BRITISH COLUMBIA

**Ministry of Energy & Mines**
Energy & Minerals Division
Geological Survey Branch

**ASSESSMENT REPORT**
**TITLE PAGE AND SUMMARY**

| **TITLE OF REPORT [type of survey(s)]** | **TOTAL COST** |
|---|---|
| A Geochemical Soil & Rock Survey & a Geological Survey on the Piebiter Property | $32,422.02 |

AUTHOR(S) J.W. Page, PGeo SIGNATURE(S) ***Original Signed by Author***

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) N/A YEAR OF WORK 2009

STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) 4432228 (2009/dec/18)

PROPERTY NAME Piebiter

CLAIM NAME(S) (on which work was done) 548803

COMMODITIES SOUGHT Gold

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN 092JNE: 011, 013, 014, 015, 018, 036, 043, 043, 072, 143, 145, 153, 156 & 157

MINING DIVISION Lilloett NTS 092J10E

LATITUDE 50 ° 42 ' " LONGITUDE 122 ° 39 ' " (at centre of work)

OWNER(S)

1) J.A.Chapman
2) G.G. Carlson

MAILING ADDRESS

43 - 1725 Southmere Crescent
Surrey, BC V4A 7A7

1740 Orchard Way
West Vancouver, BC V7V 4E8

OPERATOR(S) [who paid for the work]

1) Covenant Resources Ltd.
2)

MAILING ADDRESS

201 - 15272 Croyden Drive
Surrey, BC V3S 0Z5

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

gold, quartz vein, quartz-biotite schist, serpentinite, ultramafic, Bridge River Complex, Bralorne Group, Cadwallader Group, Calwallader Break, MMI soil survey

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS 00105A, 8001, 8878, 10211, 11876, 11944, 13232, 14453, 14628, 14866, 15292, 15341, 15695, 15871, 16595, 19604, 19828, 22120, 29282

(OVER)

| TYPE OF WORK IN THIS REPORT | EXTENT OF WORK (IN METRIC UNITS) | ON WHICH CLAIMS | PROJECT COSTS APPORTIONED (incl. support) |
|---|---|---|---|
| GEOLOGICAL (scale, area) | | | |
| Ground, mapping | | 548803 | 4,000.00 |
| Photo interpretation | | | |
| GEOPHYSICAL (line-kilometres) | | | |
| Ground | | | |
| Magnetic | | | |
| Electromagnetic | | | |
| Induced Polarization | | | |
| Radiometric | | | |
| Seismic | | | |
| Other | | | |
| Airborne | | | |
| GEOCHEMICAL (number of samples analysed for ...) | | | |
| Soil | 122 | 548803 | 24,422.02 |
| Silt | | | |
| Rock | 9 | 548803 | 1,000.00 |
| Other | | | |
| DRILLING (total metres; number of holes, size) | | | |
| Core | | | |
| Non-core | | | |
| RELATED TECHNICAL | | | |
| Sampling/assaying | | | |
| Petrographic | | | |
| Mineralographic | | | |
| Metallurgic | | | |
| PROSPECTING (scale, area) | | | |
| PREPARATORY/PHYSICAL | | | |
| Line/grid (kilometres) | 7.9 km | 548803 | 3,000.00 |
| Topographic/Photogrammetric (scale, area) | | | |
| Legal surveys (scale, area) | | | |
| Road, local access (kilometres)/trail | | | |
| Trench (metres) | | | |
| Underground dev. (metres) | | | |
| Other | | | |
| | | TOTAL COST | 32,422.02 |

ASSESSMENT REPORT

On

A GEOCHEMICAL SOIL & ROCK SURVEY
&
A GEOLOGICAL SURVEY

on the



# PIEBITER PROPERTY

LILLOOET MINING DIVISION, BC

BCGS Map 092J.067, 092J.068,
092J.077 and 092J.078

**Exploration on claim:** 548801

**Work filed on:** 548801, 548802, 548803, 580522, 598223, 598226, 608081, 630203, 630223, 630243, 631123

| | |
|---|---|
| NTS: | 092J10E |
| LATITUDE: | 50˚ 42' N |
| LONGITUDE: | 122˚ 39' W |
| OWNER: | J.A. Chapman & G.G. Carlson |
| OPERATOR: | Covenant Resources Ltd. |
| CONSULTANT: | Discovery Consultants |
| AUTHOR: | Jay W. Page, PGeo. |
| DATE: | January 15, 2010 |

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## 1.0 SUMMARY

The Piebiter Property ("Property") is located in the Lillooet Mining Division of British Columbia and comprises 11 Mineral Titles Online mineral claim tenures, which total 6,020.25 hectares (Author's note: the property has been subsequently enlarged to 18 claims and 8,787 ha). The Property includes several historical mineral occurrences and contains areas found to have anomalous values of gold, silver, copper, molybdenum, zinc and tungsten in the rocks and soils. The present Property consolidates into a single entity previously separate properties that cover most of the Cadwallader Break to the southeast of the Bridge River Camp.

The Bridge River Mining Camp has, historically, been one of the most prolific mining camps in British Columbia. The initial activity in the area, placer gold mining, began in 1863 and led to the discovery of gold-bearing quartz veins in 1897 and to the eventual development of the Bralorne and Pioneer Mines along with several other small mines. The focus of most exploration activity in this area and the subsequent mining production was the Cadwallader Break Fault Zone ("Cadwallader Break"). This fault system is approximately 50 km in length and bisects the Property. Fault slivers within the zone include diorite, greenstone, chert, ultramafic and clastic sedimentary rocks.

At the request of Covenant Resources Ltd. ("Covenant"), Discovery Consultants ("Discovery") carried a Mobile Metal Ion ("MMI") soil geochemical survey over parts of the property in October, 2009. The total cost of this program, including reporting, was $32,422. The survey area is marked by poor outcrop exposure and is believed to host the southeastern extension of the Cadwallader Break.

The MMI survey successfully identified areas of overburden with anomalous gold values which may indicate underlying, bedrock mineralization.

## 2.0 INTRODUCTION

The Property is located in the Lillooet Mining Division of British Columbia. The Property includes several historical mineral occurrences and contains areas which have been found to have anomalous values of gold, copper, molybdenum, zinc and tungsten in rocks and soils.

The deposit type explored for on the Property is gold-bearing mesothermal quartz veins and associated mineralized shears.

Discovery Consultants ("Discovery") has been engaged by Covenant to manage exploration on the Property. The first stage of which was to carry out a MMI geochemical survey over the overburden-covered, central part of the Property. During this survey geological mapping and minor rock sampling was also done.

This Report uses SI units (metric units) for all measurements. Dollar values are stated in Canadian dollars.

In the discussion of the Property exploration history and mineralization, gold and silver values quoted from historical reports have been converted from troy ounces per short ton ("oz/T") to grams per tonne ("g/t") using a conversion of 1 oz/T = 34.286 g/t.

Author Jay W. Page, PGeo. ("Page") visited the property and supervised the MMI geochemical survey carried out by Discovery during the period October 6$^{th}$ to 13$^{th}$, 2009.

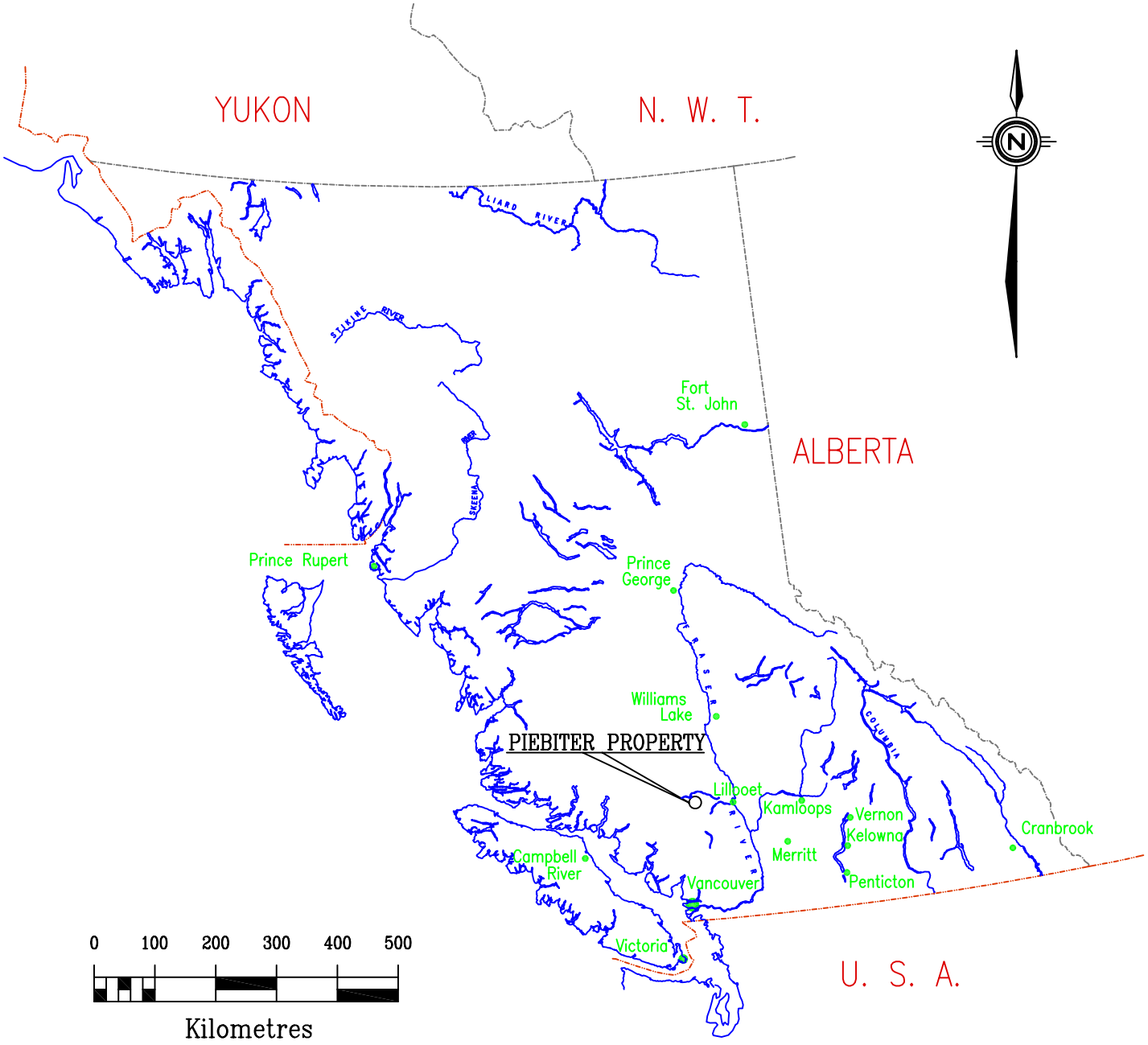
## 3.0 LOCATION AND ACCESS

The Property is located 175 kilometres northeast of Vancouver, British Columbia, as is shown in Figure 1. The property is situated in the Lillooet Mining Division and is covered by map sheets 092J.067, 092J.068, 092J.077 and 092J.078. The northern limits of the Property are at 50° 44' north latitude, the southern at 50° 35' north latitude, the western at 122° 42' west longitude and the eastern at 122° 27' west longitude.

The Property is accessed by a gravel road from the small community of Gold Bridge which is located 90 km west of Lillooet on Highway 40. From Gold Bridge, the Bralorne Road is followed 4.5 km to the Kingdom Lake Forest Service Road (KLFSR) which is then followed north and eastward over a high bench past the old Bralorne and Pioneer mine sites into the Cadwallader

Creek valley. The original Cadwallader Creek road which provided historical access to this area is in poor condition and is not recommended for access.

The KLFSR appears to be moderately well-maintained as far as a forest service recreation camp site on Kingdom Lake but then slowly deteriorates to a single-lane dirt road by the time it reaches the Property about 12 km from the Bralorne Road. Numerous old, deactivated skid-roads branch off the KLFSR and provide easy foot or ATV access to many lower parts of the Property; however all bridges over Cadwallader Creek have been removed so that access to the west side of the property is problematic. Water for drilling is available year round from Cadwallader Creek and from many other tributaries, including Standard and Royal Creeks.




| DISCOVERY Consultants | Covenant Resources Ltd. |
|---|---|
| Piebiter Property | LOCATION MAP |

| Date: | January 15, 2010 | Project: | 852 | Scale: | 1:10,000,000 | N.T.S.: | 092J | Mining Div: | Lillooet | Figure: | 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|

## 4.0 PHYSIOGRAPHY, TOPOGRAPHY & CLIMATE

The Property straddles Cadwallader Creek which is part of the Bridge River drainage. This area is bounded on the west by the Coast Range and on the northeast by the Shulaps Range. The topography is rugged, except in the lower portions of the U-shaped Cadwallader Creek valley where slopes are more gentle and subdued. Elevations range from 1,310 m ASL on Cadwallader Creek to 2,350 m ASL on Royal Peak immediately southeast of Piebiter Creek. Outcrop exposure is generally good on the valley sides but is poor in the lower part of the valley due to an extensive cover of unconsolidated material.

Fluvial-glacial outwash deposits of silt, sand and gravel fill the valley bottom and form a number of terraces which now stand some tens of metres above the present Cadwallader Creek channel. The outwash deposits have been modified by colluvial slope processes on the lower slopes yielding a mixture of sorted and unsorted rounded to angular material. Unconsolidated materials found on the upper slopes appear to be mainly composed of colluvium and talus. Little or no glacial till was observed on the Property but the ubiquitous, large rounded boulders of granodiorite found throughout the valley bottom are thought to be glacial erratics.

Many of the lower parts of the Cadwallader Creek valley have been logged and replanted, primarily with spruce. Unlogged portions of the valley floor are heavily forested with mature spruce. There are significant areas of windfall near Cadwallader Creek. The upper valley slopes are covered with extensive forests of spruce and balsam, and pine is common in old burns.

The climate of this area is intermediate between the wet, coastal climate of the Coast Range and the dryer climate of the BC Interior. As such, the hot dry summers experienced in this area are similar to those of the interior dry belt, but the winter weather alternates between the cold dry air of the interior and the mild and wet weather of the coast. This often results in heavy snow accumulations and the snow pack commonly exceeds 1 m by late winter. Winter storms are often accompanied by significant avalanche danger.

Exploration work, consisting of geophysics and drilling has been carried out during the early winter on the Property, but in general, exploration in this area is best carried out between June and late October.

## 5.0 PROPERTY DESCRIPTION

The Property comprises 11 Mineral Titles Online ("MTO") mineral claim tenures, totalling 6,020.25 ha. All of the claims are owned jointly by Gerald G. Carlson (50%, held on behalf of KGE Management Ltd.) and John A. Chapman (50%). The claim details are listed in Table 1, below, and are illustrated on Figure 2.

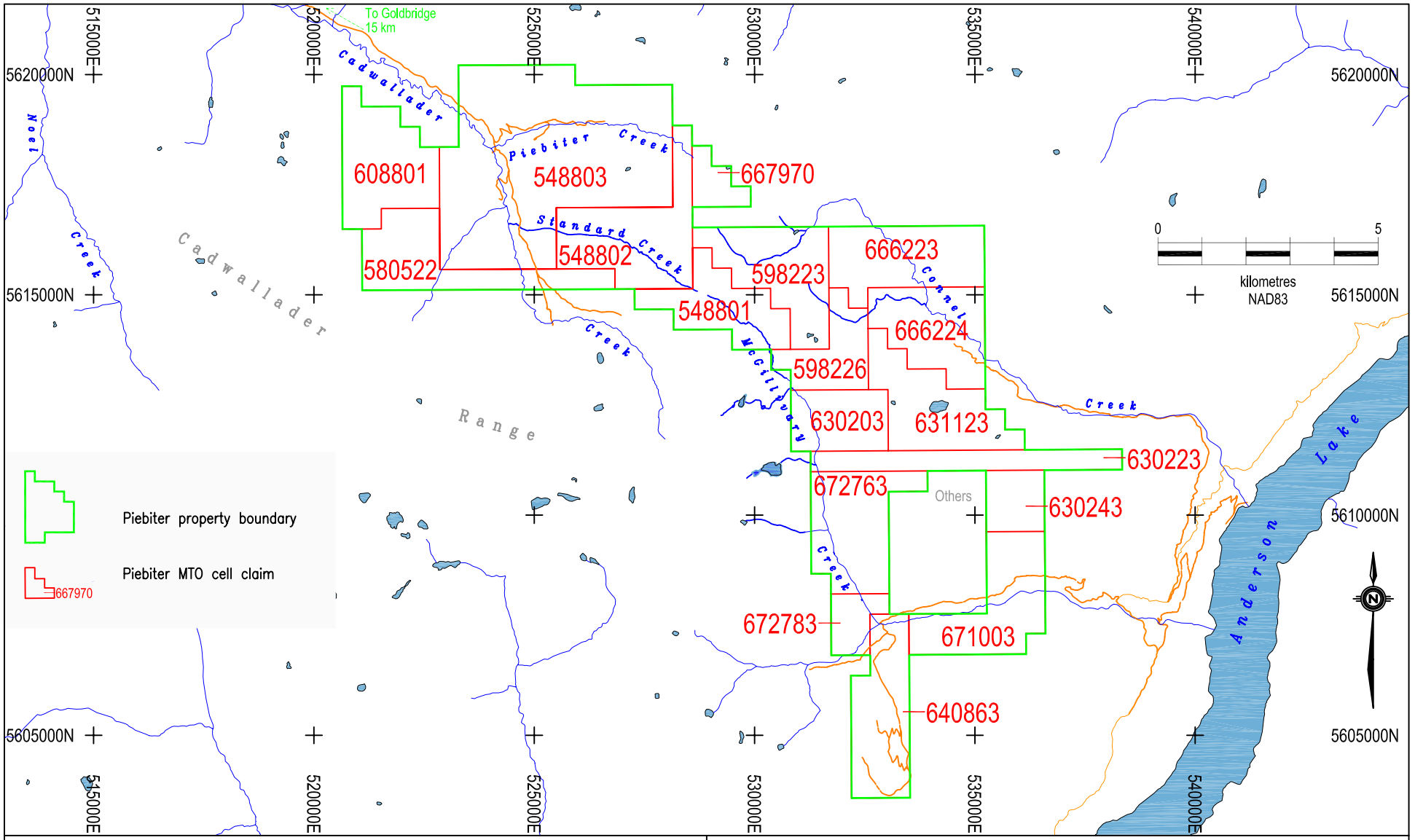
**Table 1: Tenure Description**

| MTO Tenure No. | Area (ha) | Registered Owner(s) | Good to Date** |
|---|---|---|---|
| 548801* | 389.14 | J.A. Chapman & G.G. Carlson[1] | 20130630 |
| 548802 | 593.77 | J.A. Chapman & G.G. Carlson[1] | 20130630 |
| 548803 | 1903.59 | J.A. Chapman & G.G. Carlson[1] | 20130630 |
| 580522 | 491.48 | J.A. Chapman & G.G. Carlson[1] | 20130630 |
| 598223 | 511.93 | J.A. Chapman & G.G. Carlson[1] | 20130512 |
| 598226 | 286.77 | J.A. Chapman & G.G. Carlson[1] | 20130512 |
| 608081 | 511.76 | J.A. Chapman & G.G. Carlson[1] | 20130512 |
| 630203 | 307.30 | J.A. Chapman & G.G. Carlson[1] | 20130512 |
| 630223 | 327.87 | J.A. Chapman & G.G. Carlson[1] | 20130512 |
| 630243 | 184.47 | J.A. Chapman & G.G. Carlson[1] | 20130512 |
| 631123 | 512.18 | J.A. Chapman & G.G. Carlson[1] | 20130512 |
| **TOTAL:** | **6,020.25** | | |

* Mineral tenure numbered 548803 is the claim on which work was done
** Good to date is dependent on the acceptance of this report
[1]Tenure is owned jointly by Gerald G. Carlson (50%, held on behalf of KGE Management Ltd.) and John A. Chapman (50%).

Subsequent to the completion of the assessment work, an additional 7 MTO claims (2,767 ha) were added to the Property.

The Bridge River area is covered by the Lillooet Land and Resource Management Plan ("LRMP"), a strategic Land Resource Management Plan being prepared for a 1.1 million ha area of the south-western interior of BC. The LRMP coincides with the Lillooet Timber Supply Area within the Cascades Forest District. The Squamish-Lillooet Regional District covers most of the LRMP area and includes the communities of Lillooet, Gold Bridge, Bralorne and Seton Portage /Shalalth. The Property is located within the Cascades Forest District which is managed from the Kamloops Forest Service office.




| | |
|---|---|
| DISCOVERY Consultants | Covenant Resources Ltd. |
| Piebiter Property | Claim Locations |

| Date: | January 15, 2010 | Project: | 852 | Scale: | 1:125,000 | N.T.S.: | 092J NE | Mining Div: | Lillooet | Figure: | 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|

## 6.0 EXPLORATION HISTORY

The Bridge River Camp has been one of the most prolific mining camps in British Columbia. The initial activity in the area, placer gold mining, started in 1863 and led to the discovery of gold-bearing quartz veins in 1897 and to the eventual development of the Bralorne and Pioneer Mines along with several small mines. The focus of most exploration activity in this area and the subsequent mining production was the Cadwallader Break, which hosts the Bralorne and Pioneer Mines.

The Property covers the southeastern extension of the Cadwallader Break, approximately 8 to 28 km from the Bralorne and Pioneer Mines. There are no past producers located on the Property, but the Property does include a number of mineral occurrences and prospects with a long history of exploration. The history of the Property is complicated by the fact that this area has rarely been explored as a whole, but rather as many small properties in a variety of overlapping configurations and explored by a number of different companies.

### 6.1 Standard (MINFILE 092JNE015)

The Standard showing was explored by a number of trenches and two adits. Clothier (1933) reported that the Standard No. 2 Adit intersected gold mineralization from 65 to 86 metres from the portal. Exploration in 1987 (see below) has called into question these results.

There was no further recorded work on the Standard until Hillside Energy ("Hillside") explored this area in 1980 to 1982. A soil geochemical survey was carried out over this area but anomalies were never followed up.

Trans Atlantic Resources Inc. ("Trans Atlantic") acquired the property in 1984 and A & M Exploration ("A & M") was hired to explore the property from 1984 to 1986.

Geochemical and geophysical surveys were completed and the Standard No. 2 Adit was partially rehabilitated and sampled. A three-hole core drill program in 1986 was unsuccessful at penetrating the highly fractured ground.

Trans Atlantic and Armeno Resources Inc. ("Armeno") undertook a large program in 1987 which included geochemical and geophysical (VLF/EM, magnetometer and resistivity) surveys, re-opening of the Standard No. 2 Adit, sampling and mapping the adit and drilling 8 diamond drill holes along strike of and down dip of the Standard No. 2 Adit. In general the results were poor; the best values obtained were 200 ppb Au (Sample 1115162) in S87-06 and 21 ppm Ag

(Sample 1114284) in drill hole S87-02A (Carpenter and Haynes, 1988). The gold mineralization reported by Clothier (1933) in the Standard No. 2 Adit could not be reproduced despite extensive sampling (Carpenter and Haynes, 1988).

The Standard West area is centred at the Standard No. 1 Adit which is approximately 1,000 m northwest and on strike with the Standard No. 2 Adit. The adit is collapsed but a series of rusty seeps identify potential mineralized zones. A series of trenches (now overgrown) were excavated on the structure at about the same time as the adit was collared. Hillside carried out soil geochemical sampling as part of a large survey from 1980 to 1982. The 1987 program of Trans Atlantic and Armeno covered this area with soil geochemical, geophysical (VLF/EM and magnetometer) and geological mapping surveys.

The Standard West Extension was explored in the 1987 exploration program of Trans Atlantic and Armeno to cover the area between the Standard West and Royal areas. It is located due west of the Standard West area and southeast of the Royal showing. A VLF/EM and magnetometer survey was undertaken.

### 6.2 Royal (MINFILE 092JNE014)

In 1932 Cadwallader Gold Mines carried out small scale hydraulic/placer mining, trenching and from 1932 to 1934 established a short adit (Royal Adit) which exposed the veins. The veins are up to 1.5 m in true thickness. An area of vein stockworks, known as the Royal quartz vein zone, covers an area of at least 1,800 by 1,000 metres.

Hillside carried out soil geochemical sampling over the Standard West portion of the property as part of a larger survey in 1980 to 1982.

In 1984-1985 Trans Atlantic undertook a magnetometer and VLF/EM survey over the Royal area. In 1986, with Armeno, the company completed 2 diamond drill holes which intersected some quartz veins and minor mineralization.

In 1986, A & M, on behalf of Trans Atlantic and Armeno, identified an area of anomalous molybdenum in soils near the junction of Standard and Cadwallader Creeks and suggested the possibility of a porphyry molybdenum occurrence associated with peripheral lead-zinc-precious metal mineralization in the area.

The 1987 program of Trans Atlantic and Armeno completed an additional 2 diamond drill holes (665 m) which also encountered some quartz veins and minor mineralization. The presence of a

molybdenum porphyry system, with peripheral or telescoped lead-zinc-precious metal mineralization is suggested.

A short caved adit, believed to date from the 1930s has been noted in the area described as the Royal/Piebiter Extension. This area is located to the north of the main Royal showing and southwest of the Upper Piebiter showing.

In 1986 this area was partially covered by the geophysical and geochemical surveys carried out on behalf of Trans Atlantic. This was followed up by magnetometer and VLF/EM geophysical surveys as well as geological mapping and prospecting.

### 6.3 Chopper (MINFILE 092JNE036)

The earliest workings were several short adits completed in the 1910s and 1930s (Hazard and Empire Crown-granted claims). Cairnes mentioned the showing in his report on the area (Cairnes, 1937).

The vein was sampled and mapped in 1980 by Chopper Mines Ltd. (Goldsmith, 1980). Trans Atlantic and Armeno completed a geological mapping of the vein's extension followed by a 3-hole diamond drill program and a surface vein sampling program in 1987. Hole C87-02 cut a 4.7-metre section (2.2 metres true width) averaging 255 g/t silver, including a 2-metre zone with assays of 458 and 362 g/t silver over one-metre sample widths (Carpenter & Haynes, 1988).

### 6.4 Upper Piebiter (MINFILE 092JNE145)

The earliest recorded work on this showing was undertaken by Hillside in 1985. The company partially covered this area with a soil and rock sampling program which identified a gold geochemical anomaly in soils.

1n 1986, Armeno and Trans Atlantic drilled nine holes for a total of 1,504 metres. This drilling outlined a mineralized zone 15 to 35 metres wide (core length), which averaged 0.514 to 0.685 g/t gold with sections up to 3.63 g/t over a width of one metre and up to 5.69 g/t over 0.2 metres. Trace to minor gold values were noted to occur discontinuously over widths of up to 100 metres on the section containing drill holes P86-4, P86-5, and P86-7. This zone appeared to be open to the southeast (Allen, et al., 1986).

Armeno and Trans Atlantic completed detailed geological mapping, geochemical survey and geophysical (VLF/EM and magnetometer) surveys of the mineralized structure in 1987. A 2.3-

km road was also constructed in 1987 to the Upper Piebiter to allow track and 4-wheeled vehicle access to the showing.

Continued drilling in the Piebiter area in 1987-1988 successfully traced gold mineralization 300 m to the southeast of the previous 1986 drilling. Grades in excess of 1.0 g/t over one metre were found in eight of eleven holes drilled, with values as high as 5.28 g/t over one metre within a 9-metre intersection averaging 2.23 g/t gold in drill hole P87-02 (Carpenter & Haynes, 1988).

In 1989-1990 Armeno and Trans Atlantic completed an IP survey followed by 9 reverse circulation ("RC") drill holes for a total of 1,192 metres of drilling. The drill program intersected anomalous gold mineralization over a strike length of 600 m, identifying a zone which appears to be open both at depth and to the west. The best result obtained was 2.5 g/t gold with numerous intercepts less than 1 g/t gold. Details of this drill program were recorded in Assessment Report 19,828 (Collins and Sorbara, 1990).

No further work has been carried out on the Upper Piebiter showing, except in 2006 when Makepeace collected for Covenant a small number of rock and core samples from outcrop and stored core during a brief property exam (Makepeace, 2007).

### 6.5 Butte-IXL (MINFILE 092JNE011)

In 1933 and 1934 the Butte-IXL adit was driven 245 m with an associated 50-metre shaft following 2 mineralized quartz veins. Cairnes in 1937 reported that the veins contained pyrrhotite, chalcopyrite and sphalerite with minor pyrite and galena and trace gold.

Hillside conducted geological and soil sampling programs in this area from 1980 to 1982 (Melrose et al., 1982).

Trans Atlantic and Armeno completed geological mapping, a geochemical survey and a geophysical (VLF/EM and magnetometer) survey in 1987. The results were not encouraging.

Immediately west of the Butte-IXL, on the Butte - X-Cal, trenches were excavated in 1933 and 1934.

X-Calibre Resources ("X-Cal") undertook geological and geochemical surveys, in 1984.

During the period 1985-88, Hudson Bay Exploration and Development ("Hudbay") completed geological mapping and geochemical sampling (Lancaster, 1985).

Trans Atlantic and Armeno completed geological mapping, a geochemical survey and a geophysical (VLF/EM and magnetometer) survey in 1987. This was followed up by minor prospecting and a detailed VLF/EM survey over identified anomalous areas.

### 6.6 Conbra (MINFILE 092JNE072)

In 1986 Peter Newman carried out a prospecting program over the occurrence area and collected a limited number of rock, soil and silt samples. No results were reported (Newman, 1986).

### 6.7 Fox (MINFILE 092JNE153)

In 1985 D.P. Taylor carried out a program of rock sampling and pan concentrate sampling program in the vicinity of the Fox occurrence (Taylor, 1985). Nine rock samples and 10 pan concentrates were collected, the latter showing anomalies in silver emanating from the headwaters of Connel Creek and probably associated with the Chopper occurrence.

### 6.8 Star Mountain (MINFILE 092JNE018)

In 1989, Teck Explorations Ltd carried out geochemical, geological and geophysical surveys.

In 1990, prospecting and sampling by Cogema Canada Ltd. 1.8 km northeast of the Star Mountain showing revealed anomalous nickel and chromium values from sheared, pyritic (quartz?)-carbonate altered ultramafic rocks (Schimann and Robb, 1991). Approximately 3.2 km northwest of the Star Mountain occurrence, grab samples yielded 0.93 and 0.91 g/t gold. The samples were taken from a 0.2-metre wide quartz vein in siltstone adjacent to feldspar porphyry. This occurrence is identical in description to the Star Mountain occurrence.

### 6.9 Archibald (MINFILE092JNE157)

In 1990 the Archibald occurrence was part of a larger property that included the Star occurrence (see Section 6.8) and Silicon Cirque occurrence (Section 6.10). Work, that included geological and geochemical surveys, is detailed in BC Assessment Report 22,120 by Schimann and Robb.

### 6.10 Silicon Cirque (MINFILE 092JNE156)

Quartz veins near Silicon Cirque and on Prospector's Peak (092JNE159) were explored by trenches and pits during the same period. Stream sediment and heavy mineral sampling were

conducted in the vicinity of the Silicon Cirque showing by Silver Standard Mines in 1979 and X-Cal in 1983 (Mazur, 1983).

In 1983, Noranda Mines and Placer Development confirmed several anomalies. In 1985, mapping by HudBay confirmed the extension of the Cadwallader Break through this area. X-Cal drilled eight drillholes totalling 950 m in the South Fork area. Six of these drillholes tested the Switchback vein at depth. The exact locations of these holes are unavailable. One drillhole also tested the Gold Hill occurrence, off the present claim area.

An electromagnetic (VLF-EM) conductor along South Fork Creek, west of the current claims, was also tested by a drillhole. Quartz stringers with pyrite and sphalerite were intersected adjacent to albitic dikes. Canada Tungsten Mining Corp. re-logged the drill core in 1987 and several new gold soil anomalies were discovered along a major lineament.

In 1989, Teck Explorations Ltd. ("Teck") optioned the property and conducted a comprehensive exploration program. In 1990, Cogema Canada Ltd. ("Cogema") acquired the property and conducted exploration (Schimann and Robb, 1991).

### 6.11 Piebiter Creek Area Skarn Showings

In the Lower Piebiter area, in a series of showings that include the Chalco 12, Lower Piebiter, Piebiter Creek and Bramoose showings, metasediments of the Bridge River Complex, including limestone, chert and argillite, are altered to quartz-hornblende schist.

#### 6.11.1 Chalco 12 (MINFILE 092JNE044)

The Chalco 12 skarn-type deposit was initially reported in the 1948 B.C. Minister of Mines Report (Stevenson, 1948).

Hat Creek Energy Corporation ("Hat Creek") explored this area in 1979. Trans Atlantic and Armeno completed a geochemical survey and geophysical (VLF/EM and magnetometer) survey of all the skarn deposits in 1987.

#### 6.11.2 Piebiter Creek (MINFILE 092JNE143)

This limestone showing was initially reported in the 1948 BC Minister of Mines Report. A narrow scheelite-chalcopyrite-rich skarn was identified along the margin of a limestone lens in contact with volcanics. The showing is primarily limestone with a 55% CaO content (Stevenson, 1948).

Hat Creek also explored this area in 1979.

Trans Atlantic and Armeno completed a geochemical survey and geophysical (VLF/EM and magnetometer) survey of all the skarn deposits in 1987.

### 6.11.3 Lower Piebiter (MINFILE 092JNE043)

Scheelite, chalcopyrite and molybdenum were reported on the Lower Piebiter (Chalco 5 [L7700], Piebiter Creek, Lime Creek) showing in the 1948 B.C. Minister of Mines Report.

In 1969, an exploration program consisting of prospecting, mapping and drilling was completed on this showing. It defined a 50-metre long by 4-metre wide, copper-tungsten-silver-gold mineralized zone. Molybdenum was also noted in the skarn. Hat Creek explored this area in 1979 with a small drill program.

Trans Atlantic and Armeno completed a geochemical survey and a geophysical (VLF/EM and magnetometer) survey of all the skarn deposits in 1987. In 1988, two diamond drill holes (approximately 438 m) were completed on the Lower Piebiter to test coincident gold and arsenic anomalies. The drilling was unsuccessful in identifying the source of the anomalies. The best values in core were 250 ppb gold and 754 ppm arsenic (Carpenter and Haynes, 1988).

Trans Atlantic and Armeno completed one 95-metre RC drill hole in 1990. The hole intersected pyrite concentrations but gold values were low (Collins and Sorbara, 1990).

### 6.11.4 Bramoose (MINFILE 092JNE013)

Mineralization was first reported on the Bramoose (Peridot) showing in 1933. Gold and scheelite mineralization were reported by Cairnes in 1937.

Trans Atlantic and Armeno completed a geological mapping, geochemical and geophysical (VLF/EM and magnetometer) survey of this showing as part of their Chalco grid program in 1987.

## 6.12 Historical Summary

Makepeace (2007) summarized data for the historical exploration activity directed at the known mineral occurrences within the area of the original Piebiter property and presented the summary in a series of tables. This is a convenient way to show the scale of activities that has been carried out in this area over the last half century; the summaries are shown in Tables 3, 4, 5 and 6. The data are organized by mineral occurrence and probably understates the amount of work carried out since the data are compiled only from assessment reports filed as part of larger programs.

### 6.12.1 Historical Grids and Sampling Summary

A compilation has identified 55.8 km of grid lines in 10 grids from which 4,112 soil samples and 2,318 rock samples were collected. Because of the fragmented nature of these data, it is possible that some of these grids and the locations sampled were duplicated by subsequent programs carried out by different companies.

**Table 2 - Historical Grids and Sampling on the Piebiter Property**

| Mineral Occurrence | Line Km | Soil Samples[1] | Rock Samples[1] |
|---|---|---|---|
| Standard | 15.9 | 123 | 549 |
| Standard West | 8.5 | 136 | 10 |
| Standard West Extension | 5.9 | ? | ? |
| Royal | 1.4 | 50 | ? |
| Royal - Piebiter Extension | - | ? | ? |
| Chopper | 1.2 | ? | 5 |
| Upper Piebiter | 4.1 | 186 | 22 |
| Butte-IXL | 8.3 | 294 | 4 |
| Butte - X-Cal | 3.2 | ? | ? |
| Conbra | - | 10 | 18 |
| Fox | - | - | 9 |
| Star Mountain | - | * | * |
| Archibald | - | * | * |
| Silicon Cirque | 4.35 | 3101* | 1701* |
| Lower Piebiter | 2.9 | 212 | ? |
| **Total** | **55.75** | **4,112** | **2318** |

[1] Makepeace (2007) states that the number of samples collected was probably far in excess of the numbers recorded.
* Totals as reported by Teck and Cogema and includes numbers for Silicon Cirque, Star Mountain, Archibald and zones outside the present claims.

### 6.12.2 Historical Geophysical Survey Summary

A large number of geophysical surveys has been carried out over the various grids on the Property. The following table is a compilation of some of the larger programs carried out during the period 1984 – 1990.

**Table 3 - Historical Geophysical Programs on the Piebiter Property**

| Mineral Occurrence | VLF/EM | Mag | Resistivity | IP |
|---|---|---|---|---|
| Standard | 1984-6 | 1984-6 | 1987-8 | 1986 |
| Standard West | 1987 | 1987 | - | - |
| Standard West Extension | 1987 | 1987 | - | - |
| Royal | 1984-7 | 1984-7 | - | 1986 |
| Royal - Piebiter Extension | 1987 | 1987 | - | - |
| Upper Piebiter | 1987 | 1987 | 1990 | 1990 |
| Lower Piebiter | 1987 | 1987 | 1990 | 1990 |
| Butte-IXL | 1986-7 | 1986-7 | - | - |
| Butte - X-Cal | 1986-7 | - | - | - |
| Silicon Cirque* | 1989 | - | - | - |

* Includes areas of Silicon Cirque, Star Mountain, Archibald and areas outside the Property

### 6.12.3 Historical Drill Program Summary

A total of 8,752 m of drilling in 48 diamond drill holes and an additional 1,287 m in 10 percussion holes has been tabulated.

**Table 5 - Historical Drill Programs on the Piebiter Property**

| Mineral Occurrence | Diamond Drill | | Percussion | |
|---|---|---|---|---|
| | Number | Metres | Number | Metres |
| Standard | 12 | 1,457 | - | - |
| Royal | 4 | 883 | - | - |
| Chopper | 3 | 1,120 | - | - |
| Upper Piebiter | 26 | 4,759 | 9 | 1,192 |
| Lower Piebiter | 2 | 433 | 1 | 95 |
| Gold Hill* | 1 | 100+ | - | - |
| **Total** | **48** | **8,752** | **10** | **1,287** |

*MINFILE showing and main part of drill program outside the Property

### 6.12.4 Historical Underground Workings Summary

Makepeace (2007) has found that there was at least 589 m of underground workings in 9 adits, along with a 50-metre deep shaft. Most of these workings were exploratory in nature rather than developmental and were driven on narrow quartz veins by prospectors in the 1930s looking for gold. The majority have since collapsed and are not accessible for sampling.

**Table 5 - Historical Underground Workings on the Piebiter Property**

| Mineral Occurrence | Adits | | Shafts | |
|---|---|---|---|---|
| | Number | Metres | Number | Metres |
| Standard | 1 | 340 | - | - |
| Standard West | 1 | 4 | - | - |
| Royal | 1 | ? | - | - |
| Royal - Piebiter Extension | 1 | ? | - | - |
| Lower Piebiter | 1 | ? | - | - |
| Butte-IXL | 1 | 245 | 1 | 50 |
| Butte/X-Cal | 3 | ? | - | - |
| Gold Hill* | 1 | ? | | |
| **Total** | **10** | **589** | **1** | **50** |

* Showing located outside claim boundary but one adit located within the Property

### 6.13 Historical Expenditures

An estimate of exploration costs to date on all of the mineral occurrences within the Property total in excess of 2.3 million dollars, and may possibly be as high as 4 million dollars. Some of the more recent (1980s) exploration programs, such as 1987-88 Armeno and Trans Atlantic exploration programs document $880,850 in expenditures (Carpenter and Haynes, 1988), and the subsequent 1989-90 follow-up geochemical, geophysical and RC drilling program cost $171,180 (Collins and Sorbara, 1990).

In 1985 HudBay reported expenditures of $102,270 in the Silicon Cirque area in the southern part of the present claim block (Lancaster, 1985). Teck reported expenditures in 1989 of $159,563, also in the Silicon Cirque area, (Pautler, 1990), and Cogema reported $29,304 in assessment expenditures for 1991 (Schimann and Robb, 1991).

## 7.0 GEOLOGY

### 7.1 Regional Geology

The geology of the Bralorne - Gold River area includes an assemblage of Paleozoic, Mesozoic and Tertiary volcanic and sedimentary rocks and igneous intrusions. This area lies at the western margin of the Intermontane Belt where it abuts against the Coast Plutonic Complex to the west. A generalized geological map is illustrated in Figures 3a and 3b.

The Bridge River area is on the boundary between the Cache Creek and Stikine terranes. These terranes were accreted to the North American craton in Middle Jurassic age. The Tyaughton Trough is a major subsidence marine sedimentary basin that developed from Late Jurassic to Middle Cretaceous time. The western margin of the trough was uplifted and the subsequent

erosion exposed the Coast Plutonic Complex in Early Cretaceous time.

Late Cretaceous and Tertiary age structural activities include major uplifting, thrust faulting and strike-slip faulting with intermittent magmatic intrusions. A system of northwest-trending faulting developed at this time dominated by the Yalakom Fault transecting the Tyaughton Trough. Block faulting and further magmatic intrusions followed the strike-slip faulting.

The Cadwallader Break is the fracture system on which the major mines in the Bridge River Mining Camp are located. Fault slivers within the zone include diorite, greenstone, chert, ultramafic and clastic sedimentary rocks. The fault system is approximately 50 km in length and its southeastern extension bisects the Property. The movement and displacement of the Cadwallader Break is complex and unclear, especially in the area of the Property where it is believed to occupy the area of Cadwallader Creek and, as a result, is masked by Quaternary deposits.

The Cadwallader Break strikes northwesterly and dips steeply to the southwest in the Property area but at the Bralorne Mine the Cadwallader Break changes orientation and strikes northerly with a westerly dip. This deflection may have reactivated an older thrust fault (Fergusson Fault) that created a wedge shaped lens of rock which in turn created major tension fractures and shears in the wedge. The majority of the producing mines in the Bridge River Camp are within this wedge.

Other such wedges may occur along the Cadwallader Break creating similar facture patterns and hence mineral potential. The area at the junction of Cadwallader Creek from Piebiter Creek to Standard Creek for example, based on airborne geophysical data, exhibits the offsetting of geological features and thus the potential for tension fractures and shears.

The oldest rocks in the area are the Paleozoic age Fergusson Group comprising ocean-floor ribbon cherts intercalated with graphitic argillite, greenstone and thin limestone layers (Church, 1996). Quartz veinlets are common within the cherts. This unit is sometimes referred to as the Bridge River Complex (Potter, 1983). A chloritic/quartz-rich mica schist is associated with the Fergusson Group rocks and occurs near the contact with the Bendor Pluton (at the northern edge of the Property) and with the contact of the Coast Plutonic Complex.

The Triassic age Cadwallader Group is an island-arc assemblage which was accreted to the Bridge River Complex. The oldest unit within the Cadwallader Group is the Pioneer Formation. This unit is primarily a basaltic volcanic sequence with minor small limestone lenses and tephra

beds. The Pioneer Formation is characterized by pillow lavas, volcanic breccias and massive flows and sills. The overlying Noel Formation includes thin-bedded argillite, chert, conglomerate and minor greenstone and thin-bedded turbidites. The Hurley Formation is the youngest unit in the sequence and comprises green, brown and black argillite and cherty argillite. Intercalated with the argillite are gritty siltstone, sandstone, conglomerate and limestone lenses.

Above the Bridge River/Cadwallader sequences the Jurassic/Cretaceous age Relay Mountain and Taylor Creek Groups were deposited as part of the Tyaughton Trough. The Relay Mountain Group comprises a series of fossiliferous shales, siltstones and greywackes. The Taylor Creek Group is a distinct sequence of pebble and boulder conglomerates with minor siltstone and shale layers.

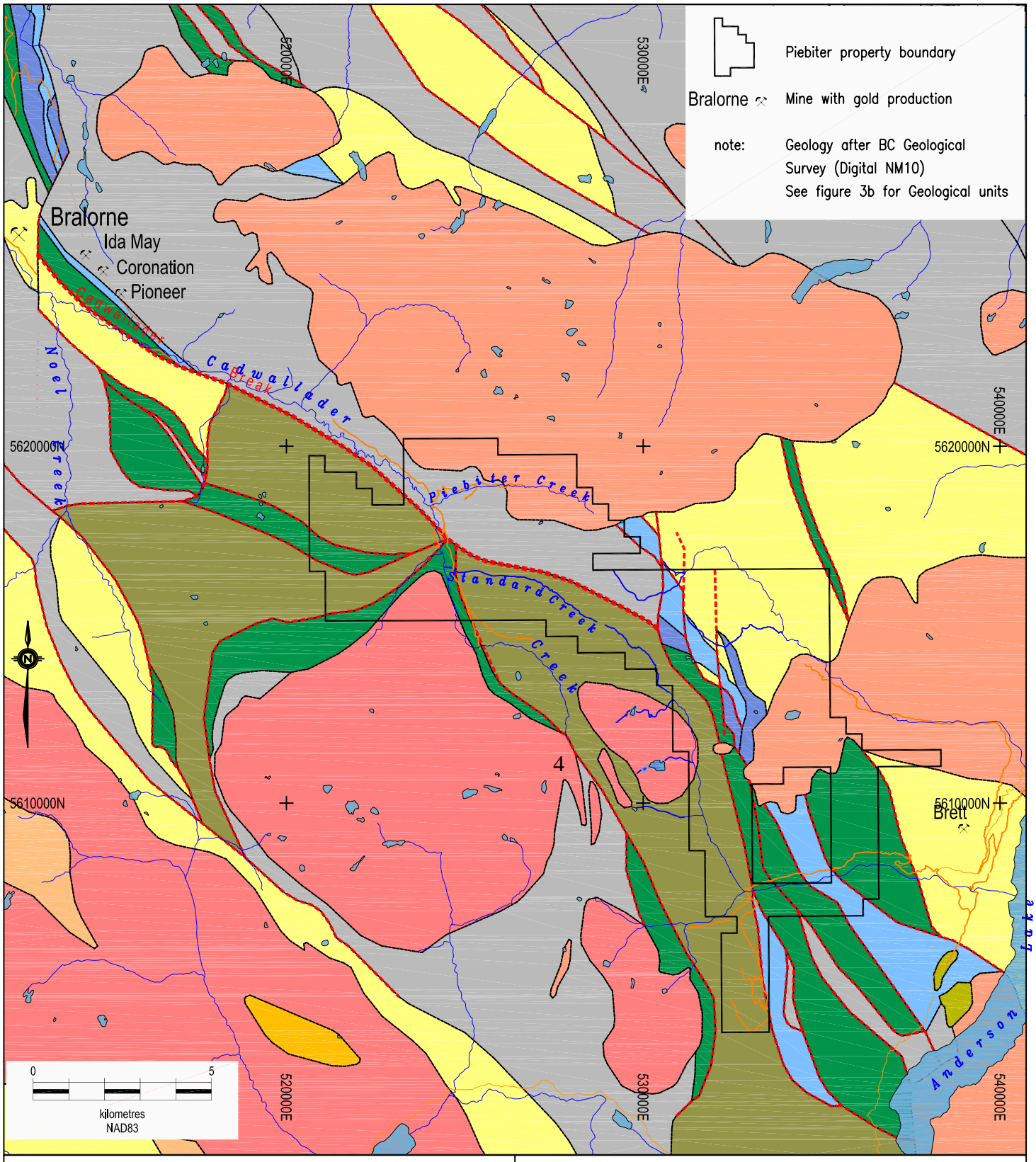
The Tertiary age Big Sheep Mountain volcanics are present only as a few minor outliers of felsic lava and breccia. The youngest rocks in the area are the Miocene age Chilcotin Group basalt lavas of which small remnants remain due to major uplift of the coast range and subsequent erosion.

The oldest intrusions in the area are the Permian Bralorne Intrusions. These gabbroic to dioritic intrusives occur along major faults and are sometimes accompanied by ultramafic bodies. They also occur as small granitic stocks

There are a large number of ultramafic bodies in the Bridge River area; most are thought to be of Cretaceous age. These ultramafic rocks are a series of serpentinite and talc-carbonate rocks of dunite, pyroxenite and peridotite composition that are associated with deep-seated faults in the area.

The Late Cretaceous/Early Tertiary age Coast Plutonic Complex forms the southwest edge of the above sequence. This intrusive unit's composition is soda granite to diorite and forms numerous plutons and smaller satellite intrusive stocks in the area. The Bendor Pluton (at the northern edge of the Property) and the Eldorado Pluton are thought to be late-stage events in the Complex's history. The youngest intrusive in the area is the Middle Eocene age Rexmount Porphyry. Crosscutting basic to felsic dikes in the area are related to this unit.

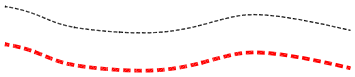
The older rocks of the area exhibit greenschist-grade metamorphism while younger rocks, although folded and faulted, are metamorphosed only near contacts with major igneous intrusions.




| | |
|---|---|
| DISCOVERY Consultants | Covenant Resources Ltd. |
| Piebiter Property | Regional Geology |

| Date: | January 15, 2010 | Project: | 852 | Scale: | 1:150,000 | N.T.S.: | 092J NE | Mining Div: | Lillooet | Figure: | 3a |
|---|---|---|---|---|---|---|---|---|---|---|---|

## Symbols



Geological boundary

Fault

## Geology

Eocene

Dacitic volcanic rocks

Late Cretaceous

Granodioritic intrusive rocks

Lower Cretaceous

Taylor Creek Group - Lizard Formation
Coarse clastic sedimentary rocks

Late Cretaceous to Paleogene

Granodioritic intrusive rocks

Jurassic to Cretaceous

Cayoosh Assemblage
Undivided sedimentary rocks

Lower Jurassic to Middle Jurassic

Ladner Group
Mudstone, siltstone, shale, fine clastic sedimentary rocks

Upper Triassic

Cadwallader Group - Hurley Formation
Coarse clastic sedimentary rocks

Cadwallader Group - Volcanic Unit
Greenstone, greenschist, and metamorphic rocks

Permian

Bralorne - East Liza Complex
Serpentinite ultramafic rocks

Chasm Creek Schist
Serpentinite ultramafic rocks

Mississippian to Middle Jurassic

Bridge River Complex
Marine sedimentary and volcanic rocks

note: Geology after BC Geological Survey (Digital NM10)

| | |
|---|---|
| DISCOVERY Consultants | Covenant Resources Ltd. |
| Piebiter Property | Regional Geology Legend |

| Date: | Project: | Scale: | N.T.S.: | Mining Div: | Figure: |
|---|---|---|---|---|---|
| January 15, 2010 | 852 | none | 092J NE | Lillooet | 3b |

## 7.2 Property Geology

Allen et al. (1986) and Carpenter et al. (1988) report that the northwestern portion of the Property is underlain by rocks of the Fergusson Group, the Pioneer and Noel Formations of the Cadwallader Group, diorite of the Bralorne Intrusions, President ultramafic rocks and rocks of the Coast Plutonic Complex.

The most common lithologies include chert, black argillite, quartz biotite schist, limestone, greenstone, ultramafic rocks, serpentinite and diorite. The greenstone includes massive layers, agglomerates and tuffs, with local metamorphic equivalents including biotite schist and phyllite, which may represent a more felsic unit.

The ultramafic rocks resist weathering and form a series of prominent knobs and cliffs which cut diagonally across the Property and may mark the location of one or more deep-seated structures. Other than these ultramafic outcrops and some outcrops exposed along stream-cut gullies, there is little bedrock exposure in the Cadwallader Creek valley floor.

The bedded and schistose rocks, exposed on the valley sides generally strike southeasterly with moderate to steep dips to the southwest. There appears to be some tendency toward a steepening of the dip to the southwest and together with a few steep, northeasterly dips, there is a suggestion of a tight syncline.

The geology of the southern part of the property is very similar to the Bralorne-Pioneer area. Schimann and Robb (1991) report that the Coast Plutonic Complex covers the area west of the Property including a small part of the southwest corner of the property.

The rest of the property is underlain by volcanics and sediments of the Bridge River Complex and the Cadwallader Group accompanied by diorite to gabbro of the Bralorne Intrusions. These units are juxtaposed in a series of fault slices. The faults are commonly underlined by slivers and pods of ultramafic rocks which are frequently altered to serpentinite or listwanite.

The Bridge River Complex consists mostly of alternating chert and black more or less pyritic argillites with associated basalt and/or andesite, mostly pillowed.

Photo 1: View up Standard Creek to the southeast from above its junction with Cadwallader Creek. The trace of the Cadwallader Break is believed to be on the left side of the valley.

The Cadwallader Group consists of mostly tuffaceous andesite, siltstone, and sandstone with some conglomerate. The andesitic tuff grades into the siltstone. Both the Bridge River and the Cadwallader Group rocks are weakly metamorphosed to lower greenschist grade.

The Bralorne diorite is fine to medium grained with varying mafic contents. The mafic content and the grain size vary rapidly giving a heterogeneous, patchy aspect to the diorite which is also frequently cut by small pyritic and/or pyrrhotitic shears. Locally, the diorite has been metamorphosed to lower greenschist grade.

The Bendor Intrusion comprises a medium-grained granodiorite and is probably intruding the Bralorne diorite although contact relationships have not been observed in the field.

## 8.0 PROGRAM

A MMI soil geochemical survey was carried out on the Property by Discovery for Covenant during the period October 6th to 13th, 2009. MMI surveys measure only the metal ions in the surface soils that have migrated via ground water from mineralized sources at depth. The survey consisted of the collection of 124 MMI soil samples (122 samples and 2 field duplicates) from 7.9 km of grid lines spaced 200 m apart (Figure 4).

Geological mapping was carried out at 1:2,500 scale along the grid lines and along roads (Figure 8). The map shows a GPS location number, lithology and other geological information.

Nine rock samples were collected (Figure 8). Two old, caved adits on the property were located and the waste dumps examined. Two rock samples from the Butte-IXL (MINFILE 092JNE011) adit dump material were collected; one sample of quartz vein material was found to contain 1.55 g/t gold while another sample of weakly mineralized wall rock did not contain anomalous gold values.

The total cost of this program, including reporting, was $32,422.

### 8.1 Sampling Method and Approach

MMI Samples were collected with a non-painted, steel shovel and placed into 0.5 litre plastic zip-lock bags which were identified with a unique number written on the outside of the plastic bag with a waterproof marker. The sampler did not wear gold or silver jewellery, rings or a watch during the sample collection process. No sample tags, flagging or any other tool or item was allowed contact with the sample. Between samples the shovel was carefully wiped with moss to prevent cross-contamination between samples.

A soil pit, measuring approximately 15 cm in diameter and 35 cm in depth was excavated at each sample site, generally at 50 m intervals along the grid lines and at every 25 m along an initial test line (Line 0N, stations 25E to 275E). The presence of deep moss, forest litter, boulders and thick tree roots caused many problems finding appropriate sample sites and often necessitated the digging of multiple holes at some locations.

A description of the soil profile, together with measurements of the thickness of the various soil horizons and the pertinent local environmental conditions were recorded. Factors, such as drainage, forest type, surface disturbance due to logging activities, and presence and type of outcrop which may be important to the interpretation of the results were noted. An attempt was

made to characterize the origin of the soil (alluvium, colluvium, fluvial-glacial outwash, glacial till, etc.) based on the presence of clay, silt, roundness or angularity of gravel, pebbles and boulders, and the lithologies present in the coarse fraction fragments.

Each MMI sample was collected from the interval between 10 cm to 25 cm depth, as measured after the un-decomposed, surface forest litter was removed from the profile. In most cases multiple soil horizons were present, often with gradational contacts making determination of the contact difficult. In general, the sample was collected from only the lowest horizon present, however in some pits a layer of volcanic ash several cm thick was found between the organic "A" horizon and the enriched mineral "B" horizon, while in other pits the ash and "B" horizon were mixed in alternating layers. When the volcanic ash was present, it was included with the "B" horizon as part of the sample. The specifications of the survey resulted in the collection of different populations of samples being collected; generally most samples are of either the organic "A" horizon or the enriched "Bf" horizon.

The samples were shipped to the SGS Canada Inc. ("SGS") laboratory in Mississauga, Ontario for analysis. Two field duplicates were included with the samples sent to the laboratory.

### 8.2 Sample Preparation, Analysis, QC/QA

SGS uses a propriety method to strip metal ions that are adsorbed onto soil particles by using weak solutions of organic acids which are then analysed by ICP-MS techniques. The exact procedure and the extractants used are proprietary, but the following general description of the process is taken from the SGS website (http://www.geochem.sgs.com/mmi-process.htm).

> *"The MMI™ technology is an innovative geochemical process that uses a very different approach to the analysis of metals in soils and weathered materials. It involves sample attack using extremely weak solutions of organic and inorganic compounds rather than the conventional aggressive acid digest solutions or fusions. Conventional techniques digest soil substrates releasing metals that are chemically bound by strong atomic forces, either to each other or within and to the clay and other minerals and particles in the soil sample. In contrast to this MMI™ extractants, containing strong ligands, are used to detach and hold in solution metal ions which are loosely bound to soil particles by weak atomic forces. The extractants are formulated to avoid dissolving the bound forms of the metals. The metal ions held in solution are therefore the chemically active or 'mobile' component. These mobile forms occur in very low concentrations that are readily measurable by modern ICP-MS analytical instrumentation with considerable precision, provided that the solution delivered to the machine is very dilute. MMI™ extractants meet these criteria particularly well.*
>
> *The mechanism of formation of MMI™ anomalies has been the subject of industry and government sponsored research between 1993 and 1997 at the Geochemistry Research Centre in Perth, Western Australia. Together with the results of many hundreds of unpublished case studies and exploration programs, this work suggests that metal ions are released from mineral deposits by oxidation process at depth, migrate essentially*

*vertically and concentrate in the soil profile close to the surface, overlying their source. These 'mobile ion' anomalies are interpreted as the pre-cursors to the conventional or 'bound' geochemical responses that form broader patterns, usually with lower anomaly-to-background resolution, and in some cases transported from the primary source. By deliberately targeting only the recently arrived or mobile forms of metal elements, prior to chemical binding and their chemical and physical dispersion over the landscape, MMI™ analyses give a more focused geochemical expression of buried mineralization, even in many types of transported overburden at low detection levels.*

*MMI™ technology uses proprietary extractants. "MMI-M" is a new, single multi-element leach that now provides an option to measure the concentration of a broad selection of mobile elements in soils. With MMI-M, explorers can now create their own individual multi-element packages, using any or all of commodity elements, diamond host rock elements, lithological elements and pathfinder elements*

*The analytical protocols developed for MMI™ extractions control many variables that normally constitute sources of error in other analytical methods, and enables the technique to achieve very high levels of precision and accuracy. All extractants are produced from one location with strict control over the components used for manufacture. The performance of each is tested on standard soil samples prior to dispatch, to avoid any variation between the batches. All reagents have limited use-by dates and laboratories performing the analyses undergo frequent QA/QC testing. Weights, volumes, temperature, time, viscosity and solubility are closely monitored and all equipment is used once and discarded to avoid cross contamination. The solutions have been specifically designed to optimize the ICP-MS analytical method, and to present to the machine optimum analyte solutions for analysis thereby reducing interferences that can also introduce sources of error to the data.*

*Numerous detailed studies have been undertaken to assess analytical reproducibility where repeat analysis of aliquot's of the same soil sample are tested and compared using the same analytical batch, and different analytical batches, over time. In both cases the technique has shown reproducibility characteristics as good as and usually far better than total and other partial digest techniques."*

The gold detection limit with the MMI technique is reported to be 0.1 ppb. The analytical results for duplicate field samples, duplicate sub-samples, standards and analytical blanks are shown following the soil sample results in Appendix I.

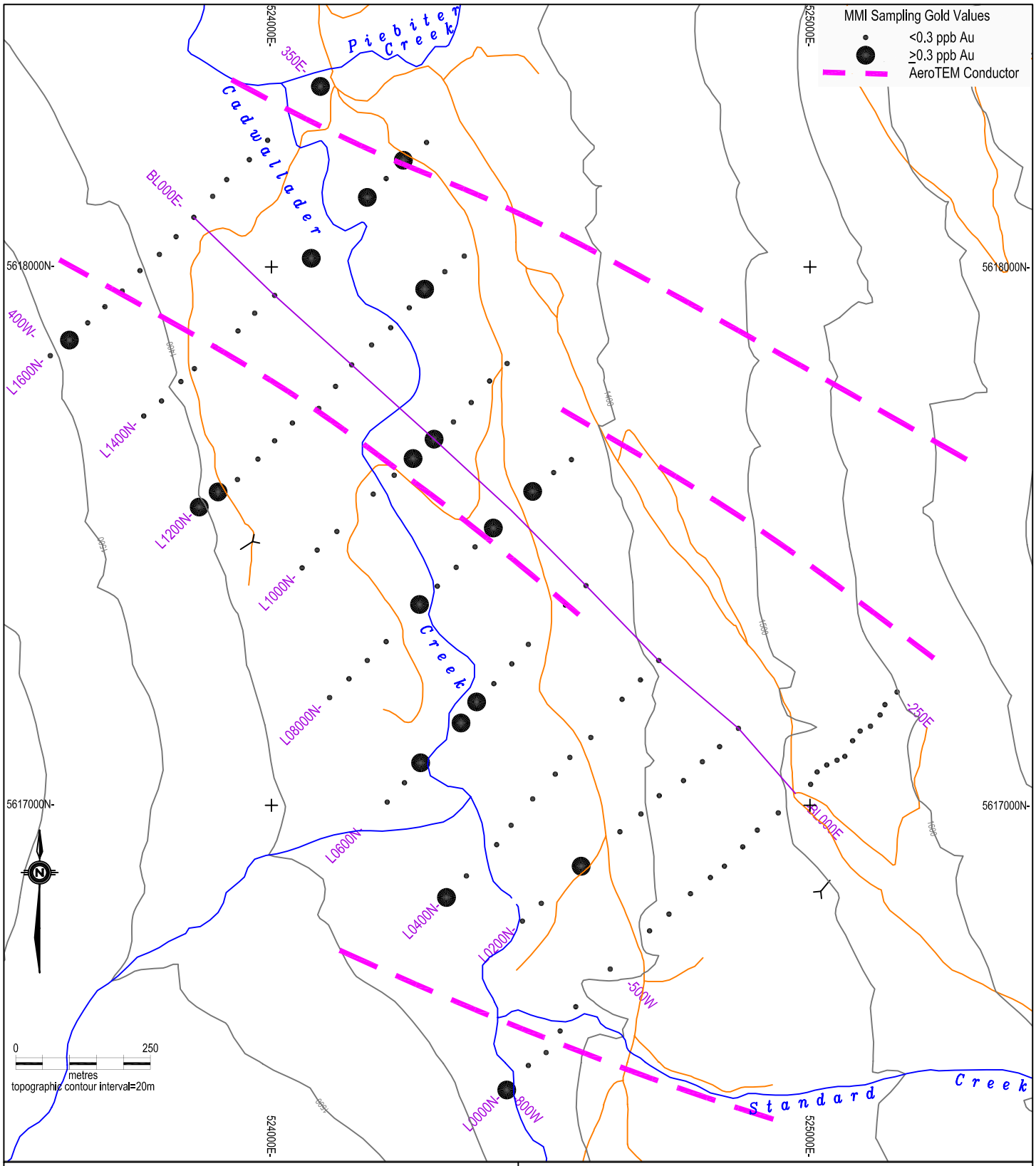
The rock samples were shipped to AGAT Laboratories in Kelowna, BC, for sample preparation. AGAT shipped the pulps to its laboratory in Mississauga, ON, for analysis. A 0.5 g sub-sample was digested by aqua regia, followed by ICP-MS analysis.

### 8.3 Results

The MMI soil geochemical survey has successfully identified several areas, principally in the Cadwallader Creek valley bottom, where elevated gold values were found adsorbed onto soil particles. The gold values range from < 0.1 ppb to 1.4 ppb. Coincident anomalies are noted in zinc, molybdenum and cadmium on lines 0000N and 0600N; they remain unexplained. High nickel values may indicate the presence of ultramafic rocks. The soil sample descriptions and MMI analytical results are listed in Appendix I. The MMI analytical results for gold, zinc and

molybdenum are shown in Figures 5a, 6 and 7 respectively. Figure 5b shows anomalous gold values relative to airborne EM conductors.

A grab rock sample (number 852JPR003) of quartz vein material from the Butte-IXL (MINFILE 092JNE011) adit dump was found to contain 1.55 g/t gold. All other rock samples, including one of weakly mineralized wall rock from the Butte adit dump, contained low gold values. The rock descriptions are shown in Appendix II and rock analytical results are listed in Appendix III. The rock sample locations and gold, zinc and silver values are shown in Figure 8.

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| DISCOVERY Consultants | Covenant Resources Ltd. |
| Piebiter Property | MMI Gold in Soils & EM Conductors |

| Date: | January 15, 2010 | Project: | 852 | Scale: | 1:10,000 | N.T.S.: | 092J.077,067 | Mining Div: | Lillooet | Figure: | 5b |
|---|---|---|---|---|---|---|---|---|---|---|---|

## 9.0 DISCUSSION AND CONCLUSIONS

The MMI survey has successfully identified several areas, principally in the Cadwallader Creek valley bottom, where elevated gold values were found adsorbed onto soil particles. This is the approximate location of where the Cadwallader Break is thought to underlie the unconsolidated valley fill and the positive MMI response suggests that there may be gold-bearing structures at depth associated with the Cadwallader Break.

The area of the gold anomalies is associated with airborne EM conductors (Chapman, 2009) that appear to indicate dislocation of stratigraphy and/or structures between Piebiter and Standard Creeks (Figure 5b). This setting may have been favourable for the emplacement of gold-bearing quartz veins.

## 10.0 RECOMMENDATIONS

It is recommended that the core area of the Property, including possible extensions of the Cadwallader Break fault zone continue to be the focus of exploration and that the information provided by the MMI geochemical survey be acted upon with a program of geophysics, followed by diamond drilling.

**Respectfully submitted,**

***Original Signed by Author***

_____

**Jay W. Page, PGeo.**
Discovery Consultants
Vernon, BC
January 15, 2010

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## 12.0 STATEMENT OF COSTS

| | | | |
|---|---|---|---|
| 1. Professional Services | | | |
| W.R. Gilmour, PGeo | | | |
| Supervision, data interpretation, Report Writing/Editing | | | |
| 0.25 days @ $700 per day | | $175.00 | |
| T.A. Carpenter, PGeo | | | |
| Program Planning | | | |
| 1.50 days @ $700 per day | | 1,050.00 | |
| J.W. Page, PGeo | | | |
| Field Program (Oct 4 - 13) | | | |
| 10 days @ $700 per day | | 7,000.00 | |
| Program Planning, Data Compilation, Report Writing | | | |
| 28 hrs @ $100 per hr | | 2,800.00 | |
| | | --- | $11,025.00 |
| 2. Personnel | | | |
| Field | | | |
| Soil Sampling & Prospecting | | | |
| C. Barker (Oct 4 - 13) | | | |
| 10.00 days @ $540 per day | | 5,400.00 | |
| | | --- | 5,400.00 |
| Office | | | |
| Drafting | | 2,887.50 | |
| Data Compilation | | 192.50 | |
| Field Support | | 165.00 | |
| Secretarial | | 440.00 | |
| | | --- | 3,685.00 |
| 3. Expenses | | | |
| Analysis | | | |
| AGAT Laboratories | | | |
| Rock sample, aqua regia digestion - ICP-MS analysis | | | |
| 9 samples @ $27.34 per sample | $246.06 | | |
| SGS Lab | | | |
| Soil sample, MMI analyses | | | |
| 124 samples @ $36.75 per sample | 4,557.00 | | |
| Freight | 104.50 | | |
| | --- | 4,907.56 | |
| Communications | | 4.31 | |
| Maps & Publications | | 92.00 | |
| Equipment Rental | | 70.00 | |
| Field Supplies | | 120.55 | |
| Lodging & Meals | | 1,914.06 | |
| Office | | 227.95 | |
| Discovery Consultants Management Fee | | 438.06 | |
| | | --- | 7,774.49 |

| | | | |
|---|---|---|---|
| 4. Transportation | | | |
| Rental | | 1,266.64 | |
| fuel | | 323.43 | |
| | | ---------- | 1,590.07 |
| | | | ---------- |
| | | ***Sub-total*** | $29,474.56 |
| 5. Corporate Mamangement Fee @10% | | | 2,947.46 |
| | | | ---------- |
| | ***Total Exploration Expenditures:*** | | **$32,422.02** |

## 13.0 STATEMENT OF QUALIFICATIONS

**I, Jay W. Page, PGeo.**

DO HEREBY CERTIFY that:

1. I am a graduate of the University of British Columbia, holding a B.A. in Geography /Geomorphology (1977) and a B.Sc. in Geology (1984).

2. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia, registration number 19596.

3. I am currently employed as a Consulting Geologist.

4. I have worked as a geologist for a total of 25 years since graduation from university.

5. I have visited the Property and supervised the MMI soil geochemical survey and carried out a geological mapping and rock sampling survey on the Property during the period October 6th to 13th, 2009.

6. I am the author of the report titled "Assessment Report on a Geochemical Soil & Rock Survey & a Geological Survey on the Piebiter Property, Lillooet Mining Division, BC" dated January 15, 2010 which is based on my review of available literature and exploration results.

Dated this 15th day of January, 2010 in Vernon, BC

Signature of

***Original Signed by Author***

**Jay W. Page, PGeo.**
Discovery Consultants

# APPENDIX I

## MMI Soil Descriptions and Analytical Results

# APPENDIX I - MMI Soil Description and Analytical Results

**COVENANT RESOURCES LTD.**

**Piebiter Project (852)**

## MMI Soil Sampling Results (2009)

| Element --> | | | | | | | | Au | Ag | Ba | As | Sb | W | Cu | Bi | Pb | Fe |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | UTM | | Station | | Horizons | Interval | | | | | | | | | MMI- | MMI- |
| | SGS Labs | Easting | Northing | North | West/East | Sampled | Sampled | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | M5 | M5 |
| | | | | | | | cm | 0.1 | 1 | 10 | 10 | 1 | 1 | 10 | 1 | 10 | 1 |
| **Sample ID** | **WO #** | | | | | | | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppm** |
| **852CBS030** | T0108180 | 524437 | 5616472 | 0000N | 800W | B | 10 - 25 | 0.3 | 13 | 1400 | 30 | <1 | 2 | 2070 | <1 | 30 | 53 |
| **852CBS031** | T0108180 | 524477 | 5616517 | 0000N | 750W | Ash,B | 10 - 25 | <0.1 | 5 | 1240 | 20 | <1 | 3 | 300 | <1 | 50 | 131 |
| **852CBS032** | T0108180 | 524510 | 5616541 | 0000N | 700W | Ash,B | 10 - 25 | <0.1 | 8 | 1680 | 30 | <1 | 1 | 200 | 2 | 160 | 129 |
| **852CBS033** | T0108180 | 524536 | 5616581 | 0000N | 650W | Ash,B | 10 - 25 | 0.1 | 33 | 430 | 30 | <1 | 2 | 330 | 2 | 80 | 89 |
| **852CBS034** | T0108180 | 524565 | 5616626 | 0000N | 600W | B | 10 - 25 | <0.1 | 39 | 980 | 140 | 1 | 1 | 590 | 11 | 210 | 157 |
| **852CBS035** | T0108180 | 524629 | 5616696 | 0000N | 500W | Ash,B | 10 - 25 | <0.1 | 19 | 630 | 20 | <1 | 1 | 430 | 2 | 120 | 130 |
| **852CBS012** | T0108180 | 524702 | 5616767 | 0000N | 400W | A,B | 5 - 25 | <0.1 | 22 | 1770 | 30 | <1 | 1 | 620 | <1 | 70 | 75 |
| **852CBS013** | T0108180 | 524738 | 5616798 | 0000N | 350W | A | 12 - 25 | <0.1 | <1 | 550 | 40 | 2 | 2 | 320 | <1 | <10 | 205 |
| **852CBS014** | T0108180 | 524778 | 5616836 | 0000N | 300W | A,B | 3 - 25 | <0.1 | 4 | 660 | 150 | 7 | 2 | 3260 | 10 | 170 | 104 |
| **852CBS015** | T0108180 | 524815 | 5616866 | 0000N | 250W | A,B | 7 - 25 | <0.1 | 24 | 3470 | 40 | <1 | 2 | 920 | 1 | 60 | 72 |
| **852CBS016** | T0108180 | 524841 | 5616887 | 0000N | 200W | A, Ash | 14 - 25 | <0.1 | 25 | 520 | 10 | <1 | <1 | 1020 | <1 | 60 | 7 |
| **852CBS017** | T0108180 | 524875 | 5616923 | 0000N | 150W | B | 10 - 25 | 0.1 | 27 | 1760 | 20 | <1 | <1 | 3410 | <1 | <10 | 18 |
| **852CBS018** | T0108180 | 524902 | 5616954 | 0000N | 100W | Ash,B | 10 - 25 | <0.1 | 29 | 1440 | 130 | 1 | 3 | 370 | 5 | 150 | 119 |
| **852CBS019** | T0108180 | 524941 | 5616986 | 0000N | 050W | Ash,B | 10 - 25 | <0.1 | 60 | 650 | 310 | 18 | 2 | 250 | 5 | 230 | 164 |
| **852CBS001** | T0108180 | 525001 | 5617039 | 0000N | 025E | B | 10 - 25 | <0.1 | 1 | 280 | <10 | <1 | 3 | 620 | <1 | 20 | 29 |
| **852CBS002** | T0108180 | 525013 | 5617062 | 0000N | 050E | B | 10 - 25 | <0.1 | 13 | 360 | 30 | 1 | 14 | 490 | <1 | 10 | 25 |
| **852CBS003** | T0108180 | 525031 | 5617075 | 0000N | 075E | B | 11 - 25 | 0.2 | 13 | 590 | 20 | 3 | 2 | 3060 | <1 | <10 | 12 |
| **852CBS004** | T0108180 | 525050 | 5617084 | 0000N | 100E | B | 16 - 25 | <0.1 | 45 | 490 | 20 | <1 | 2 | 5530 | 2 | 30 | 90 |
| **852CBS005** | T0108180 | 525065 | 5617091 | 0000N | 125E | A,B | 10 - 25 | 0.1 | 49 | 410 | 60 | 1 | <1 | 2030 | <1 | <10 | 8 |
| **852CBS006** | T0108180 | 525079 | 5617120 | 0000N | 150E | B | 10 - 25 | <0.1 | 36 | 700 | 430 | 2 | 1 | 990 | 3 | 90 | 43 |
| **852CBS007** | T0108180 | 525093 | 5617138 | 0000N | 175E | B | 10 - 25 | <0.1 | 47 | 570 | 40 | <1 | <1 | 1910 | 3 | 130 | 53 |
| **852CBS008** | T0108180 | 525112 | 5617147 | 0000N | 200E | Ash | 10 - 25 | <0.1 | 18 | 900 | 10 | <1 | 1 | 3220 | <1 | 40 | 38 |
| **852CBS009** | T0108180 | 525130 | 5617168 | 0000N | 225E | A,B | 10 - 25 | <0.1 | 11 | 500 | <10 | <1 | <1 | 370 | <1 | 20 | 19 |
| **852CBS010** | T0108180 | 525139 | 5617187 | 0000N | 250E | B | 14 - 25 | <0.1 | 38 | 3300 | 30 | <1 | <1 | 1180 | 2 | 60 | 100 |
| **852CBS011** | T0108180 | 525162 | 5617211 | 0000N | 275E | B | 10 - 25 | <0.1 | 15 | 1350 | <10 | <1 | <1 | 1450 | 1 | 60 | 73 |
| **852CBS029** | T0108180 | 524466 | 5616785 | 0200N | 550W | B | 12 - 25 | 0.2 | 14 | 1070 | 10 | <1 | <1 | 840 | <1 | <10 | 15 |
| **852CBS028** | T0108180 | 524501 | 5616818 | 0200N | 500W | Ash,B | 10 -25 | 0.1 | 30 | 730 | 30 | <1 | 4 | 370 | 2 | 50 | 100 |

# APPENDIX I - MMI Soil Description and Analytical Results



| Element --> | Zn | Cd | Co | Ni | Cr | Mo | Mg | Ca | Sr | Rb | Ti | Al | Zr | Nb | Ta | Te | Sn | U | Th | Tl | Sc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 20 | 1 | 5 | 5 | 100 | 5 | 1 | 10 | 10 | 5 | 3 | 1 | 5 | 0.5 | 1 | 10 | 1 | 1 | 0.5 | 0.5 | 5 |
| **Sample ID** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppm** | **ppm** | **ppb** | **ppb** | **ppb** | **ppm** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** |
| **852CBS030** | 40 | 24 | 291 | 3140 | <100 | 7 | 30 | 270 | 640 | 124 | 99 | 86 | 11 | <0.5 | <1 | <10 | <1 | 42 | 5.5 | 0.9 | 29 |
| **852CBS031** | 280 | 8 | 73 | 211 | 200 | 6 | 2 | <10 | 90 | 48 | 2050 | 223 | 22 | 5.0 | <1 | <10 | <1 | 6 | 14.9 | <0.5 | 37 |
| **852CBS032** | 840 | 26 | 59 | 217 | 100 | 8 | 11 | 90 | 360 | 51 | 2530 | 202 | 36 | 5.4 | <1 | <10 | <1 | 3 | 8.2 | <0.5 | 26 |
| **852CBS033** | 240 | 19 | 50 | 143 | <100 | <5 | 3 | <10 | 60 | 168 | 883 | 239 | 29 | 2.1 | <1 | <10 | <1 | 5 | 9.0 | 0.6 | 28 |
| **852CBS034** | 380 | 53 | 218 | 894 | 300 | 16 | 12 | 40 | 270 | 152 | 676 | 246 | 9 | 2.1 | <1 | <10 | <1 | 4 | 10.6 | 0.6 | 25 |
| **852CBS035** | 340 | 32 | 41 | 287 | <100 | 7 | 5 | 50 | 290 | 102 | 1360 | 225 | 20 | 3.3 | <1 | <10 | <1 | 4 | 6.6 | <0.5 | 22 |
| **852CBS012** | 220 | 26 | 46 | 1430 | <100 | 19 | 86 | 300 | 770 | 109 | 102 | 85 | 10 | 0.6 | <1 | <10 | <1 | 38 | 7.8 | 0.6 | 24 |
| **852CBS013** | 160 | 9 | 149 | 3850 | <100 | 432 | 43 | 170 | 500 | 24 | 124 | 45 | <5 | 0.5 | <1 | <10 | <1 | 8 | 0.8 | 0.5 | <5 |
| **852CBS014** | 1940 | 124 | 714 | 8050 | <100 | 247 | 36 | 200 | 390 | 153 | 435 | 91 | 11 | 1.6 | <1 | <10 | <1 | 15 | 6.6 | 1.5 | 26 |
| **852CBS015** | 13600 | 284 | 60 | 2100 | <100 | 8 | 36 | 210 | 450 | 260 | 324 | 164 | 11 | 1.1 | <1 | <10 | <1 | 11 | 28.4 | 0.7 | 40 |
| **852CBS016** | 40 | 60 | 21 | 3560 | <100 | 26 | 96 | 560 | 940 | 29 | 29 | 51 | <5 | 0.5 | <1 | <10 | <1 | 28 | 1.2 | <0.5 | <5 |
| **852CBS017** | <20 | 17 | 76 | 632 | <100 | 19 | 100 | 500 | 940 | 78 | 7 | 16 | <5 | <0.5 | <1 | <10 | <1 | 10 | 2.6 | 1.0 | 8 |
| **852CBS018** | 90 | 22 | 121 | 1170 | 300 | 7 | 9 | 80 | 230 | 231 | 1190 | 193 | 53 | 3.1 | <1 | <10 | <1 | 5 | 9.0 | <0.5 | 33 |
| **852CBS019** | 220 | 47 | 200 | 1360 | 500 | 8 | 19 | 70 | 240 | 139 | 1890 | 181 | 31 | 4.6 | <1 | <10 | <1 | 3 | 6.9 | <0.5 | 20 |
| **852CBS001** | 3620 | 250 | 11 | 7530 | <100 | 37 | 97 | 420 | 1270 | 42 | 17 | 61 | <5 | <0.5 | <1 | <10 | <1 | 7 | 1.4 | 1.9 | 7 |
| **852CBS002** | 100 | 35 | 97 | 2040 | <100 | 154 | 28 | 360 | 890 | 82 | 101 | 32 | 6 | <0.5 | <1 | <10 | <1 | 1 | 2.3 | 1.1 | <5 |
| **852CBS003** | 120 | 130 | 146 | 10600 | <100 | 366 | 42 | 420 | 1020 | 89 | 15 | 32 | <5 | <0.5 | <1 | <10 | <1 | 5 | 2.2 | 1.2 | <5 |
| **852CBS004** | 710 | 268 | 431 | 610 | <100 | 68 | 6 | 80 | 130 | 130 | 1330 | 173 | 54 | 3.4 | <1 | <10 | <1 | 4 | 7.8 | 1.3 | 34 |
| **852CBS005** | 830 | 240 | 16 | 4050 | <100 | 288 | 39 | 500 | 1230 | 48 | 5 | 36 | <5 | <0.5 | <1 | <10 | <1 | 7 | 1.0 | 0.9 | <5 |
| **852CBS006** | 790 | 111 | 70 | 638 | <100 | 46 | 12 | 190 | 320 | 224 | 647 | 132 | 25 | 1.5 | <1 | <10 | <1 | 9 | 9.2 | 0.9 | 26 |
| **852CBS007** | 1150 | 111 | 260 | 1020 | <100 | 23 | 5 | 70 | 180 | 232 | 385 | 220 | 26 | 1.0 | <1 | <10 | <1 | 11 | 8.8 | 0.9 | 28 |
| **852CBS008** | 9330 | 1570 | 64 | 9130 | <100 | 9 | 28 | 380 | 970 | 430 | 73 | 147 | 25 | <0.5 | <1 | <10 | <1 | 36 | 8.2 | 1.7 | 50 |
| **852CBS009** | 16800 | 655 | 11 | 7250 | <100 | <5 | 16 | 410 | 850 | 136 | 26 | 92 | <5 | <0.5 | <1 | <10 | <1 | 5 | 1.5 | 0.8 | 12 |
| **852CBS010** | 3380 | 262 | 283 | 717 | <100 | 10 | 19 | 260 | 760 | 382 | 623 | 127 | 14 | 1.3 | <1 | <10 | <1 | 10 | 28.3 | 1.5 | 51 |
| **852CBS011** | 8820 | 486 | 184 | 3400 | <100 | <5 | 54 | 480 | 1400 | 117 | 40 | 124 | 7 | <0.5 | <1 | <10 | <1 | 6 | 13.8 | 1.5 | 48 |
| **852CBS029** | 150 | 15 | 67 | 1610 | <100 | 16 | 58 | 350 | 690 | 42 | 8 | 46 | <5 | <0.5 | <1 | <10 | <1 | 18 | 2.6 | <0.5 | <5 |
| **852CBS028** | 360 | 38 | 67 | 264 | 200 | 8 | 3 | 30 | 70 | 53 | 474 | 296 | 27 | 1.7 | <1 | <10 | <1 | 6 | 11.0 | 0.8 | 25 |

# APPENDIX I - MMI Soil Description and Analytical Results



| Element --> | La | Y | Ce | Pr | Nd | Sm | Eu | Gd | Tb | Dy | Er | Yb | Li | Pd | Pt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 1 | 5 | 5 | 1 | 1 | 1 | 0.5 | 1 | 1 | 1 | 0.5 | 1 | 5 | 1 | 1 |
| Sample ID | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb |
| 852CBS030 | 19 | 68 | 33 | 7 | 35 | 10 | 3.5 | 13 | 2 | 12 | 6.6 | 6 | <5 | <1 | <1 |
| 852CBS031 | 15 | 38 | 34 | 5 | 22 | 6 | 1.9 | 8 | 1 | 8 | 4.9 | 4 | <5 | <1 | <1 |
| 852CBS032 | 10 | 23 | 23 | 3 | 14 | 4 | 1.3 | 4 | <1 | 5 | 2.8 | 2 | <5 | <1 | <1 |
| 852CBS033 | 12 | 23 | 27 | 4 | 15 | 4 | 1.6 | 5 | <1 | 6 | 3.5 | 3 | <5 | <1 | <1 |
| 852CBS034 | 19 | 50 | 44 | 6 | 28 | 7 | 2.5 | 10 | 2 | 12 | 6.3 | 5 | <5 | <1 | <1 |
| 852CBS035 | 11 | 34 | 24 | 4 | 16 | 5 | 1.9 | 6 | 1 | 8 | 3.9 | 3 | <5 | <1 | <1 |
| 852CBS012 | 22 | 129 | 61 | 9 | 49 | 15 | 5.2 | 23 | 4 | 22 | 12.3 | 9 | <5 | <1 | <1 |
| 852CBS013 | 2 | 8 | <5 | <1 | 3 | <1 | <0.5 | 1 | <1 | 1 | 0.8 | <1 | <5 | <1 | <1 |
| 852CBS014 | 17 | 161 | 40 | 9 | 47 | 17 | 6.0 | 26 | 4 | 28 | 15.9 | 13 | <5 | <1 | <1 |
| 852CBS015 | 25 | 68 | 72 | 9 | 44 | 12 | 3.4 | 16 | 3 | 14 | 7.3 | 6 | <5 | <1 | <1 |
| 852CBS016 | 4 | 20 | 5 | 1 | 8 | 2 | 0.6 | 4 | <1 | 3 | 1.7 | 1 | <5 | <1 | <1 |
| 852CBS017 | 3 | 32 | 23 | 2 | 10 | 3 | 1.1 | 5 | <1 | 5 | 2.6 | 2 | <5 | <1 | <1 |
| 852CBS018 | 20 | 43 | 42 | 6 | 26 | 6 | 2.1 | 8 | 1 | 8 | 4.1 | 3 | <5 | <1 | <1 |
| 852CBS019 | 11 | 23 | 26 | 4 | 15 | 4 | 1.5 | 5 | <1 | 5 | 2.6 | 2 | <5 | <1 | <1 |
| 852CBS001 | 5 | 67 | 10 | 2 | 11 | 4 | 1.4 | 7 | 1 | 9 | 5.9 | 5 | 7 | <1 | <1 |
| 852CBS002 | 3 | 10 | 8 | 1 | 7 | 2 | 0.7 | 3 | <1 | 2 | 1.1 | <1 | <5 | <1 | <1 |
| 852CBS003 | 11 | 51 | 13 | 5 | 25 | 8 | 2.8 | 12 | 2 | 9 | 4.0 | 3 | <5 | <1 | <1 |
| 852CBS004 | 20 | 89 | 54 | 8 | 38 | 11 | 3.9 | 16 | 3 | 16 | 9.2 | 7 | <5 | <1 | <1 |
| 852CBS005 | 6 | 41 | 8 | 3 | 17 | 5 | 2.0 | 8 | 1 | 6 | 2.9 | 2 | <5 | <1 | <1 |
| 852CBS006 | 34 | 94 | 94 | 13 | 59 | 16 | 5.3 | 22 | 3 | 19 | 8.7 | 6 | <5 | <1 | <1 |
| 852CBS007 | 26 | 185 | 60 | 11 | 57 | 18 | 6.2 | 28 | 5 | 34 | 17.5 | 12 | <5 | <1 | <1 |
| 852CBS008 | 14 | 302 | 23 | 6 | 30 | 11 | 4.1 | 22 | 4 | 34 | 25.4 | 19 | <5 | <1 | <1 |
| 852CBS009 | 4 | 30 | 10 | 1 | 7 | 2 | 0.7 | 3 | <1 | 4 | 2.3 | 2 | <5 | <1 | <1 |
| 852CBS010 | 27 | 148 | 87 | 13 | 66 | 23 | 5.8 | 33 | 6 | 37 | 18.0 | 13 | <5 | <1 | <1 |
| 852CBS011 | 10 | 116 | 32 | 4 | 24 | 8 | 2.9 | 14 | 3 | 19 | 11.8 | 9 | <5 | <1 | <1 |
| 852CBS029 | 9 | 16 | 18 | 3 | 16 | 4 | 1.1 | 4 | <1 | 3 | 1.3 | 1 | <5 | <1 | <1 |
| 852CBS028 | 20 | 29 | 49 | 6 | 26 | 7 | 2.5 | 8 | 1 | 8 | 3.3 | 2 | <5 | <1 | <1 |

# APPENDIX I - MMI Soil Description and Analytical Results



| Element --> | | | | | | | | Au | Ag | Ba | As | Sb | W | Cu | Bi | Pb | Fe |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | UTM | | Station | | Horizons | Interval | | | | | | | | | | |
| | | | | | | Sampled | Sampled | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | SGS Labs | Easting | Northing | North | West/East | | cm | 0.1 | 1 | 10 | 10 | 1 | 1 | 10 | 1 | 10 | 1 |
| Sample ID | WO # | | | | | | | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppm |
| **852CBS027** | T0108180 | 524575 | 5616887 | 0200N | 400W | Ash,B | 11 - 25 | 0.3 | 36 | 2460 | 40 | <1 | 4 | 6410 | 4 | 310 | 210 |
| **852CBS026** | T0108180 | 524647 | 5616951 | 0200N | 300W | Ash,B | 9 -25 | <0.1 | 6 | 1830 | 40 | <1 | 5 | 80 | 1 | 180 | 127 |
| **852CBS025** | T0108180 | 524686 | 5616984 | 0200N | 250W | Ash,B | 8 - 25 | <0.1 | 7 | 1240 | 10 | <1 | 1 | 380 | <1 | 70 | 140 |
| **852CBS024** | T0108180 | 524720 | 5617018 | 0200N | 200W | A,Ash,B | 8 - 25 | <0.1 | 34 | 1010 | <10 | <1 | <1 | 1020 | <1 | 30 | 9 |
| **852CBS023** | T0108180 | 524765 | 5617046 | 0200N | 150W | Ash,B | 11 - 25 | <0.1 | 32 | 850 | 40 | <1 | 4 | 230 | 2 | 140 | 154 |
| **852CBS022** | T0108180 | 524800 | 5617081 | 0200N | 100W | Ash,B | 15 - 25 | <0.1 | 16 | 1890 | 50 | <1 | 17 | 220 | 3 | 220 | 179 |
| **852CBS021** | T0108180 | 524832 | 5617109 | 0200N | 050W | Ash,B | 10 - 25 | <0.1 | 3 | 290 | 130 | 3 | 9 | 1300 | 4 | 120 | 183 |
| **852CBS020** | T0108180 | 524867 | 5617143 | 0200N | 000 | Ash,B | 10 - 25 | <0.1 | 7 | 1090 | 70 | <1 | 6 | 470 | 7 | 190 | 166 |
| **852CBS049** | T0108180 | 524325 | 5616829 | 0400N | 600W | B | 10 - 25 | 0.9 | 71 | 3320 | 20 | 1 | 4 | 320 | <1 | 130 | 32 |
| **852CBS048** | T0108180 | 524362 | 5616869 | 0400N | 550W | B | 10 - 25 | 0.1 | 10 | 3790 | 100 | 1 | 6 | 1120 | 2 | 70 | 101 |
| **852CBS047** | T0108180 | 524418 | 5616927 | 0400N | 450W | Ash,B | 11 -25 | 0.1 | 25 | 890 | <10 | <1 | <1 | 260 | <1 | <10 | 20 |
| **852CBS046** | T0108180 | 524445 | 5616963 | 0400N | 400W | Ash,B | 10 -25 | 0.1 | 40 | 240 | 10 | <1 | 2 | 240 | <1 | 30 | 66 |
| **852CBS045** | T0108180 | 524485 | 5617012 | 0400N | 350W | B | 10 - 25 | 0.2 | 20 | 1080 | 80 | <1 | 7 | 290 | 3 | 100 | 127 |
| **852CBS044** | T0108180 | 524527 | 5617058 | 0400N | 300W | B | 10 -25 | 0.1 | 10 | 900 | 70 | <1 | 4 | 610 | 2 | 110 | 94 |
| **852CBS043** | T0108180 | 524554 | 5617089 | 0400N | 250W | B | 10 - 25 | 0.1 | 37 | 800 | 10 | <1 | <1 | 810 | <1 | 20 | 16 |
| **852CBS042** | T0108180 | 524593 | 5617126 | 0400N | 200W | B | 10 -25 | <0.1 | 21 | 660 | 40 | 1 | 7 | 710 | 1 | 70 | 55 |
| **852CBS036** | T0108180 | 524651 | 5617197 | 0400N | 100W | B | 19 - 25 | 0.2 | 7 | 1120 | 160 | 2 | 19 | 1370 | <1 | 30 | 104 |
| **852CBS037** | T0108180 | 524685 | 5617233 | 0400N | 050W | B | 13 - 25 | 0.2 | 30 | 2810 | 80 | 1 | 3 | 2210 | 7 | 170 | 166 |
| **852CBS038** | T0108180 | 524719 | 5617269 | 0400N | 000 | B | 10 -25 | <0.1 | 75 | 1400 | 20 | <1 | 1 | 500 | 2 | 140 | 101 |
| **852CBS051** | T0108180 | 524215 | 5617006 | 0600N | 550W | Ash,B | 10 - 25 | <0.1 | 14 | 640 | <10 | <1 | <1 | 210 | <1 | 70 | 103 |
| **852CBS052** | T0108180 | 524247 | 5617042 | 0600N | 500W | B | 10 - 25 | 0.1 | 29 | 1050 | 20 | <1 | 1 | 310 | <1 | 70 | 43 |
| **852CBS053** | T0108180 | 524277 | 5617079 | 0600N | 450W | B | 10 - 25 | 0.4 | 9 | 2060 | 260 | 2 | 12 | 1170 | <1 | 20 | 53 |
| **852CBS054** | T0108180 | 524352 | 5617153 | 0600N | 350W | Ash,B | 11 - 25 | 0.4 | 44 | 1690 | <10 | <1 | <1 | 1600 | <1 | 20 | 17 |
| **852CBS055** | T0108180 | 524381 | 5617192 | 0600N | 300W | B | 10 - 25 | 0.3 | 8 | 1250 | 10 | <1 | <1 | 480 | <1 | <10 | 19 |
| **852CBS056** | T0108180 | 524413 | 5617226 | 0600N | 250W | B | 10 - 25 | 0.2 | 8 | 1550 | 160 | 1 | 16 | 1190 | 2 | 30 | 27 |
| **852CBS057** | T0108180 | 524446 | 5617263 | 0600N | 200W | B | 10 - 25 | 0.2 | 23 | 400 | 30 | <1 | 1 | 730 | <1 | <10 | 27 |
| **852CBS058** | T0108180 | 524477 | 5617299 | 0600N | 150W | Ash,B | 10 - 25* | 0.2 | 28 | 2650 | <10 | <1 | <1 | 790 | <1 | 50 | 18 |
| **852CBS040** | T0108180 | 524546 | 5617372 | 0600N | 050W | Ash | 21 - 25 | <0.1 | 18 | 710 | 20 | <1 | 2 | 430 | 1 | 80 | 57 |
| **852CBS041** | T0108180 | 524546 | 5617372 | 0600N | 050W | B | 12 - 21 | <0.1 | 11 | 620 | <10 | <1 | <1 | 700 | <1 | 310 | 20 |
| **852CBS039** | T0108180 | 524584 | 5617408 | 0600N | 000 | Ash,B | 10 - 25 | 0.2 | 60 | 1880 | <10 | <1 | <1 | 680 | <1 | 30 | 9 |
| **852CBS070** | T0108181 | 524108 | 5617200 | 0800N | 500W | B | 13 - 22 | 0.1 | 8 | 1140 | 200 | 11 | 14 | 1910 | <1 | 60 | 98 |

# APPENDIX I - MMI Soil Description and Analytical Results



| Element --> | Zn | Cd | Co | Ni | Cr | Mo | Mg | Ca | Sr | Rb | Ti | Al | Zr | Nb | Ta | Te | Sn | U | Th | Tl | Sc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 20 | 1 | 5 | 5 | 100 | 5 | 1 | 10 | 10 | 5 | 3 | 1 | 5 | 0.5 | 1 | 10 | 1 | 1 | 0.5 | 0.5 | 5 |
| **Sample ID** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppm** | **ppm** | **ppb** | **ppb** | **ppb** | **ppm** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** |
| **852CBS027** | 690 | 170 | 723 | 9860 | <100 | 35 | 40 | 150 | 560 | 78 | 157 | 121 | 23 | 0.7 | <1 | <10 | <1 | 374 | 17.7 | 1.3 | 59 |
| **852CBS026** | 220 | 9 | 85 | 216 | <100 | 14 | 24 | 180 | 690 | 45 | 4430 | 183 | 23 | 5.6 | <1 | <10 | 1 | 4 | 6.0 | <0.5 | 25 |
| **852CBS025** | 230 | 34 | 164 | 617 | <100 | 8 | 33 | 80 | 490 | 55 | 806 | 191 | 16 | 1.7 | <1 | <10 | <1 | 14 | 20.2 | <0.5 | 21 |
| **852CBS024** | 30 | 49 | 11 | 3130 | <100 | 12 | 97 | 350 | 1000 | 64 | 40 | 75 | 8 | <0.5 | <1 | <10 | <1 | 43 | 2.3 | <0.5 | 6 |
| **852CBS023** | 360 | 46 | 110 | 379 | 200 | 7 | 12 | 80 | 300 | 158 | 2500 | 224 | 29 | 4.9 | <1 | <10 | <1 | 7 | 11.2 | <0.5 | 25 |
| **852CBS022** | 390 | 17 | 57 | 211 | 200 | 11 | 5 | 80 | 380 | 106 | 9720 | 216 | 74 | 15.0 | 1 | <10 | 4 | 5 | 13.0 | <0.5 | 25 |
| **852CBS021** | 1010 | 126 | 839 | 7400 | <100 | 29 | 60 | 20 | 250 | 45 | 1080 | 173 | 19 | 3.1 | <1 | <10 | <1 | 15 | 20.2 | 0.5 | 42 |
| **852CBS020** | 1350 | 129 | 111 | 340 | 200 | 24 | 8 | 20 | 110 | 138 | 3290 | 156 | 17 | 8.2 | <1 | <10 | <1 | 5 | 14.4 | <0.5 | 42 |
| **852CBS049** | 50 | 11 | 164 | 734 | <100 | 9 | 54 | 110 | 940 | 147 | 465 | 104 | 14 | 1.0 | <1 | <10 | <1 | 72 | 23.6 | 1.9 | 138 |
| **852CBS048** | 800 | 20 | 332 | 2120 | 200 | 13 | 48 | 130 | 550 | 91 | 1210 | 155 | 22 | 2.4 | <1 | <10 | <1 | 103 | 57.5 | 1.3 | 32 |
| **852CBS047** | 80 | 32 | 14 | 745 | <100 | 16 | 104 | 420 | 840 | 19 | 26 | 30 | <5 | <0.5 | <1 | <10 | <1 | 8 | 2.8 | <0.5 | <5 |
| **852CBS046** | 40 | 28 | 203 | 896 | <100 | <5 | 2 | <10 | 70 | 47 | 484 | 190 | 24 | 1.0 | <1 | <10 | <1 | 6 | 5.2 | <0.5 | 22 |
| **852CBS045** | 150 | 15 | 75 | 1110 | 100 | 21 | 10 | 20 | 220 | 106 | 1910 | 199 | 30 | 3.7 | <1 | <10 | <1 | 11 | 11.1 | 0.7 | 33 |
| **852CBS044** | 110 | 34 | 116 | 433 | 100 | 12 | 6 | 10 | 170 | 66 | 878 | 228 | 13 | 2.0 | <1 | <10 | <1 | 8 | 8.6 | 0.5 | 25 |
| **852CBS043** | 80 | 20 | 15 | 1440 | <100 | 33 | 86 | 320 | 790 | 49 | 69 | 69 | 8 | <0.5 | <1 | <10 | <1 | 57 | 3.1 | <0.5 | <5 |
| **852CBS042** | 70 | 14 | 315 | 943 | <100 | 46 | 32 | 230 | 430 | 100 | 655 | 98 | 10 | 1.3 | <1 | <10 | <1 | 16 | 5.6 | 1.0 | 10 |
| **852CBS036** | 160 | 20 | 218 | 4950 | <100 | 63 | 37 | 180 | 670 | 12 | 173 | 61 | 7 | <0.5 | <1 | <10 | <1 | 70 | 2.4 | <0.5 | 13 |
| **852CBS037** | 1190 | 96 | 204 | 3070 | <100 | 33 | 34 | 240 | 700 | 69 | 467 | 160 | 23 | 1.4 | <1 | <10 | <1 | 24 | 31.3 | 1.1 | 61 |
| **852CBS038** | 380 | 62 | 103 | 1350 | <100 | 17 | 9 | 160 | 410 | 95 | 607 | 172 | 32 | 2.0 | <1 | <10 | <1 | 18 | 12.3 | <0.5 | 21 |
| **852CBS051** | 640 | 16 | 45 | 307 | 200 | <5 | 8 | 30 | 170 | 63 | 1910 | 226 | 27 | 3.7 | <1 | <10 | <1 | 4 | 4.8 | <0.5 | 33 |
| **852CBS052** | 110 | 21 | 89 | 626 | <100 | <5 | 10 | 50 | 210 | 193 | 549 | 130 | 31 | 1.3 | <1 | <10 | <1 | 7 | 8.4 | <0.5 | 63 |
| **852CBS053** | 80 | 10 | 192 | 4060 | 100 | 15 | 175 | 180 | 550 | 61 | 147 | 34 | 7 | <0.5 | <1 | <10 | <1 | 81 | 16.1 | <0.5 | 20 |
| **852CBS054** | 530 | 170 | <5 | 3220 | <100 | 33 | 126 | 560 | 1540 | 34 | 7 | 31 | <5 | <0.5 | <1 | <10 | <1 | 35 | 3.4 | <0.5 | 6 |
| **852CBS055** | 510 | 41 | 72 | 979 | <100 | 36 | 69 | 470 | 1180 | 64 | 14 | 27 | <5 | <0.5 | <1 | <10 | <1 | 9 | 3.4 | <0.5 | <5 |
| **852CBS056** | 3530 | 318 | 41 | 3100 | <100 | 104 | 71 | 230 | 550 | 58 | 324 | 84 | 15 | 0.8 | <1 | <10 | <1 | 136 | 4.7 | 0.5 | 10 |
| **852CBS057** | 1570 | 421 | 6 | 4030 | <100 | 225 | 46 | 300 | 590 | 25 | 67 | 42 | <5 | <0.5 | <1 | <10 | <1 | 34 | 2.7 | 0.7 | <5 |
| **852CBS058** | 650 | 66 | 26 | 3280 | <100 | 28 | 65 | 570 | 1380 | 58 | 24 | 89 | 10 | <0.5 | <1 | <10 | <1 | 31 | 2.3 | <0.5 | 7 |
| **852CBS040** | 140 | 22 | 28 | 370 | <100 | 31 | 15 | 240 | 450 | 34 | 838 | 132 | 15 | 1.6 | <1 | <10 | <1 | 16 | 4.0 | <0.5 | 12 |
| **852CBS041** | 370 | 108 | 83 | 452 | <100 | <5 | 19 | 190 | 630 | 8 | 35 | 113 | <5 | <0.5 | <1 | <10 | <1 | 19 | 1.6 | <0.5 | 13 |
| **852CBS039** | 30 | 25 | 27 | 1000 | <100 | 38 | 40 | 590 | 1500 | 26 | 8 | 55 | <5 | <0.5 | <1 | <10 | <1 | 16 | 2.4 | <0.5 | <5 |
| **852CBS070** | 160 | 15 | 165 | 4670 | <100 | 18 | 188 | 150 | 700 | 35 | 238 | 67 | 12 | 0.7 | <1 | <10 | <1 | 7 | 3.1 | 0.8 | 35 |

# APPENDIX I - MMI Soil Description and Analytical Results



| Element --> | La | Y | Ce | Pr | Nd | Sm | Eu | Gd | Tb | Dy | Er | Yb | Li | Pd | Pt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 1 | 5 | 5 | 1 | 1 | 1 | 0.5 | 1 | 1 | 1 | 0.5 | 1 | 5 | 1 | 1 |
| **Sample ID** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** |
| **852CBS027** | 4 | 251 | 13 | 3 | 19 | 8 | 3.2 | 17 | 4 | 38 | 27.0 | 21 | 16 | <1 | <1 |
| **852CBS026** | 8 | 24 | 19 | 3 | 12 | 3 | 1.2 | 4 | <1 | 5 | 2.9 | 3 | <5 | <1 | <1 |
| **852CBS025** | 16 | 86 | 31 | 6 | 30 | 9 | 2.8 | 13 | 2 | 16 | 10.2 | 8 | 8 | <1 | <1 |
| **852CBS024** | 29 | 111 | 16 | 11 | 57 | 17 | 6.1 | 25 | 3 | 20 | 8.9 | 6 | <5 | <1 | <1 |
| **852CBS023** | 18 | 29 | 40 | 5 | 23 | 6 | 1.9 | 7 | 1 | 7 | 3.4 | 3 | <5 | <1 | <1 |
| **852CBS022** | 26 | 20 | 48 | 6 | 23 | 5 | 1.8 | 5 | <1 | 4 | 2.2 | 2 | 5 | <1 | <1 |
| **852CBS021** | 21 | 111 | 45 | 8 | 36 | 11 | 3.3 | 16 | 3 | 19 | 13.4 | 12 | 23 | <1 | <1 |
| **852CBS020** | 14 | 32 | 37 | 5 | 23 | 6 | 1.7 | 7 | 1 | 7 | 3.7 | 3 | 10 | <1 | <1 |
| **852CBS049** | 314 | 1030 | 168 | 136 | 681 | 194 | 61.6 | 256 | 37 | 202 | 99.7 | 70 | <5 | <1 | <1 |
| **852CBS048** | 75 | 127 | 185 | 27 | 122 | 28 | 8.2 | 32 | 5 | 26 | 13.0 | 11 | <5 | <1 | <1 |
| **852CBS047** | 3 | 12 | 9 | 2 | 8 | 2 | 0.8 | 3 | <1 | 2 | 1.2 | 1 | <5 | <1 | <1 |
| **852CBS046** | 10 | 39 | 24 | 4 | 18 | 5 | 1.6 | 6 | 1 | 8 | 4.8 | 4 | <5 | <1 | <1 |
| **852CBS045** | 26 | 109 | 59 | 10 | 49 | 13 | 3.9 | 18 | 3 | 20 | 11.2 | 9 | <5 | <1 | <1 |
| **852CBS044** | 18 | 96 | 44 | 7 | 32 | 9 | 2.3 | 12 | 2 | 18 | 14.4 | 12 | <5 | <1 | <1 |
| **852CBS043** | 14 | 38 | 21 | 5 | 28 | 8 | 2.5 | 10 | 1 | 7 | 3.2 | 2 | <5 | <1 | <1 |
| **852CBS042** | 49 | 56 | 24 | 15 | 69 | 16 | 5.2 | 19 | 2 | 12 | 5.4 | 4 | <5 | <1 | <1 |
| **852CBS036** | 16 | 37 | 44 | 7 | 30 | 7 | 1.9 | 9 | 1 | 7 | 3.6 | 3 | 20 | <1 | <1 |
| **852CBS037** | 39 | 425 | 100 | 16 | 88 | 30 | 10.6 | 52 | 10 | 65 | 37.2 | 27 | <5 | <1 | <1 |
| **852CBS038** | 41 | 135 | 52 | 15 | 70 | 20 | 6.3 | 28 | 4 | 24 | 12.3 | 8 | <5 | <1 | <1 |
| **852CBS051** | 14 | 45 | 29 | 4 | 17 | 4 | 1.5 | 5 | 1 | 9 | 6.6 | 6 | <5 | <1 | <1 |
| **852CBS052** | 117 | 149 | 284 | 41 | 180 | 40 | 10.6 | 42 | 6 | 32 | 15.4 | 13 | <5 | <1 | <1 |
| **852CBS053** | 43 | 101 | 113 | 17 | 84 | 22 | 7.0 | 26 | 4 | 20 | 10.0 | 8 | 19 | <1 | <1 |
| **852CBS054** | 15 | 153 | 42 | 7 | 40 | 15 | 5.8 | 25 | 4 | 22 | 11.2 | 8 | <5 | <1 | <1 |
| **852CBS055** | 4 | 17 | 12 | 2 | 9 | 3 | 0.9 | 4 | <1 | 3 | 1.3 | 1 | 6 | <1 | <1 |
| **852CBS056** | 19 | 78 | 57 | 8 | 37 | 10 | 3.1 | 14 | 2 | 13 | 7.0 | 6 | 5 | <1 | <1 |
| **852CBS057** | 7 | 58 | 19 | 3 | 20 | 7 | 2.4 | 11 | 1 | 8 | 4.7 | 4 | 6 | <1 | <1 |
| **852CBS058** | 9 | 43 | 17 | 3 | 18 | 6 | 1.7 | 8 | 1 | 7 | 3.8 | 3 | <5 | <1 | <1 |
| **852CBS040** | 17 | 80 | 30 | 6 | 30 | 9 | 2.9 | 13 | 2 | 14 | 7.7 | 6 | <5 | <1 | <1 |
| **852CBS041** | 14 | 207 | 19 | 7 | 41 | 12 | 4.1 | 21 | 4 | 30 | 17.5 | 12 | <5 | <1 | <1 |
| **852CBS039** | 10 | 43 | 6 | 4 | 21 | 7 | 2.3 | 10 | 1 | 7 | 3.5 | 2 | <5 | <1 | <1 |
| **852CBS070** | 9 | 70 | 15 | 4 | 20 | 6 | 2.4 | 9 | 2 | 9 | 6.4 | 6 | <5 | <1 | <1 |

# APPENDIX I - MMI Soil Description and Analytical Results



| Element --> | | | | | | | | Au | Ag | Ba | As | Sb | W | Cu | Bi | Pb | Fe |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | UTM | | Station | | Horizons | Interval | | | | | | | | | | |
| | | | | | | Sampled | Sampled | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | SGS Labs | Easting | Northing | North | West/East | | cm | 0.1 | 1 | 10 | 10 | 1 | 1 | 10 | 1 | 10 | 1 |
| Sample ID | WO # | | | | | | | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppm |
| **852CBS069** | T0108181 | 524144 | 5617235 | 0800N | 450W | B | 10 - 25 | <0.1 | 66 | 560 | 40 | <1 | 1 | 400 | <1 | 150 | 134 |
| **852CBS068** | T0108181 | 524178 | 5617269 | 0800N | 400W | Ash,B | 10 - 25 | 0.2 | 26 | 450 | 10 | <1 | <1 | 340 | <1 | 70 | 40 |
| **852CBS067** | T0108181 | 524213 | 5617304 | 0800N | 350W | B | 10 - 25 | 0.2 | 25 | 290 | <10 | <1 | <1 | 220 | <1 | 90 | 22 |
| **852CBS066** | T0108181 | 524275 | 5617373 | 0800N | 250W | B | 11 - 25 | 0.3 | 4 | 1340 | 340 | 1 | 7 | 770 | 4 | 40 | 174 |
| **852CBS065** | T0108181 | 524308 | 5617407 | 0800N | 200W | B | 10 - 25 | 0.2 | 22 | 990 | 40 | <1 | 9 | 280 | <1 | 60 | 79 |
| **852CBS064** | T0108181 | 524343 | 5617442 | 0800N | 150W | B | 11 - 25 | 0.1 | 31 | 450 | <10 | <1 | 2 | 200 | <1 | 30 | 17 |
| **852CBS063** | T0108181 | 524378 | 5617480 | 0800N | 100W | Ash | 10 - 25 | 0.1 | 5 | 700 | 20 | <1 | 13 | 180 | <1 | 50 | 38 |
| **852CBS062** | T0108181 | 524412 | 5617515 | 0800N | 050W | Ash,B | 16 - 25 | 0.3 | 17 | 1620 | 30 | <1 | 3 | 690 | 1 | 90 | 29 |
| **852CBS061** | T0108181 | 524485 | 5617583 | 0800N | 050E | B | 10 - 25 | 0.3 | 31 | 1280 | 50 | <1 | 5 | 710 | 4 | 220 | 75 |
| **852CBS060** | T0108180 | 524524 | 5617618 | 0800N | 100E | B | 10 - 25 | 0.2 | 90 | 990 | 70 | <1 | 4 | 450 | 2 | 90 | 42 |
| **852CBS059** | T0108180 | 524557 | 5617642 | 0800N | 150E | Ash,B | 10 - 25 | 0.1 | 80 | 2680 | 20 | <1 | <1 | 530 | <1 | 40 | 24 |
| **852CBS071** | T0108181 | 524057 | 5617441 | 1000N | 350W | Ash,B | 19 - 25 | 0.1 | 19 | 630 | 40 | 3 | <1 | 2390 | <1 | 100 | 62 |
| **852CBS072** | T0108181 | 524085 | 5617474 | 1000N | 300W | B | 10 -25 | 0.2 | 17 | 1030 | 370 | 1 | 6 | 610 | 1 | 110 | 219 |
| **852CBS073** | T0108181 | 524122 | 5617509 | 1000N | 250W | Ash,B | 10- 25 | 0.1 | 11 | 1090 | 40 | <1 | 3 | 220 | 1 | 90 | 122 |
| **852CBS074** | T0108181 | 524189 | 5617578 | 1000N | 150W | B | 10 - 25 | 0.2 | 6 | 1470 | 230 | 2 | 4 | 550 | 1 | 30 | 61 |
| **852CBS075** | T0108181 | 524228 | 5617613 | 1000N | 100W | B | 10 - 25 | 0.1 | 8 | 300 | 10 | <1 | 2 | 260 | <1 | 50 | 46 |
| **852CBS076** | T0108181 | 524263 | 5617644 | 1000N | 050W | B | 10 - 24 | 0.3 | 24 | 1650 | 120 | 1 | 6 | 1570 | 8 | 110 | 127 |
| **852CBS077** | T0108181 | 524302 | 5617680 | 1000N | 000 | B | 10 - 25 | 1.0 | 38 | 1230 | 140 | 3 | 1 | 1130 | 4 | 160 | 30 |
| **852CBS078** | T0108181 | 524338 | 5617712 | 1000N | 050E | B | 10 - 25 | 0.2 | 17 | 1460 | 60 | <1 | 4 | 510 | 2 | 50 | 52 |
| **852CBS079** | T0108181 | 524371 | 5617748 | 1000N | 100E | B | 10 - 25 | <0.1 | 13 | 640 | 30 | <1 | 3 | 450 | <1 | 50 | 116 |
| **852CBS080** | T0108181 | 524405 | 5617788 | 1000N | 150E | B | 13 - 25 | 0.2 | 25 | 1750 | 60 | <1 | 5 | 950 | 2 | 140 | 27 |
| **852CBS081** | T0108181 | 524438 | 5617821 | 1000N | 200E | B | 10 - 25 | <0.1 | 16 | 520 | <10 | <1 | <1 | 350 | <1 | 60 | 79 |
| **852CBS090** | T0108181 | 523866 | 5617554 | 1200N | 400W | B | 11 - 25 | 1.4 | 162 | 1130 | <10 | <1 | <1 | 860 | <1 | 20 | 21 |
| **852CBS089** | T0108181 | 523901 | 5617582 | 1200N | 350W | B | 11 - 25 | 0.9 | 41 | 1050 | 50 | <1 | <1 | 830 | <1 | 360 | 26 |
| **852CBS088** | T0108181 | 523937 | 5617605 | 1200N | 300W | B | 18 - 25 | 0.2 | 18 | 810 | 160 | <1 | <1 | 860 | <1 | <10 | 9 |
| **852CBS086** | T0108181 | 524006 | 5617677 | 1200N | 200W | A | 10 - 25 | <0.1 | <1 | 230 | 240 | 3 | 5 | 410 | <1 | 30 | 22 |
| **852CBS085** | T0108181 | 524039 | 5617710 | 1200N | 150W | Ash,B | 11 - 25 | <0.1 | 7 | 870 | 10 | <1 | <1 | 360 | <1 | 10 | 116 |
| **852CBS087** | T0108181 | 523975 | 5617643 | 1200N | 150W | B | 10 - 25 | <0.1 | 15 | 340 | 20 | <1 | <1 | 440 | <1 | 280 | 52 |
| **852CBS084** | T0108181 | 524088 | 5617737 | 1200N | 100W | B | 20 - 25 | 0.1 | 8 | 5470 | <10 | <1 | <1 | 170 | <1 | 10 | 9 |
| **852CBS083** | T0108181 | 524119 | 5617778 | 1200N | 050W | B | 10 - 25 | 0.2 | 6 | 3180 | 80 | <1 | 4 | 260 | <1 | 50 | 32 |
| **852CBS082** | T0108181 | 524149 | 5617818 | 1200N | 000 | B | 10 - 25 | 0.2 | 36 | 110 | <10 | <1 | <1 | 210 | <1 | 50 | 32 |

# APPENDIX I - MMI Soil Description and Analytical Results

| Element --> | Zn | Cd | Co | Ni | Cr | Mo | Mg | Ca | Sr | Rb | Ti | Al | Zr | Nb | Ta | Te | Sn | U | Th | Tl | Sc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 20 | 1 | 5 | 5 | 100 | 5 | 1 | 10 | 10 | 5 | 3 | 1 | 5 | 0.5 | 1 | 10 | 1 | 1 | 0.5 | 0.5 | 5 |
| **Sample ID** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppm** | **ppm** | **ppb** | **ppb** | **ppb** | **ppm** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** |
| **852CBS069** | 100 | 24 | 80 | 488 | 100 | 8 | 3 | <10 | 60 | 183 | 1680 | 231 | 80 | 3.6 | <1 | <10 | <1 | 7 | 10.6 | 0.7 | 39 |
| **852CBS068** | 60 | 30 | 64 | 534 | <100 | <5 | 4 | 10 | 100 | 114 | 419 | 183 | 23 | 0.9 | <1 | <10 | <1 | 6 | 5.2 | 0.9 | 43 |
| **852CBS067** | 90 | 23 | 37 | 121 | <100 | <5 | 3 | <10 | 50 | 95 | 127 | 133 | 11 | <0.5 | <1 | <10 | <1 | 8 | 4.2 | 0.7 | 34 |
| **852CBS066** | 50 | 3 | 230 | 830 | 100 | 59 | 83 | 240 | 630 | 47 | 636 | 59 | 13 | 1.5 | <1 | <10 | <1 | 10 | 9.9 | 0.9 | 12 |
| **852CBS065** | 30 | 9 | 49 | 307 | 300 | 11 | 6 | 20 | 120 | 164 | 1180 | 255 | 54 | 2.5 | <1 | <10 | <1 | 10 | 19.7 | 1.0 | 33 |
| **852CBS064** | 30 | 5 | 26 | 263 | <100 | 6 | 2 | 10 | 60 | 79 | 167 | 81 | 25 | <0.5 | <1 | <10 | <1 | 12 | 7.4 | 1.5 | 85 |
| **852CBS063** | 40 | 6 | 8 | 937 | <100 | 8 | 21 | 150 | 290 | 23 | 3300 | 145 | 52 | 6.6 | <1 | <10 | 1 | 6 | 9.9 | 1.6 | 16 |
| **852CBS062** | 120 | 35 | 49 | 1960 | <100 | 13 | 32 | 330 | 810 | 51 | 174 | 87 | <5 | 0.6 | <1 | <10 | <1 | 5 | 5.8 | 2.0 | 6 |
| **852CBS061** | 160 | 21 | 78 | 445 | <100 | 5 | 4 | 20 | 190 | 158 | 562 | 218 | 24 | 1.6 | <1 | <10 | <1 | 11 | 12.4 | 2.9 | 28 |
| **852CBS060** | 50 | 36 | 66 | 578 | <100 | 7 | 22 | 240 | 530 | 195 | 637 | 127 | 20 | 1.2 | <1 | <10 | <1 | 20 | 11.5 | <0.5 | 14 |
| **852CBS059** | 40 | 35 | 14 | 1130 | <100 | 7 | 58 | 400 | 1310 | 118 | 99 | 66 | 14 | 0.5 | <1 | <10 | <1 | 19 | 5.9 | 0.6 | 6 |
| **852CBS071** | 110 | 24 | 341 | 11200 | <100 | 17 | 58 | 190 | 390 | 51 | 315 | 103 | 26 | 1.1 | <1 | <10 | <1 | 23 | 5.0 | 1.0 | 53 |
| **852CBS072** | 330 | 9 | 142 | 1470 | 700 | 8 | 21 | 40 | 280 | 64 | 1710 | 243 | 58 | 4.4 | <1 | <10 | <1 | 8 | 11.8 | 0.8 | 35 |
| **852CBS073** | 370 | 9 | 146 | 1700 | 300 | <5 | 50 | 30 | 190 | 96 | 1610 | 214 | 43 | 2.9 | <1 | <10 | <1 | 6 | 9.1 | <0.5 | 36 |
| **852CBS074** | 50 | 11 | 106 | 747 | 100 | 10 | 88 | 140 | 250 | 147 | 500 | 95 | 20 | 1.0 | <1 | <10 | <1 | 66 | 39.3 | 1.0 | 31 |
| **852CBS075** | 50 | 8 | 35 | 326 | <100 | 7 | <1 | <10 | 40 | 80 | 228 | 234 | 24 | 0.7 | <1 | <10 | <1 | 11 | 10.9 | 0.6 | 22 |
| **852CBS076** | 570 | 59 | 513 | 1210 | 200 | 32 | 18 | 150 | 300 | 228 | 1480 | 222 | 69 | 4.0 | <1 | <10 | <1 | 35 | 38.0 | 1.3 | 58 |
| **852CBS077** | 210 | 84 | 76 | 4920 | <100 | 24 | 44 | 330 | 1010 | 225 | 128 | 116 | 11 | <0.5 | <1 | <10 | <1 | 26 | 7.2 | 1.1 | 23 |
| **852CBS078** | 200 | 22 | 85 | 1130 | <100 | 8 | 27 | 220 | 470 | 119 | 321 | 118 | 11 | 0.8 | <1 | <10 | <1 | 11 | 8.6 | 0.5 | 13 |
| **852CBS079** | 180 | 33 | 51 | 915 | <100 | 8 | 16 | 40 | 220 | 81 | 828 | 233 | 22 | 2.1 | <1 | <10 | <1 | 7 | 6.8 | 0.6 | 22 |
| **852CBS080** | 110 | 48 | 54 | 1700 | <100 | 14 | 27 | 230 | 580 | 162 | 291 | 133 | 17 | 0.8 | <1 | <10 | <1 | 51 | 15.2 | 1.0 | 22 |
| **852CBS081** | 190 | 48 | 78 | 405 | <100 | <5 | 4 | 30 | 200 | 161 | 353 | 202 | 23 | 0.9 | <1 | <10 | <1 | 4 | 4.0 | <0.5 | 16 |
| **852CBS090** | 30 | 21 | 73 | 314 | <100 | <5 | 56 | 530 | 1120 | 56 | 8 | 77 | <5 | <0.5 | <1 | <10 | <1 | 5 | 0.9 | <0.5 | 58 |
| **852CBS089** | 150 | 18 | 97 | 137 | <100 | <5 | 24 | 190 | 400 | 169 | 69 | 98 | 8 | <0.5 | <1 | <10 | <1 | 3 | 1.8 | <0.5 | 26 |
| **852CBS088** | 40 | 14 | 32 | 1290 | <100 | <5 | 53 | 490 | 680 | 16 | 9 | 9 | <5 | <0.5 | <1 | <10 | <1 | 2 | 1.1 | <0.5 | <5 |
| **852CBS086** | 40 | 30 | 59 | 5490 | <100 | 47 | 39 | 500 | 700 | <5 | 4 | 21 | <5 | <0.5 | <1 | <10 | <1 | 22 | <0.5 | <0.5 | <5 |
| **852CBS085** | 100 | 9 | 95 | 330 | <100 | <5 | 19 | 60 | 370 | 106 | 508 | 214 | 15 | 1.4 | <1 | <10 | <1 | 4 | 2.9 | <0.5 | 14 |
| **852CBS087** | 450 | 35 | 165 | 2050 | <100 | <5 | 15 | 40 | 220 | 25 | 273 | 182 | 17 | 0.7 | <1 | <10 | <1 | 27 | 3.5 | <0.5 | 25 |
| **852CBS084** | 20 | 1 | <5 | 303 | <100 | 9 | 109 | 490 | 970 | 27 | 5 | 15 | 6 | <0.5 | <1 | <10 | <1 | 70 | 4.4 | <0.5 | <5 |
| **852CBS083** | 30 | 2 | 18 | 277 | <100 | 8 | 54 | 260 | 640 | 64 | 586 | 44 | 26 | 1.2 | <1 | <10 | <1 | 22 | 11.7 | <0.5 | 7 |
| **852CBS082** | 30 | 17 | 29 | 248 | <100 | <5 | 9 | <10 | 20 | 111 | 124 | 136 | 14 | <0.5 | <1 | <10 | <1 | 5 | 4.3 | <0.5 | 16 |

# APPENDIX I - MMI Soil Description and Analytical Results

| Element --> | La | Y | Ce | Pr | Nd | Sm | Eu | Gd | Tb | Dy | Er | Yb | Li | Pd | Pt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 1 | 5 | 5 | 1 | 1 | 1 | 0.5 | 1 | 1 | 1 | 0.5 | 1 | 5 | 1 | 1 |
| **Sample ID** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** |
| **852CBS069** | 31 | 44 | 69 | 9 | 35 | 8 | 2.5 | 10 | 2 | 10 | 5.4 | 4 | <5 | <1 | <1 |
| **852CBS068** | 60 | 185 | 152 | 24 | 112 | 27 | 7.4 | 35 | 6 | 34 | 17.3 | 12 | <5 | <1 | <1 |
| **852CBS067** | 11 | 103 | 28 | 5 | 25 | 6 | 2.1 | 9 | 2 | 16 | 11.9 | 9 | <5 | <1 | <1 |
| **852CBS066** | 30 | 22 | 72 | 9 | 36 | 7 | 1.8 | 7 | <1 | 5 | 2.3 | 2 | <5 | <1 | <1 |
| **852CBS065** | 41 | 32 | 81 | 10 | 39 | 9 | 2.6 | 9 | 2 | 8 | 3.5 | 3 | <5 | <1 | <1 |
| **852CBS064** | 171 | 224 | 387 | 73 | 327 | 72 | 18.4 | 75 | 10 | 49 | 23.0 | 17 | <5 | <1 | <1 |
| **852CBS063** | 40 | 33 | 73 | 11 | 47 | 10 | 2.7 | 11 | 1 | 7 | 3.3 | 2 | <5 | <1 | <1 |
| **852CBS062** | 9 | 53 | 12 | 3 | 19 | 6 | 2.3 | 10 | 1 | 8 | 4.5 | 3 | <5 | <1 | <1 |
| **852CBS061** | 34 | 163 | 94 | 14 | 73 | 19 | 5.6 | 25 | 5 | 29 | 16.2 | 12 | <5 | <1 | <1 |
| **852CBS060** | 43 | 120 | 60 | 17 | 82 | 24 | 8.1 | 32 | 4 | 23 | 10.3 | 7 | <5 | <1 | <1 |
| **852CBS059** | 35 | 100 | 28 | 14 | 74 | 21 | 6.8 | 28 | 4 | 19 | 8.5 | 6 | <5 | <1 | <1 |
| **852CBS071** | 22 | 131 | 39 | 8 | 40 | 12 | 4.3 | 17 | 3 | 18 | 11.3 | 9 | <5 | <1 | <1 |
| **852CBS072** | 38 | 60 | 82 | 11 | 48 | 11 | 3.6 | 14 | 2 | 12 | 6.7 | 5 | <5 | <1 | <1 |
| **852CBS073** | 23 | 31 | 50 | 7 | 28 | 7 | 2.0 | 8 | 1 | 7 | 3.5 | 3 | <5 | <1 | <1 |
| **852CBS074** | 109 | 155 | 267 | 38 | 172 | 40 | 12.1 | 46 | 6 | 32 | 14.8 | 11 | <5 | <1 | <1 |
| **852CBS075** | 16 | 38 | 44 | 6 | 27 | 7 | 2.2 | 9 | 2 | 11 | 4.8 | 3 | <5 | <1 | <1 |
| **852CBS076** | 81 | 243 | 171 | 27 | 129 | 38 | 13.2 | 55 | 9 | 52 | 26.0 | 18 | <5 | <1 | <1 |
| **852CBS077** | 33 | 221 | 54 | 14 | 74 | 26 | 9.5 | 41 | 6 | 36 | 19.1 | 13 | <5 | <1 | <1 |
| **852CBS078** | 22 | 57 | 52 | 8 | 40 | 11 | 3.5 | 14 | 2 | 11 | 5.6 | 4 | <5 | <1 | <1 |
| **852CBS079** | 24 | 75 | 55 | 8 | 40 | 10 | 3.3 | 13 | 2 | 14 | 7.3 | 5 | <5 | <1 | <1 |
| **852CBS080** | 46 | 185 | 72 | 17 | 84 | 25 | 9.4 | 36 | 6 | 32 | 15.9 | 11 | <5 | <1 | <1 |
| **852CBS081** | 9 | 38 | 22 | 3 | 15 | 4 | 1.6 | 6 | 1 | 8 | 4.3 | 3 | <5 | <1 | <1 |
| **852CBS090** | 10 | 490 | 10 | 4 | 28 | 14 | 8.7 | 34 | 6 | 45 | 44.4 | 44 | <5 | <1 | <1 |
| **852CBS089** | 4 | 45 | 19 | 2 | 11 | 5 | 2.3 | 9 | 2 | 11 | 6.3 | 5 | <5 | <1 | <1 |
| **852CBS088** | 1 | 14 | <5 | <1 | 4 | 2 | 0.6 | 2 | <1 | 2 | 1.2 | 1 | 8 | <1 | <1 |
| **852CBS086** | 1 | 23 | <5 | <1 | 3 | 1 | <0.5 | 2 | <1 | 2 | 1.7 | 2 | <5 | <1 | <1 |
| **852CBS085** | 3 | 6 | 6 | <1 | 3 | <1 | <0.5 | 1 | <1 | 2 | 1.4 | 2 | <5 | <1 | <1 |
| **852CBS087** | 16 | 178 | 53 | 11 | 60 | 17 | 4.2 | 24 | 5 | 30 | 17.8 | 13 | <5 | <1 | <1 |
| **852CBS084** | 12 | 37 | 12 | 5 | 28 | 9 | 2.4 | 11 | 1 | 7 | 3.0 | 2 | <5 | <1 | <1 |
| **852CBS083** | 42 | 86 | 73 | 14 | 66 | 17 | 5.3 | 21 | 3 | 15 | 7.4 | 5 | <5 | <1 | <1 |
| **852CBS082** | 5 | 34 | 13 | 2 | 9 | 3 | 0.9 | 3 | <1 | 6 | 4.5 | 4 | <5 | <1 | <1 |

# APPENDIX I - MMI Soil Description and Analytical Results



| Element --> | | | | | | | | Au | Ag | Ba | As | Sb | W | Cu | Bi | Pb | Fe |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | UTM | | Station | | Horizons | Interval | | | | | | | | | MMI- | MMI- |
| | SGS Labs | Easting | Northing | North | West/East | Sampled | Sampled | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | M5 | M5 |
| | | | | | | | | 0.1 | 1 | 10 | 10 | 1 | 1 | 10 | 1 | 10 | 1 |
| Sample ID | WO # | | | | | | cm | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppm |
| **852CBS109** | T0108181 | 524186 | 5617855 | 1200N | 050E | B | 10 - 25 | 0.1 | 9 | 1280 | 160 | <1 | 2 | 230 | <1 | 30 | 49 |
| **852CBS110** | T0108181 | 524222 | 5617887 | 1200N | 100E | B | 10 - 25 | 0.2 | 5 | 1980 | 180 | 2 | 2 | 670 | 2 | 20 | 64 |
| **852CBS121** | T0108181 | 524256 | 5617924 | 1200N | 150E | B | 14 - 25 | 0.2 | 22 | 1270 | 220 | 3 | 9 | 1090 | 3 | 50 | 79 |
| **852CBS122** | T0108181 | 524285 | 5617959 | 1200N | 200E | B | 10 - 25 | 0.7 | 20 | 3360 | 60 | 1 | 3 | 710 | <1 | 20 | 27 |
| **852CBS123** | T0108181 | 524322 | 5617991 | 1200N | 250E | B | 10 - 25 | 0.1 | 37 | 1990 | 150 | 1 | 6 | 640 | 4 | 190 | 107 |
| **852CBS124** | T0108181 | 524358 | 5618020 | 1200N | 300E | B | 10 - 25 | 0.1 | 14 | 680 | 170 | <1 | 7 | 400 | 2 | 90 | 79 |
| **852CBS098** | T0108181 | 523763 | 5617723 | 1400N | 350W | Ash,B | 10 - 25 | <0.1 | 11 | 420 | 30 | <1 | 1 | 560 | <1 | 160 | 90 |
| **852CBS097** | T0108181 | 523796 | 5617751 | 1400N | 300W | B | 10 - 25 | 0.1 | 22 | 1200 | 530 | <1 | 3 | 550 | <1 | 60 | 50 |
| **852CBS096** | T0108181 | 523832 | 5617787 | 1400N | 250W | B | 12 - 25 | <0.1 | 30 | 1850 | 150 | <1 | 3 | 780 | 1 | 170 | 96 |
| **852CBS095** | T0108181 | 523857 | 5617811 | 1400N | 200W | B | 10 - 25 | 0.1 | 43 | 1030 | 40 | <1 | <1 | 320 | <1 | 110 | 42 |
| **852CBS094** | T0108181 | 523896 | 5617851 | 1400N | 150W | B | 11 - 25 | <0.1 | 34 | 800 | 60 | <1 | <1 | 310 | <1 | 130 | 65 |
| **852CBS093** | T0108181 | 523938 | 5617881 | 1400N | 100W | B | 12 - 25 | 0.1 | 19 | 600 | 30 | <1 | <1 | 280 | <1 | 100 | 59 |
| **852CBS092** | T0108181 | 523969 | 5617914 | 1400N | 050W | A | 11 - 25 | <0.1 | <1 | 430 | <10 | <1 | <1 | 50 | <1 | 10 | 18 |
| **852CBS091** | T0108181 | 524006 | 5617947 | 1400N | 000 | Ash | 17 - 22 | <0.1 | 17 | 320 | 20 | <1 | <1 | 150 | <1 | 30 | 29 |
| **852CBS111** | T0108181 | 524074 | 5618016 | 1400N | 100E | B | 10 - 25 | 0.5 | 9 | 2900 | 120 | 3 | 7 | 390 | 2 | 70 | 72 |
| **852CBS120** | T0108181 | 524178 | 5618129 | 1400N | 250E | B | 10 - 25 | 0.6 | 28 | 1700 | 120 | 2 | 6 | 1520 | 2 | 110 | 68 |
| **852CBS119** | T0108181 | 524213 | 5618164 | 1400N | 300E | A | 10 - 25 | <0.1 | 5 | 820 | <10 | <1 | <1 | 190 | <1 | 40 | 29 |
| **852CBS118** | T0108181 | 524245 | 5618198 | 1400N | 350E | B | 10 - 25 | 0.4 | 11 | 1640 | 10 | 1 | 2 | 1400 | <1 | 30 | 34 |
| **852CBS117** | T0108181 | 524288 | 5618231 | 1400N | 400E | Ash,B | 10 - 25 | 0.1 | 15 | 1050 | 30 | <1 | 5 | 340 | <1 | 60 | 53 |
| **852CBS099** | T0108181 | 523590 | 5617835 | 1600N | 400W | B | 10 - 25 | <0.1 | 27 | 350 | 10 | <1 | <1 | 460 | <1 | 70 | 60 |
| **852CBS101** | T0108181 | 523625 | 5617864 | 1600N | 350W | B | 10 - 25 | 0.5 | 68 | 690 | 30 | <1 | <1 | 730 | <1 | 170 | 45 |
| **852CBS102** | T0108181 | 523659 | 5617896 | 1600N | 300W | B | 10 - 25 | 0.1 | 45 | 650 | 30 | <1 | <1 | 330 | <1 | 80 | 42 |
| **852CBS103** | T0108181 | 523691 | 5617926 | 1600N | 250W | Ash,B | 10 - 25 | <0.1 | 40 | 470 | 70 | <1 | <1 | 1170 | <1 | 70 | 19 |
| **852CBS104** | T0108181 | 523723 | 5617955 | 1600N | 200W | Ash,B | 10 - 25 | <0.1 | 30 | 1240 | 120 | <1 | <1 | 450 | <1 | 130 | 47 |
| **852CBS105** | T0108181 | 523756 | 5617993 | 1600N | 150W | B | 10 - 25 | <0.1 | 49 | 1730 | 20 | <1 | <1 | 460 | <1 | 60 | 28 |
| **852CBS106** | T0108181 | 523792 | 5618023 | 1600N | 100W | B | 10 - 25 | <0.1 | 38 | 610 | 260 | <1 | 2 | 300 | <1 | 70 | 102 |
| **852CBS107** | T0108181 | 523823 | 5618056 | 1600N | 050W | Ash,B | 10 - 25 | <0.1 | 35 | 1990 | 40 | <1 | <1 | 190 | <1 | 90 | 72 |
| **852CBS108** | T0108181 | 523856 | 5618092 | 1600N | 000 | A | 10 - 25 | <0.1 | 5 | 710 | <10 | <1 | <1 | 80 | <1 | <10 | 8 |
| **852CBS112** | T0108181 | 523891 | 5618131 | 1600N | 050E | A | 10 - 25 | <0.1 | 1 | 430 | <10 | 1 | <1 | 620 | <1 | 20 | 27 |
| **852CBS113** | T0108181 | 523917 | 5618162 | 1600N | 100E | A | 10 - 25 | <0.1 | 1 | 620 | <10 | <1 | <1 | 520 | <1 | 10 | 31 |
| **852CBS114** | T0108181 | 523959 | 5618199 | 1600N | 150E | B | 10 - 25 | 0.2 | 13 | 260 | <10 | <1 | <1 | 180 | <1 | 50 | 11 |

# APPENDIX I - MMI Soil Description and Analytical Results



| Element --> | Zn | Cd | Co | Ni | Cr | Mo | Mg | Ca | Sr | Rb | Ti | Al | Zr | Nb | Ta | Te | Sn | U | Th | Tl | Sc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 20 | 1 | 5 | 5 | 100 | 5 | 1 | 10 | 10 | 5 | 3 | 1 | 5 | 0.5 | 1 | 10 | 1 | 1 | 0.5 | 0.5 | 5 |
| **Sample ID** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppm** | **ppm** | **ppb** | **ppb** | **ppb** | **ppm** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** |
| **852CBS109** | 140 | 20 | 31 | 868 | <100 | 8 | 59 | 290 | 510 | 179 | 314 | 63 | 25 | 0.9 | <1 | <10 | <1 | 9 | 9.5 | <0.5 | 6 |
| **852CBS110** | 80 | 8 | 126 | 2110 | 100 | 26 | 75 | 160 | 480 | 95 | 336 | 67 | 18 | 0.7 | <1 | <10 | <1 | 104 | 60.8 | 1.1 | 15 |
| **852CBS121** | 20 | 14 | 262 | 1090 | <100 | 53 | 65 | 210 | 620 | 42 | 278 | 51 | 9 | 0.8 | <1 | <10 | <1 | 10 | 5.6 | 1.3 | 11 |
| **852CBS122** | 160 | 10 | 50 | 777 | <100 | 15 | 77 | 290 | 770 | 44 | 79 | 42 | 8 | <0.5 | <1 | <10 | <1 | 12 | 11.0 | <0.5 | 12 |
| **852CBS123** | 580 | 68 | 388 | 1290 | 200 | 25 | 23 | 90 | 280 | 205 | 763 | 209 | 20 | 2.3 | <1 | <10 | <1 | 17 | 19.8 | 1.1 | 50 |
| **852CBS124** | 130 | 50 | 155 | 163 | 100 | 28 | 4 | 70 | 140 | 259 | 906 | 210 | 62 | 2.3 | <1 | <10 | <1 | 17 | 20.2 | 0.7 | 38 |
| **852CBS098** | 260 | 38 | 109 | 984 | 300 | 5 | 14 | 60 | 290 | 37 | 1550 | 227 | 58 | 3.4 | <1 | <10 | <1 | 5 | 9.3 | <0.5 | 25 |
| **852CBS097** | 30 | 7 | 70 | 471 | <100 | <5 | 25 | 230 | 480 | 109 | 535 | 120 | 15 | 1.7 | <1 | <10 | <1 | 24 | 5.9 | 0.5 | 38 |
| **852CBS096** | 400 | 9 | 94 | 1270 | 200 | 8 | 35 | 110 | 350 | 487 | 1870 | 220 | 56 | 4.8 | <1 | <10 | <1 | 8 | 11.7 | 0.8 | 61 |
| **852CBS095** | 140 | 21 | 88 | 251 | <100 | 8 | 18 | 180 | 500 | 190 | 389 | 158 | 21 | 1.2 | <1 | <10 | <1 | 5 | 4.6 | <0.5 | 15 |
| **852CBS094** | 120 | 15 | 76 | 324 | 100 | 7 | 17 | 170 | 400 | 134 | 566 | 168 | 19 | 1.6 | <1 | <10 | <1 | 4 | 7.7 | <0.5 | 22 |
| **852CBS093** | 210 | 40 | 93 | 310 | <100 | <5 | 4 | <10 | 40 | 224 | 267 | 184 | 34 | 0.9 | <1 | <10 | <1 | 6 | 7.8 | <0.5 | 33 |
| **852CBS092** | 650 | 50 | 21 | 1170 | <100 | 32 | 63 | 450 | 1340 | <5 | <3 | 7 | <5 | <0.5 | <1 | <10 | <1 | 5 | <0.5 | <0.5 | <5 |
| **852CBS091** | <20 | 4 | 18 | 314 | <100 | 7 | 25 | 260 | 550 | 31 | 456 | 59 | 42 | 1.9 | <1 | <10 | <1 | 11 | 3.5 | <0.5 | <5 |
| **852CBS111** | 230 | 7 | 349 | 1090 | 200 | 6 | 72 | 120 | 600 | 153 | 778 | 134 | 31 | 1.6 | <1 | <10 | <1 | 38 | 38.6 | 0.9 | 40 |
| **852CBS120** | 40 | 32 | 75 | 1100 | 100 | 31 | 15 | 200 | 380 | 145 | 935 | 153 | 44 | 2.9 | <1 | <10 | <1 | 89 | 19.6 | 1.1 | 72 |
| **852CBS119** | 100 | 40 | 22 | 2460 | <100 | 8 | 49 | 450 | 1010 | 50 | 37 | 52 | <5 | <0.5 | <1 | <10 | <1 | 6 | 0.7 | <0.5 | <5 |
| **852CBS118** | <20 | 25 | 90 | 6770 | <100 | 13 | 49 | 390 | 870 | 66 | 45 | 89 | 10 | <0.5 | <1 | <10 | <1 | 75 | 4.2 | 0.8 | 21 |
| **852CBS117** | 40 | 9 | 34 | 713 | <100 | 7 | 15 | 220 | 420 | 105 | 581 | 136 | 25 | 1.6 | <1 | <10 | <1 | 10 | 6.8 | <0.5 | 15 |
| **852CBS099** | 270 | 21 | 111 | 529 | <100 | <5 | 12 | 40 | 310 | 147 | 282 | 203 | 23 | 0.5 | <1 | <10 | <1 | 3 | 3.2 | <0.5 | 19 |
| **852CBS101** | 150 | 15 | 72 | 471 | <100 | <5 | 18 | 40 | 210 | 132 | 617 | 186 | 11 | 1.7 | <1 | <10 | <1 | 6 | 7.1 | <0.5 | 34 |
| **852CBS102** | 70 | 11 | 57 | 172 | <100 | 9 | 19 | 90 | 220 | 263 | 535 | 175 | 36 | 1.5 | <1 | <10 | <1 | 6 | 7.1 | <0.5 | 27 |
| **852CBS103** | 50 | 19 | 87 | 810 | <100 | <5 | 67 | 250 | 1360 | 96 | 113 | 115 | 9 | <0.5 | <1 | <10 | <1 | 6 | 2.9 | <0.5 | 16 |
| **852CBS104** | 180 | 33 | 82 | 670 | <100 | <5 | 33 | 200 | 730 | 98 | 770 | 145 | 38 | 1.8 | <1 | <10 | <1 | 8 | 6.3 | <0.5 | 24 |
| **852CBS105** | 30 | 19 | 50 | 629 | <100 | <5 | 73 | 430 | 1920 | 101 | 38 | 80 | 9 | <0.5 | <1 | <10 | <1 | 11 | 2.4 | <0.5 | 13 |
| **852CBS106** | 60 | 8 | 40 | 294 | 100 | 10 | 10 | 140 | 320 | 200 | 1100 | 187 | 34 | 2.8 | <1 | <10 | <1 | 5 | 7.0 | <0.5 | 24 |
| **852CBS107** | 1070 | 24 | 83 | 320 | <100 | 9 | 19 | 240 | 730 | 280 | 919 | 117 | 41 | 2.6 | <1 | <10 | <1 | 6 | 3.7 | <0.5 | 17 |
| **852CBS108** | 330 | 57 | 14 | 1810 | <100 | 44 | 69 | 520 | 1350 | <5 | 3 | 33 | <5 | <0.5 | <1 | <10 | <1 | 2 | <0.5 | <0.5 | <5 |
| **852CBS112** | 30 | 14 | 172 | 2140 | <100 | 51 | 50 | 310 | 820 | <5 | <3 | 63 | <5 | <0.5 | <1 | <10 | <1 | 20 | 0.9 | <0.5 | <5 |
| **852CBS113** | 70 | 62 | 27 | 2590 | <100 | 14 | 79 | 470 | 1300 | <5 | <3 | 37 | <5 | <0.5 | <1 | <10 | <1 | 31 | <0.5 | <0.5 | <5 |
| **852CBS114** | 20 | 5 | 17 | 148 | <100 | 12 | 6 | 10 | 40 | 67 | 87 | 62 | 18 | <0.5 | <1 | <10 | <1 | 33 | 4.5 | 0.6 | 27 |

# APPENDIX I - MMI Soil Description and Analytical Results

| Element --> | La | Y | Ce | Pr | Nd | Sm | Eu | Gd | Tb | Dy | Er | Yb | Li | Pd | Pt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 1 | 5 | 5 | 1 | 1 | 1 | 0.5 | 1 | 1 | 1 | 0.5 | 1 | 5 | 1 | 1 |
| **Sample ID** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** |
| **852CBS109** | 10 | 27 | 26 | 4 | 19 | 5 | 1.4 | 7 | <1 | 5 | 2.7 | 2 | <5 | <1 | <1 |
| **852CBS110** | 30 | 58 | 81 | 12 | 53 | 13 | 3.6 | 15 | 2 | 11 | 5.9 | 5 | <5 | <1 | <1 |
| **852CBS121** | 22 | 66 | 57 | 9 | 42 | 12 | 4.0 | 15 | 2 | 11 | 6.1 | 5 | <5 | <1 | <1 |
| **852CBS122** | 15 | 53 | 28 | 6 | 34 | 10 | 3.7 | 13 | 2 | 10 | 4.9 | 4 | <5 | <1 | <1 |
| **852CBS123** | 20 | 134 | 64 | 9 | 45 | 14 | 5.4 | 22 | 4 | 23 | 13.1 | 10 | 6 | <1 | <1 |
| **852CBS124** | 27 | 46 | 75 | 9 | 42 | 11 | 3.7 | 14 | 2 | 12 | 5.5 | 4 | <5 | <1 | <1 |
| **852CBS098** | 10 | 31 | 23 | 3 | 14 | 4 | 1.4 | 5 | 1 | 6 | 3.5 | 3 | <5 | <1 | <1 |
| **852CBS097** | 18 | 125 | 60 | 8 | 43 | 15 | 4.6 | 22 | 4 | 21 | 12.8 | 9 | <5 | <1 | <1 |
| **852CBS096** | 25 | 44 | 50 | 8 | 34 | 8 | 2.9 | 10 | 2 | 8 | 4.5 | 4 | <5 | <1 | <1 |
| **852CBS095** | 10 | 28 | 25 | 3 | 15 | 5 | 1.6 | 6 | 1 | 7 | 3.2 | 2 | <5 | <1 | <1 |
| **852CBS094** | 8 | 25 | 20 | 3 | 13 | 4 | 1.5 | 5 | <1 | 5 | 2.7 | 2 | <5 | <1 | <1 |
| **852CBS093** | 15 | 64 | 41 | 6 | 29 | 8 | 2.4 | 10 | 2 | 12 | 7.9 | 6 | <5 | <1 | <1 |
| **852CBS092** | <1 | <5 | <5 | <1 | <1 | <1 | <0.5 | <1 | <1 | <1 | <0.5 | <1 | <5 | <1 | <1 |
| **852CBS091** | 7 | 10 | 22 | 3 | 12 | 3 | 0.6 | 3 | <1 | 2 | 1.1 | 1 | <5 | <1 | <1 |
| **852CBS111** | 117 | 150 | 225 | 37 | 161 | 38 | 10.6 | 42 | 6 | 30 | 14.0 | 10 | <5 | <1 | <1 |
| **852CBS120** | 93 | 317 | 195 | 36 | 177 | 50 | 15.5 | 68 | 10 | 54 | 29.6 | 21 | <5 | <1 | <1 |
| **852CBS119** | 2 | 26 | 6 | 1 | 6 | 2 | 0.8 | 4 | <1 | 4 | 2.4 | 2 | 13 | <1 | <1 |
| **852CBS118** | 13 | 97 | 25 | 5 | 29 | 10 | 4.0 | 17 | 3 | 16 | 8.8 | 7 | 9 | <1 | <1 |
| **852CBS117** | 15 | 28 | 29 | 5 | 22 | 6 | 1.9 | 8 | 1 | 7 | 3.0 | 2 | <5 | <1 | <1 |
| **852CBS099** | 8 | 31 | 18 | 3 | 12 | 3 | 1.0 | 4 | <1 | 6 | 3.7 | 3 | <5 | <1 | <1 |
| **852CBS101** | 9 | 85 | 35 | 4 | 24 | 8 | 3.2 | 13 | 3 | 21 | 10.4 | 7 | <5 | <1 | <1 |
| **852CBS102** | 25 | 49 | 57 | 8 | 36 | 10 | 3.1 | 12 | 2 | 10 | 5.1 | 4 | <5 | <1 | <1 |
| **852CBS103** | 13 | 60 | 24 | 5 | 23 | 7 | 2.0 | 10 | 2 | 10 | 5.5 | 4 | <5 | <1 | <1 |
| **852CBS104** | 15 | 62 | 30 | 6 | 30 | 9 | 2.8 | 13 | 2 | 11 | 6.2 | 4 | <5 | <1 | <1 |
| **852CBS105** | 9 | 47 | 21 | 4 | 20 | 6 | 2.1 | 10 | 2 | 9 | 4.6 | 3 | <5 | <1 | <1 |
| **852CBS106** | 16 | 38 | 41 | 5 | 26 | 7 | 2.4 | 10 | 2 | 9 | 3.7 | 3 | <5 | <1 | <1 |
| **852CBS107** | 6 | 23 | 16 | 2 | 11 | 3 | 1.0 | 5 | <1 | 4 | 2.5 | 2 | <5 | <1 | <1 |
| **852CBS108** | 1 | 11 | <5 | <1 | 3 | 1 | <0.5 | 2 | <1 | 2 | 1.0 | <1 | <5 | <1 | <1 |
| **852CBS112** | 3 | 16 | <5 | 1 | 5 | 1 | <0.5 | 2 | <1 | 2 | 1.2 | <1 | <5 | <1 | <1 |
| **852CBS113** | 1 | 21 | <5 | <1 | 3 | 1 | <0.5 | 2 | <1 | 2 | 1.9 | 2 | <5 | <1 | <1 |
| **852CBS114** | 53 | 160 | 123 | 25 | 130 | 32 | 8.8 | 40 | 6 | 30 | 15.0 | 11 | <5 | <1 | <1 |

# APPENDIX I - MMI Soil Description and Analytical Results



| Element --> | | | | | | | | Au | Ag | Ba | As | Sb | W | Cu | Bi | Pb | Fe |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | UTM | | Station | | Horizons | Interval | | | | | | | | | MMI- | MMI- |
| | SGS Labs | Easting | Northing | North | West/East | Sampled | Sampled | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | M5 | M5 |
| | | | | | | | | 0.1 | 1 | 10 | 10 | 1 | 1 | 10 | 1 | 10 | 1 |
| **Sample ID** | **WO #** | | | | | | cm | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppm** |
| **852CBS115** | T0108181 | 523993 | 5618235 | 1600N | 200E | B | 10 - 25 | <0.1 | 36 | 1270 | 30 | <1 | 2 | 180 | <1 | 30 | 25 |
| **852CBS116** | T0108181 | 524091 | 5618335 | 1600N | 350E | B | 10 - 25 | 0.7 | 16 | 4910 | <10 | <1 | 2 | 570 | <1 | 10 | 11 |
| ***Field Duplicates:*** | | | | | | | | | | | | | | | | | |
| **852CBS049** | T0108180 | | | | | | | 0.9 | 71 | 3320 | 20 | 1 | 4 | 320 | <1 | 130 | 32 |
| **852CBS050*** | T0108180 | | | | | | | 0.9 | 37 | 3440 | 30 | 1 | 5 | 300 | <1 | 140 | 36 |
| **852CBS099** | T0108181 | | | | | | | <0.1 | 27 | 350 | 10 | <1 | <1 | 460 | <1 | 70 | 60 |
| **852CBS100 *** | T0108181 | | | | | | | <0.1 | 21 | 270 | 10 | <1 | <1 | 330 | <1 | 80 | 73 |
| ***Duplicate sub-samples*** | | | | | | | | | | | | | | | | | |
| **852CBS011** | T0108180 | | | | | | | <0.1 | 15 | 1350 | <10 | <1 | <1 | 1450 | 1 | 60 | 73 |
| DUP-852CBS011 | T0108180 | | | | | | | <0.1 | 9 | 1110 | 10 | <1 | <1 | 1410 | 1 | 40 | 93 |
| **852CBS024** | T0108180 | | | | | | | <0.1 | 34 | 1010 | <10 | <1 | <1 | 1020 | <1 | 30 | 9 |
| DUP-852CBS024 | T0108180 | | | | | | | 0.1 | 41 | 970 | <10 | <1 | <1 | 910 | <1 | 30 | 9 |
| **852CBS038** | T0108180 | | | | | | | <0.1 | 75 | 1400 | 20 | <1 | 1 | 500 | 2 | 140 | 101 |
| DUP-852CBS038 | T0108180 | | | | | | | <0.1 | 68 | 1410 | 20 | <1 | 1 | 490 | 2 | 110 | 78 |
| **852CBS040** | T0108180 | | | | | | | <0.1 | 18 | 710 | 20 | <1 | 2 | 430 | 1 | 80 | 57 |
| DUP-852CBS040 | T0108180 | | | | | | | <0.1 | 17 | 750 | 20 | <1 | 2 | 380 | <1 | 70 | 47 |
| **852CBS059** | T0108180 | | | | | | | 0.1 | 80 | 2680 | 20 | <1 | <1 | 530 | <1 | 40 | 24 |
| DUP-852CBS059 | T0108180 | | | | | | | <0.1 | 73 | 2820 | 20 | <1 | <1 | 550 | <1 | 40 | 22 |
| **852CBS069** | T0108181 | | | | | | | <0.1 | 66 | 560 | 40 | <1 | 1 | 400 | <1 | 150 | 134 |
| DUP-852CBS069 | T0108181 | | | | | | | <0.1 | 62 | 600 | 50 | <1 | 2 | 380 | <1 | 150 | 148 |
| **852CBS074** | T0108181 | | | | | | | 0.2 | 6 | 1470 | 230 | 2 | 4 | 550 | 1 | 30 | 61 |
| DUP-852CBS074 | T0108181 | | | | | | | 0.3 | 7 | 1560 | 230 | 2 | 4 | 580 | 1 | 30 | 60 |
| **852CBS093** | T0108181 | | | | | | | 0.1 | 19 | 600 | 30 | <1 | <1 | 280 | <1 | 100 | 59 |
| DUP-852CBS093 | T0108181 | | | | | | | 0.1 | 18 | 640 | 30 | <1 | <1 | 280 | <1 | 110 | 54 |
| **852CBS112** | T0108181 | | | | | | | <0.1 | 1 | 430 | <10 | 1 | <1 | 620 | <1 | 20 | 27 |
| DUP-852CBS112 | T0108181 | | | | | | | 0.1 | 2 | 410 | <10 | <1 | <1 | 460 | <1 | 10 | 17 |

# APPENDIX I - MMI Soil Description and Analytical Results

| Element --> | Zn | Cd | Co | Ni | Cr | Mo | Mg | Ca | Sr | Rb | Ti | Al | Zr | Nb | Ta | Te | Sn | U | Th | Tl | Sc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 20 | 1 | 5 | 5 | 100 | 5 | 1 | 10 | 10 | 5 | 3 | 1 | 5 | 0.5 | 1 | 10 | 1 | 1 | 0.5 | 0.5 | 5 |
| **Sample ID** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppm** | **ppm** | **ppb** | **ppb** | **ppb** | **ppm** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** |
| **852CBS115** | <20 | 4 | 13 | 299 | <100 | 15 | 40 | 310 | 780 | 56 | 114 | 85 | 21 | <0.5 | <1 | <10 | <1 | 11 | 6.2 | <0.5 | <5 |
| **852CBS116** | 90 | 7 | 11 | 1760 | <100 | <5 | 249 | 310 | 2510 | 20 | 14 | 33 | <5 | <0.5 | <1 | <10 | <1 | 49 | 12.5 | <0.5 | 15 |
| ***Field Duplicates:*** | | | | | | | | | | | | | | | | | | | | | |
| **852CBS049** | 50 | 11 | 164 | 734 | <100 | 9 | 54 | 110 | 940 | 147 | 465 | 104 | 14 | 1.0 | <1 | <10 | <1 | 72 | 23.6 | 1.9 | 138 |
| **852CBS050*** | 40 | 10 | 153 | 486 | <100 | 10 | 42 | 90 | 720 | 157 | 576 | 110 | 16 | 1.2 | <1 | <10 | <1 | 68 | 26.4 | 1.9 | 150 |
| **852CBS099** | 270 | 21 | 111 | 529 | <100 | <5 | 12 | 40 | 310 | 147 | 282 | 203 | 23 | 0.5 | <1 | <10 | <1 | 3 | 3.2 | <0.5 | 19 |
| **852CBS100 *** | 170 | 17 | 79 | 437 | <100 | <5 | 13 | 40 | 330 | 126 | 266 | 193 | 22 | 0.5 | <1 | <10 | <1 | 3 | 2.9 | <0.5 | 14 |
| ***Duplicate sub-sam*** | | | | | | | | | | | | | | | | | | | | | |
| **852CBS011** | 8820 | 486 | 184 | 3400 | <100 | <5 | 54 | 480 | 1400 | 117 | 40 | 124 | 7 | <0.5 | <1 | <10 | <1 | 6 | 13.8 | 1.5 | 48 |
| DUP-852CBS011 | 11100 | 460 | 276 | 2660 | <100 | <5 | 53 | 400 | 1300 | 101 | 55 | 151 | 8 | <0.5 | <1 | <10 | <1 | 6 | 13.5 | 1.3 | 48 |
| **852CBS024** | 30 | 49 | 11 | 3130 | <100 | 12 | 97 | 350 | 1000 | 64 | 40 | 75 | 8 | <0.5 | <1 | <10 | <1 | 43 | 2.3 | <0.5 | 6 |
| DUP-852CBS024 | 30 | 38 | 9 | 2650 | <100 | 12 | 91 | 330 | 860 | 66 | 52 | 76 | 9 | <0.5 | <1 | <10 | <1 | 36 | 2.4 | <0.5 | <5 |
| **852CBS038** | 380 | 62 | 103 | 1350 | <100 | 17 | 9 | 160 | 410 | 95 | 607 | 172 | 32 | 2.0 | <1 | <10 | <1 | 18 | 12.3 | <0.5 | 21 |
| DUP-852CBS038 | 260 | 54 | 88 | 1360 | <100 | 20 | 9 | 210 | 420 | 106 | 519 | 162 | 32 | 1.7 | <1 | <10 | <1 | 20 | 12.0 | 0.5 | 20 |
| **852CBS040** | 140 | 22 | 28 | 370 | <100 | 31 | 15 | 240 | 450 | 34 | 838 | 132 | 15 | 1.6 | <1 | <10 | <1 | 16 | 4.0 | <0.5 | 12 |
| DUP-852CBS040 | 120 | 21 | 22 | 359 | <100 | 28 | 15 | 250 | 490 | 33 | 768 | 124 | 13 | 1.4 | <1 | <10 | <1 | 15 | 3.4 | <0.5 | 10 |
| **852CBS059** | 40 | 35 | 14 | 1130 | <100 | 7 | 58 | 400 | 1310 | 118 | 99 | 66 | 14 | 0.5 | <1 | <10 | <1 | 19 | 5.9 | 0.6 | 6 |
| DUP-852CBS059 | 30 | 33 | 13 | 1130 | <100 | 7 | 62 | 410 | 1390 | 123 | 79 | 60 | 13 | <0.5 | <1 | <10 | <1 | 17 | 7.7 | 0.5 | 5 |
| **852CBS069** | 100 | 24 | 80 | 488 | 100 | 8 | 3 | <10 | 60 | 183 | 1680 | 231 | 80 | 3.6 | <1 | <10 | <1 | 7 | 10.6 | 0.7 | 39 |
| DUP-852CBS069 | 120 | 24 | 87 | 509 | 200 | 10 | 3 | <10 | 70 | 151 | 2140 | 239 | 91 | 4.7 | <1 | <10 | <1 | 7 | 12.1 | 0.7 | 37 |
| **852CBS074** | 50 | 11 | 106 | 747 | 100 | 10 | 88 | 140 | 250 | 147 | 500 | 95 | 20 | 1.0 | <1 | <10 | <1 | 66 | 39.3 | 1.0 | 31 |
| DUP-852CBS074 | 50 | 10 | 104 | 791 | 100 | 10 | 95 | 140 | 260 | 146 | 487 | 90 | 21 | 1.1 | <1 | <10 | <1 | 75 | 43.4 | 1.0 | 32 |
| **852CBS093** | 210 | 40 | 93 | 310 | <100 | <5 | 4 | <10 | 40 | 224 | 267 | 184 | 34 | 0.9 | <1 | <10 | <1 | 6 | 7.8 | <0.5 | 33 |
| DUP-852CBS093 | 210 | 41 | 93 | 314 | <100 | <5 | 4 | <10 | 40 | 234 | 236 | 184 | 31 | 0.9 | <1 | <10 | <1 | 6 | 8.1 | <0.5 | 32 |
| **852CBS112** | 30 | 14 | 172 | 2140 | <100 | 51 | 50 | 310 | 820 | <5 | <3 | 63 | <5 | <0.5 | <1 | <10 | <1 | 20 | 0.9 | <0.5 | <5 |
| DUP-852CBS112 | <20 | 16 | 153 | 2130 | <100 | 49 | 47 | 300 | 790 | <5 | <3 | 62 | <5 | <0.5 | <1 | <10 | <1 | 18 | 0.6 | <0.5 | <5 |

# APPENDIX I - MMI Soil Description and Analytical Results

| Element --> | La | Y | Ce | Pr | Nd | Sm | Eu | Gd | Tb | Dy | Er | Yb | Li | Pd | Pt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 1 | 5 | 5 | 1 | 1 | 1 | 0.5 | 1 | 1 | 1 | 0.5 | 1 | 5 | 1 | 1 |
| **Sample ID** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** |
| **852CBS115** | 14 | 27 | 39 | 5 | 25 | 6 | 1.8 | 8 | 1 | 5 | 2.7 | 2 | <5 | <1 | <1 |
| **852CBS116** | 40 | 170 | 43 | 18 | 102 | 29 | 9.9 | 40 | 5 | 27 | 14.0 | 10 | 8 | <1 | <1 |
| ***Field Duplicates:*** | | | | | | | | | | | | | | | |
| **852CBS049** | 314 | 1030 | 168 | 136 | 681 | 194 | 61.6 | 256 | 37 | 202 | 99.7 | 70 | <5 | <1 | <1 |
| **852CBS050*** | 376 | 1070 | 230 | 163 | 810 | 221 | 66.8 | 281 | 40 | 218 | 107.0 | 77 | <5 | <1 | <1 |
| **852CBS099** | 8 | 31 | 18 | 3 | 12 | 3 | 1.0 | 4 | <1 | 6 | 3.7 | 3 | <5 | <1 | <1 |
| **852CBS100 *** | 4 | 18 | 8 | 1 | 5 | 1 | <0.5 | 2 | <1 | 3 | 2.5 | 2 | <5 | <1 | <1 |
| ***Duplicate sub-sam*** | | | | | | | | | | | | | | | |
| **852CBS011** | 10 | 116 | 32 | 4 | 24 | 8 | 2.9 | 14 | 3 | 19 | 11.8 | 9 | <5 | <1 | <1 |
| DUP-852CBS011 | 5 | 90 | 15 | 2 | 12 | 4 | 1.6 | 8 | 2 | 14 | 11.2 | 10 | <5 | <1 | <1 |
| **852CBS024** | 29 | 111 | 16 | 11 | 57 | 17 | 6.1 | 25 | 3 | 20 | 8.9 | 6 | <5 | <1 | <1 |
| DUP-852CBS024 | 19 | 70 | 11 | 8 | 41 | 12 | 4.4 | 17 | 2 | 13 | 6.2 | 4 | <5 | <1 | <1 |
| **852CBS038** | 41 | 135 | 52 | 15 | 70 | 20 | 6.3 | 28 | 4 | 24 | 12.3 | 8 | <5 | <1 | <1 |
| DUP-852CBS038 | 46 | 130 | 58 | 16 | 77 | 21 | 6.5 | 29 | 4 | 24 | 11.5 | 8 | <5 | <1 | <1 |
| **852CBS040** | 17 | 80 | 30 | 6 | 30 | 9 | 2.9 | 13 | 2 | 14 | 7.7 | 6 | <5 | <1 | <1 |
| DUP-852CBS040 | 17 | 74 | 31 | 6 | 29 | 8 | 2.7 | 12 | 2 | 12 | 6.8 | 5 | <5 | <1 | <1 |
| **852CBS059** | 35 | 100 | 28 | 14 | 74 | 21 | 6.8 | 28 | 4 | 19 | 8.5 | 6 | <5 | <1 | <1 |
| DUP-852CBS059 | 37 | 105 | 29 | 15 | 78 | 23 | 7.3 | 30 | 4 | 20 | 8.6 | 6 | <5 | <1 | <1 |
| **852CBS069** | 31 | 44 | 69 | 9 | 35 | 8 | 2.5 | 10 | 2 | 10 | 5.4 | 4 | <5 | <1 | <1 |
| DUP-852CBS069 | 33 | 41 | 74 | 9 | 36 | 9 | 2.6 | 10 | 2 | 9 | 4.9 | 4 | <5 | <1 | <1 |
| **852CBS074** | 109 | 155 | 267 | 38 | 172 | 40 | 12.1 | 46 | 6 | 32 | 14.8 | 11 | <5 | <1 | <1 |
| DUP-852CBS074 | 101 | 156 | 247 | 37 | 162 | 39 | 11.4 | 44 | 6 | 31 | 15.2 | 11 | <5 | <1 | <1 |
| **852CBS093** | 15 | 64 | 41 | 6 | 29 | 8 | 2.4 | 10 | 2 | 12 | 7.9 | 6 | <5 | <1 | <1 |
| DUP-852CBS093 | 15 | 67 | 41 | 6 | 29 | 8 | 2.5 | 11 | 2 | 13 | 8.3 | 6 | <5 | <1 | <1 |
| **852CBS112** | 3 | 16 | <5 | 1 | 5 | 1 | <0.5 | 2 | <1 | 2 | 1.2 | <1 | <5 | <1 | <1 |
| DUP-852CBS112 | 3 | 17 | <5 | <1 | 5 | 1 | <0.5 | 2 | <1 | 2 | 1.3 | <1 | <5 | <1 | <1 |

# APPENDIX I - MMI Soil Description and Analytical Results

| Element --> | | UTM | | Station | | Horizons | Interval | Au | Ag | Ba | As | Sb | W | Cu | Bi | Pb | Fe |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | SGS Labs | Easting | Northing | North | West/East | Sampled | Sampled | 0.1 | 1 | 10 | 10 | 1 | 1 | 10 | 1 | 10 | 1 |
| **Sample ID** | **WO #** | | | | | | cm | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppm** |
| **852CBS119** | T0108181 | | | | | | | <0.1 | 5 | 820 | <10 | <1 | <1 | 190 | <1 | 40 | 29 |
| DUP-852CBS119 | T0108181 | | | | | | | <0.1 | 1 | 760 | <10 | <1 | <1 | 220 | <1 | 20 | 37 |
| ***Analytical Standards:*** | | | | | | | | | | | | | | | | | |
| MMISRM18 | T0108180 | | | | | | | 6.5 | 18 | 140 | 10 | <1 | <1 | 600 | <1 | 270 | 3 |
| MMISRM18 | T0108181 | | | | | | | 7.9 | 20 | 140 | 10 | <1 | <1 | 750 | <1 | 290 | 4 |
| MMISRM16 | T0108180 | | | | | | | 23.6 | 16 | 60 | 20 | <1 | <1 | 510 | <1 | 70 | 2 |
| MMISRM16 | T0108181 | | | | | | | 25.5 | 15 | 60 | 10 | <1 | <1 | 520 | <1 | 80 | 2 |
| ***Analytical Blanks:*** | | | | | | | | | | | | | | | | | |
| BLANK | T0108180 | | | | | | | <0.1 | <1 | <10 | <10 | <1 | <1 | <10 | <1 | <10 | <1 |
| BLANK | T0108180 | | | | | | | <0.1 | <1 | <10 | <10 | <1 | <1 | <10 | <1 | <10 | <1 |
| BLANK | T0108181 | | | | | | | <0.1 | <1 | <10 | <10 | <1 | <1 | <10 | <1 | <10 | <1 |
| BLANK | T0108181 | | | | | | | <0.1 | <1 | <10 | <10 | <1 | <1 | <10 | <1 | <10 | <1 |

Laboratory: SGS Canada Inc, Mississauga, ON

Discovery Consultants
W.R. Gilmour, PGeo
January 15, 2010

# APPENDIX I - MMI Soil Description and Analytical Results



| Element --> | Zn | Cd | Co | Ni | Cr | Mo | Mg | Ca | Sr | Rb | Ti | Al | Zr | Nb | Ta | Te | Sn | U | Th | Tl | Sc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 20 | 1 | 5 | 5 | 100 | 5 | 1 | 10 | 10 | 5 | 3 | 1 | 5 | 0.5 | 1 | 10 | 1 | 1 | 0.5 | 0.5 | 5 |
| **Sample ID** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppm** | **ppm** | **ppb** | **ppb** | **ppb** | **ppm** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** |
| **852CBS119** | 100 | 40 | 22 | 2460 | <100 | 8 | 49 | 450 | 1010 | 50 | 37 | 52 | <5 | <0.5 | <1 | <10 | <1 | 6 | 0.7 | <0.5 | <5 |
| DUP-852CBS119 | 40 | 43 | 26 | 2120 | <100 | 9 | 51 | 450 | 1060 | 34 | 19 | 48 | <5 | <0.5 | <1 | <10 | <1 | 5 | <0.5 | <0.5 | <5 |
| ***Analytical Standa*** | | | | | | | | | | | | | | | | | | | | | |
| MMISRM18 | 570 | 72 | 55 | 417 | <100 | 28 | 80 | 170 | 1060 | 155 | 24 | 20 | 21 | <0.5 | <1 | <10 | <1 | 20 | 19.4 | <0.5 | <5 |
| MMISRM18 | 640 | 75 | 64 | 472 | <100 | 32 | 90 | 180 | 1110 | 160 | 12 | 24 | 24 | <0.5 | <1 | <10 | <1 | 22 | 22.4 | <0.5 | <5 |
| MMISRM16 | 190 | 4 | 46 | 149 | <100 | 42 | 36 | 230 | 500 | 313 | 5 | 33 | 13 | <0.5 | <1 | <10 | <1 | 37 | 18.1 | <0.5 | 6 |
| MMISRM16 | 210 | 4 | 47 | 153 | <100 | 43 | 37 | 230 | 520 | 323 | 8 | 34 | 14 | <0.5 | <1 | <10 | <1 | 39 | 19.2 | <0.5 | 7 |
| ***Analytical Blanks:*** | | | | | | | | | | | | | | | | | | | | | |
| BLANK | <20 | <1 | <5 | <5 | <100 | <5 | <1 | <10 | <10 | <5 | 5 | <1 | <5 | <0.5 | <1 | <10 | <1 | <1 | <0.5 | <0.5 | <5 |
| BLANK | <20 | <1 | <5 | <5 | <100 | <5 | <1 | <10 | <10 | <5 | 11 | <1 | <5 | <0.5 | <1 | <10 | <1 | <1 | <0.5 | <0.5 | <5 |
| BLANK | <20 | <1 | <5 | <5 | <100 | <5 | <1 | <10 | <10 | <5 | 15 | <1 | <5 | <0.5 | <1 | <10 | <1 | <1 | <0.5 | <0.5 | <5 |
| BLANK | <20 | <1 | <5 | <5 | <100 | <5 | <1 | <10 | <10 | <5 | 5 | <1 | <5 | <0.5 | <1 | <10 | <1 | <1 | <0.5 | <0.5 | <5 |

# APPENDIX I - MMI Soil Description and Analytical Results

| Element --> | La | Y | Ce | Pr | Nd | Sm | Eu | Gd | Tb | Dy | Er | Yb | Li | Pd | Pt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 | MMI-M5 |
| | 1 | 5 | 5 | 1 | 1 | 1 | 0.5 | 1 | 1 | 1 | 0.5 | 1 | 5 | 1 | 1 |
| **Sample ID** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** | **ppb** |
| **852CBS119** | 2 | 26 | 6 | 1 | 6 | 2 | 0.8 | 4 | <1 | 4 | 2.4 | 2 | 13 | <1 | <1 |
| DUP-852CBS119 | 1 | 27 | <5 | <1 | 3 | 1 | 0.6 | 3 | <1 | 4 | 2.7 | 2 | 10 | <1 | <1 |
| ***Analytical Standa*** | | | | | | | | | | | | | | | |
| MMISRM18 | 7 | 18 | 26 | 4 | 20 | 5 | 1.1 | 6 | <1 | 3 | 1.2 | <1 | <5 | 10 | 4 |
| MMISRM18 | 8 | 21 | 27 | 4 | 22 | 6 | 1.4 | 7 | <1 | 4 | 1.4 | <1 | <5 | 13 | 5 |
| MMISRM16 | 4 | 7 | 16 | 2 | 14 | 4 | 0.9 | 4 | <1 | 2 | 0.7 | <1 | <5 | 22 | <1 |
| MMISRM16 | 4 | 8 | 17 | 3 | 14 | 4 | 0.9 | 4 | <1 | 2 | 0.7 | <1 | <5 | 22 | <1 |
| ***Analytical Blanks:*** | | | | | | | | | | | | | | | |
| BLANK | <1 | <5 | <5 | <1 | <1 | <1 | <0.5 | <1 | <1 | <1 | <0.5 | <1 | <5 | <1 | <1 |
| BLANK | <1 | <5 | <5 | <1 | <1 | <1 | <0.5 | <1 | <1 | <1 | <0.5 | <1 | <5 | <1 | <1 |
| BLANK | <1 | <5 | <5 | <1 | <1 | <1 | <0.5 | <1 | <1 | <1 | <0.5 | <1 | <5 | <1 | <1 |
| BLANK | <1 | <5 | <5 | <1 | <1 | <1 | <0.5 | <1 | <1 | <1 | <0.5 | <1 | <5 | <1 | <1 |

# APPENDIX II

## Rock Descriptions

# APPENDIX II - Rock Descriptions

**COVENANT RESOURCES LTD.**

**Piebiter Project (852)**

## Rock Descriptions

| WayPoint | UTM (NAD 83) | | | SAMPLE ID | | | LOCATION | SAMPLER'S NOTE | |
|---|---|---|---|---|---|---|---|---|---|
| | Zone | East | North | Pre-fix | Code | Number | | Lithology | Description |
| GPS #32 | 10 U | 524987 | 5617014 | 852 | JPR | 001 | BL 0000 | Quartz | Outcrop: sheeted quartz veins in schist, 082˚/90˚ |
| GPS #59 | 10 U | 524180 | 5616967 | 852 | JPR | 002 | IXL waste dump | Quartz | Quartz Vein in mine waste dump |
| GPS #59 | 10 U | 524180 | 5616967 | 852 | JPR | 003 | IXL waste dump | Chlorite schist | Chlorite schist in mine waste dump, minor chalcopyrite |
| GPS #61 | 10 U | 524267 | 5617818 | 852 | JPR | 004 | Cadwallader Cr. | Quartz | Outcrop: quartz vein in stream-cut bank, 054˚/18˚ |
| GPS #61 | 10 U | 524267 | 5617818 | 852 | JPR | 005 | Cadwallader Cr. | Quartz | Outcrop: irregular pyrite-rich quartz veinlets in stream-cut bank |
| GPS #116 | 10 U | 524902 | 5616969 | 852 | JPR | 006 | Standard Cr. area | Quartz | Outcrop: pyritic quartz vein, 220˚/18˚ |
| CBR001 | 10 U | 524524 | 5617349 | 852 | CBR | 001 | Road side | Quartz | Float: Angular pieces of quartz in road-cut bank |
| CBR002 | 10 U | 523755 | 5617728 | 852 | CBR | 002 | L1400N 350W | Quartz | Float: sulphide-rich (chalcopyrite, arsenopyrite) quartz boulder |
| CBR003 | 10 U | 524544 | 5616562 | 852 | CBR | 003 | L0000N 620W | Schist | Outcrop: pyritic schist with trace chalcopyrite along foliations |

# APPENDIX III

## Rock Analytical Results

# APPENDIX III - Rock Sample Results

**COVENANT RESOURCES LTD.**

**Piebiter Project (852)**

## Rock Sampling Results (2009)

| Sample_ID | Report No. | UTM | | Au | Ag | Ba | As | Sb | W | Cu | Bi | Pb | Fe | Zn | Cd | Mn | Co |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Easting | Northing | ppb | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm |
| | | | | 1 | 0.01 | 1 | 0.1 | 0.05 | 0.05 | 0.1 | 0.01 | 0.1 | 0.01 | 0.5 | 0.01 | 1 | 0.1 |
| **852JPR001** | 09K362810 | 524981 | 5617016 | <1 | 2.64 | 8 | 36.5 | 0.39 | 0.60 | 4.0 | 3.81 | 7.5 | 0.72 | 7.9 | 0.05 | 26 | 1.8 |
| **852JPR002** | 09K362810 | 524015 | 5617537 | 7 | 0.60 | 46 | 0.4 | <0.05 | 0.05 | 944.8 | 0.03 | 0.6 | 3.64 | 58.8 | 0.14 | 663 | 24.0 |
| **852JPR003** | 09K362810 | 524015 | 5617537 | 1557 | 2.27 | 46 | 0.4 | 0.10 | 0.41 | 1731.0 | 0.29 | 132.2 | 2.20 | 5460.0 | 42.92 | 249 | 12.1 |
| **852JPR004** | 09K362810 | 524269 | 5617819 | 1 | 1.54 | 59 | 2.2 | 0.25 | 3.11 | 193.4 | 16.20 | 29.1 | 4.37 | 136.0 | 4.53 | 785 | 20.0 |
| **852JPR005** | 09K362810 | 524267 | 5617822 | 2 | 1.02 | 50 | 9.4 | 0.33 | 3.34 | 430.1 | 9.60 | 10.9 | 9.29 | 104.0 | 1.24 | 613 | 30.7 |
| **852JPR006** | 09K362810 | 524902 | 5616969 | <1 | 0.64 | 6 | 1.2 | 0.15 | 0.45 | 18.7 | 7.00 | 6.9 | 1.03 | 9.5 | 0.04 | 76 | 2.8 |
| **852CBR001** | 09K362810 | 524524 | 5617345 | 2 | 0.08 | 368 | 1.6 | 0.07 | 0.36 | 27.1 | 0.12 | 1.4 | 1.06 | 10.3 | 0.06 | 125 | 5.6 |
| **852CBR002** | 09K362810 | 523755 | 5617728 | 42 | 0.11 | 16 | 7.0 | 0.07 | 1200.00 | 129.6 | 9.66 | 1.1 | 3.36 | 22.1 | 0.10 | 817 | 21.4 |
| **852CBR003** | 09K362810 | 524544 | 5616562 | 2 | 0.45 | 184 | 3.7 | 0.24 | 4.85 | 55.7 | 0.17 | 4.2 | 8.21 | 117.6 | 0.31 | 944 | 38.1 |
| ***Analytical Standards:*** | | | | | | | | | | | | | | | | | |
| SU-1B | 09K362810 | | | 200 | 6.35 | 33 | 2.2 | 0.17 | 0.50 | >10000.0 | 3.06 | 56.0 | 23.25 | 225.0 | 2.40 | 577 | 622.0 |

Laboratory: AGAT Laboratories
sample preparation: Kelowna, BC
analysis: Mississauga, ON
aqua regia digestion on 0.5 sub-sample, Metals Package (201074), ICP/ICP-MS finish

Discovery Consultants
W.R. Gilmour, PGeo
January 15, 2010

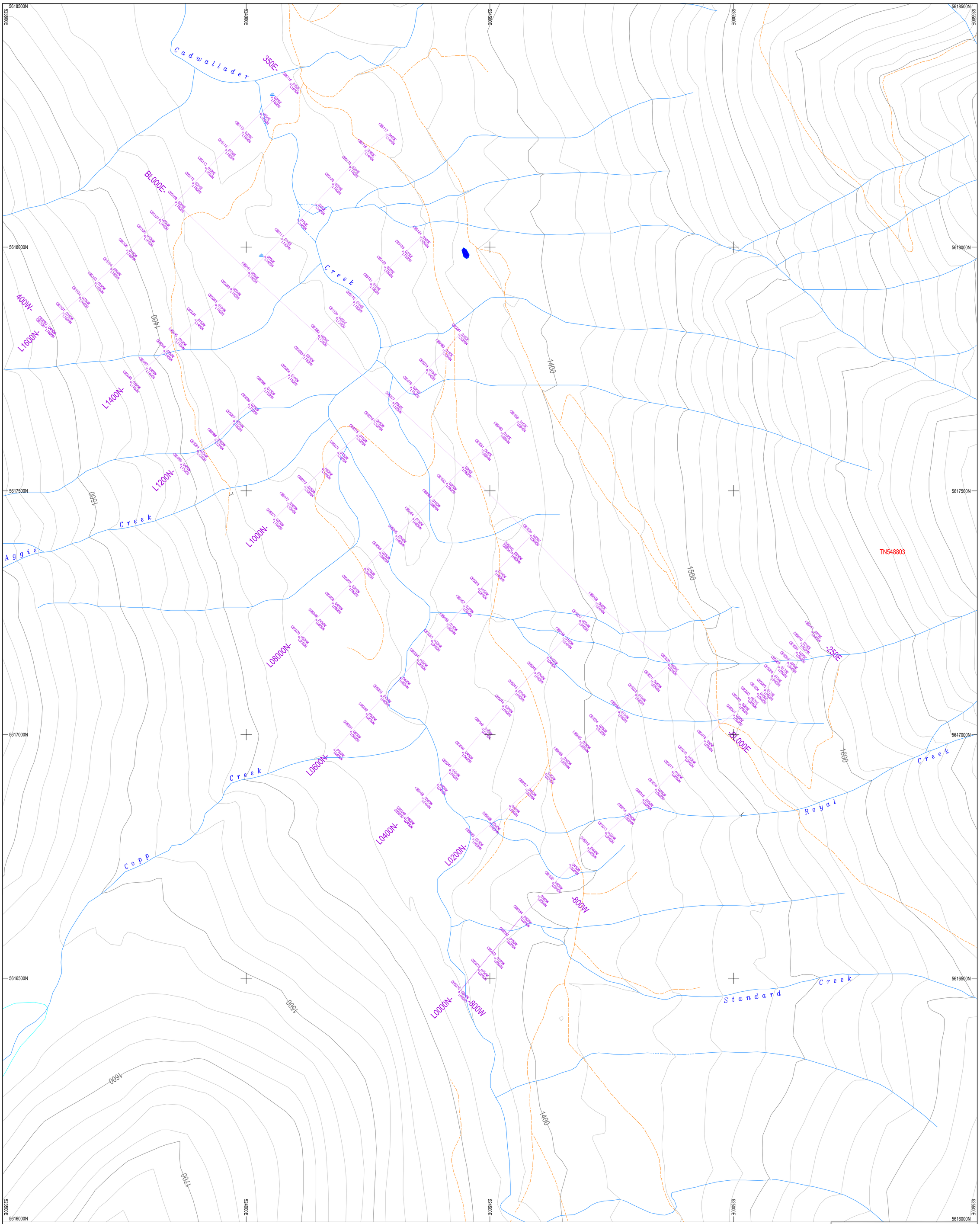
# APPENDIX III - Rock Sample Results



| Sample_ID | Ni | Cr | Mo | Na | Mg | Ca | Sr | Rb | Al | S | Zr | Nb | Ta | Te | Sn | U | Th | Tl | B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ppm | ppm | ppm | % | % | % | ppm | ppm | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| | 0.2 | 0.5 | 0.05 | 0.01 | 0.01 | 0.01 | 0.2 | 0.1 | 0.01 | 0.005 | 0.5 | 0.05 | 0.01 | 0.01 | 0.2 | 0.05 | 0.1 | 0.02 | 5 |
| **852JPR001** | 8.9 | 385.0 | 4.27 | 0.01 | 0.01 | <0.01 | 0.5 | 1.7 | 0.06 | <0.005 | <0.5 | 0.11 | <0.01 | 1.40 | 0.4 | <0.05 | 0.4 | <0.02 | <5 |
| **852JPR002** | 48.9 | 128.0 | 1.46 | 0.08 | 2.23 | 0.37 | 8.4 | 8.8 | 2.97 | 0.129 | <0.5 | 0.06 | <0.01 | 0.06 | 0.3 | <0.05 | 0.1 | 0.06 | <5 |
| **852JPR003** | 46.8 | 310.0 | 22.69 | 2.16 | 1.12 | 0.40 | 3.8 | 5.2 | 0.85 | 0.755 | 0.8 | 0.08 | <0.01 | 0.49 | 0.2 | <0.05 | <0.1 | 0.04 | <5 |
| **852JPR004** | 42.7 | 188.0 | 6.19 | 0.01 | 1.08 | 4.43 | 77.8 | 34.6 | 0.95 | 1.666 | 3.9 | 4.21 | 0.01 | 0.29 | 1.6 | 0.36 | 0.5 | 0.26 | <5 |
| **852JPR005** | 23.8 | 82.5 | 4.41 | <0.01 | 1.30 | 1.54 | 11.0 | 35.4 | 1.51 | 4.764 | 10.1 | 10.23 | 0.04 | 0.87 | 2.6 | 0.40 | 1.5 | 0.28 | <5 |
| **852JPR006** | 9.2 | 364.0 | 3.50 | 0.02 | 0.12 | 0.03 | 1.2 | 1.3 | 0.13 | 0.018 | <0.5 | 0.12 | <0.01 | 2.81 | 0.2 | <0.05 | <0.1 | <0.02 | <5 |
| **852CBR001** | 41.4 | 278.0 | 5.22 | 0.05 | 0.34 | 0.52 | 60.2 | 1.6 | 0.87 | 0.100 | <0.5 | 0.48 | <0.01 | 0.05 | 0.3 | 0.05 | 0.2 | <0.02 | <5 |
| **852CBR002** | 61.9 | 275.0 | 10.13 | 0.05 | 1.52 | 4.92 | 34.6 | 0.9 | 1.47 | 0.362 | <0.5 | 0.10 | <0.01 | 8.47 | 0.3 | <0.05 | <0.1 | <0.02 | <5 |
| **852CBR003** | 105.1 | 133.0 | 1.21 | <0.01 | 2.07 | 1.31 | 46.6 | 84.0 | 3.56 | 2.540 | 5.0 | 2.16 | 0.01 | 0.14 | 1.2 | 0.15 | 0.4 | 0.68 | <5 |
| ***Analytical Sta*** | | | | | | | | | | | | | | | | | | | |
| SU-1B | .0000.0 | 193.0 | 5.19 | 0.66 | 1.29 | 0.40 | 120.0 | 5.5 | 0.77 | 9.847 | 2.7 | 1.82 | <0.01 | 2.06 | 2.5 | 0.09 | 1.1 | 0.22 | <5 |

# APPENDIX III - Rock Sample Results

| Sample_ID | Be | Ce | Cs | Ga | Ge | Hf | Hg | In | K | La | Li | P | Re | Sc | Se | Ti | V | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm |
| | 0.05 | 0.01 | 0.05 | 0.05 | 0.05 | 0.02 | 0.01 | 0.005 | 0.01 | 0.1 | 0.1 | 10 | 0.001 | 0.1 | 0.2 | 0.005 | 0.5 | 0.05 |
| **852JPR001** | <0.05 | 3.97 | 0.11 | 0.42 | <0.05 | <0.02 | 0.05 | <0.005 | 0.04 | 2.0 | 0.2 | 44 | <0.001 | 0.3 | <0.2 | <0.005 | <0.5 | 0.34 |
| **852JPR002** | <0.05 | 1.07 | 0.70 | 9.14 | 0.09 | <0.02 | <0.01 | 0.019 | 0.42 | 0.4 | 17.6 | 326 | <0.001 | 6.8 | <0.2 | 0.125 | 143.0 | 2.11 |
| **852JPR003** | <0.05 | 0.83 | 0.45 | 3.15 | <0.05 | 0.02 | 0.05 | 0.022 | 0.24 | 0.2 | 5.3 | 416 | 0.111 | 2.1 | 1.1 | 0.075 | 48.0 | 1.96 |
| **852JPR004** | 1.21 | 10.67 | 5.25 | 7.75 | 0.05 | 0.16 | 0.01 | 0.041 | 0.50 | 4.0 | 23.2 | 1580 | <0.001 | 4.5 | <0.2 | 0.351 | 76.8 | 10.42 |
| **852JPR005** | 1.46 | 36.25 | 4.07 | 11.08 | 0.19 | 0.38 | 0.01 | 0.042 | 0.60 | 14.5 | 29.7 | 3530 | 0.002 | 7.7 | 1.6 | 0.680 | 129.1 | 26.66 |
| **852JPR006** | <0.05 | 0.39 | 0.12 | 0.45 | <0.05 | <0.02 | <0.01 | <0.005 | 0.04 | 0.1 | 0.9 | 110 | <0.001 | 0.5 | <0.2 | <0.005 | <0.5 | 0.51 |
| **852CBR001** | 0.20 | 1.30 | 0.32 | 8.29 | <0.05 | <0.02 | <0.01 | 0.006 | 0.04 | 0.5 | 2.3 | 100 | 0.002 | 1.3 | <0.2 | 0.036 | 6.4 | 1.15 |
| **852CBR002** | <0.05 | 0.95 | 0.12 | 4.31 | <0.05 | <0.02 | <0.01 | 0.019 | 0.03 | 0.2 | 9.9 | 260 | 0.012 | 13.1 | 0.4 | 0.032 | 74.0 | 6.75 |
| **852CBR003** | 0.84 | 10.04 | 6.09 | 22.12 | 0.21 | 0.18 | <0.01 | 0.037 | 1.82 | 4.1 | 26.9 | 2000 | 0.002 | 15.4 | <0.2 | 0.761 | 139.9 | 11.50 |
| ***Analytical Sta*** | | | | | | | | | | | | | | | | | | |
| SU-1B | 0.20 | 21.49 | 0.24 | 4.20 | 0.48 | 0.10 | <0.01 | 0.325 | 0.22 | 8.5 | 4.9 | 5000 | 0.025 | 1.3 | 20.5 | 0.078 | 77.5 | 7.75 |




## LEGEND

MMI sample location and number

MMI Grid location

0 125

metres

topographic contour interval=20m

magnetic declination = 17°54'E

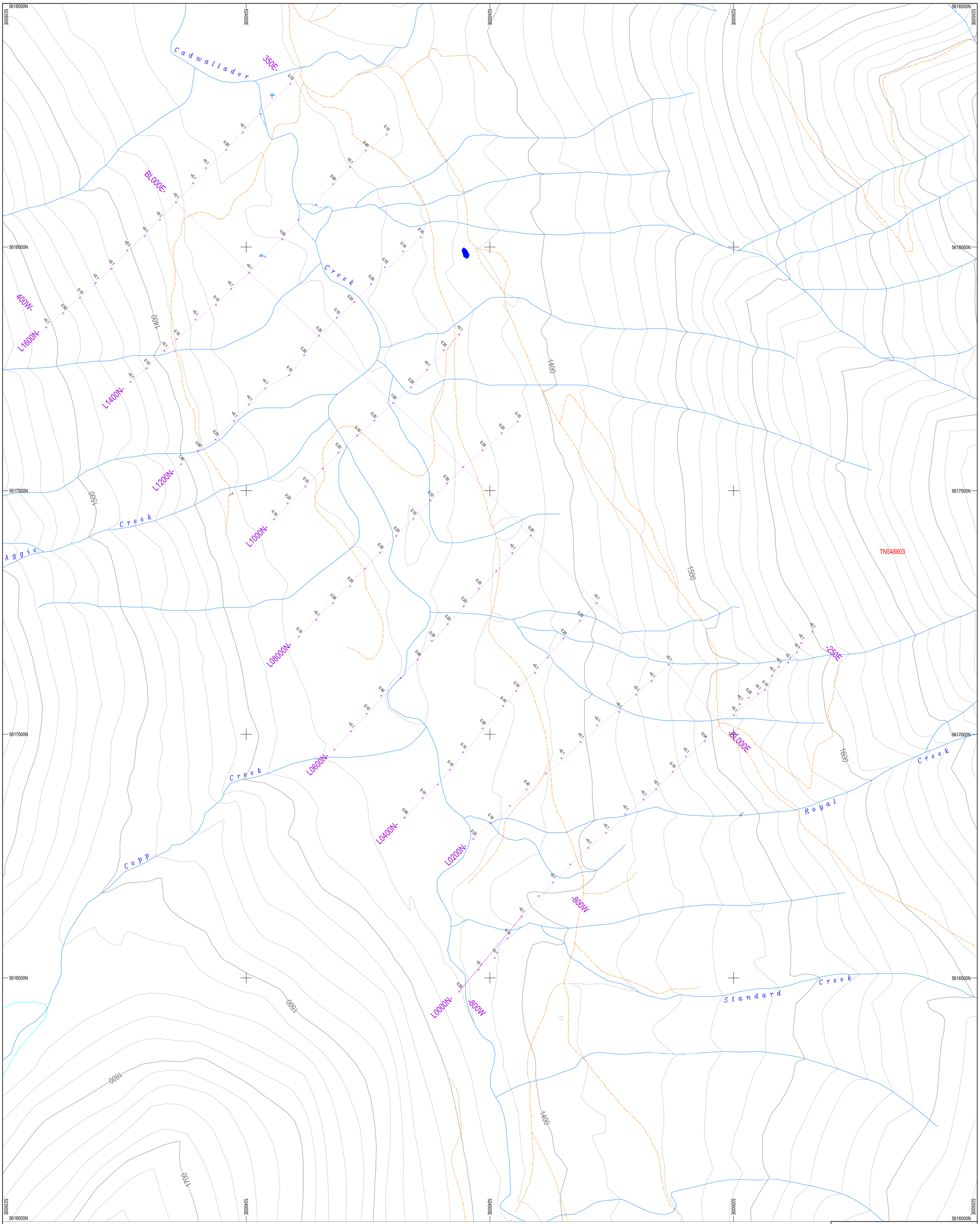
DISCOVERY Consultants

Covenant Resources Ltd.

# Piebiter Property

## MMI Soil Sample Locations

| | | | |
|---|---|---|---|
| Location: Bralorne | | Mining Jurisdiction: Lillooet | |
| Datum: NAD83 | Map Ref.: 092J.077 | Scale: 1:2500 | UTM: 10 |
| Project: 852 | Date: Jan.15, 2010 | Drawn By: RM | Figure: 4 |




## LEGEND

MMI sample location
MMI Grid location
1.2 Value shown in parts per billion gold

0 125
metres
topographic contour interval=20m
magnetic declination = 17°54'E

DISCOVERY Consultants

Covenant Resources Ltd.

# Piebiter Property

## MMI Gold in Soils

| | | | |
|---|---|---|---|
| Location: Bralorne | | Mining Jurisdiction: Lillooet | |
| Datum: NAD83 | Map Ref.: 092J.077 | Scale: 1:2500 | UTM: 10 |
| Project: 852 | Date: Jan.15, 2010 | Drawn By: RM | Figure: 5a |

5618500N
523500E
524000E
524500E
525000E
5618500N
525500E
5618000N
5617500N
5617000N
5616500N
5616000N

Cadwallader Creek
Aggie Creek
Copp Creek
Royal Creek
Standard Creek

350E
400W
L1600N
L1400N
L1200N
L1000N
L0800N
L0600N
L0400N
L0200N
L0000N
800W
BL000E
250E
TN548803

1400
1500
1600
1700

LEGEND

MMI sample location
MMI Grid location
560 Value shown in parts per billion zinc

0 125
metres
topographic contour interval=20m
magnetic declination = 17°54'E

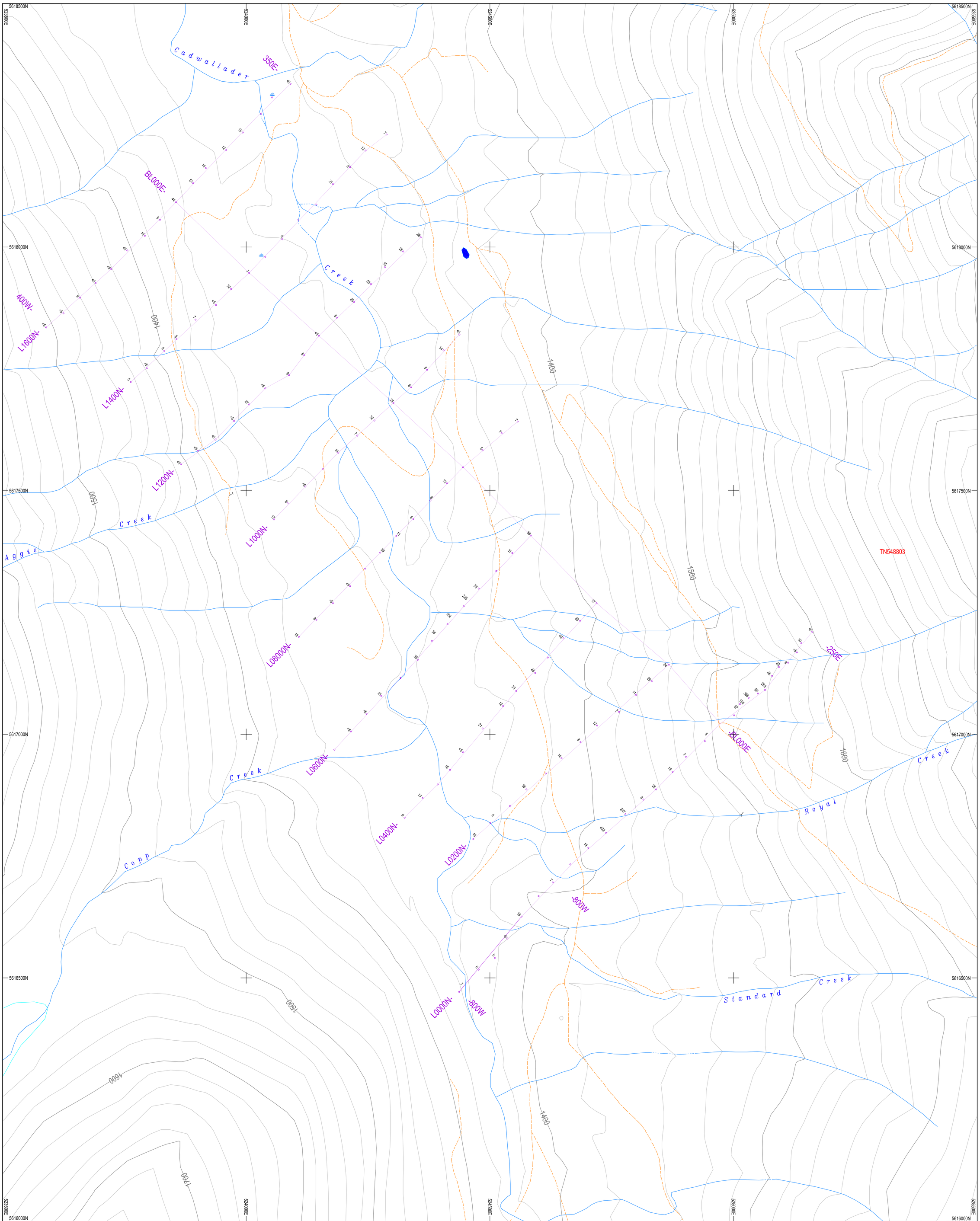
DISCOVERY Consultants

Covenant Resources Ltd.

Piebiter Property

MMI Zinc in Soils

| | | | |
|---|---|---|---|
| Location: Bralorne | | Mining Jurisdiction: Lillooet | |
| Datum: NAD83 | Map Ref.: 092J.077 | Scale: 1:2500 | UTM: 10 |
| Project: 852 | Date: Jan.15, 2010 | Drawn By: RM | Figure: 6 |




## LEGEND

- MMI sample location
- MMI Grid location
- 35 Value shown in parts per billion molybdenum

0 125
metres
topographic contour interval=20m
magnetic declination = 17°54'E

DISCOVERY Consultants

Covenant Resources Ltd.

# Piebiter Property

## MMI Molybdenum in Soils

| | | | |
|---|---|---|---|
| Location: Bralorne | | Mining Jurisdiction: Lillooet | |
| Datum: NAD83 | Map Ref.: 092J.077 | Scale: 1:2500 | UTM: 10 |
| Project: 852 | Date: Jan.15, 2010 | Drawn By: RM | Figure: 7 |

5618500N
523500E
524000E
524500E
525000E
525500E
5618000N
5617500N
5617000N
5616500N
5616000N

Cadwallader Creek
Aggie Creek
Copp Creek
Royal Creek
Standard Creek

1400
1500
1600
1700

borrow pit
ang mafics/metaseds
borrow pit

py+q str
fg int
852JPR005
JP061 pyroxenite

36cm q
27
30cm q
18
JP104 metased

852JPR004
q in mafics
cp,py

JP036 q-biot-schist

JP037 grano/dior

Qmin023 qtz quartz in phyllitic schist
JP067 metased+q quartz
bas x-c/c ds
Qvein02 quartz

852CBR002
q in metavolc cp,aspy

metased+q JP066
ultramafic, serp JP065
serpentinite talc

arg,slst specimen 12N4W

1557
5460
852JPR003
qvein
cp,py,sp

dump
ch schist
852JPR002
cp,py

JP081
Butte DL caves

qtz blders in talus
dior+ls+metased

matic JP054 pyroxenite
JP053 matic
JP060 ultramafic

ultramafic JP097
JP062 schist
ultramafic JP096
ultramafic JP095

Qfloat3 quartz

2
10
0
q
852CBR001
pyzaspy

Qfloat2 quartz

metased JP038 chlorite, phyllitic schist m,py, mag
q-biot-schist JP039 mafic schist
mafic schist±py JP040 py,hh
pyroxenite biot-schist

TN548803

q-biot-schist JP009
JP008 q-biot-schist
metased±gneiss
metamorphic JP007

pyroxenite±mag JP034
q-biot-schist
pyroxenite±cp
0
8
metased
852JPR001
qvein in q-biot-schist
lm,hem
metased JP033
sumac
ultramafic±mag GPS117
q in dior
0
9,5
852JPR006
py
oc 001 metamorph ±q veins
JP031 q-biot-schist
JP041 q-biot-schist±py
JP042 dior/gabbro
JP043 dior±py
dike
Royal Adit caved
pyroxenite py
JP029 ultramafic±py
JP044 cg dior+py
JP045 fg dior+py

abund sub ang q q+mar

alt ultramafic
JP028
alt ultramafic
JP027

oc 002 arg±cp
q-biot-schist JP011
JP012 argillite
2
118
0
852CBR003
metased/
py,cp
JP015 argillite
JP014 pyroxenite+mag
JP016 maf-rich+mag
JP017 maf-rich+mag
JP018 alt ultramafic
JP019 serpentinite

JP023 alt ultramafic±mag
JP026 q-biot-schist
JP022 alt ultramafic±mag

## LEGEND

| | |
|---|---|
| 852CBR002 | Rock sample location and number |
| 852JP002 | Float sample location and number |
| metased | Rock lithology observed |
| py | Mineralization observed |
| 45 | Values shown in parts per billion gold |
| 0 | Indicates <1 ppb Au |
| 450 | Values shown in parts per million zinc |
| 45 | Values shown in parts per million silver |
| JP005 | Lithology point location and number |
| metased | Rock lithology observed |

| | |
|---|---|
| | Outcrop |
| 65 | Attitude of veining, rock type |
| 27 | Attitude of foliations (inclined, vertical) |
| 60 | Attitude of bedding / contacts |
| 80 | Attitude of jointing |
| 40 | Attitude of shearing |

Abbreviations

| | | | | | |
|---|---|---|---|---|---|
| alt | altered | ep | epidote | py | pyrite |
| arg | argillite | fg | fine grained | q | quartz |
| aspy | arsenopyrite | grano | granodiorite | serp | serpentinite |
| bas | basalt | hem | hematite | slst | siltstone |
| biot | biotite | lm | limonite | sp | sphalerite |
| cg | coarse grained | ls | limestone | | |
| ch | chlorite | maf | mafic | | |
| cp | chalcopyrite | mag | magnetite | | |
| dior | diorite | metased | metasedimentary | | |

N

0 125
metres
topographic contour interval=20m
magnetic declination = 17°54'E

DISCOVERY Consultants

Covenant Resources Ltd.

# Piebiter Property

## Geological Mapping & Rock Sample Locations With Au,Zn, and Ag Values

| | | | |
|---|---|---|---|
| Location: | Bralorne | Mining Jurisdiction: | Lillooet |
| Datum: NAD83 | Map Ref.: 092J.077 | Scale: 1:2500 | UTM: 10 |
| Project: 852 | Date: Jan.15, 2010 | Drawn By: RM | Figure: 8 |