, LONGLEGGED LAKE AREA	564813	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA, LONGLEGGED LAKE AREA	564814	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564815	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA, LONGLEGGED LAKE AREA	564816	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA	564817	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	DEDEE LAKE AREA, DIXIE LAKE AREA	564818	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564819	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564820	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564821	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	CABIN BAY AREA, DEDEE LAKE AREA, DIXIE LAKE AREA, LONGLEGGED LAKE AREA	564822	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564823	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564824	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564825	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564826	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564827	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564828	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564829	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564830	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564831	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564832	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564833	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564834	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564835	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564836	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564837	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564838	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564839	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564840	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564841	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564842	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU
	LONGLEGGED LAKE AREA	564843	Single Cell Mining Claim	2021-11-27	Active	100	400	0	0	0	0	0	BTU

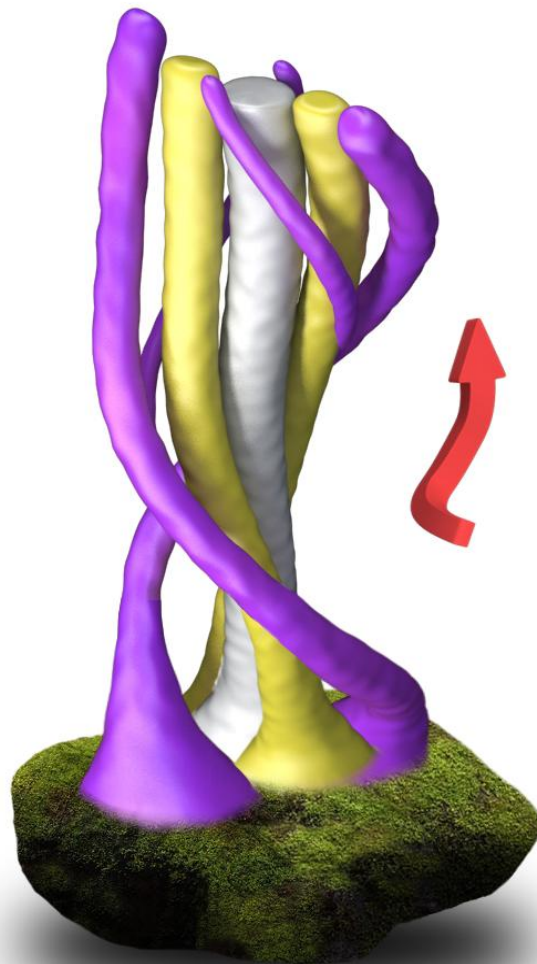




## 3D - SGH

# "A SPATIOTEMPORAL GEOCHEMICAL HYDROCARBON INTERPRETATION"

## ***BTU METALS CORP DIXIE HALO SGH PROJECT***





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**SGH – SOIL GAS HYDROCARBON  
Predictive Geochemistry**

*for*

***BTU METALS CORP***

***DIXIE HALO SGH SOIL SURVEY***

*\* Jeff Brown,*

*Activation Laboratories Ltd*

*(\* - author)*

**\*\*Dale Sutherland (\*\* - originator)**

***EVALUATION OF SAMPLE DATA – EXPLORATION FOR:  
"GOLD" TARGETS***

***THE SGH GOLD INTERPRETATION TEMPLATE IS  
USED FOR THIS REPORT***

***Workorder: A19-16098***



## Executive Summary

It is important to read the Report Preface on the next page as an introduction to the report. For more detail the Overview section on page 8 could also be read.

The customized section for this DIXIE HALO Survey starts on page 15. In the author's opinion, SGH appeared to perform well in terms of response. The grid shape of this survey helped to identify the possible presence of Redox Zones and the corresponding mineralization.

Note that some exploration companies submit this report intact to government assessors as proof of work on their claim. Be aware that the SGH data is not attached to this report, it is supplied separately as an Excel spreadsheet. Government assessors will also have to be supplied with this data.

## PREFACE

### THIS "STANDARD" SGH INTERPRETATION REPORT:

The purpose of this Soil Gas Hydrocarbon (SGH) interpretation "Standard Report" is to ensure that clients and other potential reviewers of the results have a good understanding of this organic, deep penetrating geochemistry. As SGH provides such a large data set and is not interpreted in the same way as an inorganic geochemical method, the provision of this interpretation and report enables the user to realize the results in a timely fashion and capitalizes on years of research and development since the inception of SGH in 1996 combined with the knowledge obtained by Activation Laboratories through the interpretation of SGH data from over 1,100 surveys for a wide variety of target types in various lithologies from many geographical locations. Although referenced today as a "nano-technology", the analysis of SGH has not changed since inception. The report is compulsory as it is the only known organic geochemistry that, in spite of the name, uses "non-gaseous" semi-volatile organic compounds interpreted using a forensic signature approach. Many different sample types can be used in the same survey. Interpretation is based solely on SGH data and does not include the consideration from any other geochemistry (inorganic), geology, or geophysics that may exist related to the survey area(s). This report can also provide evidence of project maintenance. To keep the price to a minimum and to provide as short a turnaround time as practically possible, usually only one SGH Pathfinder Class map is illustrated in a "Standard Report" with an applied interpretation although several other SGH Pathfinder Class maps are used and referenced. Definitions of certain terms or phrases used in this report can be found in Appendix A.

The interpretation in this report has used the results from some of the research with SGH in recent years which has focused on the potential that the SGH data is able to further dissect and understand the relationships between the chemical Redox conditions in the overburden the development of an electrochemical cell and its affect in shaping the upward migration of geochemical anomalies. This has resulted in the development by Activation Laboratories of a new enhanced model of the Electrochemical/ Redox Cell theory originated by Govett (1976) that was further developed to the model by Hamilton (2004, 2007). The new enhanced model developed by Sutherland (2011) takes the general anomalies expected by the Hamilton model to a higher level of detail and specificity. This has resulted in a more confident level of interpretation which has been referenced as 3D-SGH or **3D-"Spatiotemporal Geochemical Hydrocarbons (SGH)"**. This model was formally introduced at the International Applied Geochemistry Symposium (IAGS) organized by The Association of Applied Geochemists that took place in Rovaniemi, Finland, in August 2011. This new level of understanding of the expected anomaly types that can be observed with SGH provides a new level of quality control in the interpretation process as the symmetry of SGH anomalies can assure the interpreter which anomalies are as a result of a buried target. With the enhanced 3D-SGH interpretation that was introduced in 2012, we also mark the beginning of the ability to make some statements regarding the possible depth to mineralization for some projects as we dissect the Redox cell relative to the new Electrochemical Cell theory. The cover of this report is an artist's rendering of the pathways of different classes of Spatiotemporal Geochemical Hydrocarbons which migrate through the overburden. This model is used as the new 3D-SGH interpretation approach.

## DISCLAIMER

This "SGH Interpretation Report" has been prepared to assist the user in understanding the development and capabilities of this Organic based Geochemistry. The interpretation of the Soil Gas Hydrocarbon (SGH) data is in reference to a template or group of SGH classes of compounds specific to a type of mineralization or target that is chosen by the client (i.e. the template for petroleum, gold, copper, VMS, uranium, etc.). The various templates of SGH Pathfinder Classes that together define the forensic identification signature for a wide range of commodity target types; Gold, Nickel, VMS, SEDEX, Uranium, Cu-Ni-PGE, IOCG, Base Metal, Tungsten, Lithium, Polymetallic, and Copper, as well as for Kimberlites, Coal Seam, Wet Gas and Oil Play, have been developed through years of research and have been further refined from review of case studies and orientation studies has proven to be able to also address a wide range of lithologies. Even with 20+ years of development and experience with SGH, Activation Laboratories Ltd. cannot guarantee that the templates used are applicable to every type of target in every type of environment. The interpretation in this report attempts to identify an anomaly that has the best SGH signature in the survey for the type of mineralization or target chosen by the client. However, this interpretation is not exhaustive and there may be additional SGH anomalies that may warrant interest. It should not be viewed due to the generation of this SGH report, that Activation Laboratories Ltd. has the expertise or is in the business of interpreting any other type of geochemical data as a general service. As the author is the originator of the SGH geochemistry, has researched and developed this exploration tool since 1996, and has produced similar interpretations using SGH data for over 1,000 surveys, he is the best qualified person to prepare this interpretation as assistance to clients wishing to use this SGH geochemistry. Activation Laboratories Ltd. can offer assistance in general suggestions for sampling protocols and in sample grid design; however we accept no responsibility to the appropriateness of the samples taken. Activation Laboratories Ltd. has made every attempt to ensure the accuracy and reliability of the information provided in this report. Activation Laboratories Ltd. or its employees do not accept any responsibility or liability for the accuracy, content, completeness, legality, or reliability of the information or description of processes contained in this report. The information is provided "as is" without a guarantee of any kind in the interpretation or use of the results of the SGH geochemistry. The client or user accepts all risks and responsibility for losses, damages, costs and other consequences resulting directly or indirectly from using any information or material contained in this report or using data from the associated spreadsheet of results.

## Cautionary Note Regarding Assumptions and Forward Looking Statements

The statements and target rating made in the Soil Gas Hydrocarbon (SGH) interpretive report or in other communications may contain or imply certain forward-looking information related to the quality of a target or SGH anomaly.

Statements related to the rating of a target are based on comparison of the SGH signatures derived by Activation Laboratories Ltd. through previous research on known case studies. The rating is not derived from any statistics or other formula. The rating is a subjective value on a scale of 0 to 6 relative to the similarity of the SGH signature reviewed compared to the results of previous scientific research and case studies based on the analysis of surficial samples over known ore bodies. No information on the results from other geochemical methods, geophysics, or geology is usually available as additional information for the interpretation and assignment of a rating value unless otherwise stated. References to the rating should be viewed as forward-looking statements to the extent that it involves a subjective comparison to known SGH case studies. As with other geochemical methods, an implied rating and the associated anticipated target characteristics may be different than that actually encountered if the target is drilled tested or the property developed. Activation Laboratories Ltd. may also make a scientifically based prediction in this interpretive report to an area that might be used as a drill target. Usually the nearest sample is identified as an approximation to a "possible drill target" location. This is based only on SGH results and is to be regarded as a guide based on the current state of this science.

Unless otherwise stated, Activation Laboratories Ltd. has not physically observed the exploration site and has no prior knowledge of any site description or details or previous test results. Actlabs makes general recommendations for sampling and shipping of samples. Unless stated, the laboratory does not witness sampling, does not take into consideration the specific sampling procedures used or factors such as; the season of sampling, sample handling, packaging, or shipping methods. The majority of the time, Activation Laboratories Ltd. has had no input into sampling survey design. Where specified Activation Laboratories Ltd. may not have conducted sample preparation procedures as it may have been conducted at the client's assigned laboratory external to Actlabs. Although Actlabs has attempted to identify important factors that could cause actual actions, events or results to differ scientifically which may impact the associated interpretation and target rating from those described in forward-looking statements, there may be other factors that cause actions, events or results that are not anticipated, estimated or intended. In general, any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance are not statements of historical fact. These "scientifically based educated theories" should be viewed as "forward-looking statements".

Readers of this interpretive report are cautioned not to place undue reliance on forward-looking information. Forward looking statements are made based on scientific beliefs, estimates and opinions on the date the statements are made and for the interpretive report issued. The Company undertakes no obligation to update forward-looking statements or otherwise revise previous reports if these beliefs, estimates and opinions, future scientific developments, other new information, or other circumstances should change that may affect the analytical results, rating, or interpretation. Actlabs nor its employees shall be liable for any claims or damages as a result of this report, any interpretation, omissions in preparation, or in the test conducted. This report is to be reproduced in full, unless approved in writing.



## **SOIL GAS HYDROCARBON (SGH) GEOCHEMISTRY – OVERVIEW**

In the search for gas, oil, minerals and elements, geologists require tools to assess the location and potential quantity of minerals and ores. In the past people looked at the landscape to find the deposit. Similar landscapes indicate similar mineral and metal deposits. This is searching on a macro level, while geochemistry is searching on a micro level. Surficial materials requires many minerals and elements, so surficial materials can contain indications of the presence of minerals and elements.

SGH is a deep penetrating geochemistry that involves the analysis of surficial samples from over potential mineral or petroleum targets. The analysis involves the testing for 162 hydrocarbon compounds in the C5-C17 carbon series range applicable to a wide variety of sample types. These hydrocarbons have been shown to be residues from the decomposition of bacteria and microbes that feed on the target commodity as they require inorganic elements to catalyze the reactions necessary to develop hydrocarbons and grow cells in their life cycle. Specific classes of hydrocarbons (SGH) have been successful for delineating mineral targets found at over 950 metres in depth. Samples of various media have been successfully analyzed i.e., soil (any horizon), sand, till, drill core, rock, peat, humus, lake-bottom sediments and even snow. After preparation in the laboratory, the SGH analysis incorporates a very weak leach, essentially aqueous, that only extracts the surficial bound hydrocarbon compounds and those compounds in interstitial spaces around the sample particles. These are the hydrocarbons that have been mobilized from the target depth. SGH is unique and should not be confused with other hydrocarbon tests or traditional analyses that measure C1 (Methane) to C5 (Pentane) or other gases. Thus, in spite of the name, SGH does not analyze for any hydrocarbons that are actually gaseous at room temperature and SGH can also be used to analyze for hydrocarbons in sample types other than soil. SGH is also different from other soil hydrocarbon tests that thermally extracts or desorbs all of the hydrocarbons from the whole soil sample. This test is less specific as it does not separate the hydrocarbons and thus does not identify or measure the responses as precisely. These tests also do not use a forensic approach for identification. In SGH, the hydrocarbons in the sample extract are separated by high resolution capillary column gas chromatography and then detected by mass spectrometry to isolate, confirm, and measure the presence of only the individual hydrocarbons that have been found to be of interest from initial research and development and from performance testing especially from two Canadian Mining Industry Research Organization (CAMIRO) projects (97E04 and 01E02).

Over the past 20+ years of research, Activation Laboratories Ltd. has developed an in-depth understanding of the unique SGH signatures associated with different commodity targets. Using a forensic approach we have developed target signatures or templates for identification, and the understanding of the expected geochromatography that is exhibited by each class of SGH compounds. In 2004 we began to include an SGH interpretation report delivered with the data to enable our clients to realize the complete value and understanding of the SGH results in a short time frame and provide the benefits to them from past research sponsored by Actlabs, CAMIRO, OMET and other industrial sponsors. In 2011, a new model of Electrochemical/Redox Cell theory was proposed and the new 3D-SGH interpretation approach based on this theory was incorporated in 2012 on a routine basis for SGH interpretation reports.

SGH has attracted the attention of a large number of Exploration companies. In the above mentioned initial research projects the sponsors have included (in no order): Western Mining Corporation, BHP-Billiton, Inco, Noranda, Outokumpu, Xstrata, Cameco, Cominco, Rio Algom, Alberta

Geological Survey, Ontario Geological Survey, Manitoba Geological Survey and OMET. Further, beyond this research, Activation Laboratories Ltd. has interpreted the SGH data for over 1,000 targets from clients since January of 2004. In both CAMIRO research projects over known mineralization, client orientation studies, and in exploration projects over unknown targets, SGH has performed exceptionally well. As an example, in the first CAMIRO research project that commenced in 1997 (Project 97E04), there were 10 study areas that were submitted blindly to Actlabs. These study sites were specifically selected since other inorganic geochemical methods were unsuccessful at illustrating anomalies related to the target. Although Actlabs was only provided with the samples and their coordinates, SGH was able to locate the blind mineralization with exceptional accuracy in 9 of the 10 surveys. In 2007, shortly after providing SGH interpretation reports, SGH was credited in helping locate previously unknown mineralization, e.g. Golden Band Resources drilled an SGH anomaly and discovered a significant vein containing "visible" gold. ([www.goldenbandresources.com](http://www.goldenbandresources.com)) SGH has been very successful and mining companies have repeatedly used SGH on several reports. Of those clients that try this SGH Geochemistry, over 90+% have continued to use this technique as repeat clients. SGH has helped discover a large number of new deposits, however many clients have kept this to themselves as a competitive strategy.

# **SOIL GAS HYDROCARBON SURVEY DESIGN AND SAMPLING**

**Summary:** See Appendix C for more details

In summary, the best conditions for the sample type and survey design include:

- Fist sized samples are usually retrieved from a shallow dug hole in the 15 to 40 cm range of depth.
- Different sample types can be taken even "within" the same survey or transect, data leveling is rarely required. SGH is highly effective in areas of very difficult terrain. The Golden Rule is to always take a sample.
- Samples should be evenly spaced in a grid or as a second choice, in a series of transects with sample lines spaced at a ratio of up to 4:1 (line spacing: sample spacing).
- A minimum of 50 sample "locations" is recommended with one-third over the target and one-third on each side of the target into background if this can be predicted. More samples representing a larger area is preferred in order to optimize data contrast.
- If very wet, samples can be drip dried in the field. No special preservation is required for shipping.
- Relative or UTM sample location coordinates are required to allow interpretation.

## **SAMPLE PREPARATION AND SGH ANALYSIS**

**Summary:** See Appendix D for more details

Upon receipt at Activation Laboratories:

- The samples are air-dried at a relatively low temperature of 40°C.
- The samples are then sieved and the -80 mesh sieve fraction (<177 microns, although different mesh sizes can be used at the preference of the exploration geologist) is collected.
- The collected "pulp" is packaged in a Kraft paper envelope and transferred from our sample preparation department to our Organic Geochemical department also located in our World Headquarters in Ancaster, Ontario, Canada.
- Each sample is then extracted, compounds separated by gas chromatography and detected by mass spectrometry at a *Reporting Limit* of one part-per-trillion (ppt).
- The results of the SGH analysis is reported in raw data form in an Excel spreadsheet as "semi-quantitative" concentrations without any additional statistical modification.

## SGH DATA QUALITY

**Summary:** See Appendix E for more details

**Reporting Limit:**

- The Excel spreadsheet of concentrations for the hydrocarbons monitored is in units of ppt as “parts-per-trillion” which is equivalent to nanograms/kilogram (ng/Kg). The reporting limit of 1 ppt represents a value of approximately 5 times the standard deviation of low level analysis. Essentially all background noise has already been eliminated. All data reported should be used in geochemical mapping. Actual detectable levels can be significantly < 1 ppt.

**Laboratory Replicate Analysis:**

- An equal aliquot of a random sample is analyzed as a laboratory replicate.
- Due to the large amount of data, the estimate of method variability is reported as the percent coefficient of Variation (%CV).
- A laboratory replicate analysis is reported at a frequency of 1 for every 15 samples analyzed.
- The variability of field duplicate samples are similarly reported if identified.

**Historical SGH Precision:**

- Although the SGH analysis reports results at such trace ppt concentration levels, the average %CV for laboratory replicates is excellent at an average of 8% within a range of  $\pm 4\%$ .
- Field duplicates have historically been 3 to 5% higher than laboratory replicates.

# SGH DATA INTERPRETATION

**Summary:** See Appendix F for more details

SGH Interpretation and Report:

- Due to the very large data set provided by the SGH analysis, this interpretation report is provided to offer guidance in regards to the results of this geochemistry for the survey.
- In our interpretation procedure, we separate the 162 compound results into 19 SGH sub-classes. These classes include specific alkanes, alkenes, Thiophenes, aromatic, and polyaromatic compounds. The concentrations of the individual hydrocarbons within a class are simply summed. None of these compounds are gaseous at room temperature.
- At this time the magnitude of the hydrocarbon class data has not been proven to imply a higher grade or quantity of the mineralization if present.
- A "geochemical anomaly threshold value" should not be calculated for SGH data as any background or noise has already been filtered out through the use of a Reporting Limit instead of some type of detection limit.
- SGH hydrocarbon data should never be interpreted individually. Interpretation must always use a compound class.
- Multiple SGH Classes are compared. Multiple SGH Classes that have been associated with the presence of specific mineralization are called SGH Pathfinder Classes that together represent the forensic signature or fingerprint identification that is associated with a specific type of mineralization or petroleum play.
- The anomalies of each class are compared as to their geochromatographic dispersion and ability to vector to a common location that may be referenced as a potential drill target.
- The agreement and behaviour between SGH Pathfinder Classes for a type of target, as a template of Classes, is compared against SGH research and orientation studies. The quality of agreement is expressed as an SGH Rating of confidence that the SGH anomalies of the survey being interpreted are similar to the behaviour of these classes over known mineralization.
- The interpretation is customized for the project survey by the Author. The SGH Rating and Interpretation is subjective and based on the experience from 1,000+ SGH survey interpretations. The interpretation is not conducted or assisted by any computerized process.

# SGH CHARACTERISTICS

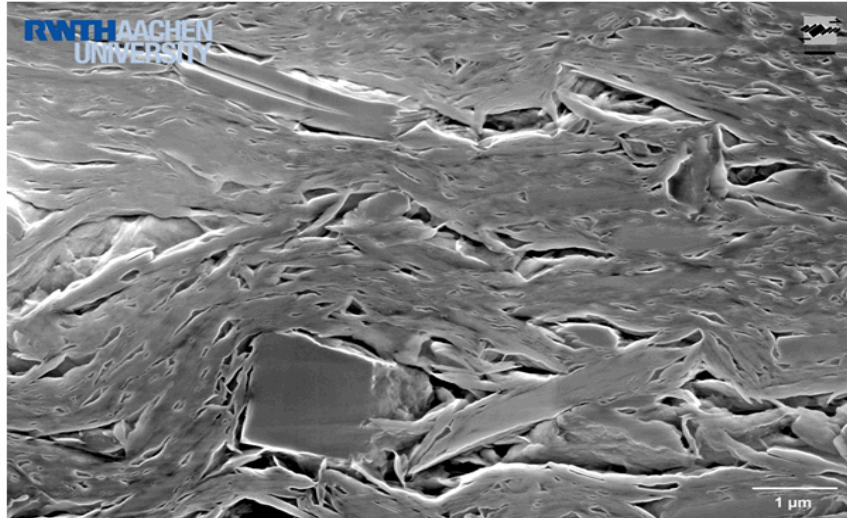
**Summary:** See Appendix G for more details

## SGH Characteristics:

- The pattern of SGH anomalies are usually of high contrast and easily observed.
- SGH is able to illustrate exceptionally symmetrical anomalies in spite of exotic overburden and barriers such as permafrost, shale and basalt caps, previously thought to be impenetrable.
- Inorganic geochemistry can illustrate anomalies of metals that have been mobilized by surficial physical processes. As SGH is essentially “blind” to the inorganic content of a sample, SGH anomalies illustrate the true source of mineralization as it is not affected by the effects of terrain or from mobilized cover such as from glacial transport.
- As SGH hydrocarbons are essentially non-polar, highly symmetrical anomalies are observed. As such symmetry is rare in geochemistry this provides a higher level of confidence to the interpretation that is reflected by a higher SGH Rating Score in comparison to known case studies.
- SGH can be analyzed on samples collected in different seasons or adjacent years. The combined data most often does not require any data leveling.

## SGH INTERPRETATION – LATEST ENHANCEMENTS

SGH continues to be developed even after 18 years since inception. Although the sample preparation and analysis has stayed the same, in the last 10 years in particular it is the interpretation and understanding of the SGH data and the intricacies of the SGH signatures that have been more refined. In the last 4 years this understanding has extended to the ability to make some prediction of depth from just the use of this geochemistry. A “first” for a geochemistry that is unique to SGH. Today the latest SGH development is the introduction of the concept of the “transparent overburden”. The basis of this ability is the understanding that SGH is a Nano-geochemistry. The term “Nano” is not only used to describe the capability in detecting “Nano” quantities of these hydrocarbon based bacterial decomposition products, with the ability to detect 1 nanogram per kilogram (ng/Kg or 1 part-per-trillion), but “Nano” also describes the size of the hydrocarbon compounds detected which are typically < 1 micron in size. These relatively non-polar hydrocarbons are far smaller in size than inorganic oxides and sulphides. This difference is the reason why SGH anomalies are reliable vertical projections of mineral and/or petroleum based targets. This SGH Nano-geochemistry thus makes even the most exotic overburden “transparent”. The SEM (Scanning Electron Microscope) image below illustrates the large number of micron sized pore spaces in “Boom Clay”, specific high density clay, used to cap deep chambers of high hazard and radioactive wastes. To SGH, this is just a sieve that these hydrocarbons are able to still migrate through by Nano-Capillary action. Inorganic oxides and sulphide anomalies from targets below such complex overburden may be laterally displaced as they must rely on faults and shears in order to migrate to the surface. This topic will be presented at the 2015 International Applied Geochemistry Symposium in April, 2015.

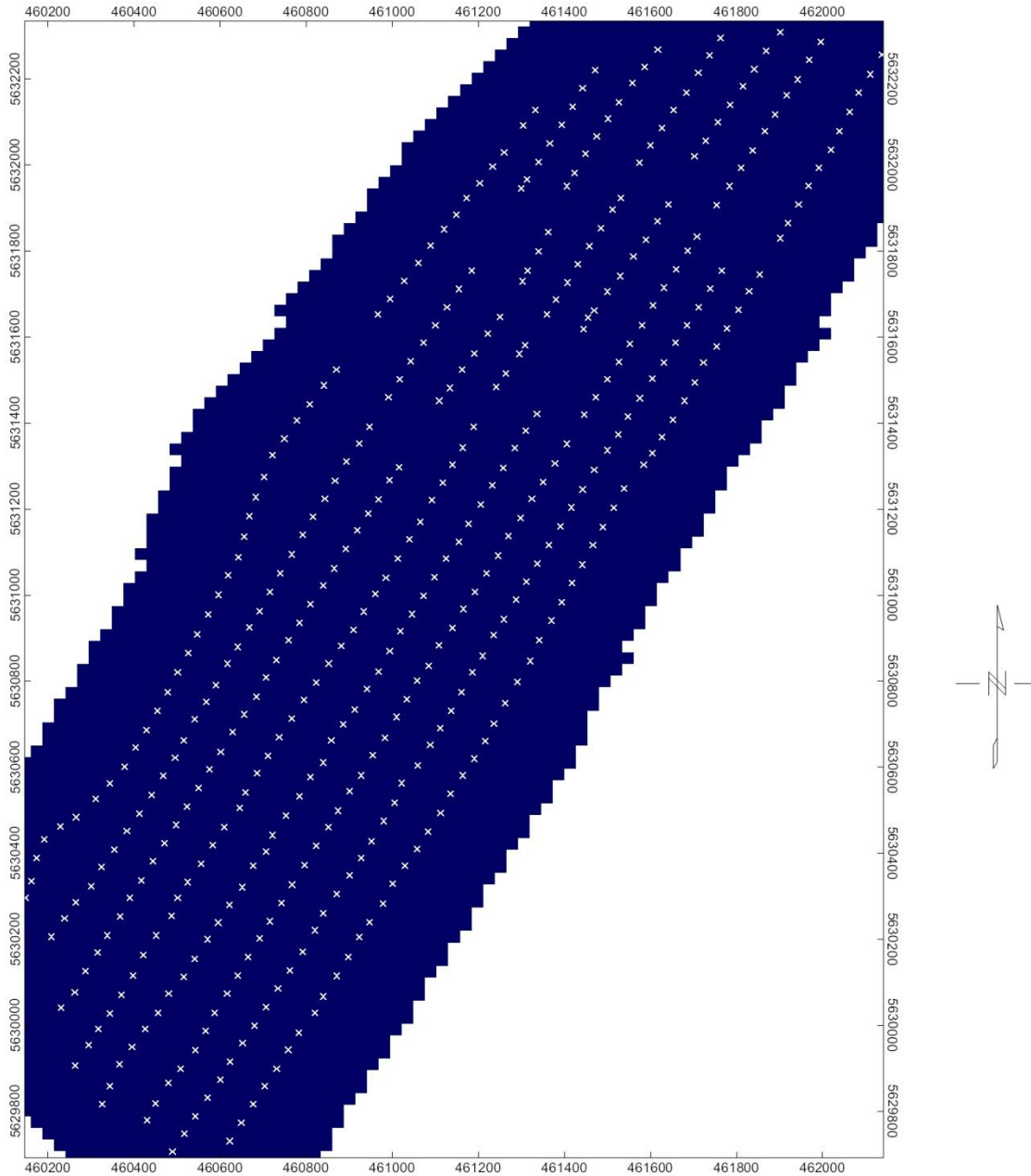


This new understanding of the rationale of why SGH anomalies are so reliable in their vertical projection of the location of mineralization and in the ability to so accurately delineate shallow and deep mineralization has further lead to the ability to use SGH to review different layers of the overburden as it relates to the mineral target due to the wide molecular weight range of the SGH Nano-geochemistry. Another factor that aids in this review of layers, much like peeling back the layers of a sweet-onion, is the understanding of weathering processes in the 5 metres near the surface that includes the Vadose zone.

# INTERPRETATION OF SGH RESULTS – A19-16098

## BTU METALS – DIXIE HALO - SGH SOIL SURVEY

This report is based on the SGH results from the analysis of a total of 417 soil samples from the DIXIE HALO survey. The survey can be described as a grid with 50m sample spacing and approximately 100m between transects. The samples were shipped to Actlabs Global Headquarters, then prepared for analysis. Sample coordinates were provided for mapping of the SGH results for these samples in UTM format. A sample location map is shown below.





## **SGH INTERPRETATION - A19-16098 – BTU METALS QUALITY ASSURANCE – DIXIE HALO SGH SOIL SURVEY**

Note that the associated SGH results are presented in a separate Excel spreadsheet. This data is semi-quantitative and is presented in units of pg/g or *parts-per-trillion* (ppt) as the concentration of specific hydrocarbons in the sample. The number of samples submitted for this survey is more than adequate to use SGH as an exploration tool. SGH has been proven to discriminate between false mobilized soil anomalies and is able to actually locate the source target deposition. SGH is a deep-penetrating geochemistry and has been proven to locate Copper, Gold, VMS, and other types of mineralization as well as for petroleum targets at several hundred metres below the surface irrespective of the type of overburden. Note that the SGH data is only reviewed for the particular target deposit type requested, in this case for the presence of gold. It is assumed that there is only one potential target. If known, in surveys with several complex geophysical targets, to obtain the best interpretation the client should indicate that there are possibly multiple targets. The possibility of multiple geophysical targets should be known due to potential overlap and increased complexity of the resulting geochromatographic anomalies, which could alter the interpretation as to which targets are mineralized or not.

**The overall precision of the SGH analysis for the samples at the DIXIE HALO SGH Soil Survey was excellent** as demonstrated by 28 samples taken from this survey which were used for laboratory replicate analysis and were randomized within the analytical run list. The average Coefficient of Variation (%CV) of the replicate results for the samples in this survey was **11.8%** which represents a very good level of analytical performance especially at such low parts-per-trillion concentrations.

The location of **Field Duplicate samples was not identified from the DIXIE HALO SGH Soil Survey.** It is typically observed that the variability of field duplicates are 5% to 8% CV higher than for laboratory duplicates of random samples taken from the survey. Note that the SGH geochemistry does not detect all organic hydrocarbons present in the samples.

No other statistics were used on the data for this report for mapping or interpretation purposes aside from the use of a Kriging trending algorithm in the GeoSoft Oasis Montaj mapping software. **This interpretation is based only on the analytical results provided by the SGH Nano-Geochemistry from this submission of samples for the DIXIE HALO survey samples.** A template or group of SGH Pathfinder Classes that have been found to be associated with buried Gold targets was used as the basis for the interpretation of this area. The final interpretation is customized and conducted by the author. Although the term "template" or "signature" appears in this SGH Report, a computerized interpretation is not used.

## SGH INTERPRETATION - SGH TARGET PATHFINDER CLASS MAPS

The maps shown in plan and in 3D views in this report are SGH "Pathfinder Class maps" for targeting various chemical classes of hydrocarbon flux signatures related to Redox conditions and gold type targets. This report may have been expanded by the author to include additional SGH information that may help understand the structure of the findings if present at the Dixie Halo survey area. The maps shown represent the simple summation of several individual hydrocarbon compound concentrations that are grouped from within the same organic chemical class. SGH Pathfinder Class maps have been shown to be robust as they are each described using from 4 to 14 chemically related SGH compounds (unless otherwise stated) which are simply summed to create each chemical class map. Thus each map has a higher level of confidence as it is not illustrating just one compound measurement.

The Gold template of SGH Pathfinder Classes uses primarily low and medium molecular weight classes of hydrocarbon compounds. At least three Pathfinder Class maps, associated with the SGH signature developed must be present to begin to be considered for assignment of a good rating relative to the SGH performance in case studies over known Gold types of mineralization (some of these maps might not be shown in this report). These SGH classes must also concur and support a consistent interpretation in relation to the expected geochromatographic characteristics of the Pathfinder Class. The *overall* SGH interpretation Rating has even a higher level of confidence as it further implies the consensus between at least three SGH pathfinder classes. A combination of these SGH Pathfinder Classes potentially defines the signature of a target at depth if present. Each of the SGH Pathfinder Class maps shown in this report is a specific *portion* of the SGH signature relative to the presence of Gold as described. Each pathfinder class map is still just one of the Pathfinder Class maps used in the interpretation template for Gold. Additional interpretation information which may contain additional SGH Pathfinder Class maps is available as a Supplementary Report at an additional price (see Appendix H).

# **A19-16098 – BTU METALS**

## **DIXIE HALO - SGH SOIL SURVEY - SGH INTERPRETATION**

### **SGH TARGET PATHFINDER CLASS MAPS**

Note that any concentration value in the accompanying Excel spreadsheet greater than the "Reporting Limit" of 1 ppt is important data and has been able to depict mineralization or petroleum plays at depth under cover in other projects. The majority of the variability or noise has already been eliminated; additional filtering will adversely affect any interpretation. Note again that a Kriging trending algorithm has been applied to the mapping routine in the Geosoft Oasis Montaj software in the development of the SGH Class maps. SGH concentrations are in some way probably related to the amount of mineralization or petroleum resource present, which probably defines the characteristics or quantity of the biofilm(s) in contact with the target, as well as being related to the depth to the target. SGH results have also been shown to correlate well with geophysical measurements such as magnetic anomalies and those of CSAMT.

The SGH Class maps are the plot of the sums of the particular hydrocarbon class in parts-per-trillion concentration. The dark blue areas of these maps represent very low or non-detect values or areas where no samples were taken. For plotting purposes the values at the Reporting Limit are plotted as one-half of this filtering, or one-half of 1.0 ppt. The hotter colours represent higher concentrations of the sum of the class with the highest values being purple in colour. The lowest concentrations that may be at 0.5 ppt, are shown in blue.

SGH is a "deep penetrating" geochemistry but also works well for deep targets as well as relatively shallow targets. Targets shallower than about 3 to 5 metres (or potentially outcrop) will have a reduced SGH signal due to interaction with atmospheric conditions and samples taken right at surface outcrops will have even weaker signals due to a higher degree of weathering from various environmental processes on these volatile and semi-volatile organic hydrocarbons.

In the interpretation of SGH data there are several goals. In order of importance they are:

- Review for the presence of Redox Cells
- Vector to the location of a mineral target
- Delineate the mineral target
- Identify the type of mineral target
- Describe the features of the possible mineral target
- See if there is information on the basement structure
- Predict a drill target
- Predict the possible depth to the mineral target

Not every goal is expected to be able to be achieved with each SGH data set or survey.

# **A19-16098 – BTU METALS DIXIE HALO SGH SOIL SURVEY SGH INTERPRETATION RATING AND CLARIFICATION**

Often a geochemistry such as SGH is used as an economical exploration investigation tool to provide more information on an exploration target as some geological body or help prioritize some geophysical target. Such occurrences are in general expected to change the chemistry of the immediate overburden which in turn is expected to result in a chemical anomaly as detected in surficial samples. The author believes that it is important to convey to the client the presence of an anomaly even if there is only part of the SGH signature present that may be related to the mineral signature or template requested. In other words, the anomaly illustrated in the report may not be representative of the mineralization sought as only a part of the SGH signature is present, but the anomaly may confirm the presence of some geological or geophysical target which may be valuable to the client for comparison with other data. In addition it would confirm the ability and sensitivity of SGH to show geological or geophysical occurrences. Example: A well defined rabbit-ear anomaly on an SGH Pathfinder Class map in a report, even though it may have a lower rating of 2.0 or 3.0, may illustrate to the exploration geologist that SGH does agree that there is some geological body at depth that is changing the chemistry and forming a Redox cell in the overburden. However the SGH forensic signature Rating indicates that there is a lower confidence that the "identification" of that body is likely to be say Gold (if the SGH Gold template is requested). This information would provide a confirmation that a target does exist, however if the SGH Rating indicates that the target has a lower level of confidence then the target does not have the forensic signature of the mineralization sought. SGH would thus provide a savings to the exploration program and divert focus to potentially other targets having a higher confidence in the SGH identification Rating for Gold in this example.

**Thus, the SGH rating must always be considered in conjunction with the SGH Pathfinder Class map(s) shown in the report.** It is this rating that provides an insight into the authors' complete interpretation and is a measure of the confidence and to what degree the complete SGH signature compares with the SGH results from over case studies of similar known deposits. Unfortunately, the interpretation of a visual, as the SGH map provided, is so ingrained in humans that the reader may erroneously disregard the author's subjective rating to a large degree. As of November 25, 2011, the author now highlights the rating directly on the page having the plan view of the SGH Pathfinder Class map chosen to be illustrated. Thus to the reader of the report, the authors Rating is actually **MORE IMPORTANT** than the readers instinctive interpretation of just the one map provided. Again, SGH should not be used in isolation from other site information, and that a Rating of 4.0 is when, in the authors' estimation, a signature only starts to have a good identification relative to that type of mineralization, and that the survey may warrant further study although it is not a specific recommendation to drill test the anomaly. As the SGH interpretation is represented by a signature, the SGH Pathfinder Class map(s) illustrated in reports is always only "PART" of the specific SGH signature or template that the client requests (i.e. for Gold, etc.). No one SGH map can represent the complete signature due to the different amounts of spatial dispersion of the anomalies that are expected for the variety of SGH chemical classes within each signature. Thus the author selects the one SGH Class Map relative to the mineralization requested that best represents an anomaly that estimates the overall signature found in the survey.

## **A19-16098 – BTU METALS – DIXIE HALO SGH “REDOX” INTERPRETATION**

As a general comment in regard to the SGH results at the DIXIE HALO SGH Soil Survey, the SGH data in general had good signal strength and the SGH Class maps in this report are quite good in contrast. It's important to not think of contrast with SGH as Signal:Noise as by using a "Reporting Limit" the noise has already been completely or nearly completely removed.

One of the first steps in the interpretation of the spatial aspect of SGH data is to locate potential Redox conditions in the overburden. Redox conditions have been well known to be related to blind mineral or petroleum targets; however, Redox conditions can also be attributed to other geological bodies that are of no particular interest. SGH signatures have been shown to be able to differentiate between these targets. SGH has been described by the Ontario Geological Survey of Canada (OGS) as a "Redox Cell locator". Redox Cells can be related to the presence of bacteriological activity related to mineralization but also may be related to the presence of geological bodies such as Granite Gneiss, Dunite, etc. Recently SGH has been shown to be far more sensitive to depicting Redox conditions than even measurements using pH or ORP tests. It is important to understand that; not only is SGH a Redox cell locator, but due to the forensic signature of mineralization used in the interpretation process, SGH can discriminate mineral targets and other target types from geological bodies, other magnetically detected targets, mineralized versus non-mineralized conductors, cultural effects, etc. even in surveys over highly difficult or exotic terrain that often requires the collection of multiple sample types. In the interpretation it is not necessary to detect a Redox cell if mineralization is within approximately 30 metres of the surface as this would be insufficient depth to develop a dispersion halo anomaly. Many SGH surveys for Gold, Petroleum, and other mineral and petroleum based targets can result in multiple types of anomalies, depending on the class of SGH compounds, even over the same target and in the same set of samples. Thus "Apical", "Segmented-Nested-Halo", and "Rabbit-Ear" or "Segmented Halo" type anomalies are all typically observed within the SGH data set from the effect of Redox cells that have developed over mineralization and their interaction with Redox conditions and the electromotive forces produced by the subsequent Electrochemical Cell. Different types of anomalies have also been associated with the depth to the target. The types of anomalies developed have been recently explained by the use of the 3D-SGH model of interpretation. The highly symmetrical anomalies illustrated by SGH data closely follow the expected self-organizing patterns of neutral species within an electrochemical cell in recent experiments in physics laboratories. The highly symmetrical anomalies are also able to be observed as the Nano-sized dimensions of these organic hydrocarbons are much smaller than inorganic oxides and sulphides. Thus the SGH hydrocarbons can migrate through the Nano-sized fissures of even clay, basalt, and permafrost caps by means of Nano-capillary action. The simple fact that the SGH anomalies are geometrically symmetrical and not random further improves the confidence of SGH interpretations.

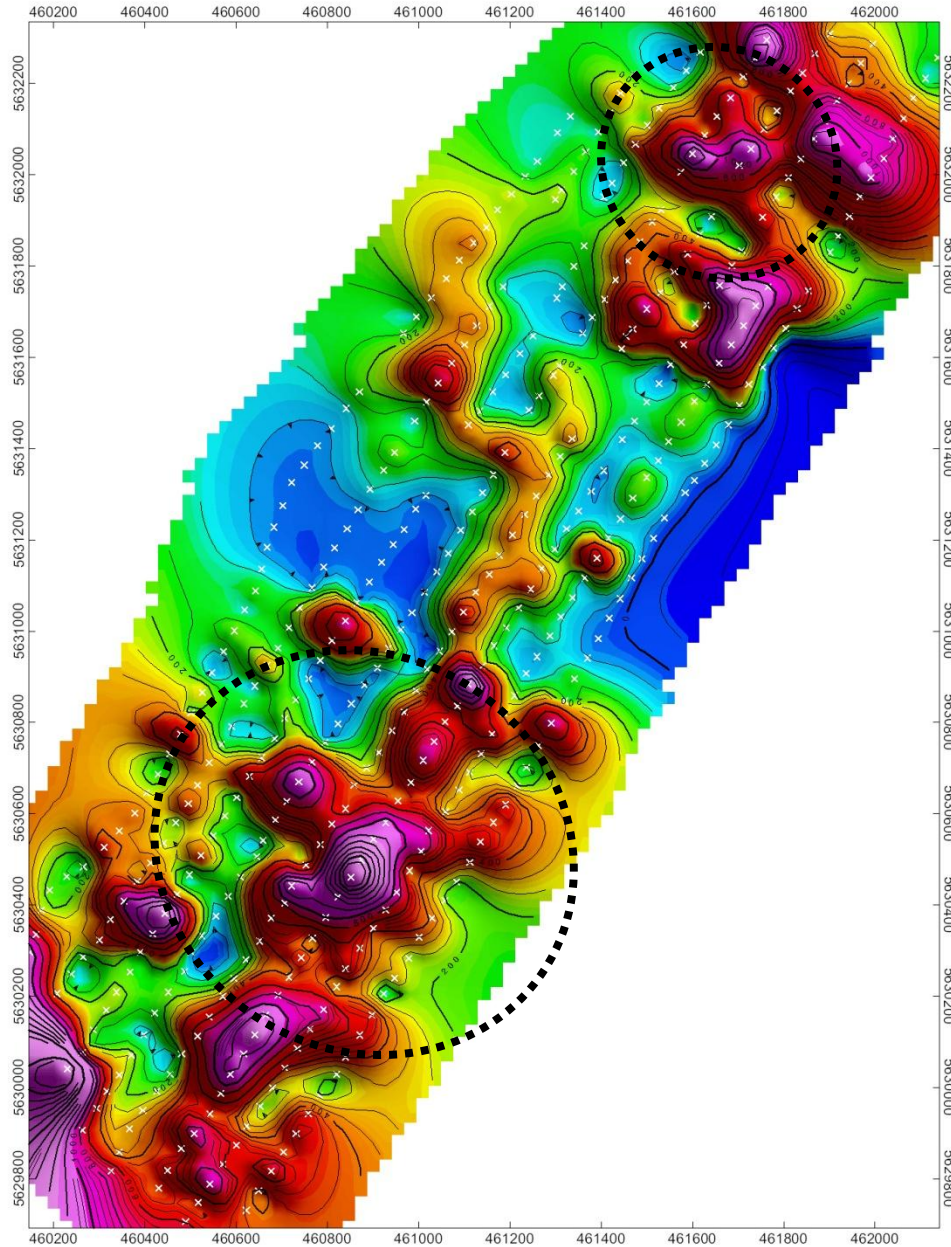
## **A19-16098 – BTU METALS – DIXIE HALO SGH SOIL SURVEY - SGH "GOLD" INTERPRETATION**

The SGH Pathfinder Class map shown on page 22 and in 3D view on page 23 shows the SGH anomaly from one of the most reliable SGH Pathfinder Classes in predicting the presence of Redox conditions that can support other SGH Pathfinder Class maps for Gold mineralization. Remember that signals near the edges of the survey or at the ends of transects can appear to be higher due to the Kriging trending algorithm applied for mapping.

These SGH Class maps are only a portion of the SGH Gold signature used in each interpretation. There is not any one SGH Class map that can, as a single map, be reliably used to interpret the presence of Copper, Gold or any other type of mineralization. Again, as signals or anomalies due to any analytical, sample preparation, or sampling procedure "noise" have been removed through the use of the Reporting Limit filter, any SGH anomaly on this Pathfinder Class Map has a high probability of being real data. The SGH Pathfinder Class maps shown are highly sensitive in illustrating strong results for Gold based on previous research and case studies. Other SGH Classes at the DIXIE HALO survey also agree with the interpretation shown in the following pages.

This portion of the SGH hydrocarbon signatures is predicted to be associated with Gold targets as the detection of those hydrocarbon residues produced by the decomposition of microbes and bacteria from the life cycle death phase that have been feeding on Gold. These residues have subsequently migrated to the surface as a flux of different classes of hydrocarbons or decomposition products. During migration to the surface, dispersion away from the mineralization is expected. The distance of dispersion is dependent on the principle of geochromatography that is in generally related to the average molecular weight of the class. It has been found that the complexity of the overburden does not affect the geochromatographic dispersion of the SGH classes of this Nano-Geochemistry, unless a situation is encountered such as that of a "major" fault that may result in a very slight deflection of this path. This is the basis of the 3D-SGH interpretation as the relatively neutral hydrocarbons that SGH detects are spatially observed as very symmetrical anomalies (as presented by the creator at the IAGS conference in Finland in 2011 and further at the IAGS conference in New Zealand in November of 2013 and Tucson Arizona in 2015).

# A19-16098 – BTU METALS – DIXIE HALO SGH "REDOX" PATHFINDER CLASS MAP



SEGMENTED-NESTED HALO ANOMALIES ILLUSTRATING POSSIBLE PRESENCE OF REDOX ZONES



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January 28, 2020

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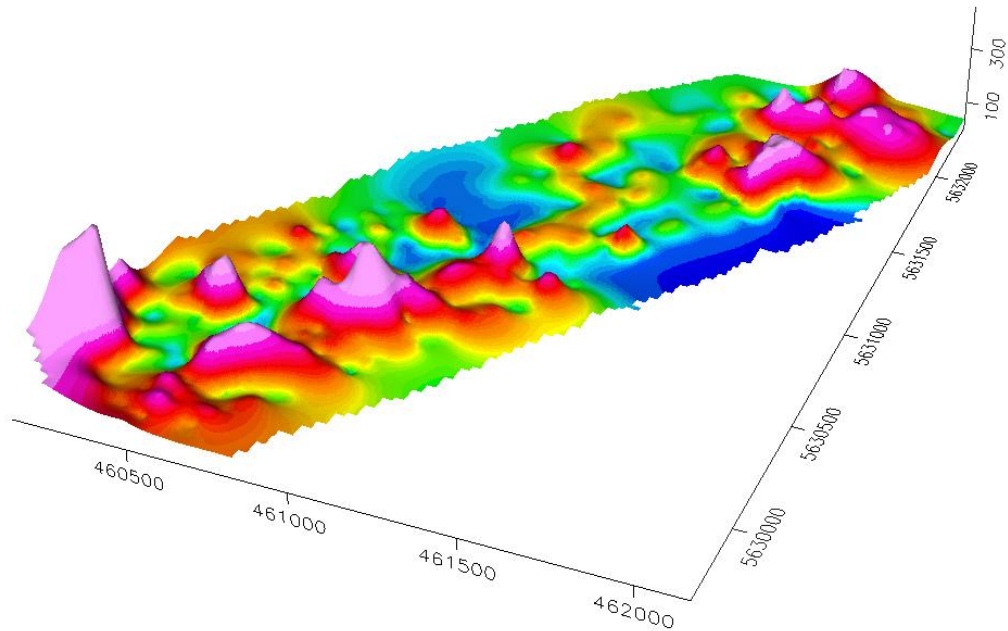
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# A19-16098 – BTU METALS – DIXIE HALO SGH "REDOX" PATHFINDER CLASS MAP



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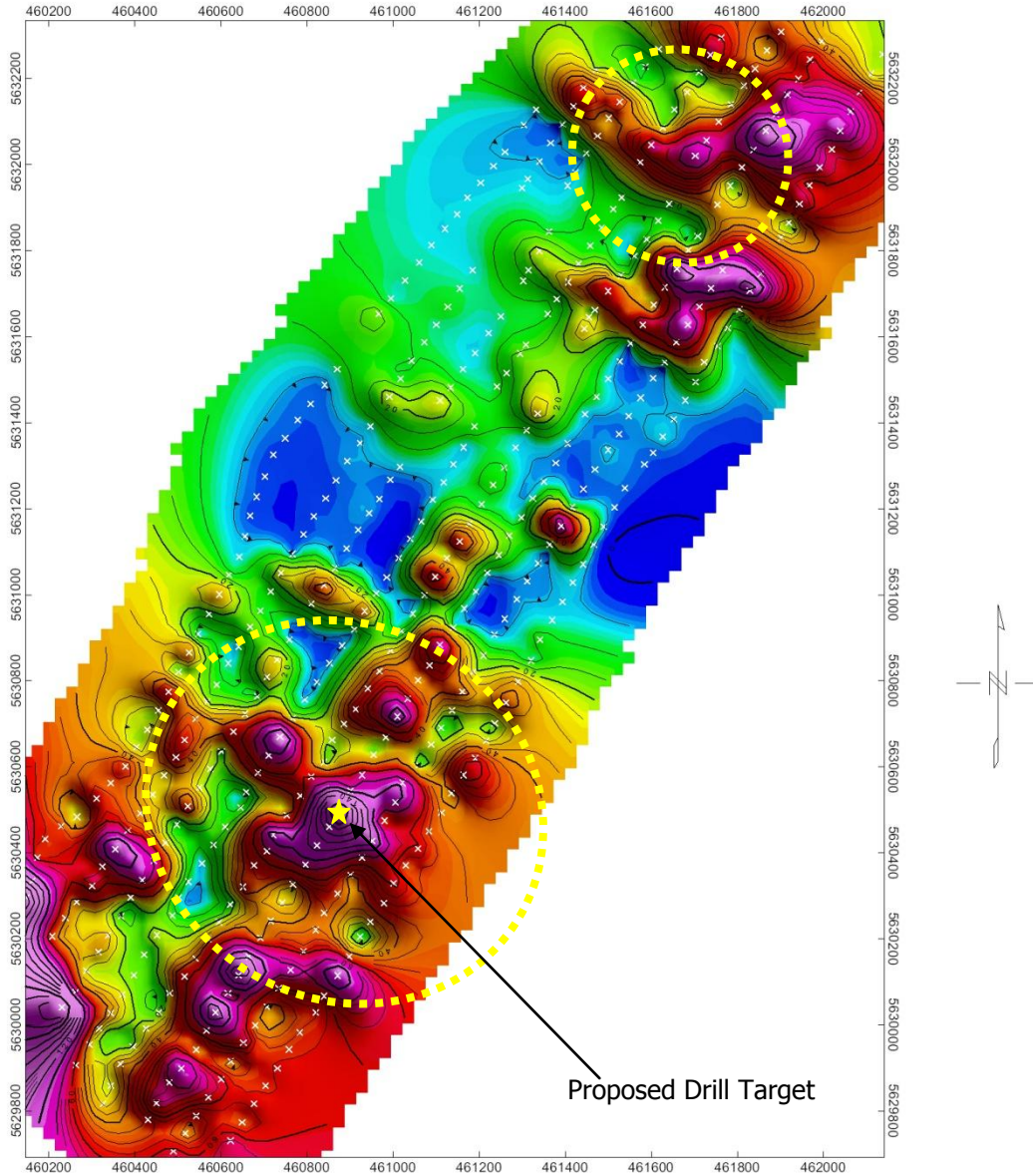


## **A19-16098 – BTU METALS – DIXIE HALO SGH GOLD INTREPRETATION**

Page 25 of this report, and in 3D-view on page 26, shows the anomalies from the most reliable SGH Pathfinder Class in predicting the presence of Gold Mineralization. This map shows the anomalies outlined in yellow. We believe that mineralization might exist at these locations as a vertical projection beneath these anomalies. Several other SGH Pathfinder Class Maps associated with the presence of Gold mineralization (not shown in this report) support this interpretation of these anomalies at the Dixie Halo SGH Project.

Again, the prediction of these anomalies for Gold mineralization is based only on SGH.

# A19-16098 – BTU METALS – DIXIE HALO SGH "GOLD" PATHFINDER CLASS MAP



PREDICTED GOLD MINERALIZATION – YELLOW OUTLINE  
**SGH SIGNATURE RATING RELATIVE TO "GOLD" = 5.5 OF 6.0**



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January 28, 2020

Activation Laboratories Ltd.

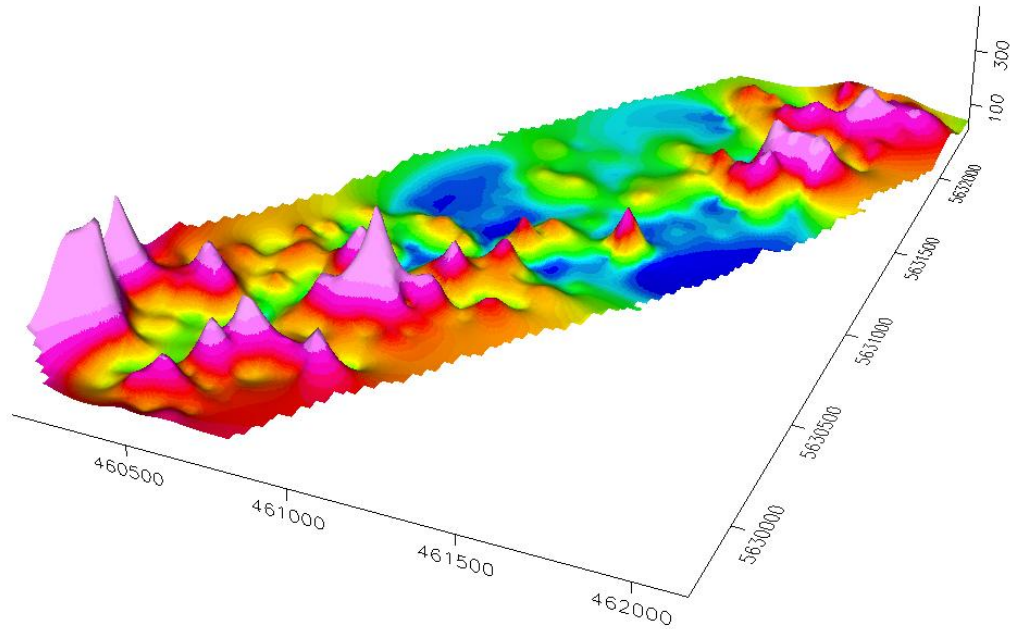
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# A19-16098 – BTU METALS – GREENGOLD SGH "GOLD" PATHFINDER CLASS MAP



Results represent only the material tested. Actlabs is not liable for any claim/damage from the use of this report in excess of the test cost. Samples are discarded in 90 days unless requested otherwise. This report is only to be reproduced in full.

# **A19-16098 – BTU METALS DIXIE HALO SGH SOIL SURVEY - SGH INTERPRETATION FOR THE PRESENCE OF MINERALIZATION**

The interpretation of the SGH data on page 25 relative to the presence of Gold mineralization at the BTU Metals Dixie Halo survey may be based on what may appear to be the presence of Redox Zones. Based also on the makeup of the SGH signatures, these Redox Zone may be associated with the possible presence of Gold mineralization

In general, SGH is not a perfect confirmatory technique for inorganic chemistry's. Inorganic methods will show the highest anomalies for outcrops at surface where as the SGH sensitivity is reduced at this point due to further degradation by environmental exposure to sun, rain, UV, etc. This reduction may not be seen on the maps provided due to normalization to the highest response in the map overall. SGH predicts whether the mineralization is present at subcrop or deeper portions relative to the mineralized structure.

A proposed drill target location is recommended at the DIXIE HALO survey as shown on page 25. The subjective SGH confidence rating for the DIXIE HALO survey assigned to the anomaly in general on these maps where the anomalies coincide on their location is on average 5.5 on a scale of 6.0. The Rating for the DIXIE HALO survey means that, based only on SGH, that there is a high probability that mineralization may be present. Note, as the SGH Rating is one of confidence, in our judgment an assignment of a Rating of 0.0 cannot be given out. From client feedback in recent years, a few grass roots exploration surveys that have been interpreted with an SGH Confidence Rating of 4.0 ( $\pm 0.5$ ) have been drill tested and have had successful mineralization intersections. However the frequency of success is much more prevalent for those targets that have associated SGH Rating Scores of  $\geq 5.0$ .

The SGH Ratings shown on page 25 in this and all SGH reports are based on a scale of 6.0, in 0.5 increments, with a value of 6.0 being the best. The SGH Ratings discussed in relation to mineralization represents the similarity of these SGH results with other SGH case studies and orientation studies over known mineralization. These SGH signatures or templates have been constantly refined and enhanced since inception and has been proven to be effective and reliable. The SGH templates are based on the interpretation from over 1,100 interpretations of surveys in many different geographical regions and from a wide variety of lithologies. The degree of confidence in the SGH Rating only starts to be "good" at a level of 4.0. A Rating of 4.0 or more is an indication that this SGH Nano-Geochemistry predicts that the zone(s) described may warrant more work or more consideration.

# **A19-16098 – BTU METALS DIXIE HALO SGH SOIL SURVEY - SGH INTERPRETATION FOR THE PRESENCE OF MINERALIZATION**

Any identification of a drill target is not an explicit recommendation by Activation Laboratories Ltd. to drill test the associated location or SGH anomaly. A drill target is implied to ensure that the reader is aware of the location having the highest confidence of being the location of the vertical projection of mineralization, based only on SGH data. This is also not a recommendation for vertical drilling. Vertical drilling may not be the best approach to test the SGH anomaly in this area although SGH anomalies are very much a vertical projection of the target at depth regardless of the makeup of the overburden. Activation Laboratories Ltd. has no experience in actual exploration drilling techniques. Other geological, geochemical and/or geophysical information should also be considered.

It must be remembered that other SGH Class maps not shown in this report have also been reviewed to support the interpretation shown. To deduce the most scientifically sound interpretation of the SGH surveys, the client should use a combination of the SGH results shown in this report with additional geochemical, geophysical, and geological information to possibly obtain a more confident and precise target location. This is not a statement to convey some lower level of confidence in SGH results. This statement is made to recognize the proper use and interpretation of any scientific data. Whenever possible, multiple methods should always be employed so that any decisions do not rely on any one technique.

## **A19-16098 – BTU METALS**

### **DIXIE HALO SGH SOIL SURVEY - SGH SURVEY RECOMMENDATIONS**

In general, the number of samples was more than adequate to show what the author believes to be valuable information at the DIXIE HALO survey. Our recommendation states to use a minimum of 50 sample locations to be taken with at least 2 or 3 samples taken within 1 metre of a location as field duplicates. Survey designs that use a regular grid are very powerful tools although a 4:1 ratio as spacing between transects: spacing of samples along transects has also had excellent results with SGH. There is no recommendation for immediate infill sampling on this survey. Additional infill samples should be able to be easily added to the current data set without data leveling 90+% of the time. As the interpretation is difficult for surveys having less than 50 sample locations and the corresponding confidence is significantly lower, as of September, 2017, surveys with less than 50 sample locations will not be accepted and will be returned to the client at their expense. We believe a survey with less than 50 sample locations is not beneficial or cost effective to the client.

### **GENERAL RECOMMENDATIONS FOR ADDITIONAL OR IN-FILL SAMPLING FOR SGH ANALYSIS**

In general, if the client decides that in-fill sampling may be warranted, to obtain the best results from additional sampling for SGH it is usually recommended that sample locations from the original survey within, or bordering, the area of interest be re-sampled rather than just combining new sample results with the sample data from the initial survey. Although several SGH surveys have previously been easily and directly, combined without data leveling, it cannot be guaranteed that data leveling will not be required. It has been found that data leveling is more apt to be required should the new samples be collected under significantly different environmental conditions than during the initial sample survey, i.e. summer collection versus winter collection

The process of data leveling adds a minimum of 3 to 5 days of work to conduct the additional data evaluation, develop additional plots of the results, conduct new interpretations, and additional report descriptions. Results from data leveling is also always considered "an approximation", thus the confidence in a combined interpretation will be lower than the interpretation from samples collected during one excursion to the field and submitted as one survey. An additional cost will be invoiced should data leveling operations be required if the client requests that two SGH data sets be interpreted and reported together. Thus re-sampling a few of the original sample locations will provide a faster turnaround time for results and provide more accurate and confident surveys for evaluation and aid in deciding specific drill targets.

Date Received at Actlabs Ancaster: December 5, 2019

Date Analysis Complete: December 19, 2019

Interpretation Report: January 28, 2020

## **BTU METALS CORP**

581 Elgar Drive

Millbrook, ON, Canada

LOA 1G0

**Attention: Bruce Durham**

**RE: Your Reference: DIXIE HALO SGH Survey**

**Activation Laboratories Workorder: A19-16098**

### **CERTIFICATE OF ANALYSIS**

*This Certificate applies to the associated Excel Spreadsheet of Hydrocarbon results combined with the discussion and SGH Pathfinder Class maps of the data shown in this report.*

417 Samples were analyzed for this submission.

Sample preparation –Actlabs Ancaster - S4: Drying at 40°C and Sieving with -80 mesh collected

Interpretation relative to Gold targets was requested.

The following analytical package was requested and analyzed at Actlabs Ancaster Canada:

Analysis Code SGH – Soil Gas Hydrocarbon Geochemistry using High Resolution Gas Chromatography/Mass Spectrometry (HRGC/MS)

**REPORT/WORKORDER: A19-16098**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at the time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of the material submitted for analysis.

Notes: The SGH – Soil Gas Hydrocarbon Geochemistry is a semi-quantitative analytical procedure to detect and measure 162 hydrocarbon compounds as the organic signature in the sample material collected from a survey area. It is not an assay of Mineralization but is a predictive geochemical tool used for exploration. This certificate pertains only to the SGH data presented in the associated Microsoft Excel spreadsheet of results.

Mr. Dale Sutherland, is the creator of the SGH and OSG organic geochemical methods. He is a Chartered Chemist (C.Chem.) and Forensic Scientist specializing in organic chemistry. He is a member of the Association of the Chemical Profession of Ontario, the Association of Applied Geochemists, the International Association of GeoChemistry, the Ontario Prospectors Association, the Association for Mineral Exploration British Columbia, the Geochemical Society Association, the Ontario Petroleum institute, the Chemical Institute of Canada, and the Canadian Society for Chemistry, as well as having memberships in several national and international Forensic associations. He is not a professional geologist.

CERTIFIED BY:



Jeff Brown

Organics Supervisor

Activation Laboratories Ltd.



## APPENDIX "A"

### List of terms

- 1. SGH** – "SOIL GAS HYDROCARBON" GEOCHEMISTRY – a Predictive Geochemistry, used for delineate buried inorganic mineral deposits and organic petroleum plays. This is the original name used to describe this geochemistry since inception in 1996. Code SGH is still used when submitting samples.
- 2. 3D-SGH**- "3D- SPATIAL TEMPORAL GEOCHEMICAL HYDROCARBONS - the method of interpreting SGH and OSG results based on the Redox/Electrochemical Cell model developed by Activation Laboratories Ltd. in 2011.
- 3. Redox cell**- an area of oxidation-reduction reactions or exchange of electrons that is produced over geological bodies, mineralization and petroleum based plays.
- 4. Electrochemical cell**- the effect of adjacent chemically reduced areas and chemically oxidized areas as a Redox cell produces a electrical gradient that obeys the physics of a typical Electrochemical cell.
- 5. Anthropogenic contamination**- the introduction of impurities/compounds of the same type as those that are being analyzed by human actions that could lead to erroneous results.
- 6. Background areas**- the area around a mineral deposit that is beyond the effect of the Redox cell formed over geological bodies or exploration targets. Sampling is required into background areas to produce data that has sufficient contrast to illustrate and differentiate anomalies associated with exploration targets.
- 7. Background subtracted**- A sample taken some distances away as to not contain any elements of the target being analyzed.
- 8. Biofilm**- a layer of microorganisms and microbe and their related secretions and decomposition products, in this case found to inhabit mineral deposits .
- 9. Biomarker**- a compound used as an indicator of a biological state. In this case a biological substance used to indicate the presence of a mineral deposit.
- 10. Blind mineralization** – buried mineralization that shows no physical indication of its existence at the surface
- 11. Compound** – used synonymously with the term hydrocarbon in this report
- 12. Compound chemical class** – a group of hydrocarbons that are similar in size, structure, and molecular weight such that their chemical characteristics, such as water solubility, partition coefficients, vapour pressures, etc. are similar
- 13. Cultural activities** – human initiated processes that may affect the physical and chemical characteristics at the earth's surface
- 14. Delineating targets**- indicate the position or outlines of an exploration target as a vertical projection of the target at depth.
- 15. Geochemical anomalies** – inorganic element or organic hydrocarbon measurements that are significantly different than the average low level measurements or background in a survey i.e. the needle in a haystack is an anomaly

- 16. Dispersion patterns** – the movement/ spreading of something. In this context the spatial arrangements of hydrocarbons caused by their movements to the surface from some depth.
- 17. Exploration tool** – a geological, geophysical or geochemical method that attempts to illustrate data in exploration activities that may indicate the presence of mineralization or petroleum plays.
- 18. Fit for purpose**- this method is ideal for its intended use.
- 19. Forensic signature**- a grouping or pattern found to identify a substance having multiple characteristics with a high degree of specificity.
- 20. High specificity**- as in being very specific to the mineralization.
- 21. Anomalies**- this is the spatial representation of data that illustrates a high or low response as well as the combined spatial shape of anomalous data from several neighbouring samples in a survey that can form anomalies described as Rabbit-Ear, Halo, Segmented-halo, nested-halo, etc.
- 22. Inorganic geochemistry** – the measurement of inorganic elements in a survey of near surface samples as a tool for exploration
- 23. Data leveling** – a technique that attempts to normalize the data sets obtained between two or more sampling programs. The results of data leveling is always considered as an approximation.
- 24. Lithologies**- the characteristics and classifications of rock.
- 25. Locations**- the physical/ geographical position or coordinates of samples in a survey.
- 26. Noise**- interference in a measurement which is independent of the data signal.
- 27. Nugget effect**- Anomalously high precious metal assays resulting from the analysis of samples that may not adequately represent the composition of the bulk material tested due to non-uniform distribution of high-grade nuggets in the material to be sampled. (Webster’s online dictionary)
- 28. Organic geochemistry**- the Soil Gas Hydrocarbon geochemistry (SGH), or now more accurately named as Spatiotemporal Geochemical Hydrocarbons, is the analysis to detect specific organic, or carbon based, hydrocarbon compounds in a sample. The Organo-Sulphur Geochemistry (OSG) is the analysis to detect specific organic compounds that have sulphur joined to carbon in its molecular structure.
- 29. Percent Coefficient of Variation (%CV)** – a measure of data variability
- 30. Project maintenance** – an activity where the associated cost is applied to the exploration, advancement, and/or operation of activities associated with a particular claim
- 31. Rating**- a value given to the overall confidence in the SGH results
- 32. Real (in relation to data)**- any rational or irrational number
- 33. Reporting Limit** – minimum concentration of an analyte that can be accurately measured for a given analytical method.
- 34. Sample matrix**- the components of a sample other than the analyte.
- 35. Sample type** – soil, till, humus, lake bottom sediment, sand, snow, etc.
- 36. Semi-quantitative**- yielding an approximation of the quantity or amount of a substance
- 37. SGH anomalies** (“Apical”, “Nested-Halo”, and “Rabbit-Ear” or “Halo”)
- 38. SGH Pathfinder** (class map/compounds)
- 39. SGH template** – a set of hydrocarbon classes that together form a geochemical signature that has been associated with the presence of a particular type of mineralization the majority of the time
- 40. Surficial bound hydrocarbons** –

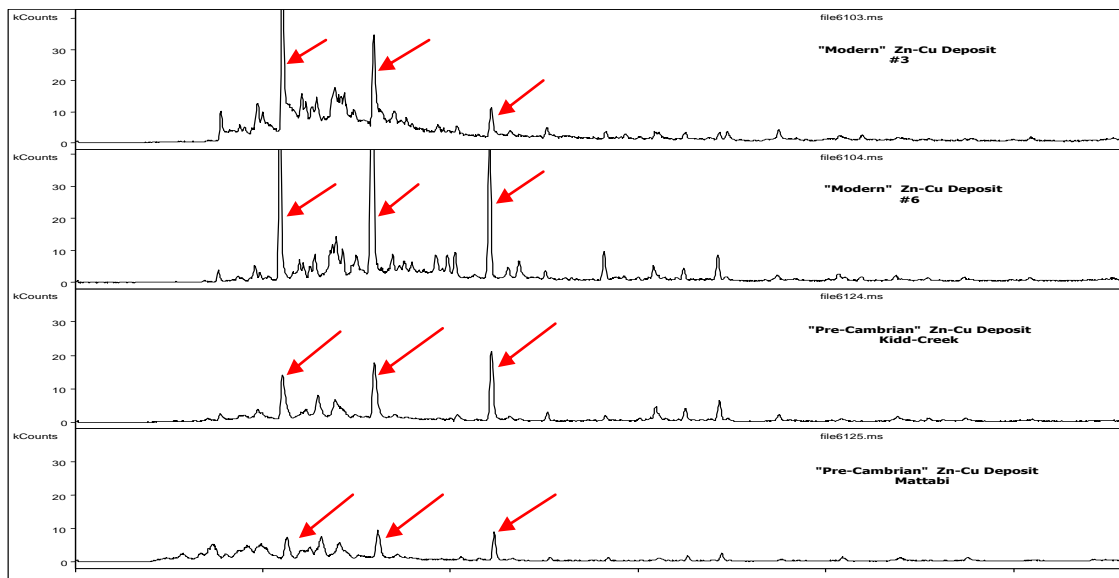
- 41. Surficial samples-** a sample from near the earth's surface.
- 42. Survey-** the area, position, or boundaries of a region to be analyzed, as set out by the client.
- 43. Project-** a planned undertaking
- 44. Transect-** A straight line or narrow section through an object or across a section of land.
- 45. Target-** Target refers to the ore body of interest  
**Target signature:** the unique characteristics that identify the target.  
**Target type:**  
i.e. Gold, Nickel, Copper, Uranium, SEDEX, VMS, Lithium Pegmatites, IOCG, Silver, Ni-Cu-PGE, Tungsten, Polymetallic, Kimberlite as well as Coal, Oil and Gas.
- 46. Threshold-** level or point at which data is accepted as significant or true.
- 47. Total measurement error-** An estimate of the error in a measurement. Based on either limitation of the measuring instruments or from statistical fluctuations in the quantity being measured.
- 48. Visible (in terms of signature)-** the portion shown in a chart or map

## APPENDIX "B"

### EXAMPLE OF AN SGH FORENSIC GEOCHEMICAL SIGNATURE EXAMPLE SHOWN FOR A VMS TARGET

The following analyses examine the Volcanic Massive Sulphide (VMS) deposit in various known locations. These analyses show how the gas chromatography indicates the reality of deposits. For all the profiles in this section, the red arrows indicate the signature of the VMS, which have all been found by organic geochemistry. These forensic geochemical signatures are shown to be consistent for similar target areas; therefore, the analyses are reliable indicators for the presence of VMS.

One of the first experiments in 1996 in the development of the SGH analysis was to observe if an SGH response could be obtained directly from an ore sample. From office shelf specimens, small rock chips were obtained which were then crushed and milled. The fine pulp obtained was then subjected to the SGH analysis. These shelf specimen samples were from well known VMS deposits of the Mattabi deposit from the Archean Sturgeon Lake Camp in Northwestern Ontario and from the Kidd Creek Archean volcanic-hosted copper-zinc deposit. Even these specimen samples contain a geochemical record of the hydrocarbons produced by the bacteria that had been feeding on these deposits at depth. As a comparison, SGH analysis were similarly conducted on modern-day VMS ore samples taken from a "black smoker" hydrothermal volcanic vent from the deep sea bed of the Juan de Fuca Ridge where high concentrations of microbial growth was also known to exist. The raw data profiles as GC/MS Total Ion Chromatograms are shown below to illustrate the "visible" portion of the VMS signature obtained from the SGH analysis.

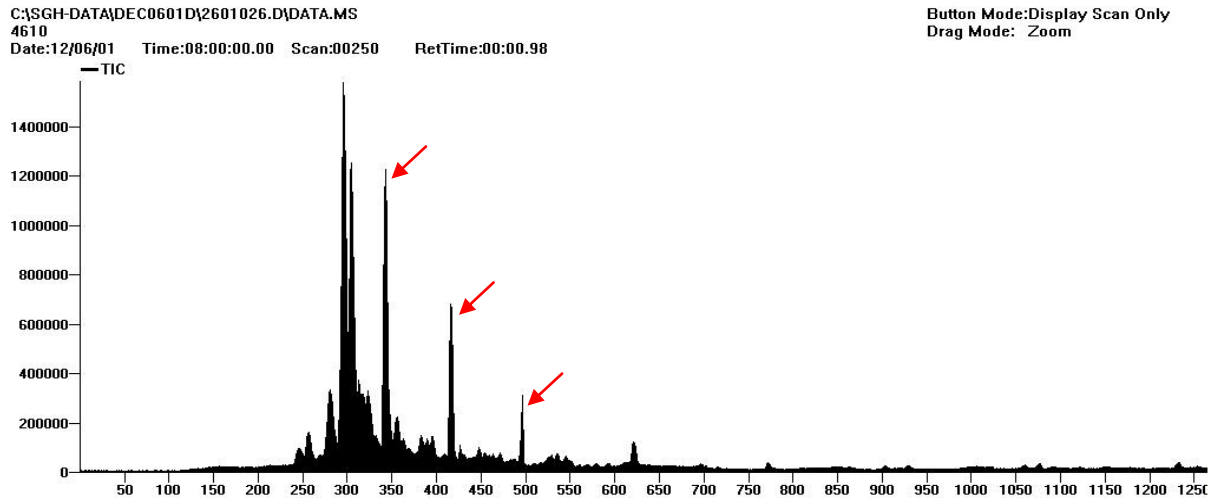


The above profiles are:

- First profile: Samples from modern day "black smokers"
- Second profile: Samples from modern day "black smokers"
- Third profile: Samples from Pre-Cambrian Zn-Cu Kidd Creek deposit
- Fourth profile: Samples from Mattabi deposit

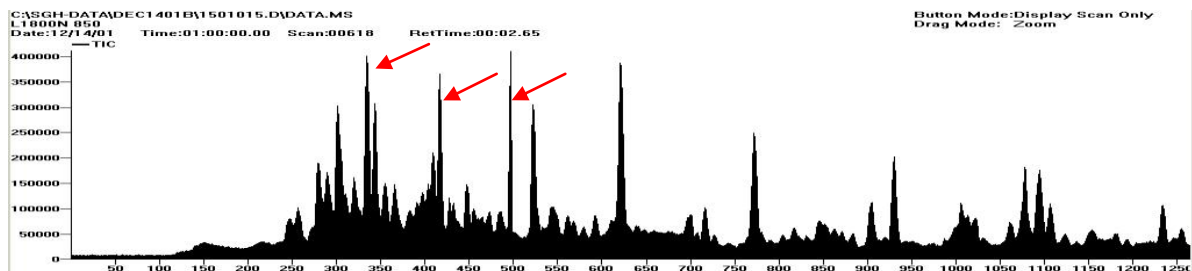
The red arrows point to three compounds that are a *portion* of the SGH signature for VMS type deposits. This visible portion of the VMS signature of hydrocarbons can easily be seen in the analysis of each of these four samples.

The next question in our early objectives was to see if this SGH signature could also be observed in *surficial soil samples* that had been taken over VMS deposits. Through our research projects, soil samples were obtained from over the Ruttan Cu-Zn VMS deposit near Leaf Rapids, Manitoba and located in the Paleoproterozoic Rusty Lake greenstone belt. The profile obtained, as observed in the raw GC/MS chromatogram, is shown in this next image below:



The three compounds indicated by the red arrows represent the same *visible portion* of the VMS signature observed from the modern day black smoker samples and the ore samples taken from the Mattabi and Kidd Creek, even though this soil was taken from over a different VMS deposit in a geographically different area. Is this coincidence?

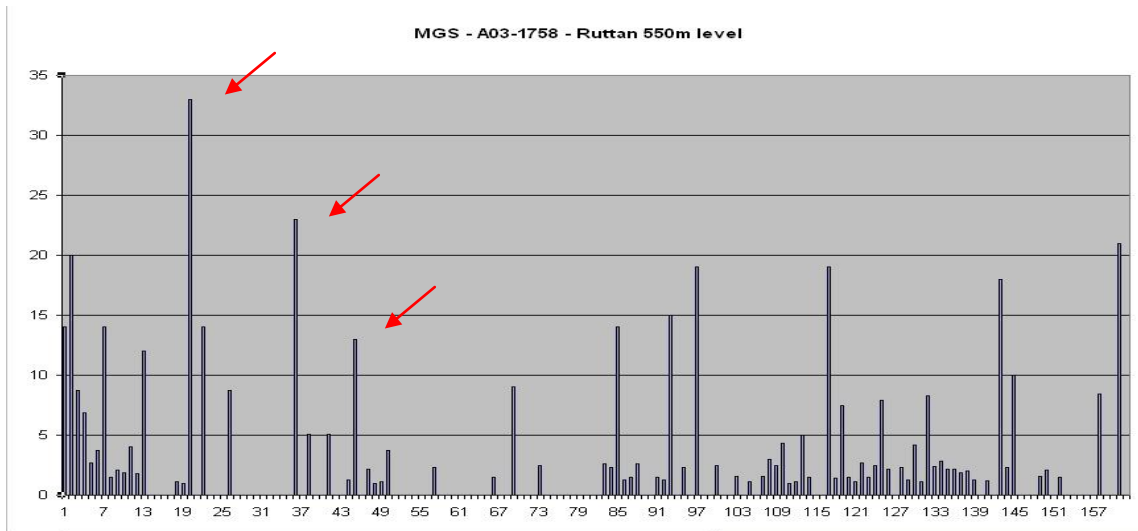
Another soil sample was obtained from Noranda's Gilmour South base-metal occurrence in the Bathurst Mining camp in northern New Brunswick. As shown below, this sample contained a very complex SGH signature, however the visible portion of the VMS signature as indicated by the red arrows is still observed as in the black smoker, Mattabi and Kidd Creek ore samples.



In research conducted by the Ontario Geological Survey, this same portion of the SGH signature was also observed over the VMS deposit at Cross Lake in Ontario. **Note that the visible signature shown as the three compounds indicated by the red arrows is only a small portion of the**

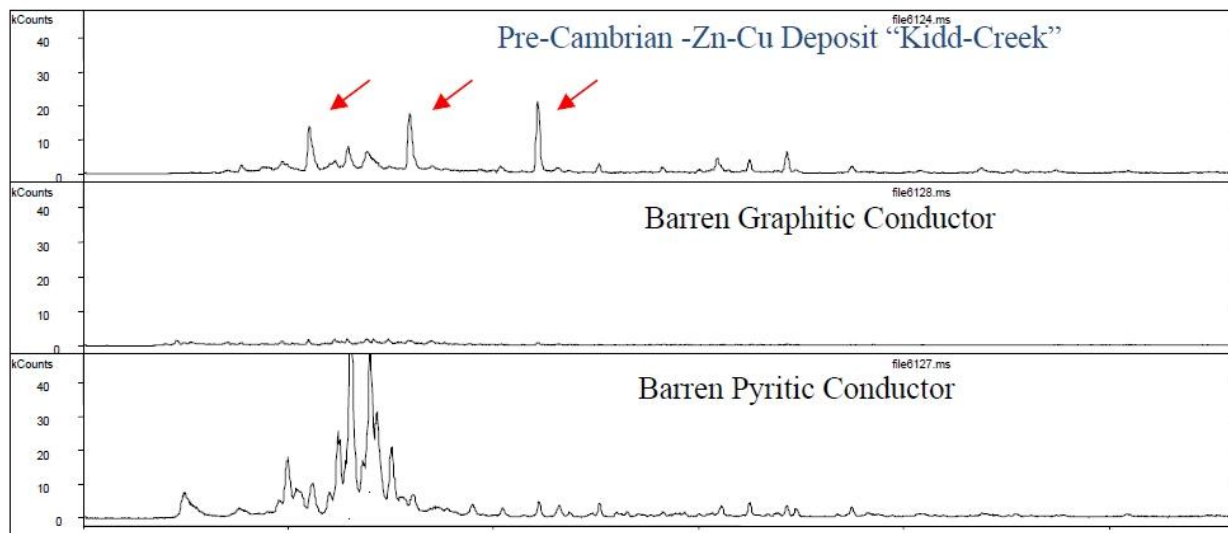
**complete SGH VMS signature.** The full VMS signature is made up of at least three groups, as three organic chemical classes, that together contain at least 35 of the individual SGH hydrocarbons.

The chromatograms shown on the preceding page from the GC/MS analysis are not used directly in the interpretation of SGH data. As we are only interested in a specific list of 162 hydrocarbons, the mass spectrometer and associated software programs specifically identifies the hydrocarbons of interest, runs calculations using relative responses to a short list of hydrocarbons used as standards, and develops an Excel spreadsheet of semi-quantitative concentration data to represent the sample. Thus the SGH results for a sample, like that observed in ore from the Ruttan, are filtered to obtain the concentrations for the specific 162 hydrocarbons. A simple bar graph drawn from the Excel spreadsheet of the hydrocarbons and their concentrations results in a DNA like *forensic SGH signature* as shown below. The portion discussed here as the "visible" SGH VMS signature in the GC/MS chromatograms, is again shown by the red arrows.



Through the work done in the SGH CAMIRO research projects, it was observed that the hydrocarbon signature produced by the SGH technique appeared to also be able to be used to differentiate barren from ore-bearing conductors. This was explored further through the submission and analysis of specific specimen samples that represented a barren pyritic conductor and a barren graphitic conductor.

The GC/MS chromatograms from these two specimens are compared to that obtained from the Kidd-Creek ore as shown below. This diagram conclusively shows that the SGH signatures obtained from the two types of barren conductors are completely different than that obtained by SGH over VMS type ore. SGH is thus able to differentiate between ore-bearing conductors and barren conductors as **the Forensic SGH Geochemical signature is different.**



SGH has been described by the Ontario Geological Survey of Canada (OGS) as a “REDOX cell locator”. Many SGH surveys for Gold and other mineral targets can result in multiple types of anomalies, depending on the class of SGH compounds, even over the same target and in the same set of samples. Thus “Apical”, “Nested-Halo”, and “Rabbit-Ear” or “Halo” type SGH anomalies are all typically observed from the effect of REDOX cells that have developed over deposits. REDOX cells are also related to the presence of bacteriological activity.

The VMS template of SGH Pathfinder Classes uses low and medium weight classes of hydrocarbon compounds. Again, at least three Pathfinder Class group maps, associated with the SGH signature for VMS, must be present to begin to be considered for assignment of a good rating. The Pathfinder Class anomalies in these maps must logically concur and support a consistent interpretation in relation to the expected geochemical characteristics of the Pathfinder Class, for a specific area.

The interpretation development history for VMS SGH Pathfinder Class map(s) shown in this report is similar to the development history for other target types. The reader should not draw a conclusion that SGH is used only for sulphide based mineralization as some of the most intense SGH anomaly has been associated with Kimberlites where sulphides are essentially not present.

## **APPENDIX "C"**

### **SOIL GAS HYDROCARBON SURVEY DESIGN AND SAMPLING**

Sample Type and Survey Design: It is highly recommended that a *minimum* of 50 sample "locations" is preferred to obtain enough samples into background areas on both sides of *small* suspected targets (wet gas plays, Kimberlite pipes, Uranium Breccia pipes, veins, etc.). SGH is not interpreted in the same way as inorganic based geochemical method. SGH must have enough samples over both the target and background areas in order to fully study the dispersion patterns or geochromatography of the SGH classes of compounds. Based on our minimum recommendation of at least 50 sample locations we further suggest that all samples be *evenly spaced* with about one-third of the samples over the target and one-third on each side of the target in order for SGH to be used for exploration. Targets other than gas plays, pipes, dykes or veins usually require additional samples to represent both the target and background areas.

SGH has been shown to be very robust to the use of different sample types even "within" the same survey or transect. Research has illustrated that it is far more important to the ultimate interpretation of the results to take a complete sample transect or grid than to skip samples due to different sample media. The most ideal natural sample is still believed to be soil from the "Upper B-Horizon", however excellent results can also be obtained from other soil horizons, humus, peat, lake-bottom sediments, and even snow. The sampling design is suggested to use evenly spaced samples from 15 metres to 200 metres and line spacing from 50 metres to 500 metres depending on the size and type of target. A 4:1 ratio is suggested, however, larger orientation surveys have also been successful. Ideally even large grids should have one-third of the samples over the target and two-thirds of the samples into anticipated background areas. This will allow the proper assessment of the SGH geochromatographic vectoring and background site signature levels with minimal bias. Individual samples taken at significant distances from the main survey area to represent background are not of value in the SGH interpretation as SGH results are not background subtracted. Samples can be drip dried in the field and do not need special preservation for shipping and has been specifically designed to avoid common contaminants from sample handling and shipping. SGH has also been shown to be robust to cultural activities even to the point that successful results and interpretation has been obtained from roadside right-of-ways. In conclusion, the conditions for the sample type and survey design include:

- Fist sized samples are retrieved from a shallow dug hole in the 15-40 cm range of depth.
- Different sample types can be taken even "within" the same survey or transect, data leveling is rarely ever required. SGH is highly effective in areas of very difficult terrain. The Golden Rule is to always take a sample.
- Samples should be evenly spaced in a grid or a series of transects with sample lines spaced at a ratio of up to 4:1 (line spacing: sample spacing).
- A minimum of 50 sample "locations" is recommended with one-third over the target and one-third on each side of the target into background if this can be predicted. This provides the opportunity of optimal data contrast.
- If very wet, samples can be drip dried in the field.
- No special preservation is required for shipping.



## **APPENDIX "D"**

### **SAMPLE PREPARATION AND ANALYSIS**

Upon receipt at Activation Laboratories the samples are air-dried in isolated and dedicated environmentally controlled rooms set to 40°C. The dried samples are then sieved. In the sieving process, it is important that compressed air is not used to clean the sieves between samples as trace amounts of compressor oils "may" poison the samples and significantly affect some target signatures. Solvents such as Acetone, Methanol, and Hexane cannot be used at any time for cleaning sample containers or sampling apparatus ie. Cleaning sieves between samples. The use of solvents at this time severely reduces the response of the hydrocarbons measured. At Activation Laboratories a vacuum is used to clean the sieve between each sample. The -60 mesh sieve fraction (<250 microns, although different mesh sizes can be used at the preference of the exploration geologist) is collected and packaged in a Kraft paper envelope and transferred from our sample preparation department to our Organics Geochemical department also in our World Headquarters in Ancaster, Ontario, Canada. Each sample is then extracted, separated by gas chromatography and analyzed by mass spectrometry using customized parameters enabling the highly specific detection of the 162 targeted hydrocarbons at a *reporting limit* of one part-per-trillion (ppt). This trace level limit of reporting is critical to the detection of these hydrocarbons that, through research, have been found to be related at least in part to the breakdown and release of hydrocarbons from the death phase of microbes directly interacting with a deposit at depth. The hydrocarbon signatures are directly linked to the deposit type, which is used as a food source. The hydrocarbons that are mobilized and metabolized by the microbes are released in the death phase of each successive generation. Very few of the hydrocarbons measured are actually due to microbe cell structure, or hydrocarbons present or formed in the genesis of the deposit or from anthropogenic contamination. The results of the SGH analysis is reported in raw data form in an Excel spreadsheet as "semi-quantitative" concentrations without any additional statistical modification.

## **APPENDIX "E"**

### **SGH DATA QUALITY**

#### **Reporting Limit**

The SGH Excel spreadsheet of results contains the raw unaltered concentrations of the individual SGH compounds in units of "part-per-trillion" (ppt). The reporting of these ultra low levels is vital to the measurement of the small amounts of hydrocarbons now known to be leached/metabolized and subsequently released by dead bacteria that have been interacting with the ore at depth. To ensure that the data has a high level of confidence, a "reporting limit" is used. The reporting limit of 1 ppt actually represents a level of confidence of approximately 5 standard deviations where SGH data is assured to be "real" and non-zero. Thus in SGH the use of a reporting limit automatically removes site variability, and there is no need to further background subtract any data as the reporting limit has already filtered out any site background effects. Thus we recommend that all data that is equal to or greater than 2 ppt should be used in any data review. It is important to review all SGH data as low values that may be the centre of halo anomalies and higher values as apical anomalies or as halo ridges are all important.

#### **Laboratory Replicate Analysis**

A laboratory replicate is a sample taken randomly from the submitted survey being analyzed and are not unrelated samples taken from some large stockpile of bulk material. In the Organics laboratory an equal portion of this sieved sample, or pulp, is taken and analyzed in the same manner using the Gas Chromatography/Mass Spectrometer. The comparison of laboratory replicate and field duplicate results for chemical tests in the parts-per-million or even parts-per-billion range has typically been done using an absolute "relative percent difference (RPD)" statistic which is an easy proxy for error estimation rather than a more complete analysis of precision as specified by Thompson and Howarth. An RPD statistic is not appropriate for SGH results as the reporting limit for SGH is *1 part-per-trillion*. Further, *SGH is a semi-quantitative technique* and was not designed to have the same level of precision as other less sensitive geochemistry's as it is only used as an exploration tool and not for any assay work. SGH is also designed to cover a wide range of organic compounds with an unprecedented 162 compounds being measured for each sample. In order to analyze such a wide molecular weight range of compounds, sacrifices were made to the variability especially in the low molecular weight range of the SGH analysis. The result is that the first fifteen SGH compounds in the Excel spreadsheet is expected to exhibit more imprecision than the other 147 compounds. An SGH laboratory replicate is a large set of data for comparison even for just a few pairs of analyses. Precision calculations using a Thompson and Howarth approach should only be used for estimating error in individual measurements, and not for describing the average error in a larger data set. In geochemical exploration geochemists seek concentration patterns to interpret and thus rigorous precision in individual samples is not required because the concentrations of many samples are interpreted collectively. For these reasons recent and independent research at Acadia University in Canada promote that a percent Coefficient of Variation (%CV) should be used as a universal measurement of relative error in all geochemical applications. As SGH results are a relatively large data set for nearly all submissions, %CV is a better statistic for use with SGH. By using %CV, the concentration of duplicate pairs is irrelevant because the units of concentration cancel out in the formation of the coefficient of variation ratio. For SGH, the %CV is calculated on all values  $\geq 2$  ppt. These values are averaged and represent a value for each pair of replicate analysis of the sample. All of the %CV values for the replicates are then averaged to

report one %CV value to represent the overall estimate of the relative error in the laboratory sub-sampling from the prepared samples, and any instrumental variability, in the SGH data set for the survey. Actlabs' has successfully addressed the analytical challenge to minimize analytical variability for such a large list of compounds. Thus as SGH is also interpreted as a signature and is solely used for exploration and not assay measurement, the data from SGH is "*fit for purpose*" as a geochemical exploration tool.

### **Historical SGH Precision**

In the general history of geochemistry, studies indicate that a large component of total measurement error is introduced during the collection of the initial sample and in sub-sampling, and that only a subordinate amount of error in the result is introduced during preparation and analysis. A historical record encompassing many projects for SGH, including a wide variety of sample types, geology and geography, shows that the consistency and precision for the analysis of SGH *is excellent* with an overall precision of 6.8% Coefficient of Variation (%CV). When last calculated, this number had a range of a maximum of 12.4% CV, a minimum of 3.0% CV, with a standard deviation of 1.6%, in a population made up of over 400 targets (over 45,000 samples) interpreted since June of 2004. Again the precision of 6.8% CV included all of the sample types as soil from different horizons, peat, till, humus, lake-bottom sediments, ocean-bottom sediments, and even snow. When field duplicates have been revealed to us, we have found that the precision of the field duplicates are in the range of about 9 to 12 %CV. As SGH is interpreted using a combination of compounds as a chemical "class" or signature, the affect of a few concentrations that may be imprecise in a direct comparison of duplicates is not significant. Further, projects that have been re-sampled at different times or seasons are expected to have different SGH concentrations. The SGH anomalies may not be in exactly the same position or of the same intensity due to variable conditions that may have affected the dispersion of different pathfinder classes. However, the SGH "signature" as to the presence of the specific mix of SGH pathfinder classes will definitely still exist, and will retain the ability to identify the deposit type and vector to the same target location.

# APPENDIX "F"

## SGH DATA INTERPRETATION

### SGH Interpretation Report

All SGH submissions must be accompanied by relative or UTM coordinates so that we may ensure that the sample survey design is appropriate for use with SGH, and to provide an SGH interpretation with the results. In our interpretation procedure, we separate the results into 19 SGH sub-classes. These classes include specific alkanes, alkenes, thiophenes, aromatic, and polyaromatic compounds. Note that none of the SGH hydrocarbons are "gaseous" at room temperature and pressure. The classes are then evaluated in terms of their geochromatography and for coincident compound class anomalies that are unique to different types of mineralization. Actlabs uses a six point scale in assigning a subjective rating of similarity of the SGH signatures found in the submitted survey to signatures previously reviewed and researched from known case studies over the same commodity type. Also factored into this rating is the appropriateness of the survey and amount of data/sample locations that is available for interpretation. This rating scale is described in detail in the following section.

### SGH PATHFINDER CLASS MAGNITUDE

The magnitude of any individual concentration or that of a hydrocarbon class *does not imply* that the data is of more importance or that mineralization is of higher quantity or grade. SGH interpretation must use the review of the combination of specific hydrocarbon classes to make any interpretation.

### GEOCHEMICAL ANOMALY THRESHOLD VALUE

In the interpretation of "inorganic" geochemical data one of the determinations to be made is to calculate a "Threshold" value above which data is considered anomalous. This is done on an element by element basis. In the interpretation of this "organic" geochemical data this determination is done differently. The determination of a threshold value is not calculated for each hydrocarbon compound. The determination of a threshold value is also a concentration below which geochemical data is considered as "noise" for the purposes of geochemical interpretation. As discussed, SGH uses a "Reporting Limit" instead of some type of Detection Limit. The amount of noise that is already eliminated in the data, as below the Reporting Limit of 1 part-per-trillion (shown in the data spreadsheet as "-1" as "not-detected at a Reporting Limit of 1 ppt") is equivalent to approximately 5 standard deviations of variability. *To thus calculate an additional Threshold Value is a loss of real and valuable data.* Further, in the interpretation of SGH data, individual compounds are not considered (unless explicitly mentioned in the report). The interpretation of SGH data is exclusively conducted by "compound chemical class" which is the sum of four to fourteen individual hydrocarbons in the same organic chemical class as these compounds naturally have the same chemical properties that ultimately define their spatial dispersion characteristics in their rise from a mineral target through the overburden. This combined class is more reliable than the measurement of any one compound. SGH also eliminates the need for a Threshold value determination above the Reporting Limit due to the "high specificity" of the specific hydrocarbons and the classes they form. Each of the hydrocarbons has been hand selected due to their lower probability of being found in general surface soils. Further, only those classes where the majority of the compounds are detected above the Reporting Limit are considered in the interpretation. This defines the SGH geochemistry as having less geochemical noise due to the use of a reporting limit and as having higher confidence in the use of groups (classes) of data instead of

individual compounds. However the most important aspect of interpretation is the use of a forensic signature. At least three specific "Pathfinder" classes, based on the combinations or template of classes we have developed, must be present to define the hydrocarbon signature to confidently predict the presence of a specific type of mineral target. *Do not calculate another Threshold value.* **Fact:** It has been proven many times that important SGH anomalies that depict mineralization at depth can exist even with data at 3 ppt.

## **Mobilized Inorganic Geochemical Anomalies**

It is important to note that SGH is essentially "blind" to any inorganic content in samples as only *organic* compounds as hydrocarbons are measured. Thus inorganic geochemical surface anomalies that have migrated away from the mineral source, and thus may be interpreted and found to be a false target location, is not detected and does not affect SGH results. This fact is of great advantage when comparing the SGH results to inorganic geochemical results. If there is agreement in the location of the anomalies between the organic and inorganic technique, such as Actlabs' Enzyme Leach, a significant increase in confidence in the target location can be realized. If there is no agreement or a shift in the location of the anomalies between the techniques, the inorganic anomaly may have been mobilized in the surficial environment.

## **The Nugget Effect**

As SGH is "blind" to the inorganic content in the survey samples, any concern of a "nugget effect" will not be encountered with SGH data. A "nugget effect" may be of a concern for other inorganic geochemical methods from surveys over copper, gold, lead, nickel, etc. type targets.

## **SGH DATA LEVELING**

The combination of SGH data from different field sampling events has rarely required leveling in order to combine survey grids. The only circumstances that have occasionally required leveling has been the combination of samples that are very fine in texture, thus having a combined large surface area to samples of peat that may be in nearby areas. Even after maceration of the peat and in using the maximum size of sample amenable to this test method, peat samples have a significantly lower surface area. Peat samples have only required leveling in one survey in the last 500 SGH interpretations.

In only the last year it has been observed that SGH data *may* require leveling when different field sampling events have significantly different soil temperature. It has been documented that only when "soil" samples are taken from "frozen" ground that data leveling may be required as frozen sample act as a frozen cap to the hydrocarbon flux and may collect a higher concentration of hydrocarbon compounds compared to sampling during seasons where the samples are not frozen. Only two surveys have required leveling in the last 500 SGH interpretations.

The author has taken introductory training in the leveling of geochemical data. If leveling is required, both data sets are reviewed in terms of maximum, minimum and average values for each SGH Pathfinder Class intended for use in the interpretation. Data is sectioned into quartiles and each section is assigned specific leveling factors that are then applied to one data set. It should be noted that any type of data leveling is an approximation.

## **APPENDIX "G"**

### **SGH RATING SYSTEM DESCRIPTION**

To date SGH has been found to be successful in the depiction of buried mineralization for Gold, Nickel, VMS, SEDEX, Uranium, Cu-Ni-PGE, IOCG, Base Metal, Tungsten, Lithium, Polymetallic, and Copper, as well as for Kimberlites, Coal Seam, Wet Gas and Oil Plays. SGH data has developed into a dual exploration tool. From the interpretation, a vertical projection of the predicted location of the target can be made as well as a statement on the rating of the comparability of the identification of the anticipated target type to that from known case studies, as an example: if the client anticipates the target to be a Gold deposit, what is the rating or comparability that the target is similar to the SGH results over a Gold deposit in Nunavut, shear hosted and sediment hosted deposits in Nevada, or Paleochannel Gold mineralization in Western Australia.

- **A rating of "6"** is the highest or best rating, and means that the SGH classes most important to describing a Gold related hydrocarbon signature are all present and consistently vector to the same location with well defined anomalies. To obtain this rating there also needs to be other SGH classes that when mapped lend support to the predicted location.
- **A rating of "5"** means that the SGH classes most important to describing a Gold signature are all present and consistently describe the same location with well defined anomalies. The SGH signatures may not be strong enough to also develop additional supporting classes.
- **A rating of "4"** means that the SGH classes most important to describing a Gold signature are mostly present describing the location with well defined anomalies. Supporting classes may also be present.
- **A rating of "3"** means that the SGH classes most important to describing a Gold signature are mostly present and describe the same location with fairly well defined anomalies. Some supporting classes may or may not be present.
- **A rating of "2"** means that some of the SGH classes most important to describing a Gold signature are present but a predicted location is difficult to determine. Some supporting classes may be present
- **A rating of "1"** is the lowest rating, and means that one of the SGH classes most important to describing a Gold signature is present but a predicted location is difficult to determine. Supporting classes are also not helpful.

The SGH rating is directly and significantly affected by the survey design. Small data sets, especially if significantly <50 sample locations, or transects/surveys that are geographically too short *will automatically receive a lower rating no matter how impressive an SGH anomaly might be.* When there is not enough sample locations to adequately review the SGH class geochromatography, or when the sample spacing is inadequate, or if the spacing is highly variable such that it biases the interpretation of the results, then the confidence in the interpretation of any geochemistry is adversely affected. The SGH rating is not just a rating of the agreement between the SGH pathfinder classes for a particular target type; it is a rating of the overall confidence in the SGH results from this particular survey. The interpretation is only based on the SGH results without any information from other geochemical, geological or geophysical information unless otherwise specified.

### **HISTORY & UNDERSTANDING**

The subjective SGH rating system has been used since 2004 when Activation Laboratories started providing an SGH Interpretation Report with every submission for SGH analysis to aid our clients in understanding this organic geochemistry and ensuring that they obtain the best results for their

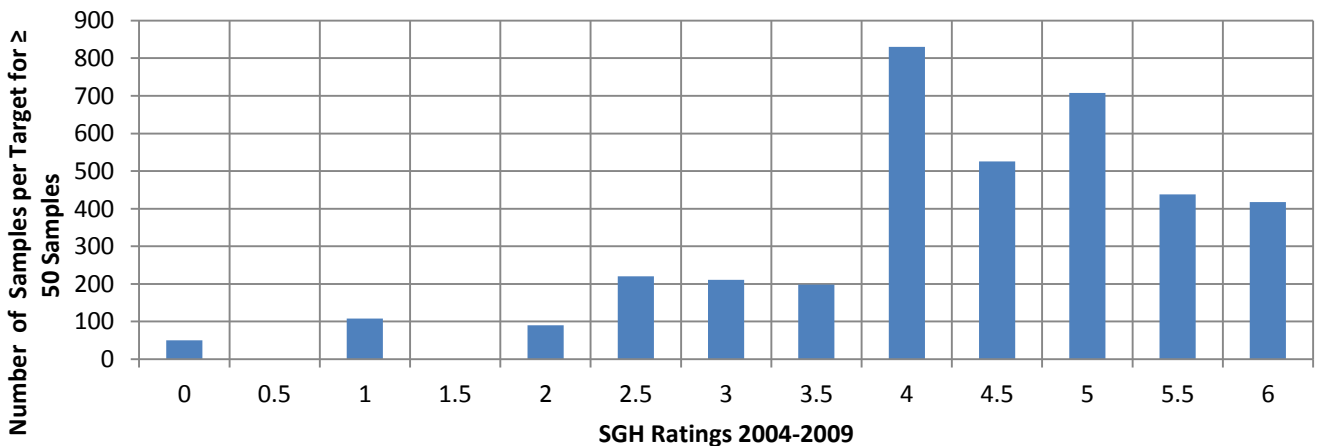
surveys. As explained in the previous section, the SGH rating is not just a rating of how definitive an SGH anomaly is, and it is not based just on the map(s) provided in this report. It is a rating of “confidence in the interpreted anomaly” from the combination of:

- (i) are the expected SGH Pathfinder Classes of compounds present from the template for this target type (one Pathfinder Class map is shown in the report, at least three must be present to adequately describe the correct signature for a particular target),
- (ii) how well do these SGH Pathfinder Classes agree in describing a particular area,
- (iii) how well does this agreement compare to SGH case studies over known targets of that type,
- (iv) how well is the interpreted anomaly defined by the survey (i.e. a single transect does not provide the same confidence as a complete grid of samples), and
- (v) is there at least a minimum of 50 sample locations in the survey so that there may be an adequate amount of data to observe the geochromatography of the different SGH Pathfinder Class of compounds.

The question often arises by clients as to the frequency of a rating, e.g. “how often is a rating of 5.0 given in an interpretation”. To better understand this we present this review of the history of the SGH rating program since 2004 and some of the underlying situations that can affect the historical rating charts. Originally it was recommended that a minimum of 35 sample location be used for small target exploration, however it was quite quickly realized that this is often insufficient and at least 50 sample locations were required. In 2007 the rating scale was refined to include increments of 0.5 units rather than just integer values from 0 to 6.

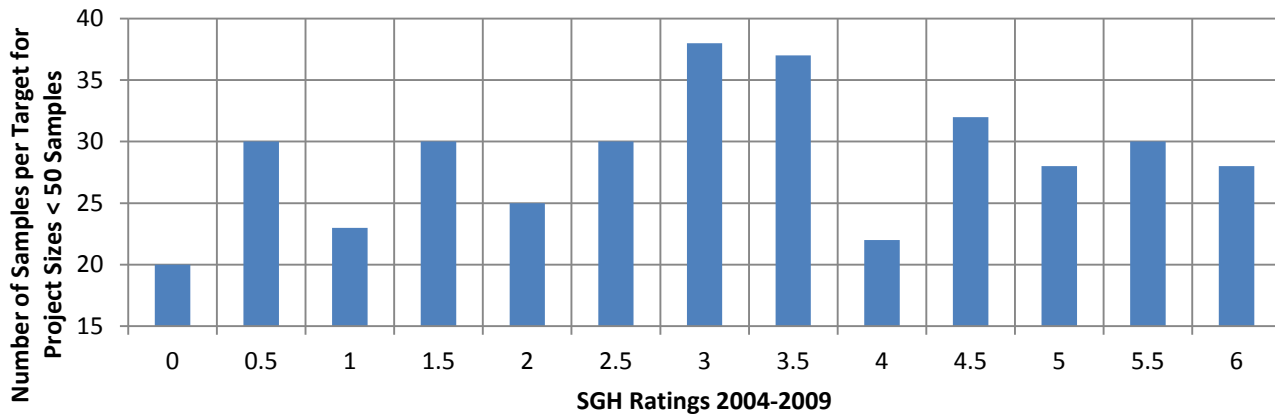
A rating frequency may be biased high as most clients conduct an orientation study over a known target, thus several of these projects result in high ratings. Note that, at this time, the rating is not said to be linked to grade of a deposit or depth to the target. Even in exploration surveys clients tend to submit samples over more promising targets due to knowledge of the geology and prior geochemical or geophysical results. As shown in the following chart, projects with SGH data from 200 or more sample locations have a higher level of confidence in the interpretation as the geochromatography of the SGH Pathfinder Classes of compounds can be more completely observed and reviewed.

### SGH Ratings vs Number of Samples per Target for ≥ 50 Samples



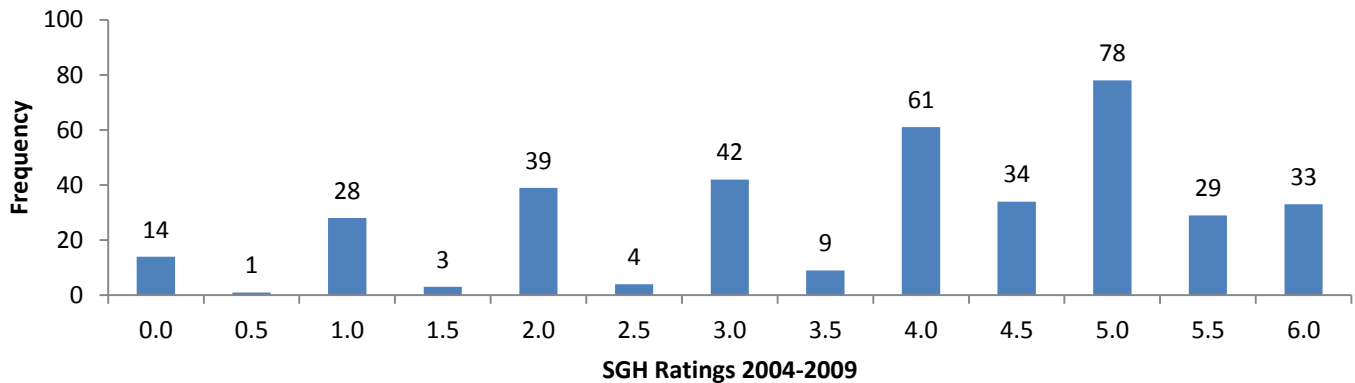
The rating frequency may be biased low as research projects often include a bare minimum of samples to reduce costs. Research projects may also be over targets known to be difficult to depict with geochemistry. Multiple targets in close vicinity in a survey may result in a low bias as the Pathfinder Class geochromatography is more difficult to deconvolute. Ratings may also be biased low if less than the recommended 50 sample locations are submitted as indicated by the following chart. This chart also illustrates that there is no interpretation bias to a particular rating value.

### SGH Ratings vs Number of Samples per Target for < 50 Samples



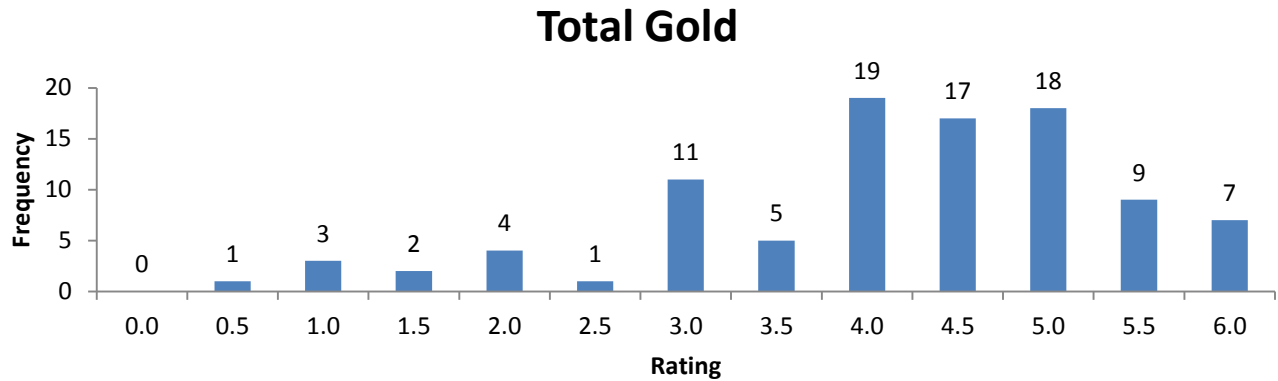
The overall rating frequency for over 400 targets from January 2004 to December 2009 is shown in the chart below illustrating that surveys over more promising targets are most often submitted for best use of research or exploration dollars. It also indicates that the 0.5 increments were less frequent as they started in 2007.

### SGH Rating History





More specific for SGH interpretation for Gold targets, the overall rating frequency for 97 targets from January 2004 to December 2009 is shown in the chart below that also illustrates that surveys over more promising Gold targets are most often submitted for best use of research or exploration dollars.



## APPENDIX "H"

**NOTE: THERE IS NEW PRICING FOR THE SGH GEOCHEMISTRIES**

**SAMPLE PREPARATION:** CODE S4 - \$4.25 per sample

**INTERPRETATION FOR ONE COMMODITY TARGETS:** Included in the price of analysis of \$48.00 per sample

**INTERPRETATION FOR MULTI-COMMODITY TARGETS:** i.e. VMS, SEDEX, Polymetallic, IOCG, IOCGU, Cu-Au-Porphyry, etc. – add additional price of \$500 is applied to cover the additional time in interpretation.

**"ADDITIONAL INTERPRETATIONS": (\$ 500.00) - if within 60 days after delivery of the report.**

The SGH data can be interpreted multiple times in comparison to a variety of SGH templates developed for exploration for different mineral targets or petroleum plays. The samples do not have to be reanalyzed. This can be addressed as a separate section of a report or as a separate report based on the client's wishes. The price is per survey area, e.g. if there are two projects in a submission, perhaps a North area and South area, and both survey areas are to be interpreted for say Gold and Copper, the first interpretation is included in the SGH analysis price, the second interpretation for each area would be priced at \$1000 per area, thus a total of \$2000.