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Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey

BC Geological Survey
Assessment Report
37660

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geochemical

TOTAL COST: 23,372.16

AUTHOR(S): C. Graf, P. Eng **SIGNATURE(S):** Christopher Graf

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A **YEAR OF WORK:** 2018

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):

5703539, 5713890

PROPERTY NAME: Bull River

CLAIM NAME(S) (on which the work was done): 1048988, 1048930, 1047428, 1061658

COMMODITIES SOUGHT: Ag, Cu, Pb, Zn

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: MINFILE 082GSW054, 082GSW048

MINING DIVISION: Fort Steele **NTS/BCGS:** 082/06; 82G11

LATITUDE: 49 ° 22 '00 " **LONGITUDE:** 115 ° 11 '00 " **(at centre of work)**

OWNER(S):
1) Purcell Basin Minerals Inc 2)

MAILING ADDRESS:
PO Box 845, Cranbrook, BC, V1C 4J6

OPERATOR(S) [who paid for the work]:
1) Purcell Basin Minerals Inc 2)

MAILING ADDRESS:
PO Box 845, Cranbrook, BC, V1C 4J6

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):
Dalton Mine, Aldridge, Proterozoic, Paleozoic, Purcell Supergroup, Gateway, Siderite, Chalcopyrite, Bornite, Pyrite, Galena
Sphalerite

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 25881, 21737, 36586,37195

Next Page

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			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil	258 - 30 Element ICP-AES	1048988,1048930, 1047428,1061658	16,472.16
Silt			
Rock			
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)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other	Reporting and Project Management		6900.00
		TOTAL COST:	23,372.16

Technical Report for the Bull River Mine Property

Soil Sampling Program on the Don and G-Zone/Cedar Claims

Latitude 49° 22'N, Longitude 115° 11'W

Mapsheets 82G/11 and 82G/06

Ft. Steele Mining Division

Prepared on behalf of:

Purcell Basin Minerals

Box 845

Cranbrook, British Columbia, Canada

V1C 4J6

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6242 Cartwright Street

Wardner, British Columbia, Canada

V0B 2J0

October 4, 2018

Summary

Purcell Basin Minerals Inc., ("Purcell") holds 100% ownership of the Bull River Mine Property (the "Property"). The Property is located approximately 30.0 km east of the city of Cranbrook and 30.0 km north of the town of Elko along the eastern flank of the Rocky Mountain Trench at the base of the Hughes and Lizard Ranges in southeastern British Columbia. The Ft. Steele-Wardner road, Bull River road, along with subsidiary gravel roads and Forest Service Roads (FSR) provide access to a large portion of the Property including the mill site, the past producing mine, the Deposit, and numerous other prospective mineral occurrences.

Ross Stanfield purchased the assets of the Dalton Mine from Placid on March 5th, 1976 and transferred the assets to Bull River under incorporation on March 17th, 1976. In December 2014, all of the mining properties and assets were transferred from SMG and are now owned 100 % unencumbered by Purcell Basin Minerals Incorporated (http://purcellbasin.com/site/about-us).

The Property currently includes 19 contiguous MTO Mineral Claims with a total area of 8,271 ha in the Ft. Steele Mining Division.

The Property is located within the Belt-Purcell Basin, a Meso-Proterozoic intracontinental rift filled by marine and fluvial sediments that comprise the Belt-Purcell Supergroup. Approximately 10% of the exposed area of Belt-Purcell Basin can be found in Canada, where it is referred to as the Purcell Basin and Purcell Supergroup (Lydon, 2007). The Belt-Purcell Basin is flanked by Upper Proterozoic Windermere Group or Paleozoic sedimentary rocks (Höy et al., 2000). The Aldridge Formation defines the base of the Purcell Supergroup. Within an approximate 30.0 km radius of Cranbrook, British Columbia, the Aldridge Formation also hosts the world class Sullivan deposit as well as the Estella, Kootenay King, and St. Eugene mineral deposits (Allen, 1989).

The Property, and more specifically the past producing mine and many of the numerous mineral occurrences, are underlain by the Purcell Supergroup, a thick sequence of terrigenous clastic, carbonate and minor volcanic rocks of Middle Proterozoic age (Höy, 1993). The Aldridge Formation is characterized by thick successions of graded sandy turbidites and interbedded laminated siltstones and argillites. The turbidites are intruded by the dioritic to gabbroic Moyie sills and dykes. To the east, the Upper Aldridge

rocks, composed of argillites and siltites, overlie the turbidites. Mineralization hosted within Aldridge Formation metasedimentary rocks is typically observed as fine-grained pyrite and pyrrhotite, up to several percent, that oxidizes when exposed on surface (Höy et al., 2000). Further east, the Creston Formation is exposed. Creston Formation rocks comprise a shallow water platformal and fan-delta succession of predominantly quartzites and siltites. South of the Bull River, Creston Formation rocks are overlain by Kitchener Formation carbonate rocks. Cretaceous monzonite-dacite stocks, plugs and dikes intrude Purcell Supergroup rocks and younger Paleozoic shallow water sediments (Höy et al., 2000). The southernmost claim group where the work was completed in 2016 is underlain by Precambrian Gateway Formation comprised of siltstone and dolomitic siltstone south of the Hosmer Thrust Fault and is juxtaposed against Paleozoic rocks of the Rundle Formation (Graf,
2014).

The goal of the 2018 exploration program was to define exploration targets by completing 20.5-line km of geochemical surveying on 2 separate grids; the Don claims grid (6.5 line km) and the G-Zone grid (14 line km). A total of 79 B-horizon soil samples were collected from 15 survey lines on the Don claims grid and a total of 169 B-horizon soil samples were collected from 20 survey lines on the G-Zone grid, over the course of the 20.9 person-day field program.

The 2018 work was a follow-up program to a 2016 soil geochemical survey on the Don Claims and Dighem airbourne magnetic surveys over both the Don and G-zone claims that were conducted in 1999 and 2000 and were reinterpreted in 2017. Both the 2016 and 2017 work programs were submitted as Assessment Reports (McCuaig, 36586, 37195).

Total expenditures on the project were $23,372.16.

The 2018 geochemical survey on the Don claims grid was comprised of conducting soil sample infill lines between the 2016 soil lines to tighten up the coverage over the large zinc-silver-manganese-copper anomaly that was outlined by the 2016 survey.

The 2016 survey lines were 200 meters apart with samples collected at 100-meter intervals along the lines. The 2018 survey lines were located half way between the 2016 lines, with samples collected every

100 meters along the infill lines, in order for the soil coverage over the anomaly to have a sample density of 100 meters by 100 meters.

The analytical results obtained from the 2018 soil samples confirmed and enhanced the large zinc-silver-manganese-copper soil anomaly that is ~ 1,300 meters long and 500 meters wide. The anomalous copper values from the 2018 samples extended the anomaly over 100 meters to the northeast where it still remains open.

The 2018 geochemical survey on the G-Zone grid was a new survey conducted with the purpose of investigating whether westerly extensions of the high-grade G-Zone silver-lead shear zone mineralization existed on the flat terrain below the cliffs where the G-Zone is located. The 2018 soil samples were collected at 100-meter intervals along lines spaced 100 meters apart.

Several areas on the grid were found to have soil samples anomalous in silver-lead-zinc-copper and the largest soil anomaly identified is a copper anomaly 900 meters long and 100 meters wide that is located on the two easternmost sample lines and is open to the southeast and southwest. There are several samples within this anomaly that are also anomalous in zinc, lead, silver and manganese.

Future recommended exploration work on the Don claims grid would be to prospect the large soil anomaly to locate sulfide mineralization within it, to conduct a ground magnetic survey over the northern half of the grid that would better refine the Dighem magnetic anomaly on the ground and conduct an EM/VLF survey to more accurately locate the Hosmer thrust fault that marks the contact between the more prospective Aldridge formation and the overlying Gateway formation. As well the Peacock copper MINFILE occurrence (MINFILE 082GSW017, 1986) needs to be located and if it is deemed to be significant, more soil sampling and prospecting needs to be conducted around it.

Future recommended exploration work on the G-Zone target would be to prospect the soil anomalous area identified by the 2018 soil survey, extend the soil grid both to the southeast and southwest to investigate the extent of the copper soil anomaly, as well as to extend the soil sample grid to the northwest to investigate the extent of the soil anomalous area below the lower G-Zone adit and to extend the soil coverage over the Dighem magnetic anomaly.

Also, a ground magnetic survey should be conducted over the Dighem magnetic anomaly to better refine the target. Both a ground EM/VLF survey and magnetic survey should be conducted over the G-Zone and extending northwest to also cover the lower G-Zone adit area. Additional work is recommended to advance the understanding of anomalous metals identified in the Don Claim area within tenures 1047428, 1061658 in the southeastern portion of the claim-holding and the G-zone/Cedar Claim area located primarily within tenures 1048988 and 1048930.

Don Zone Grid Area Recommendations

The first priority is to prospect the soil anomalous areas, particularly the large zinc-silver-manganese-copper anomaly, as it is imperative at this stage of the exploration program to locate zinc mineralization in bedrock before committing to all of the following recommendations. The first place to start prospecting is at 2018 soil sample station #17337 that contained 102 ppm lead, 963 ppm zinc, 1,387 ppm manganese, 13 ppm arsenic and 2.0 ppm silver. A second place to start prospecting is at soil sample station # 17356 that contained 25 ppm lead, 699 ppm zinc, 4,784 ppm manganese, 48 ppm copper, 2.4 ppm silver and 998 ppm barium.

While conducting the prospecting program, the bedrock geology underlying the anomaly also needs to be identified as to whether it is composed of Aldridge formation argillites or Devonian-Cambrian limestones and dolostones. The descriptions of these Devonian-Cambrian formations are in the Don claims geology section of this report and it would be very important to find any fossil bearing rocks as they would provide a marker unit from which the entire stratigraphic sequence could be constructed.

The Peacock showing needs to be located and its' potential to be part of a significant zone of mineralization needs to be evaluated. If the showing is deemed significant then infill soil lines need to be sampled around it at 25-meter intervals. The first place to begin searching for the Peacock showing is along 2016 sample line PBL018 from sample stations 6+00E to 11+00E and adjoining 2016-line PBL019 from sample stations 6+00E to 12+00E where numerous samples are anomalous in copper, lead, manganese and zinc.

A ground magnetic survey should be conducted over the northern part of the Don claims where the airborne magnetic anomaly occurs to better refine the anomaly.

An EM/VLF survey should also be conducted over the area of the property where the magnetic anomaly occurs to explore for conductive mineralized zones and the location of the Hosmer thrust fault.
The two highest magnetic portions of the magnetic anomaly that occur at its' south end should be examined in the field to search for intrusive rocks, sulfide mineralization and/or magnetite that could be the cause of the anomaly.

The northern and western parts of the property should be geologically examined/mapped in order to better locate the position of the Hosmer thrust fault and the southern extent of the prospective Aldridge formation. Backhoe/cat trenching should be conducted to expose any mineral showings that might be discovered in association of the soil anomalies, particularly the zinc anomaly.

G-zone/Cedar Grid Area Recommendations

There is a second, older adit ~ 300 meters north of the G-Zone adit that was driven into the mountain at a slightly lower elevation, and likely was exploring a separate mineralized zone from the G-Zone which should be located and examined.

An EM/VLF survey should be conducted over the structure that hosts the G-Zone mineralization.
The soil sample grid only covered southeastern corner of the Dighem magnetic anomaly and the grid should be extended for approximately 2 km to the west and northwest in order to cover the entire anomaly.

As well the soil sample grid should be extended to the southwest for 300 meters and to the southeast as far as to the Pit zone, as the copper +/- zinc-lead-silver-manganese soil anomaly occurs on the mainly on the easternmost two soil lines and is open both southeast and southwest.

A ground magnetic survey should be conducted over the Dighem anomaly in order to better refine it.
In 1999 and 2000, ground magnetic and resistivity surveys, that are in a Purcell Basin Minerals Inc. file named Camp Geophysics, were conducted by a Purcell Basin predecessor company over the area immediately south of the G-Zone soil grid and extended southward for 6.5 km. The ground geophysical coverage should have included the Pit zone and the Ross zone that lies ~ 1 km south of the Pit zone and

this data should be reviewed and plotted on a Purcell Basin property map as well as on the Dighem magnetic map.

Don Zone – A $50,000.00 work program focussed on refining geochemical anomalies and prospecting should provide sufficient information to determine if further exploration is warranted.

G-zone/Cedar/Cedar – A $50,000.00 work program comprising of the refinement of geochemical and geophysical anomalies and prospecting on the G-Zone target area should provide sufficient information to determine if future exploration work should be considered.

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Table of Contents

List of Figures

List of Tables

Appendices

Introduction

Location and Access

The Property is located approximately 30.0 km east of the city of Cranbrook and 30.0 km north of the town of Elko (Figure 1) in the Regional District of East Kootenay. Access to the Property from Cranbrook is gained by travelling on Highway 3 for approximately 35.0 km, then left onto the Ft. Steele-Wardner Road for approximately 8.0 km, then right onto the Bull River Road for approximately 6.0 km. The company office, mill site and historic mine workings can be accessed at this location.

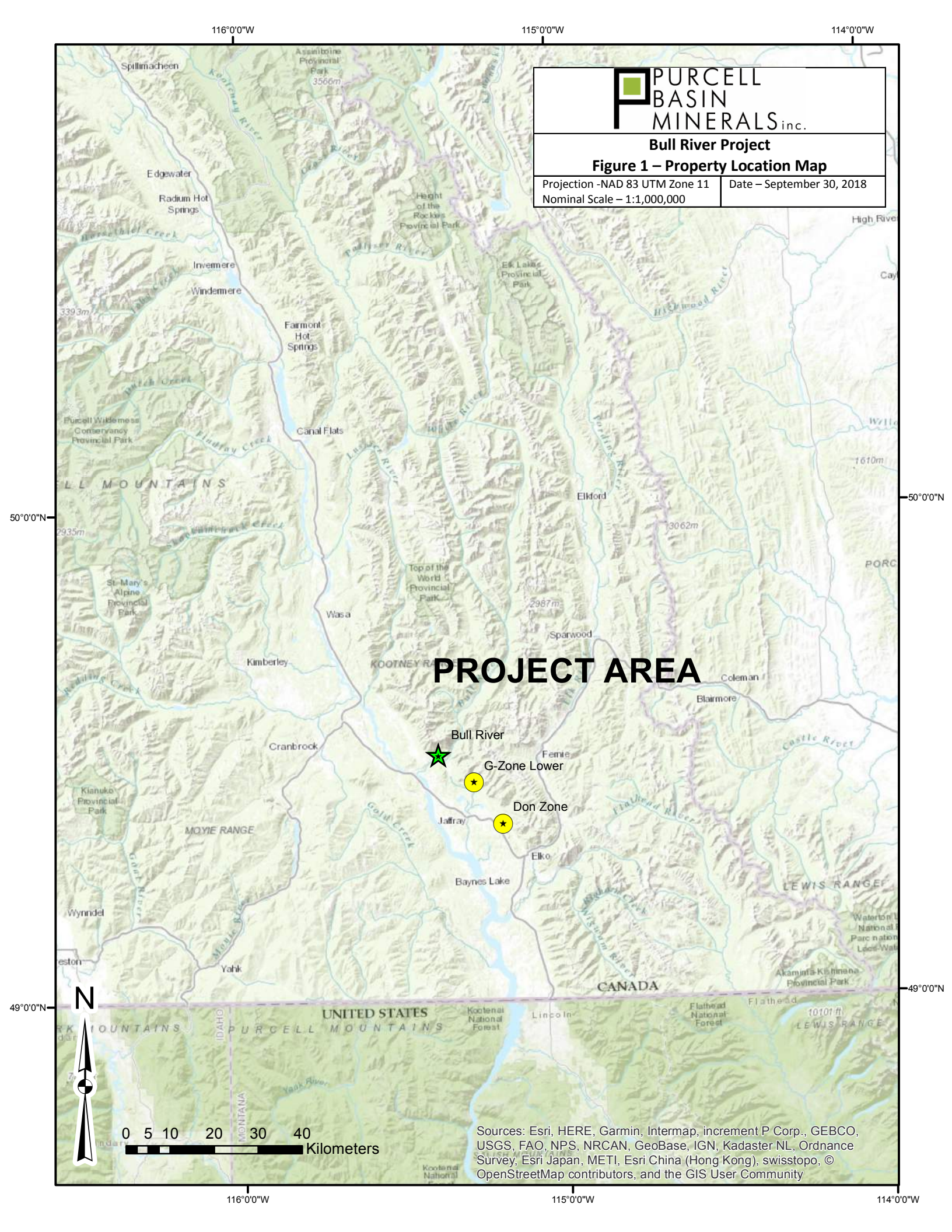
In 2018, fieldwork was completed by staff from Purcell Basin Minerals, consultants from Tanglefoot Forestry and other independent geoscience professionals on the Don Mineral Claims #1047428 and #1061658 as well as on the G-zone/Cedar Claims #1048930 and #1048988

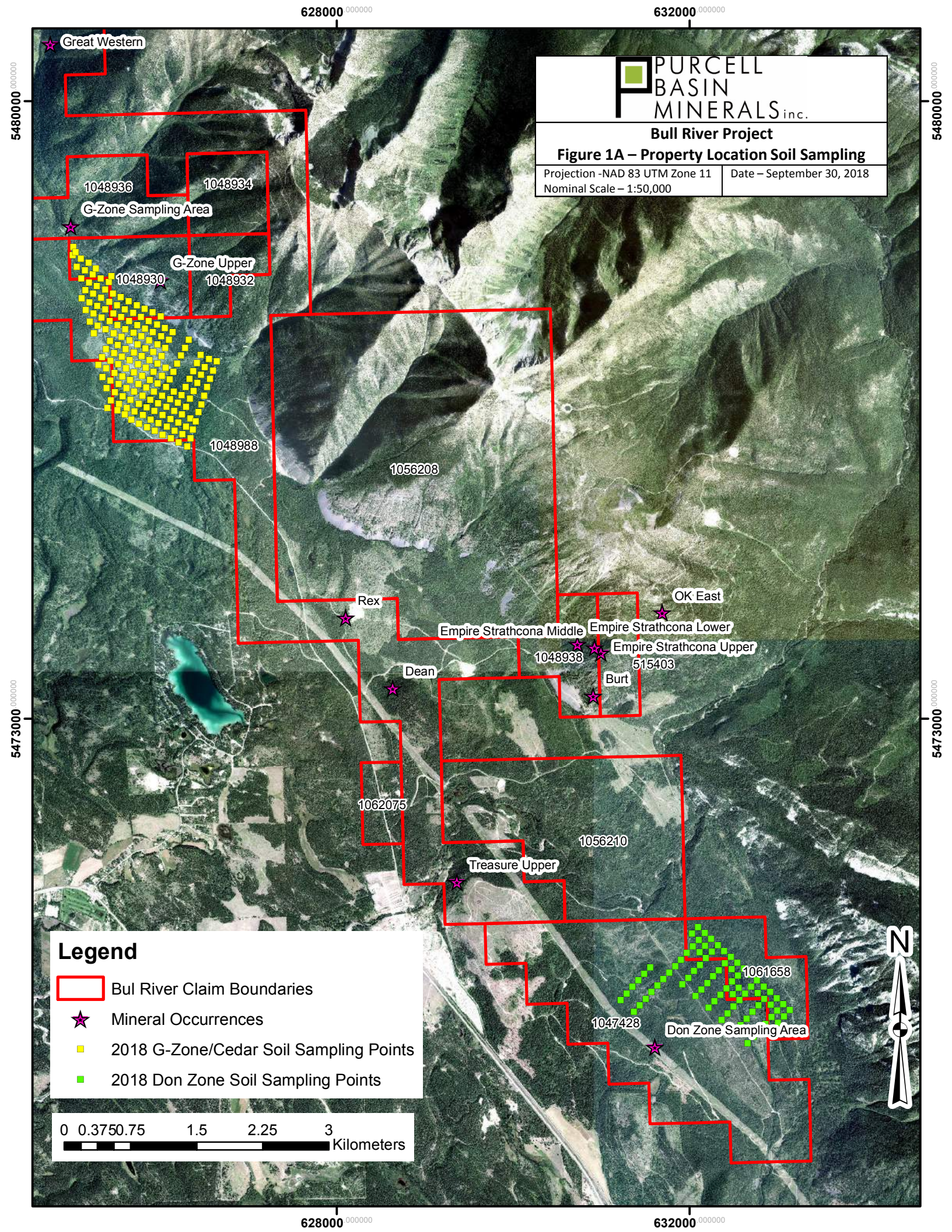
The Property is located in NTS mapsheets 082G/06, and 082G/11, and its core assets are centred at approximately at Latitude 49°30'N, Longitude 115°23'W.

The Property lies within the Rocky Mountain Trench at the base of the Hughes Range in southeastern British Columbia. Topography varies significantly and is characterized by gently rolling and subdued topography in the trench to steep, rugged mountain terrain in the Hughes Range. Outcrop is sparse in the valley bottom where Quaternary cover can exceed 200.0 m depth (Dzick and Ghaymghamian, 2013), and exposure increases with elevation to near continuous coverage along mountain tops. Elevations range from approximately 790.0 m to 2,641.0 m above sea level. The Bull River, Sand Creek and related tributaries are the main perennial watercourses draining the property all of which flow into the Kootenay River. Water in the creeks and streams is readily available most of the year.

The property is located within the Interior Douglas Fir and Ponderosa Pine biogeoclimatic zones (British Columbia Ministry of Forests Research Branch). The weather is typical of the Hughes Range, with moderate to dry summers and heavy snowfall at high elevations in the winter. Most of the property (low elevation) is free from snow beginning in April until November, and the road infrastructure allows for year-round drilling operations at lower elevation work sites. The terrain is characterized by open pasture and mature vegetation that is used as forage for domestic cattle, elk, big horn sheep, white tail and mule deer, and grizzly and black bears (Dzick and Ghaymghamian, 2013).

The Property is entirely within the traditional territory of the Ktunaxa First Nation.


PURCELL BASIN MINERALS inc.
Bull River Project
Figure 1 – Property Location Map
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:1,000,000
Date – September 30, 2018
PROJECT AREA
Bull River
G-Zone Lower
Don Zone
116°0'0"W
115°0'0"W
114°0'0"W
50°0'0"N
49°0'0"N
Spillimacheen
Edgewater
Radium Hot Springs
Invermere
Windermere
Fairmont Hot Springs
Canal Flats
Elkford
Sparwood
Kimberley
Cranbrook
Fernie
Wasa
Jaffray
Elko
Baynes Lake
Wynndel
Yahk
Blairmore
Coleman
CANADA
UNITED STATES
IDAHO
MONTANA
MOYIE RANGE
PURCELL MOUNTAINS
LEWIS RANGE
Kootenai National Forest
Flathead National Forest
Purcell Wilderness Conservancy Provincial Park
Top of the World Provincial Park
St. Mary's Alpine Provincial Park
Kianuko Provincial Park
Elk Lakes Provincial Park
Height of the Rockies Provincial Park
Akamina-Kishinena Provincial Park
N
0 5 10 20 30 40
Kilometers
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community


628000.000000
632000.000000
5480000.000000
5473000.000000
PURCELL BASIN MINERALS inc.
Bull River Project
Figure 1A – Property Location Soil Sampling
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:50,000
Date – September 30, 2018
Great Western
1048936
1048934
G-Zone Sampling Area
G-Zone Upper
1048930
1048932
1048988
1056208
Rex
OK East
Empire Strathcona Middle
Empire Strathcona Lower
Empire Strathcona Upper
1048938
515403
Dean
Burt
1062075
1056210
Treasure Upper
1061658
1047428
Don Zone Sampling Area
N
Legend
Bul River Claim Boundaries
Mineral Occurrences
2018 G-Zone/Cedar Soil Sampling Points
2018 Don Zone Soil Sampling Points
0 0.375 0.75 1.5 2.25 3
Kilometers

Tenure

The Bull River Mine Property as currently defined is comprised of 19 Mine Claims totaling 8,271 ha in the Ft. Steele Mining Division and has been summarized below in Table 1 and Figure 2. The property is also underlain by Mining Lease 212493 which covers 486 ha and includes surface rights in addition to mineral rights. The mining lease was granted in February 1972 and expires in February 2023, with annual lease payments of $9740.00 (Dzick and Ghaymghamian, 2013).

Table 1 – Tenure Summary for the Bull River Mine Property

Tenure Number	Claim Name	Owner	Issue Date	Good To Date	Area (ha)
515055		Bul River Mineral Corporation	2005/JUN/23	2018/NOV/28	1,028
515057		Bul River Mineral Corporation	2005/JUN/23	2018/NOV/28	1,238
515066	MINE SITE	Bul River Mineral Corporation	2005/JUN/23	2018/NOV/28	252
515403		Bul River Mineral Corporation	2005/JUN/27	2018/NOV/28	63
1045785	FELDSPAR	Bul River Mineral Corporation	2016/AUG/05	2018/NOV/28	840
1047428	DON CLAIM	Bul River Mineral Corporation	2016/OCT/24	2018/NOV/28	526
1047788	BUL 1	Bul River Mineral Corporation	2016/NOV/10	2018/NOV/28	503
1047789	BUL 2	Bul River Mineral Corporation	2016/NOV/10	2018/NOV/28	419
1048930		Bul River Mineral Corporation	2005/JUN/27	2018/NOV/30	105
1048932		Bul River Mineral Corporation	2005/JUN/27	2018/NOV/28	63
1048934		Bul River Mineral Corporation	2005/JUN/27	2018/NOV/28	84
1048936		Bul River Mineral Corporation	2005/JUN/27	2018/NOV/28	126
1048938		Bul River Mineral Corporation	2005/JUN/27	2018/NOV/28	84
1048940		Bul River Mineral Corporation	2005/JUN/23	2018/NOV/28	336
1048943		Bul River Mineral Corporation	2005/JUN/24	2018/NOV/28	252
1048988	BUL3	Bul River Mineral Corporation	2017/JAN/06	2018/NOV/30	1,869
1056209		Bul River Mineral Corporation	2017/NOV/10	2018/NOV/30	336
1061658	DON1	Bul River Mineral Corporation	2018/JUL/09	2019/JUL/09	105
1062075	CAMP	Bul River Mineral Corporation	2018/JUL/31	2019/JUL/31	42

PURCELL BASIN MINERALS inc.

Bull River Project

Figure 2 – Mineral Tenure Map

Projection -NAD 83 UTM Zone 11 Nominal Scale – 1:90,000	Date – September 30, 2018

612000 616000 620000 624000 628000 632000

5494000 5487000 5480000 5473000 5466000

1047788
1047789
TRILBY
BULL RIVER IRON
212492
1048940
BULL RIVER
CUCKOO
212493
515066
COPPER KING
515057
BULL RIVER (L.7806)
1048943
1045785
ASPEN
515055
VIKING
GREAT WESTERN
1056209
KOOTENAY RIVER (EAST SIDE)
1048988
1048934
1048936
1048930
CEDAR
1048932
SAND CREEK
WARDNER NORTH
PIT
ROSS 1
1056208
ROSS 2
WARDNER SOUTH
OK
515403
1048938
BURT
MOUNTAIN
BLUE GROUSE
CHIPKA CREEK
EMPIRE (L.3540)
1062075
JESSIE
1056210
PEACOCK COPPER
DON
1061658
1047428
ISLAND LAKE TWO
ISLAND LAKE ONE

N

Legend

- Minfile Occurrences
- Bul River Claim Boundaries

0 1.25 2.5 5 7.5 10 Kilometers

History and Previous Work

The following summary of history and previous work on the Property has been presented as open citation from the technical report authored by Dzick and Ghaymghamian (2013), and from MINFILE 082GNW002 (2012).

Placer gold was first discovered in the early 1860s in the Bull River Canyon and numerous small mine workings have been excavated in the area since that time. A number of claims were located in the vicinity of Burntbridge Creek in about 1896. The Silver Chief, Silver Reef, and Silver Buckeye claims were owned by David Griffith of Wild Horse Creek. Development work was done in a 30.0 metre crosscut adit and 4.5 metre shaft. The Daisy Fr. claim, owned by Thomas Bevans, was developed by shallow pits and open cuts. The Silver Chief (Lot 3548) and Sirdar (Lot 3554) were Crown-granted to Dave Griffith in 1899. No further activity was reported until 1927 when the Silver Chief, Sirdar, and Khedive claims were owned by A.B. Fenwick of Bull River. The workings at that time included a crosscut adit about 40.0 metres in length (MINFILE 082GNW002, 2012). No further work was reported on the Bull River mine site until 1968 when Placid Oil Co. ("Placid") optioned the property. Initially, Placid was targeting dyke structures similar to those found at the Sullivan mine and other Purcell Supergroup deposits but instead intersected supergene-type copper mineralization and an underlying copper-silver vein system.

The Property hosts the historic Dalton mine which started milling ore on October 1st, 1971, and continued from two open pits until June 10th, 1974, producing 7,260 t (16.0 M lb) of copper, 6,354 kg (204,274 oz) of silver, and 126 kg (4,055 oz) of gold from 471,900 t milled (MINFILE 082GNW002, 2012). The Dalton mine was owned by Placid, who also attempted to go underground to access additional resources but was unsuccessful in getting the portal collared in unstable ground.

Ross Stanfield purchased the assets of the Dalton Mine from Placid on March 5th, 1976 and transferred the assets to Bull River under incorporation on March 17th, 1976. For the next 20 years Bull River and its related subsidiary companies completed detailed exploration work (geology mapping, drilling, underground development and geophysical surveys) on the various claim groups held by R.H. Stanfield. In 1996, work began on a 5.4 m wide by 4.5 m high decline north of the open pits to provide access for underground drilling and sampling. Bull River reports that, to date, approximately 21,000.0 metres of development have been done, including exposure of the mineralized structures on seven levels along access drives and crosscuts. Mapping and sampling of these headings were conducted by Bull River personnel and, starting in 1999 by independent consultants contracted to the Stanfield Mining Group (SMG). Once these underground workings were established, underground diamond drilling was done by independent contractors (Dzick and Ghaymghamian, 2013). This work, along with surface and underground diamond drilling, and baseline studies, continued on the Gallowai-Bull River Mine property under various practitioners until 2009 when work was suspended due to a lack of funding (Dzick and Ghaymghamian, 2013). The underground operation at the Bull River mine site has never been put into commercial production. Exploration activities continued on the R.H. Stanfield group of exploration claims during the underground development stage up until 2001. Until recently the Property was held by Gallowai-Bull River mine through a joint venture partnership, which was then transferred to the SMG. In December 2014, all of the mining properties were transferred from SMG and are now owned 100 % unencumbered by Purcell Basin Minerals Incorporated (http://purcellbasin.com/site/about-us).

The work history of the Property as recorded with the British Columbia Government is provided below in Table 2. In addition, several internal documents authored on behalf of R.H. Stanfield or Gallowai-Bull River

mine, which are stored at the mine site, have been included in the work summary as documented in the Bibliography of the report completed by Graf (2014). In 2013 a technical report was authored by Dzick and Ghaymghamian (2013) (Snowden) on behalf of the Gallowai-Bull River mine which contains a detailed record of exploration and drilling activities (surface and underground) completed on the property between 1974 and 2009. The report can be found for reference on the company website http://purcellbasin.com/site. Dzick and Ghaymghamian (2013) indicate that a total of 72,486.9 m of underground drilling had been completed at the Bull River mine site for the period between 1996 – 2009. The 2013 report also states that during the time period of 1974 – 2009 over 100,000.0 metres of surface diamond drilling had been completed on the R.H. Stanfield Exploration Properties, of which the author can account for 27,333.3 metres; which was filed as assessment work with the British Columbia Government as outlined in Table 2.

Table 2 – History of Exploration and Geological Studies on the Bull River Mine Property

Year	Assessment Report Number	Report Title	Work Completed
1898	AR_1898	BC MEMPR Annual Summary of Mining and Exploration Activities	Early prospects described under the heading "Sand Creek", "Bull River" and "Burntbridge Creek" (P. 1002-1003).
1899	AR_1898	BC MEMPR Annual Summary of Mining and Exploration Activities	Early prospects described under the "Ft. Steele Mining Division" and "Crown Grants Issued in 1899" headings. (P. 660, 841).
1900	AR_1900	BC MEMPR Annual Summary of Mining and Exploration Activities	Early development work on two prospects, Star Group and Old Abe Group are reported (P. 798).
1929	AR_1929	BC MEMPR Annual Summary of Mining and Exploration Activities	The Empire and Strathcona Properties are reviewed and an update on work is reported (P. 298).
1930	AR_1930	BC MEMPR Annual Summary of Mining and Exploration Activities	The Empire and Strathcona copper prospects. A general overview of property ownership and development work are reported. Ore grade assays from a composite sample are provided (P. 243, 378).
1937	AR_1937	BC MEMPR Annual Summary of Mining and Exploration Activities	The Copper Silver deposits are described under the "South-East Kootenay Area" providing a detailed overview of development on the "Burnt Group" (P. E41-E42 & 142).
1965	AR_1965	BC MEMPR Annual Summary of Mining and Exploration Activities	Empire, Strathcona (Altamont Exploration Company) - First Documentation of R.H. Stanfield as President of the Exploration Company. Five Diamond Drill Holes, totalling 365.0 m completed to explore the ore body. Old adits opened and investigated (P. 199).
1966	AR_1966	BC MEMPR Annual Summary of Mining and Exploration Activities	Empire, Strathcona (Altamont Exploration Company) Nine BX-WL holes totalling 1,219.2 m of surface drilling and four holes totalling 213.3 m of underground drilling in the tram-line tunnel (P. 242).
1971	3436	Geochemical Survey Rio Alto Exploration Inc.	Geochemical surveying on the Bull River Prospect.
1971	3439	Geochemical Report Rio Alto Exploration Inc.	Geochemical Surveying on the Sand Creek Area "B" Prospect.
1972	3700	Geological Report covering claims 1 – 2 miles east of Placid Oil Company's Bull River Mine for Placid Oil Minerals	Geological field mapping and air photo interpretation.
1972	3929	A Geophysical Report on a Seismic Refraction Survey Cranbrook area of British Columbia for Rio Alto Exploration Inc.	A total of 10 complete set-ups, each 550 feet long, were surveyed to determine depth to bedrock, and locate the position of the Bull River Fault.
1973	Internal Report # 1973-01-RHS	Report on the Holdings of R.H. Stanfield, Fort Steele Mining Division, BC	

Year	Assessment Report Number	Report Title	Work Completed
1974	Internal Report # 1974-03-FORT)	Report on the Ross Claim Groups, (Galloway Property) for Fort Steele Mining Corporation, Fort Steele Mining Division, British Columbia	
1976	5900	Report: Diamond Drilling Ross Group # 2 for R.H. Stanfield	Two Drill Holes Completed (76-3 & 76-4) totalling 654.4 m.
1976	5904	Report: Churn Drilling Lillea #1-#4 for R.H. Stanfield	Churn drill overburden to depth of 35.0 m. Samples collected approximately every metre.
1976	5905	Diamond Drilling Altamont Group # 1 for R.H. Stanfield	One Drill Hole Completed (76-4 continued) to a depth of 152.4 m.
1976	5906	Report: Diamond Drilling Treasure Group for R.H. Stanfield	One Drill Hole Completed (76-6) to a depth of 152.4 m.
1976	5942	Drilling Cost Statement “Pit Group # 2” for R.H. Stanfield	Two Drill Holes Completed (76-9 & 76-11) totalling 145.9 m.
1976	Internal Report # 1976-03-RHS	Report on the Holdings of R.H. Stanfield. Geology and Ore Potential	
1977	6031	File 166 – Fort Steele Diamond Drilling Report on the Rossco Group for R.H. Stanfield	One Drill Holes Completed (76-8, 10) totalling 800.7 m.
1977	6244	Report Diamond Drilling Sunbeam Group for R.H. Stanfield	One Drill Hole extended (76-10-B) totalling 467.0 m.
1978	7086	Airborne Geophysical Survey Infrared Photography and Ground Electromagnetic Survey Ronka 16 VLF 82G/11 Steeples 1-30 Claims for R.H. Stanfield	The surveys were completed to ascertain if geophysics could detect possible occurrences of mineral deposits. The results were negative.
1980	8014	Report: Diamond Drill Hole BR1-79 Steeples 1:352 (11) and Steeples 2: 352 (11) for R.H. Stanfield	One Drill Hole Completed (BR 1-79) totalling 614.4 m. Report only covers overburden drilling.
1980	8137	Geophysical Surveys and Drilling – RH Stanfield Property for R.H. Stanfield	134.0 line-km of Magnetometer and VLF-EM Surveys on two grids. Drilling was completed to a depth of 15.0 metres in 6-79. Churn drilling tested 27.0 m of overburden in two holes.
1980	8531	Report: Diamond Drill Hole BR 1-80 Steeples 11: 362 (11) and Steeples 12: 362 (11) for R.H. Stanfield	One Drill Hole Completed (BR-1-80) to a depth of 195.0 m. The top 966 metres were drilled on the Steeples 11 claim.
1980	8584	Report: Diamond Drill Hole BR 1-79 Steeples 1:35 (11) and Steeples 2: 352(11) for R.H. Stanfield	One Drill Hole Completed (BR 1-79) totalling 614.4 m.
1980	8695	Report: Diamond Drill Hole BR 1-80 Aspen 9: 787 (10) and Aspen 10: 788 (10) for R. H. Stanfield	One Drill Hole Completed (BR 1-80) totalling 369.0 m (continuation of the hole in AR 8531).

Year	Assessment Report Number	Report Title	Work Completed
1981	9486	Drilling Reports: Diamond Drill Hole B-2-80 R.H. Stanfield Property Dogwood 12 229 (6) and Dogwood 14 230 (6); Churn Drill Hole # 2 Stanfield Property Cedar 1 205 (6) and Cedar 2 206 (6) for R.H. Stanfield	One Drill Hole Completed (B-2-80) totalling 92.3 m (abandoned) and One Churn Drill Hole 36.0 m.
1982	10304	Report on Diamond Drilling Property – R.H. Stanfield Property for R.H. Stanfield	Six Diamond Drill Holes Completed (1-79, 2-79, 2-80, 3-79, 4-79, 5-79,) totalling 5,997.0 m.
1982	10570A	Geophysical Report Helicopter – Bourne Two Frequency Electromagnetic and Magnetic Survey – R.H. Stanfield Property for R.H. Stanfield	1,662.0 line-km EM-Magnetometer survey completed on 68 claims completed by Apex Airborne Surveys Ltd.
1982	10570B	Report on a Helicopter Borne Multi-Frequency Electromagnetic and Magnetic Survey on the Kootenay River Project in the Galloway Area, British Columbia for owner and operator Mr. R.H. Stanfield	1,662.0 line-km EM-Magnetometer survey completed on 68 claims completed by Apex Airborne Surveys Ltd.
1983	11681A&B	Reconnaissance Geophysical Survey Helicopter – Borne V.L.F Electromagnetic and Magnetic Galloway Area Ft. Steele Balsam 1-4 & 5-12, Cedar 1 & 2, Cedar South 1 & 2, Elderberry 1, Elderberry South 1& 2 for R.H. Stanfield	380.0 line-km VLF-EM Airborne Survey by Apex Airborne Surveys Ltd.
1984	12414	Bull 1 Mineral Claim Southeastern British Columbia Summary of 1983-1984 Exploration for Robert J. Morris.	Work in 1983-84 included a literature search and one day on the claim looking for outcrop, with no success.
1986	15471	Drilling Report for the Bull River Mine for R.H. Stanfield	A total of two holes were drilled totalling 162.0 m. (seven Rotary Cyclone Drill Holes Completed through overburden totalling 184.0 m).
1986	15624	Core and Rotary Drilling Report for the Aspen 9 (787), Aspen 10 (788), Aspen 10A (2576) Claims for R.H. Stanfield	Four Drill Holes Completed totalling 463.0 m.
1986	15858	Cyclone Rotary Drilling on the Aspen 11, 12, 13, 14, 15 20 Unit Claims for R.H. Stanfield	Four Vertical Holes were drilled attempting to reach bedrock. Unsuccessful. Total metres drilled: 131.0 m.
1987	16221	Drilling Report on the Cedar 1-5 Claims (100 Units) for R.H. Stanfield	Two air percussion rotary holes were drilled totalling 47.2 m.
1987	16222	Drilling Report on the Cedar 10, Cedar 12, Cedar 13, Cedar 14 (80 Units Total) for R.H. Stanfield	One Drill Hole (c-10-1-86) was drilled from a depth of 545.0 – 1346.0 m totalling 801.0 m.
1987	16235	Drilling and Physical Work Report for the Dogwood 8 & Dogwood 10 Claims (40 units total) for R.H. Stanfield	One Drill Hole (P-D-10-87) was drilled totalling 56.3 m.
1988	17757	Assessment Report for Drilling on the Cedar 3 Claim for R.H. Stanfield	Two Drill Holes totalling 246.2 m and 5.0 km or road work.

Year	Assessment Report Number	Report Title	Work Completed
1988	17758	Drilling and Physical Work Report for the Dogwood 8 Claim for R.H. Stanfield	One Drill Hole totalling 122.8 m and 13.0 km of road work.
1988	17813	Assessment Report for Drilling on the Dogwood 5 Claim for R.H. Stanfield	One Drill Hole totalling 183.7 m.
1988	17850	Assessment Report for Drilling on the Cedar 8 Claim for R.H. Stanfield	Two Drill Holes totalling 110.5 m.
1989	18227	Assessment Report for Cyclone Rotary Mud Drilling on the Aspen Group 1-A for R.H. Stanfield	One Drill Hole abandoned (A-9-1-88) totalling 91.4 m.
1989	18368	Report on Steele Property prepared for Bul River Mineral Corporation Ltd.	One Drill Hole completed (BR 3-87) from 739.8 m to 1119.2 m, totalling 379.4 m, and 7 Rotary Holes completed totalling 679.0 m.
1989	19034	Drilling Report on Cedar 1A, Cedar 3A, Dogwood 1A, Dogwood 4 Groups for R. H. Stanfield	Ten Drill Holes completed (C3-88, C8-G-1-88, D1-1-88, D2-2-88, D10-1, D10-2, D10-PP1, D10-PP2) totalling 544.8 m.
1990	19651	Report on the Steeples Property Groups 1A – 8A for R.H. Stanfield	One Drill Hole completed (BR5-89) totalling 68.5 m and 15 cyclone rotary air-mud drill holes totalling 512.0 m.
1990	20796	Report on Rotary/Percussion Drilling on the Aspen 9, 10, 10A of Aspen Group 1A for R.H. Stanfield	Two percussion drill holes completed (A1-90 & A2-90) totalling 88.3 m.
1991	21155	DIGHEM^{IV} Survey for Bul River Mineral Corporation Ltd. (R.H. Stanfield) Steeples Claim Block & Portions of the Aspen Claim Block British Columbia	1,206.0 line-km of DIGHEM survey completed which identified several anomalies.
1991	Internal Report # 1991-01-SMG	Report on the Properties of Gallowai Metal Mining Corporation, Fort Steele Mining Division, British Columbia	
1992	21737	Report on Drilling on the Dogwood # 5, Elderberry # 5, #6, #7 and #8 (all 20-unit claims) for R.H. Stanfield	Two percussion holes completed (D5.1.91 and D5.2.92) totalling 123.7 m.
1992	22781	Report on Drilling on the Steeples Group 2B (Steeples # 12, 14, 16, 18 and 19 all 20-unit claims) for R.H. Stanfield	One Drill Hole completed (BR-3-92) totalling 602.6 m.
1992	22997	Report on Drilling on the Cedar Group 1A for R.H. Stanfield	One Drill Hole completed (C1.92) totalling 1058.2 m.
1992	Internal Report # 1992-01-BB	Report on the Properties of the R. H. Stanfield Group. Fort Steele Mining Division, British Columbia	

Year	Assessment Report Number	Report Title	Work Completed
1992	Internal Report # 1992-02-GAL	Report on the Properties of the R.H. Stanfield Group. Fort Steele Mining Division, British Columbia	
1993	23012	DIGHEM Airborne Survey on The Balsam 1A, Balsam 2A, Cedar 2A, Cedar 3A, Dogwood 3A Claim Blocks for R.H. Stanfield	337.0 line-km (Big Bear Property) and 65.0 line-km (Sand Creek Block) of DIGHEM survey completed.
1993	23602	Investigation of Commercial Feldspar Resources on the Aspen 9, 10, 11, & 12 Claims for R.H. Stanfield	Re-logging of Drill Hole A11-1-87) total depth 532.0 m; two percussion drill holes totalling 202.4 m.
1993	23615	Report on Drilling BR 2.93/94 on the Steeples Group #1C for R.H. Stanfield	One Drill Hole completed (BR-2-93) to a depth of 690.9 m.
1993	Internal Report # 1993-01-SMG	Exploration Report for the R.H. Stanfield Group, Fort Steele Mining Division, British Columbia	
1994	23632	Drilling PBR 2.94 on the Steeples Group # 2B for R.H. Stanfield	One Drill Hole completed (PBR 2.94) totalling 291.4 m.
1992-94	23786	Diamond Drilling - 1992 through 1994 on the Steeples Group # 1C for R.H. Stanfield	Five Drill Holes reported from the period of 1992-1994 (BR.1.92, BR2.92, BR4.92/93, BR1.93, BR1.94) totalling 4,106.8 m. (978.7 m of percussion drilling utilized to pre-drill through overburden)
1995	24240	Drilling Report on Steeples Group 1C and Steeples Group 2B for R.H. Stanfield	Two Drill Holes Completed (BR 1-95, BR 2-95) totalling 1,910.4 m.
1997	25129	Drilling Report on Cedar Group 3A for R.H. Stanfield	Two Drill Holes Completed (C8-1-96/97 & C8-2-96/97) totalling 312.4 m.
1997	25191	Drilling Report on Aspen Group # 1 for R.H. Stanfield	Seven Percussion Holes Completed (F5-96, F6-96, F7,96, F8-96, F9-96, F10-96, F11-96, F12-96) totalling 1,083.4 m.
1998	25637	Drilling Report on CD Group # 1 for R.H. Stanfield	One Drill Holes Extended (C8-1-96/97) totalling 700.4 m (extension from previous year).
1998	25678	Assessment Report on the Pleasant Surprise Mineral Claims for Geologic Mapping and Geochemical Sampling by/for C.C. Downie P. Geo.	One day geological reconnaissance program completed to prospect for Sullivan type Pb-Zn mineralization or shear hosted Cu-Au mineralization.
1998	25683A	Drilling Report on AB Group # 1 for R. H. Stanfield	Two Drill Holes Completed (A9-1-98 & A9WW-98) totalling 873.2 m.
1999	25881A	Drilling Report on ABJ Group # 1 for R.H. Stanfield	One Drill Hole Extended (A9-1-98) totalling 498.0 m.
1999	Internal Report # 1999-01-BUL	1998 Exploration Report for Bul River Mineral Corporation, Fort Steele Mining Division, British Columbia	

Year	Assessment Report Number	Report Title	Work Completed
2000	26323A	Assessment Report on the Pleasant Surprise Mineral Claims for Geologic Mapping and Geochemical Sampling by/for C.C. Downie P. Geo.	One day field program consisting of soil, rock and silt sampling, as well as 1:1000 scale geological mapping.
2001	26638A	Drilling Report on the Bul River Group for R.H. Stanfield	One Underground Drill Hole (BRU00-60) totalling 366.3 m.
2001	Internal Report # 2001-07-SMG	2001 Report on the Geology and Mineralogy of Stanfield Mining Group Claims, Fort Steele Mining Division, British Columbia	
2011	NI43-101	Technical Report on the history of work on the property. Prepared by RPA on behalf of Gallowai-Bul River Mine	
2012	NI43-101	Technical Report for a NI43-101 Compliant Resource Estimate. Prepared by RPA on behalf of Gallowai-Bul River Mine	
2013	NI43-101 Technical Report	Gallowai-Bul River Technical Report Project Number 12V1249. Prepared by Snowden for Gallowai-Bul River Mine	
2013	Internal Summary Report	2013 Under Ground Drilling Summary. Prepared by Moose Mountain Technical Services for Gallowai-Bul River Mine	Seven Underground Drill Holes Completed (BRU-13-01 to 07) totalling 1,156.0 m.
2013	Scoping Study	Gallowai-Bul River Mine Scoping Study. Prepared by Moose Mountain Technical Services for Gallowai-Bul River Mine	
2016	36586	Technical Report for the Bull River Mine Property	A total of 320 b-horizon samples were collected from 23 survey lines during the course of the 17 person-day field program. Total expenditures on the Property in 2016 were approximately $24,200.00.
2017	37195	Technical Report for the Bull River Mine Property	Define exploration targets peripheral to copper ore body defined in the NI43-101 through the collection of rock samples from underground working, petrophysical characterization of the rocks samples and the processing Dighem airborne EM (AEM) data acquired during 1991-1997.
2018	TBD	Technical Report for the Bull River Mine Property	Geological analysis of the previously unlogged borehole Grand 10-05 and pXRF sampling of a defined interval of interest in borehole Grand 10-05

Geology

Regional Geology

The regional geologic setting of the Property is shown in Figure 3. The map was created using BCGS Open File 2017-8 compilation map (Cui et al., 2017). The Property is located within the Belt-Purcell Basin, a Meso-Proterozoic intracontinental rift filled by marine and fluvial sediments that comprise the Belt-Purcell Supergroup. Approximately 10% of the exposed area of Belt-Purcell Basin can be found in Canada, where it is referred to as the Purcell Basin and Purcell Supergroup (Lydon, 2007). The Belt-Purcell Basin is flanked by Upper Proterozoic Windermere Group or Paleozoic sedimentary rocks (Höy et al., 2000). The Aldridge Formation defines the base of the Purcell Supergroup. Within an approximate 30.0 km radius of Cranbrook, British Columbia, the Aldridge Formation also hosts the world class Sullivan deposit as well as the Estella, Kootenay King, and St. Eugene mineral deposits (Allen, 1989).

Extensional faulting and sporadic magmatism occurred from about 1,500 Ma to 1,320 Ma and is at least partially coincident with the East Kootenay Orogeny. The East Kootenay Orogeny reflects burial metamorphism of the thick sedimentary pile in the high geothermal gradient of an actively rifting environment. Syn-sedimentary faulting associated with rifting resulted in the rift-fill thicknesses of turbidites and intercalated sills of the Aldridge sequence of up to 12.0 km. Two directions of syn-sedimentary faulting have been recognized: north to northwest trending rift-parallel (extensional) and east to northeast trending transfer faults. Examples of the former include faults that control the north trending Sullivan Corridor and the Iron Range fault northeast of Creston. Examples of the later include precursors to the Moyie-Dibble Creek fault, which are found north of the Property, and St. Mary-Boulder Creek fault system (Lydon, 2007).

Beginning with the East Kootenay Orogeny (1,350 Ma to 1,300 Ma), the northwest portion of the Purcell Basin appears to have been subjected to east-west faulting along with magmatic generation along its western boundary. During the subsequent Goat River Orogeny (900 Ma – 800 Ma), the Purcell Anticlinorium was formed as a result of crustal shortening (Höy et al., 2000). The Property lies along the eastern flank of the Rocky Mountain trench, which forms the valley of the Kootenay River system in the area and is contained within the Hosmer thrust sheet east of the inferred trace of the Rocky Mountain trench fault (Dzick and Ghaymghamian, 2013). The Hosmer thrust sheet is the structurally highest thrust package in the Western Range of the Rocky Mountains (Dzick and Ghaymghamian, 2013). The Rocky Mountain trench fault is a west-side-down Tertiary normal fault with a minimum of 5.0 km of vertical displacement. Structure in the region is dominated by broad, open, east-plunging folds (Höy et al., 2000).

PURCELL BASIN MINERALS inc.

Bull River Project

Figure 3 – Regional Geology Map

Projection -NAD 83 UTM Zone 11	Date – September 30, 2018
Nominal Scale – 1:150,000	

Legend

- Minfile Occurrences
- Bul River Claim Boundaries

Strat Unit

- CmOM (McKay Group)
- DCBH (Cedared, Burnais and Harrogate)
- DFSA (Fairholme Group, Sassenach and Alexo)
- Ds (Undivided Sedimentary Rocks)
- JFe (Fernie Formation)
- JKK (Kootenay Group)
- MBE (Banff and Exshaw)
- MRE (Rundle Group)
- OSB (Beaverfoot Formation)
- PnPR (Rocky Mountain Group)
- TrSRsf (Spray River Group)
- lKTBC (Blairmore Group, Crowsnest)
- mPrPA (Purcell Supergroup - Aldridge)
- mPrPC (Purcell Supergroup - Creston)
- mPrPK (Purcell Supergroup - Kitchener)
- mPrPNS (Purcell Supergroup -Nicoh Creek, Sheppard)
- mPrPV (Purcell Supergroup - Van Creek
- muCmFE (Flathead and Elko)
- muCmJ (Jubilee Formation)
- uDPa (Palliser Formation)
- uPrCmCr (Cranbrook Formation)
- uPrCmEC (Eager and Cranbrook)
- unknown (Unknown)
- BC_faults_alb
- BC_quaternary_alb

0 1.25 2.5 5 7.5 10 Kilometers

N

608000 612000 616000 620000 624000 628000 632000 636000 640000 644000 115°0'0"W

5501000 5494000 5487000 5480000 5473000 5466000 5459000 5452000 5445000

Property Geology

The geologic setting of the Property is shown in Figure 4. The map was created using BCGS Open File 2017-8 compilation map Cui et al., 2017).

The Property, and more specifically the past producing mine and numerous mineral occurrences, are underlain by the Purcell Supergroup, a thick sequence of terrigenous clastic, carbonate and minor volcanic rocks of Middle Proterozoic age (Höy, 1993). The Aldridge Formation is characterized by thick successions of graded sandy turbidites and interbedded laminated siltstones and argillites. The turbidites are intruded by the dioritic to gabbroic Moyie sills and dykes. To the east, the Upper Aldridge rocks, composed of argillites and siltites, overlie the turbidites. Mineralization hosted within Aldridge Formation metasedimentary rocks is typically observed as fine-grained pyrite and pyrrhotite, up to several percent, that oxidizes when exposed on surface (Höy et al., 2000). Further east, the Creston Formation is exposed. Creston Formation rocks comprise a shallow water platformal and fan-delta succession of predominantly quartzites and siltites. South of the Bull River, Creston Formation rocks are overlain by Kitchener Formation carbonate rocks. Cretaceous monzonite-dacite stocks, plugs and dikes intrude Purcell Supergroup rocks and younger Paleozoic shallow water sediments within the project area (Höy et al., 2000). The southernmost claim group, where the work was completed in 2016 is underlain by Precambrian Gateway Formation comprised of siltstone and dolomitic siltstone south of the Hosmer Thrust Fault and is juxtaposed against Paleozoic rocks of the Rundle Formation (Graf, 2014). Graf (2014) cautions that due to significant cover in the area of the "Don Claim", it is not clear if the Gateway Formation geological interpretation is correct.

Alteration

Alteration at the past producing mine was described by Dzick and Ghaymghamian (2013), and MINFILE (MINFILE 082GNW002, 2012) as silicification and carbonatization (siderite flooding) which occurs within host rock in contact with veins and up to tens of metres from the veins. Masters (1999) describes the alteration as silica and chlorite. Personal observation of alteration by the author indicate that the siderite flooding preferentially permeates thin-bedded silty metasedimentary rocks in proximity to quartz-siderite veining, and upon weathering imparts a conspicuous rusty-orange stain on the rocks. Gangue mineralogy of the veins in the underground mine and surrounding prospects is variable, with the eastern parts of the deposit consisting of quartz and siderite. The western part of the vein system is dominated by siderite (Baldys, 2001).

Mineralization

Mineralization at the past producing mine consists of pyrite, pyrrhotite, and chalcopyrite with minor local galena, sphalerite, arsenopyrite, cobaltite and traces of tetrahedrite and native gold. Sulphides range from massive, irregular bodies within the quartz-siderite vein system to thin discontinuous veins, veinlets, and disseminations in the host rock (Höy et al., 2000). The Bull River deposit and related Cu-Ag mineral occurrences have been described as a Churchill-type vein copper-silver deposit (Lefebure, 1996).

Mineralization at the Don zone was described by Masters (1992) as veins which contain copper, silver and gold in a matrix of quartz, siderite and barite hosted in Gateway Formation argillites. Masters (1992) also describes barite-copper ± silver-gold mineralization at the Elderberry prospect, which is associated with a zone of intense structural deformation.

Mineralization at the G-Zone (Cedar) is characterized by massive galena ± pyrite-chalcopyrite-sphalerite hosted within quartz and limonite after siderite in rusty-weathering sheared metasedimentary rocks of the Aldridge Formation (Graf, 2014). A 1978 company report authored by Allen stated “a sample of the galena assayed 85.1 % lead and 36.92 oz/t silver, and a check sample assayed 84.0 % lead and 37.9 oz/t silver” (Graf, 2014). The style of mineralization at the G-Zone is more akin to the veins mined at St. Eugene (Purcell Supergroup), and to a lesser extent with the Coeur d'Alene silver-lead-copper deposits (Dzick and Ghaymghamian, 2013) in Idaho (Belt-Purcell).

Structural Geology

Three tectono-stratigraphic terranes subdivide the area covered by the Purcell Basin Minerals mineral tenure holdings. The Steeples Range domain is bounded to the north by the Dibble Creek fault and to the south by the Bull River Canyon fault and lies to the north of the other domains. The Sand Creek-Lizard Range domain lies south of the Bull River Canyon fault and north of the Sand Creek fault and contains the Lizard Range of mountains. The southern domain is the Broadwood Anticline whose boundary is the Sand Creek fault to the north and Mount Broadwood to the south. The Steeples Range and Sand Creek–Lizard Range domain are part of the Lizard segment of the Hosmer Thrust (Masters, 1990). In the vicinity of the Property, the trench is synclinal with major west dipping faults on its east side (Masters, 1990). Masters (1999) states that the structural geology of the property is fairly complex, with structural evolution mainly associated with the Hosmer Thrust.

Don Claims Grid Geology

The bedrock geology of the Don claims is best presented on the geology map that accompanies BC Geological Survey Branch Bulletin 84 (Höy, 1993). This map shows the southern half of the Don claim soil grid to be underlain by thinly bedded, reddish to purple colored siltstones and shales of the uPC Gateway formation.

The map also shows the northern half of the Don claims to be underlain by thin to medium bedded, grey to black colored siltstones and argillites of the older mPC Aldridge formation. The contact between these two formations is shown to be the regional Hosmer thrust fault (Sand Creek fault), however the exact location of this contact fault is not exposed at surface due to glacial overburden.

Extensive glacial overburden occurs over the northern, western and eastern portions of the Don claims where it masks the underlying bedrock and importantly the actual position of the Hosmer thrust and Aldridge-Gateway formational contact, so the extent of the prospective Aldridge formation may be greater than presumed.

Immediately west of the Don claims is the regional Rocky Mountain Trench fault which is a major normal fault across which the western side is shown on cross section G’-G’’-G’’’ that accompanies GSB Bulletin 84 (Höy, 1993), to have been down dropped in the order of 20,000 feet (6 km).

Several Paleozoic formations including the mC Burton and Elko formations, the basal middle Devonian unit, the lower upper Devonian Fairholme group and the upper Devonian Palliser formation occur along the eastern side of the Don claims and are steeply overturned and west dipping.

Measured sections of the mC Burton and Elko formations, the basal Devonian unit, the Devonian Fairholme Group and overlying Palliser Formation were made near Elko, approximately 10 km south of the Don claims, and are described in GSC Paper 58-10 Fernie Map-Area, West Half BC, (Leech, 1958) and are shown on GSC geology map 1960 - 11. (Leech et al, 1960)

The mC Burton formation rests unconformably on the uPC Roosville formation and is about 190 feet (60 m) thick consisting of shale and minor sandstone. It is overlain by about 200 feet (61 m) of fine grained, unfossiliferous grey to black dolomites of the mC Elko formation, in beds from 1 foot to five feet thick.

The basal Devonian unit unconformably overlies the mC Elko formation and is 219 feet (66.8 m) thick, consisting equally of dolomitic sandstone and dolomite. The overlying Fairholme group is 1,335 feet (407 m) thick and consists of three main divisions, the lowermost one being 576 feet (176 m) of cliff forming beds of limestone (dolomite at the base) containing stromatoporoids, corals and amphipora, the middle one being 225 feet (68.6 m) of interbedded shale and limestone and the uppermost one being 534 feet (163 m) of sandstone and sandy argillaceous limestone, and at the top, purer limestone.

The overlying Palliser formation is 800 feet (183 m) thick and comprised of two divisions, the lower one of cliff forming limestone about 600 feet thick and the upper one of recessive limestone about 200 feet (61 m) thick.

Due to glacial overburden and poor exposure, the geology map that accompanies BCGS Bulletin 84 has left the bedrock geology that underlies the large zinc soil anomaly blank, however by extrapolating the rocks where they are mapped further south, they are likely one or more of the Paleozoic formations.

G-Zone Grid Geology

The bedrock geology of the G-Zone grid is presented on the geology map that accompanies BCGS Bulletin 84. The area of the G-Zone grid is almost completely covered by glacial overburden and is likely underlain by medium bedded siltstones and argillites of the mPC lower Aldridge formation that outcrops extensively along the cliffs above the grid area and host the G-Zone mineralized structure.

The regional Rocky Mountain Trench Fault is shown on the map to lie less than 1 km west of the G-Zone however its' position is masked by the glacial overburden. The Dighem magnetic data indicate this fault lies a short distance west of the grid. This major fault is a normal fault across which, as shown on the Bulletin 84 map cross sections, the western side has been down dropped ~ 20,000 feet (6 km).

The G-Zone is a structurally controlled vein that hosts high-grade argentiferous galena mineralization. It was discovered accidently by bulldozer road construction and in 1978 an adit was driven on the structure for a distance of more than 150 meters from which a number of raises were driven to intersect the mineralization.

The G-Zone was visited by Trygve Höy of the BC Geological Survey in 1978, when the adit was being driven and the following is a partial excerpt of his report located in BCMEMPR Geological Fieldwork paper 79-1 p. 16 & 17, on what he observed.

"The mineralization consists of pods of massive galena in a fault zone hosted by dark grey, laminated argillites of the upper Aldridge formation. The wall rock within the adit contains laminations of fine-grained, well-crystallized pyrite." (Höy, 1979)

“This fault zone trends east/west and dips steeply northward, crosscutting the regional trend of the sedimentary rocks. The mineralized zone contains heavy fine-grained material deeply encrusted with limonite, and similarly encrusted pods of massive galena. Original gangue and sulfide minerals are for the most part oxidized and leached, leaving a residue of rusty weathering argillaceous material.” (Höy, 1979)

PURCELL BASIN MINERALS inc.

Bull River Project

Figure 4 – Property Geology Map

Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:40,000

Date – September 30, 2018

mPrPK
TrSRsf
JFe
mPrPC
mPrPC
mPrPC
uDPa
mPrPK
DFSA
mPrPNS
mPrPA
VIKING
GREAT WESTERN
mPrPC
mPrPA
mPrPC
SAND CREEK
1048936
1048934
MRE
1048930
1048932
mPrPC
CEDAR
1048988
PIT
ROSS 1
1056208
mPrPA
TrSRsf
Aldridge Formation
ROSS 2
PnPR
Rex
1048938
515403
OK
DEAN
BLUE GROUSE
BURT
EMPIRE (L-3540)
Rocky Mountain Trench Fault
Hosmer Thrust Fault
1062075
1056210
MRE
uDPa
Paleozoic Formations
Devonian
Palliser fm
Fairholme fm
JESSIE
unknown
1061658
DFSA
PEACOCK COPPER
1047428
DON
mPrPNS
Gateway Formation

N

0 250 500 1,000 1,500 2,000 Meters

Legend

- Bul River Claim Boundaries
- Minfile Occurrences

BC Bedrock Regional

Strat Unit

- CmOM (mudstone, siltstone, shale, clastic sedimentary rocks)
- DCBH (dolomitic carbonate rocks)
- DFSA (limestone, slate, siltstone, argillite)
- Ds (undivided sedimentary rocks)
- JFe (undivided sedimentary rocks)
- JKK (Kootenay Group)
- MBE (limestone, slate, siltstone, argillite)
- MRE (undivided sedimentary rocks)
- OSB (dolomitic carbonate rocks)
- PnPR (dolomitic carbonate rocks)
- TrSRsf (mudstone, siltstone, shale fine clastic sedimentary rocks)
- lKTBC (course classic sedimentary rock)
- mPrPA (argillite, greywacke, wacke, conglomerate turbidites)
- mPrPC (undivided sedimentary rocks)
- mPrPK (dolomitic carbonate rocks)
- mPrPNS (undivided sedimentary rocks)
- mPrPV (argillite, greywacke, wacke, conglomerate turbidites)
- muCmFE (course clastic sedimentary rock)
- muCmJ (dolomitic carbonate rock)
- uDPa (limestone, marble, calcareous sedimentary rocks)
- uKA
- uPrCmCr (quartzite, quartz arenite sedimentary rocks)
- uPrCmEC (limestone, slate, siltstone, argillite)
- unknown (Unknown)
- Faults

623500 624500 625500 626500 627500 628500 629500 630500 631500 632500 633500

5483500 5482500 5481500 5480500 5479500 5478500 5477500 5476500 5475500 5474500 5473500 5472500 5471500 5470500 5469500 5468500 5467500

2018 Field Program

In 2018, 20.9 person-days were spent on the Purcell Basin Minerals Inc. claims between June 23, 2018 and July 16, 2018. The program consisted of 20.5 line-km of soil sampling and collecting 248 B-horizon soil samples on two separate grids; 6.5-line kms and 79 samples on the Don claims grid and 14 line kms and 169 samples on the G-Zone grid. All of the soil samples were analyzed for 30 elements by ICP-OES and the silver was analyzed by atomic absorption, at Loring Laboratories Ltd. in Calgary Alberta. The total cost of the program was $23,372.16. (Details of project expenditures can be found in Appendix II).

Sampling Methodology

All soil samples were collected by field technicians of Tanglefoot Forestry Consultants with crews of 2-3 individuals including, Jordan Pelton, Zoe Chore and Jeff Davies. In preparation for the sampling program, the line grid orientation and sampling locations were plotted to field maps and uploaded to GPS units. Line grids were plotted by Tanglefoot's GIS Technician, Keith McElhinney. The field crew conducted soil sampling traverses along specific, pre-determined lines and samples were collected at approximately 100m station intervals utilizing GeoTul's. All soil samples were collected from the B-horizon at approximately 30 cm in depth (a favourable horizon for determining mobile metal ions). Soil samples were collected, tagged and transported and stored securely at the Galloway camp site daily. Sample management (QA/QC) including the shipment of the samples was completed under the direction of Rick Henderson of Pacific Rock Works Ltd. The samples were delivered to Loring Laboratories Ltd in Calgary, Alberta and the samples were characterized using 30 element analysis via 0.5-gram aqua regia digestion and ICP-MS techniques summarized on Loring Laboratories Inc. website http://www.loringlabs.net/inductive_couple_plasma_analysis.html. Refer to Appendix IV for a detailed description of soil sample locations and attribute data.

Don Claims Grid

The purpose of the program conducted on the Don claims grid was to follow up and better delineate the large zinc, lead, copper, silver and manganese soil anomaly that was identified by a 2016 soil sampling program. The 2016 soil samples were collected at 100 m intervals on lines 200 m apart and the 2018 soil samples were collected at 100 m intervals along lines located half way between the wider spaced anomalous 2016 lines, in order that the anomalies would have soil coverage with a density of 100 m by 100 m. A small claim was staked adjacent to the Don Claim (Don1, tenure# 106158) prior to extending the grid area northeast of anomalies identified in 2016.

G-Zone/Cedar Grid

The G-Zone soil sample grid was a new survey conducted with the purpose of exploring for westerly extensions of the high-grade G-Zone silver-lead shear zone mineralization, within a topographically flat area with poor bedrock exposure, below the cliffs where the G-zone occurs. The 2018 soil samples were collected at 100 m intervals along lines spaced 100 m apart.

2018 Field Results

Don Claims Grid Results

The analytical results of the Don Claims grid soil samples confirmed the large zinc-silver–manganese anomaly "Zinc anomaly" identified by the 2016 program and showed that it is a contiguous anomaly and is still open to the east.

This soil anomaly is approximately 1,300 m long by 500 m wide and is defined by 40 samples that contain > 200 ppm zinc (maximum 963 ppm Zn), including 19 samples from the 2018 program; 41 samples that contain > 2ppm silver (maximum 3.77 ppm Ag), including 35 samples from the 2018 program and 32 samples that contain > 1,000 ppm manganese (maximum 6,370 Mn), including 9 samples from the 2018 program.

As well, there are 18 samples within the anomaly that contain > 30 ppm copper (maximum value 101.3 ppm Cu), including 16 samples from the 2018 program that were collected on claims staked in 2018 along the northeastern edge of the grid in an area that had not been sampled in 2016. Within the zinc-silver-manganese +/- copper anomaly, a few samples also contained values up to 102 ppm lead and 29 ppm arsenic.

The anomalous 2016 manganese soil samples extend over 1 km northwest from the zinc anomaly to the Peacock copper mineral occurrence (MINFILE 082GSW017, 1986) and 21 anomalous manganese samples, 11 anomalous zinc samples and several anomalous copper samples occur around the area where the Peacock copper mineral occurrence is shown.

There is also an open zinc anomaly located at the southeastern corner of the grid that consists of six samples containing > 200 ppm zinc and 5 samples containing > 1,000 ppm manganese. Approximately 200 meters to the northwest is a single point anomalous lead-copper sample with a lead value of 112.3 ppm and a copper value of 35.3 ppm.

In 1991, 1992 and 1997, Dighem airborne magnetic and resistivity surveys were flown over all of the claims owned by Purcell Basin Minerals Inc. including the Don claims and in 2017 the data was reinterpreted by Dighem personnel and filed as an assessment report.

The airborne survey data outlined a strong NW-SE elongated magnetic anomaly 2.5 km long by 1.5 km wide on the northern 2/3 of the Don claim that extends for over 2 km further to the NW of the soil sample grid. The Dighem surveys also outlined a strong semi-circular resistivity anomaly ~ 2.5 km in diameter on the northern ¼ of the Don grid that also extends further to the north of the grid.

The 2017 assessment report #37195 completed by Michael McCuaig described the magnetic anomaly (T1 on Block 1286B) as follows:

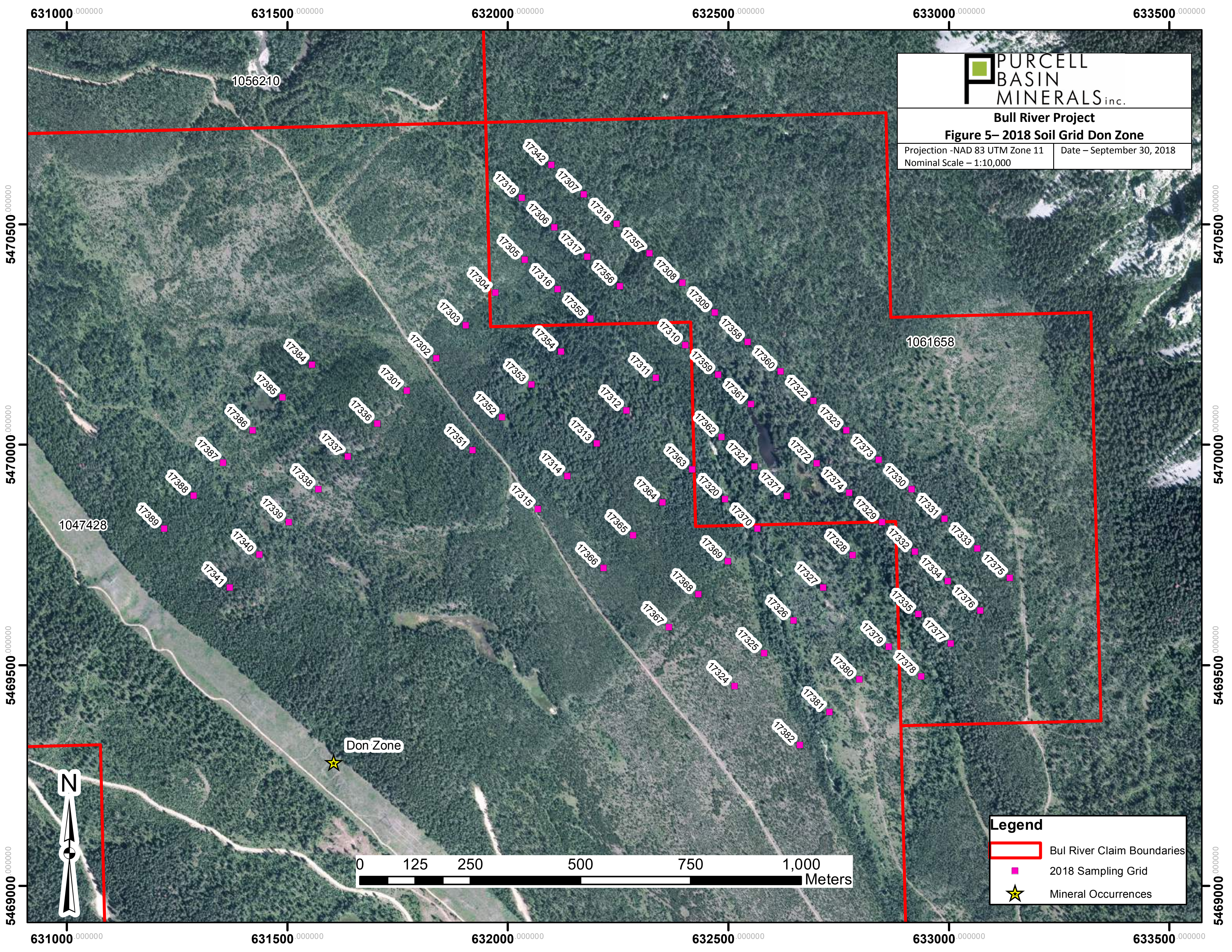
"T1 is the southern extension of response T4 on Block 1286A which is a west striking subtle magnetic high with a number of weak conductor picks within it." (McCuaig, 2018)

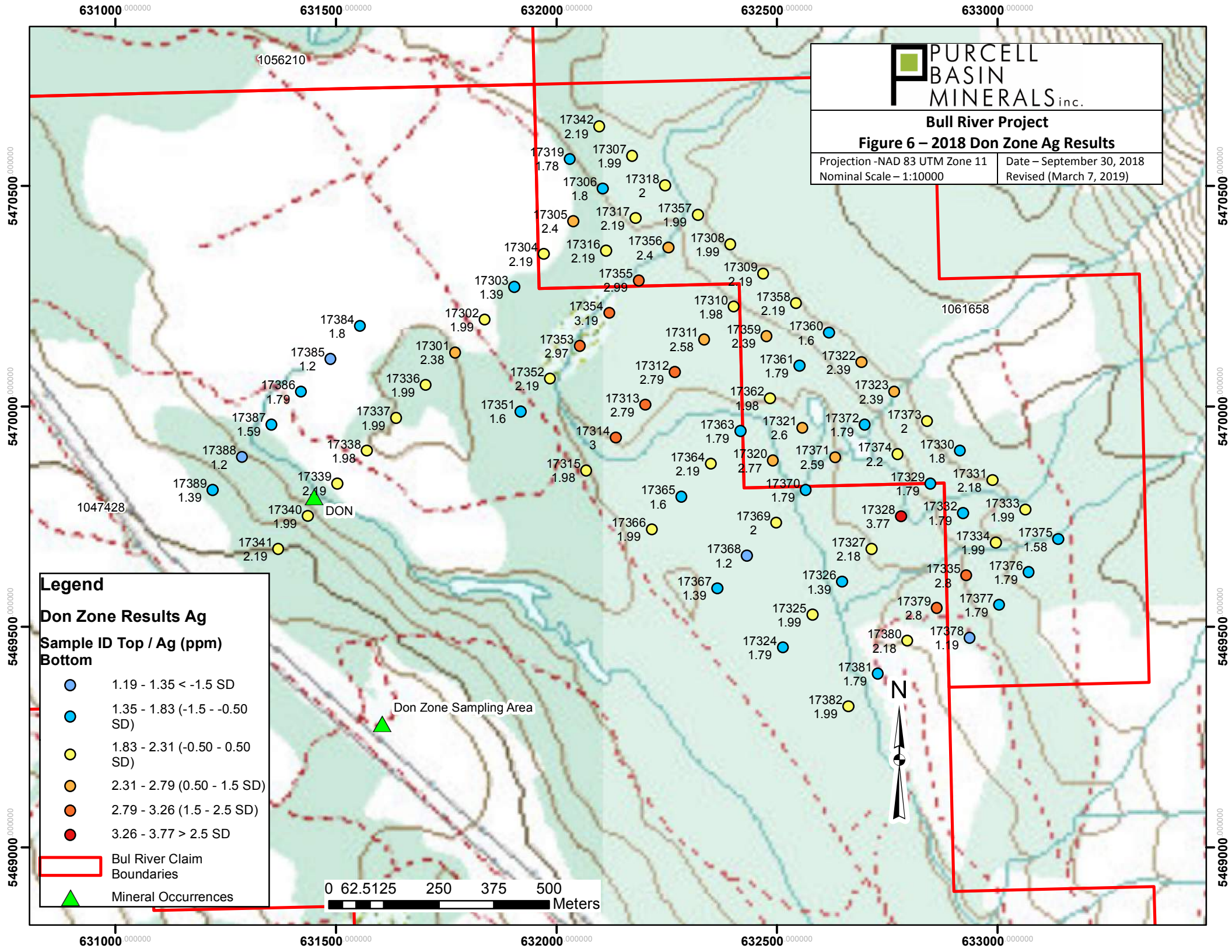
"T1 is a moderately strong magnetic response, in the context of this survey, striking NW. A number of EM picks occur over the magnetic peak, making this an interesting target. The EM anomalies are partially coincident with an Ag-Cu-Pb-Zn soil geochemical anomaly defined during the 2016 field program. The EM

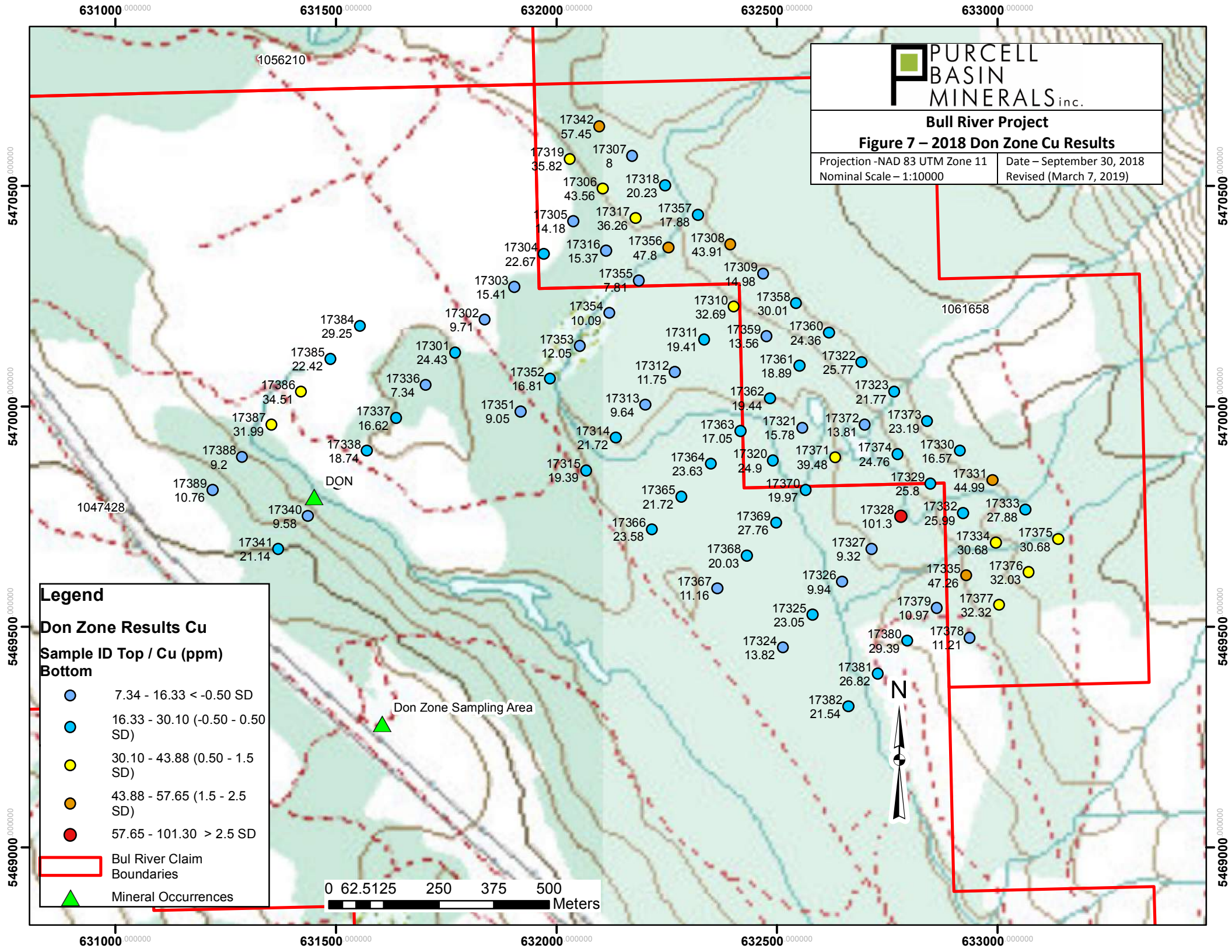
picks and the soil geochemical anomalies which correlate with the magnetic high should be investigated in the field." (McCuaig, 2018)

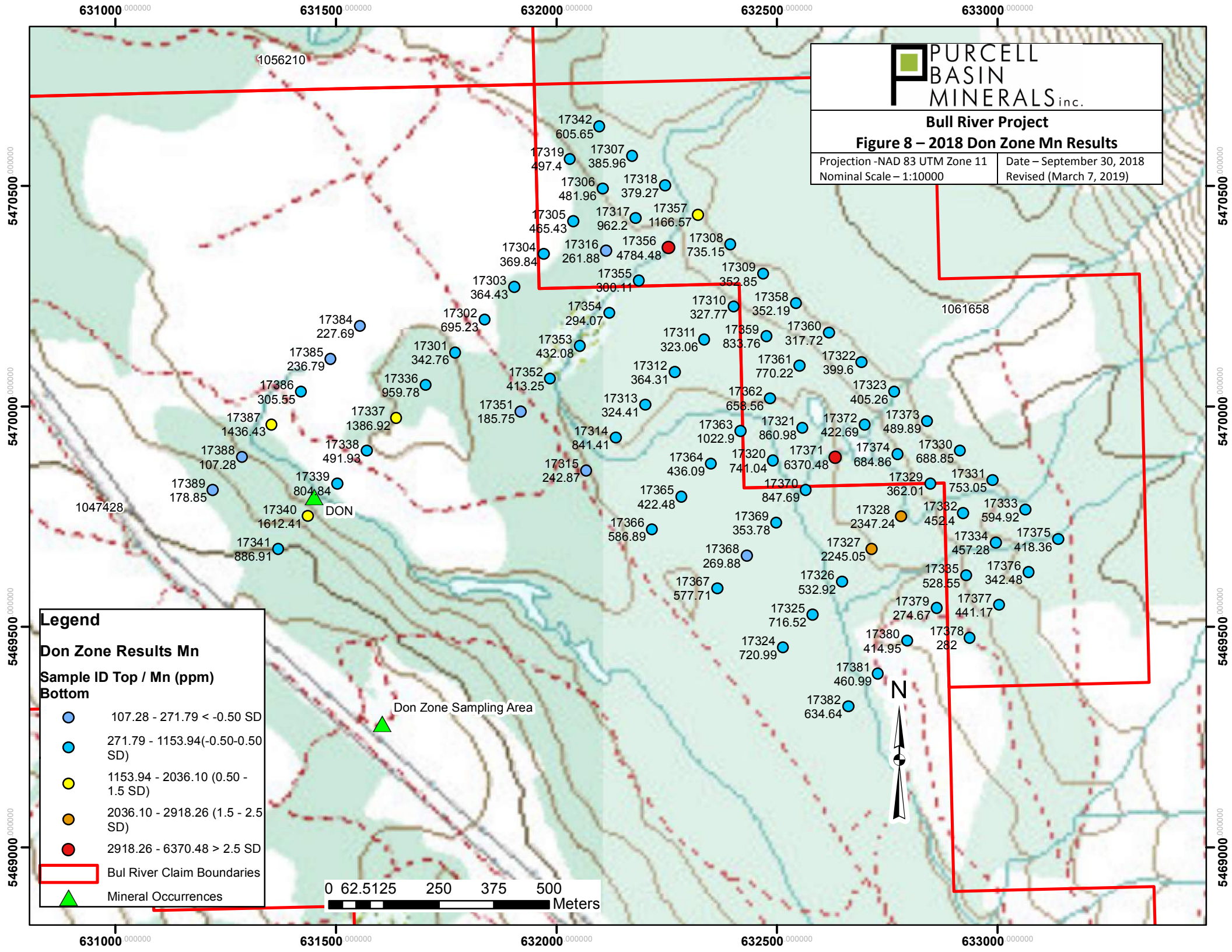
Table 3 – 2018 Soil Sample Statistics for Ag, Cu, Mn, Pb and Zn (Don Zone Area)

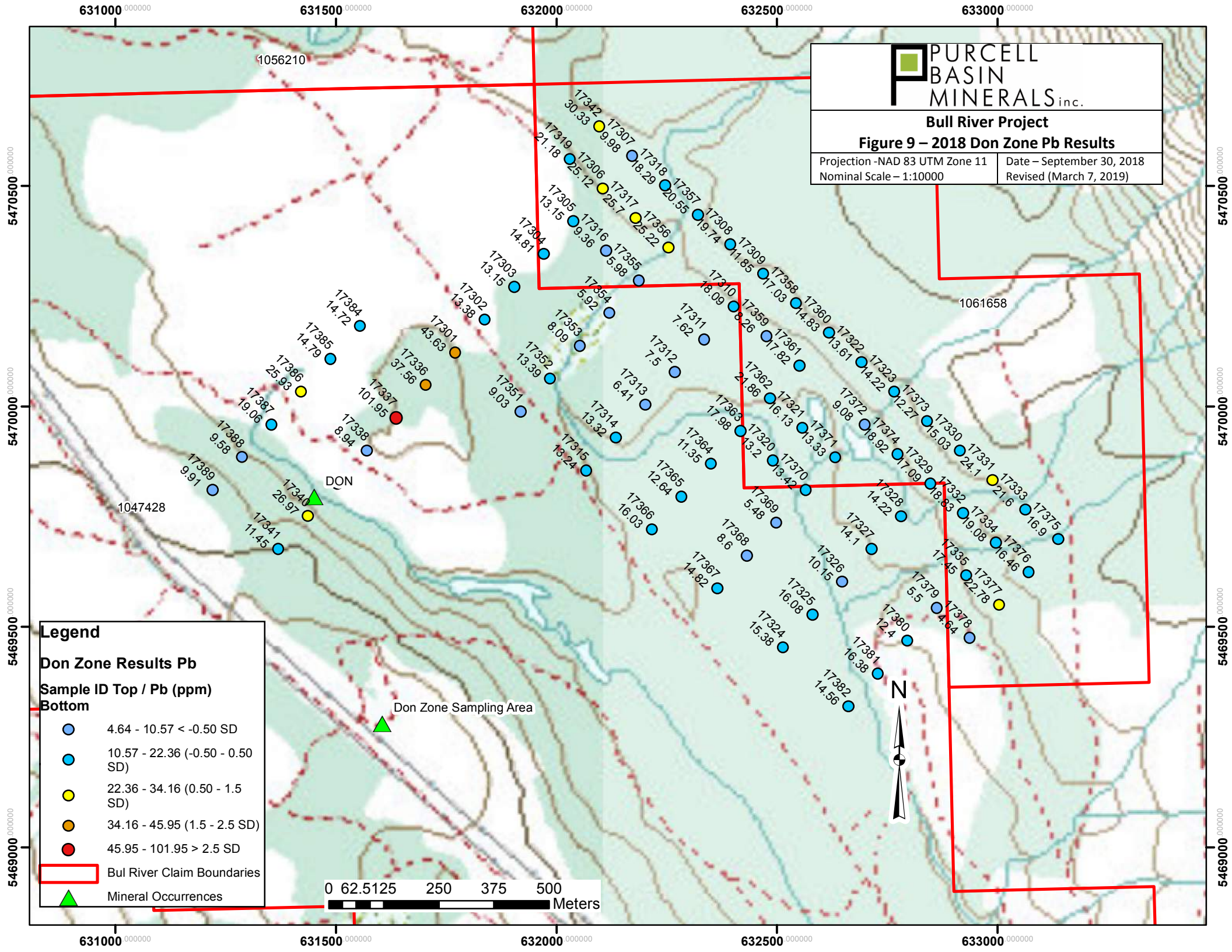
2018 Soil Sample Statistics for Ag, Cu, Mn, PB and Zn (Don Claims)					
	Ag ppm	Cu ppm	Mn ppm	Pb ppm	Zn ppm
Count	79	79	79	79	79
Mean	2.07	23.21	107.28	16.47	182.93
Standard Deviation	0.48	13.77	882.16	11.79	164.22
Minimum	1.19	7.34	107.26	4.64	37.15
Maximum	3.77	101.3	6370.48	101.95	962.89

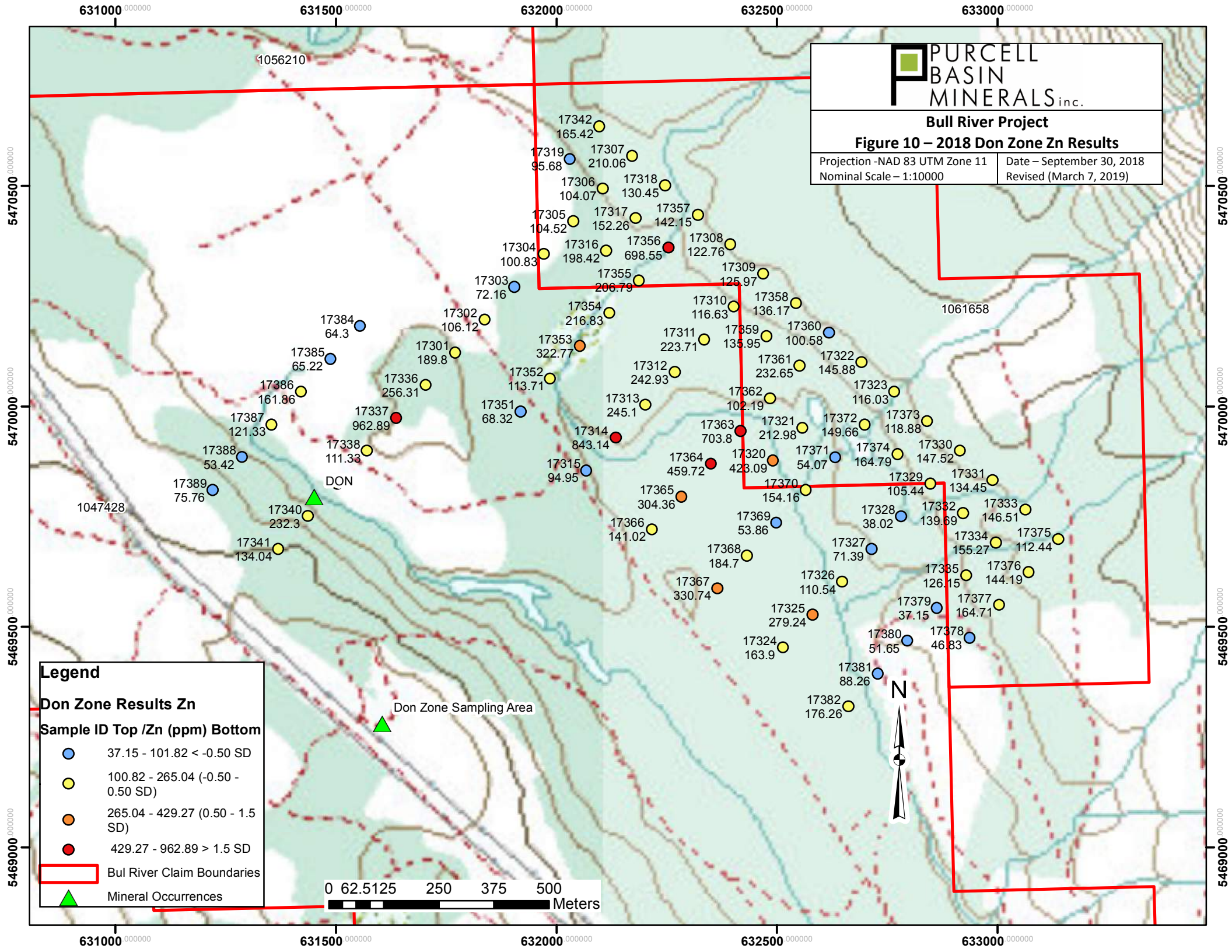

PURCELL BASIN MINERALS inc.
Bull River Project
Figure 5– 2018 Soil Grid Don Zone
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:10,000
Date – September 30, 2018
Legend
Bul River Claim Boundaries
2018 Sampling Grid
Mineral Occurrences
0 125 250 500 750 1,000 Meters
N
Don Zone
1056210
1061658
1047428
631000.000000
631500.000000
632000.000000
632500.000000
633000.000000
633500.000000
5470500.000000
5470000.000000
5469500.000000
5469000.000000
17342
17307
17318
17357
17308
17309
17358
17360
17322
17323
17373
17330
17331
17333
17375
17319
17306
17317
17356
17305
17316
17355
17304
17303
17302
17301
17384
17385
17386
17387
17388
17389
17336
17337
17338
17339
17340
17341
17354
17353
17352
17351
17310
17359
17361
17362
17321
17371
17311
17312
17313
17314
17315
17363
17320
17370
17364
17365
17366
17372
17374
17329
17332
17334
17376
17328
17327
17326
17325
17324
17369
17368
17367
17335
17377
17379
17378
17380
17381
17382


631000
631500
632000
632500
633000
5470500
5470000
5469500
5469000
PURCELL BASIN MINERALS inc.
Bull River Project
Figure 6 – 2018 Don Zone Ag Results
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:10000
Date – September 30, 2018
Revised (March 7, 2019)
1056210
1061658
1047428
DON
Don Zone Sampling Area
17342 2.19
17319 1.78
17307 1.99
17306 1.8
17318 2
17305 2.4
17317 2.19
17357 1.99
17304 2.19
17316 2.19
17356 2.4
17308 1.99
17303 1.39
17355 2.99
17309 2.19
17354 3.19
17310 1.98
17358 2.19
17302 1.99
17384 1.8
17353 2.97
17311 2.58
17359 2.39
17360 1.6
17301 2.38
17385 1.2
17312 2.79
17361 1.79
17322 2.39
17336 1.99
17352 2.19
17386 1.79
17313 2.79
17362 1.98
17323 2.39
17337 1.99
17351 1.6
17387 1.59
17314 3
17363 1.79
17321 2.6
17372 1.79
17373 2
17338 1.98
17388 1.2
17315 1.98
17364 2.19
17320 2.77
17371 2.59
17374 2.2
17330 1.8
17339 2.19
17389 1.39
17365 1.6
17370 1.79
17329 1.79
17331 2.18
17340 1.99
17366 1.99
17369 2
17328 3.77
17382 1.79
17333 1.99
17341 2.19
17368 1.2
17327 2.18
17334 1.99
17375 1.58
17326 1.39
17335 2.8
17376 1.79
17367 1.39
17379 2.8
17377 1.79
17325 1.99
17380 2.18
17378 1.19
17324 1.79
17381 1.79
17382 1.99
N
Legend
Don Zone Results Ag
Sample ID Top / Ag (ppm) Bottom
1.19 - 1.35 < -1.5 SD
1.35 - 1.83 (-1.5 - -0.50 SD)
1.83 - 2.31 (-0.50 - 0.50 SD)
2.31 - 2.79 (0.50 - 1.5 SD)
2.79 - 3.26 (1.5 - 2.5 SD)
3.26 - 3.77 > 2.5 SD
Bul River Claim Boundaries
Mineral Occurrences
0 62.5125 250 375 500
Meters


631000
631500
632000
632500
633000
5470500
5470000
5469500
5469000
PURCELL BASIN MINERALS inc.
Bull River Project
Figure 7 – 2018 Don Zone Cu Results
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:10000
Date – September 30, 2018
Revised (March 7, 2019)
1056210
1061658
1047428
DON
Don Zone Sampling Area
17342 57.45
17319 35.82
17307 8
17306 43.56
17318 20.23
17305 14.18
17317 36.26
17357 17.88
17304 22.67
17316 15.37
17356 47.8
17308 43.91
17303 15.41
17355 7.81
17309 14.98
17310 32.69
17358 30.01
17354 10.09
17302 9.71
17384 29.25
17311 19.41
17359 13.56
17360 24.36
17353 12.05
17385 22.42
17301 24.43
17361 18.89
17322 25.77
17312 11.75
17386 34.51
17336 7.34
17352 16.81
17323 21.77
17313 9.64
17362 19.44
17387 31.99
17337 16.62
17351 9.05
17321 15.78
17372 13.81
17373 23.19
17363 17.05
17314 21.72
17388 9.2
17338 18.74
17320 24.9
17371 39.48
17374 24.76
17330 16.57
17364 23.63
17315 19.39
17389 10.76
17329 25.8
17331 44.99
17370 19.97
17365 21.72
17328 101.3
17332 25.99
17333 27.88
17340 9.58
17369 27.76
17366 23.58
17334 30.68
17375 30.68
17341 21.14
17327 9.32
17368 20.03
17335 47.26
17376 32.03
17326 9.94
17367 11.16
17379 10.97
17377 32.32
17325 23.05
17380 29.39
17378 11.21
17324 13.82
17381 26.82
17382 21.54
N
Legend
Don Zone Results Cu
Sample ID Top / Cu (ppm) Bottom
7.34 - 16.33 < -0.50 SD
16.33 - 30.10 (-0.50 - 0.50 SD)
30.10 - 43.88 (0.50 - 1.5 SD)
43.88 - 57.65 (1.5 - 2.5 SD)
57.65 - 101.30 > 2.5 SD
Bul River Claim Boundaries
Mineral Occurrences
0 62.5125 250 375 500
Meters


PURCELL BASIN MINERALS inc.
Bull River Project
Figure 8 – 2018 Don Zone Mn Results
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:10000
Date – September 30, 2018
Revised (March 7, 2019)
631000
631500
632000
632500
633000
5470500
5470000
5469500
5469000
1056210
1061658
1047428
17342 605.65
17319 497.4
17307 385.96
17306 481.96
17318 379.27
17305 465.43
17317 962.2
17357 1166.57
17304 369.84
17316 261.88
17356 4784.48
17308 735.15
17303 364.43
17355 300.11
17309 352.85
17354 294.07
17310 327.77
17358 352.19
17384 227.69
17302 695.23
17311 323.06
17359 833.76
17360 317.72
17385 236.79
17301 342.76
17353 432.08
17361 770.22
17322 399.6
17386 305.55
17336 959.78
17352 413.25
17312 364.31
17323 405.26
17337 1386.92
17351 185.75
17313 324.41
17362 658.56
17387 1436.43
17321 860.98
17372 422.69
17373 489.89
17338 491.93
17314 841.41
17363 1022.9
17388 107.28
17315 242.87
17364 436.09
17320 741.04
17371 6370.48
17374 684.86
17330 688.85
17339 804.84
17389 178.85
17329 362.01
17331 753.05
17340 1612.41
DON
17370 847.69
17365 422.48
17328 2347.24
17332 452.4
17333 594.92
17366 586.89
17369 353.78
17334 457.28
17375 418.36
17341 886.91
17368 269.88
17327 2245.05
17326 532.92
17335 528.55
17376 342.48
17367 577.71
17379 274.67
17377 441.17
17325 716.52
17380 414.95
17378 282
17324 720.99
17381 460.99
17382 634.64
Don Zone Sampling Area
N
Legend
Don Zone Results Mn
Sample ID Top / Mn (ppm) Bottom
107.28 - 271.79 < -0.50 SD
271.79 - 1153.94(-0.50-0.50 SD)
1153.94 - 2036.10 (0.50 - 1.5 SD)
2036.10 - 2918.26 (1.5 - 2.5 SD)
2918.26 - 6370.48 > 2.5 SD
Bul River Claim Boundaries
Mineral Occurrences
0 62.5125 250 375 500
Meters


631000
631500
632000
632500
633000
5470500
5470000
5469500
5469000
PURCELL BASIN MINERALS inc.
Bull River Project
Figure 9 – 2018 Don Zone Pb Results
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:10000
Date – September 30, 2018
Revised (March 7, 2019)
1056210
1061658
1047428
DON
Don Zone Sampling Area
17342 30.33
17307 9.98
17319 21.18
17306 25.12
17318 18.29
17317 25.7
17357 20.55
17356 25.22
17308 19.74
17305 13.15
17316 9.36
17309 11.85
17304 14.81
17355 5.98
17358 17.03
17303 13.15
17310 18.09
17360 14.83
17354 5.92
17359 8.26
17322 13.61
17302 13.38
17311 7.62
17361 17.82
17384 14.72
17353 8.09
17323 14.22
17301 43.63
17312 7.5
17373 12.27
17385 14.79
17352 13.39
17362 21.86
17330 15.03
17336 37.56
17313 6.41
17321 16.13
17386 25.93
17351 9.03
17372 9.08
17331 24.1
17337 101.95
17363 17.98
17371 13.33
17387 19.06
17314 13.32
17374 18.92
17333 21.6
17338 8.94
17320 13.2
17329 17.09
17375 16.9
17388 9.58
17364 11.35
17315 13.24
17370 13.42
17332 18.83
17389 9.91
17365 12.64
17328 14.22
17334 19.08
17340 26.97
17369 5.48
17376 16.46
17366 16.03
17327 14.1
17341 11.45
17368 8.6
17335 17.45
17377 22.78
17326 10.15
17367 14.82
17379 5.5
17325 16.08
17378 4.64
17380 12.4
17324 15.38
17381 16.38
17382 14.56
N
0 62.5125 250 375 500
Meters
Legend
Don Zone Results Pb
Sample ID Top / Pb (ppm) Bottom
4.64 - 10.57 < -0.50 SD
10.57 - 22.36 (-0.50 - 0.50 SD)
22.36 - 34.16 (0.50 - 1.5 SD)
34.16 - 45.95 (1.5 - 2.5 SD)
45.95 - 101.95 > 2.5 SD
Bul River Claim Boundaries
Mineral Occurrences


631000
631500
632000
632500
633000
5470500
5470000
5469500
5469000
PURCELL BASIN MINERALS inc.
Bull River Project
Figure 10 – 2018 Don Zone Zn Results
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:10000
Date – September 30, 2018
Revised (March 7, 2019)
1056210
1061658
1047428
DON
Don Zone Sampling Area
17342 165.42
17319 95.68
17307 210.06
17306 104.07
17318 130.45
17305 104.52
17317 152.26
17357 142.15
17304 100.83
17316 198.42
17356 698.55
17308 122.76
17303 72.16
17355 206.79
17309 125.97
17310 116.63
17358 136.17
17354 216.83
17302 106.12
17384 64.3
17311 223.71
17359 135.95
17360 100.58
17353 322.77
17301 189.8
17385 65.22
17361 232.65
17322 145.88
17312 242.93
17352 113.71
17336 256.31
17386 161.86
17323 116.03
17313 245.1
17362 102.19
17351 68.32
17337 962.89
17387 121.33
17321 212.98
17372 149.66
17373 118.88
17363 703.8
17314 843.14
17338 111.33
17388 53.42
17330 147.52
17374 164.79
17371 54.07
17320 423.09
17364 459.72
17315 94.95
17331 134.45
17329 105.44
17389 75.76
17370 154.16
17365 304.36
17328 38.02
17332 139.69
17333 146.51
17340 232.3
17369 53.86
17366 141.02
17334 155.27
17375 112.44
17327 71.39
17341 134.04
17368 184.7
17335 126.15
17376 144.19
17326 110.54
17367 330.74
17379 37.15
17377 164.71
17325 279.24
17380 51.65
17378 46.83
17324 163.9
17381 88.26
17382 176.26
N
Legend
Don Zone Results Zn
Sample ID Top /Zn (ppm) Bottom
37.15 - 101.82 < -0.50 SD
100.82 - 265.04 (-0.50 - 0.50 SD)
265.04 - 429.27 (0.50 - 1.5 SD)
429.27 - 962.89 > 1.5 SD
Bul River Claim Boundaries
Mineral Occurrences
0 62.5125 250 375 500
Meters

G-Zone/Cedar Grid Results

The analytical results from the G-Zone grid soil samples showed that 32 samples contained > 30 ppm copper (maximum value 86.45 ppm Cu), 8 samples contained > 200 ppm zinc (maximum value 415.38 ppm Zn), 12 samples contained > 30ppm lead (maximum value 67.91 ppm Pb), 12 samples contained >2ppm silver (maximum value 4.96 ppm Ag) and 3 samples that contained >1,000 ppm manganese (maximum value 1,421 ppm Mn), and the maximum arsenic value was 23 ppm As.

The largest soil anomaly identified by the analytical results is a copper anomaly that has 14 samples that contain >30ppm copper with a maximum value of 86 ppm copper. The anomaly is continuous along both of the easternmost 2 soil lines over a length of 900 meters and is open to both the southeast and southwest.

This anomaly also contains 6 samples that are > 200 ppm zinc, 7 samples that are >30 ppm lead, 12 samples that are > 2ppm silver and 3 samples that are > 1,000 ppm manganese.

A MINFILE occurrence named the “Pit” is situated ~ 400 meters east of the copper soil anomaly and is described as “Disseminated chalcopyrite, pyrite and pyrrhotite occur in near vertical quartz-siderite veinlets that are hosted by black argillites and dark grey quarzites of the Helikian Aldridge formation”. (MINFILE: 082GSW046, 1986)

In 1976 Stanfield Mining ltd. drilled 2 diamond drill holes at the Pit zone but the results of the drilling are not known.

A smaller lead-zinc-silver anomaly that has 6 samples >200 ppm zinc, 5 samples > 30 ppm lead, 2 samples > 2 ppm silver and 5 samples > 30 ppm copper occurs below the G-Zone. It is possible these anomalous values are due to talus and the dump at the G-Zone, but they could also be related to a new zone of mineralization.

A third small anomaly with 4 samples > 30 ppm copper and 1 sample > 2 ppm silver occurs at the extreme northwest end of the grid below the lower G-Zone adit and is open to the northwest.

The Dighem surveys flown in 1991, 1992 and 1997 also covered the area where the G-Zone and G-Zone grid are located. The data from these surveys was also reinterpreted in 2017 which resulted in the identification of a magnetic anomaly approximately 2 km across that lies about 1 km west of the G-Zone and slightly northwest of the G-Zone grid.

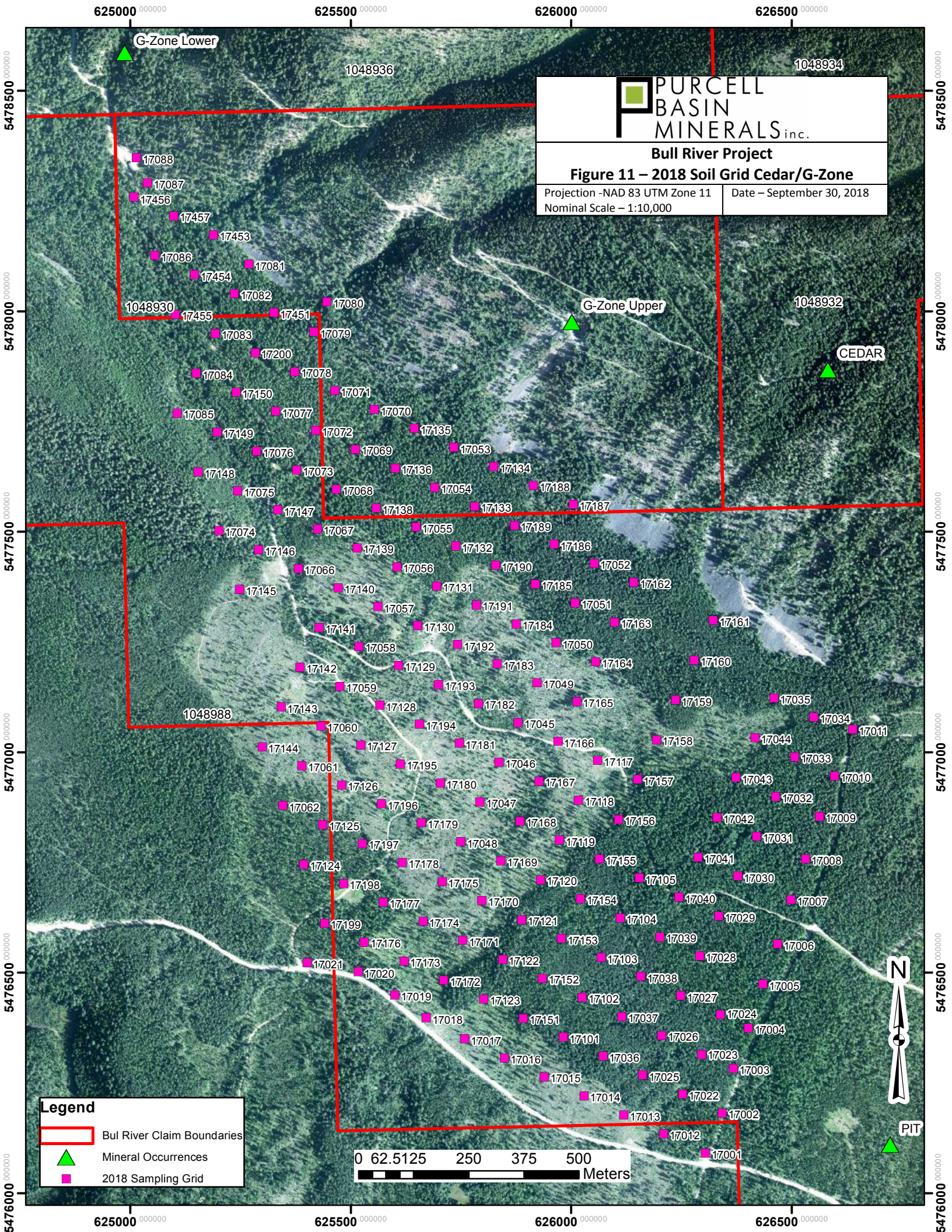
This magnetic anomaly (T1 on Block 1286A) was described in the 2017 assessment report #37195 by McCuaig (2018) as follows:

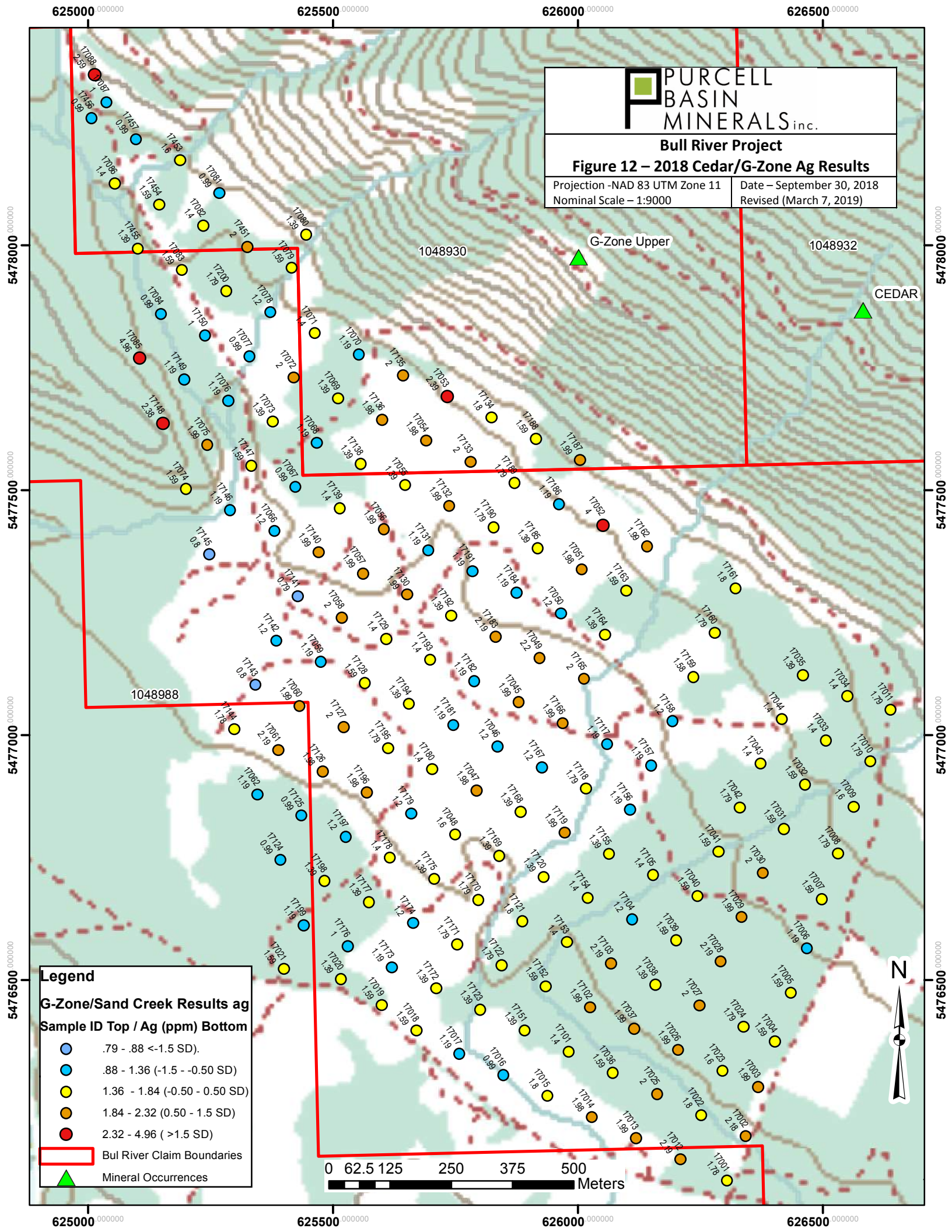
“T1 is an extremely subtle NW trending broad magnetic high with the characteristic of hosting a number of B and D type conductors trending the same, which could potentially reflect a stronger mineralized zone. The proximity of target T1 to the G-Zone mineral occurrence may be significant. The trend of T1 is orthogonal to the strike of the shear zone which hosts the G-Zone but may be indicative of mineralization within a conjugate set of structures.”

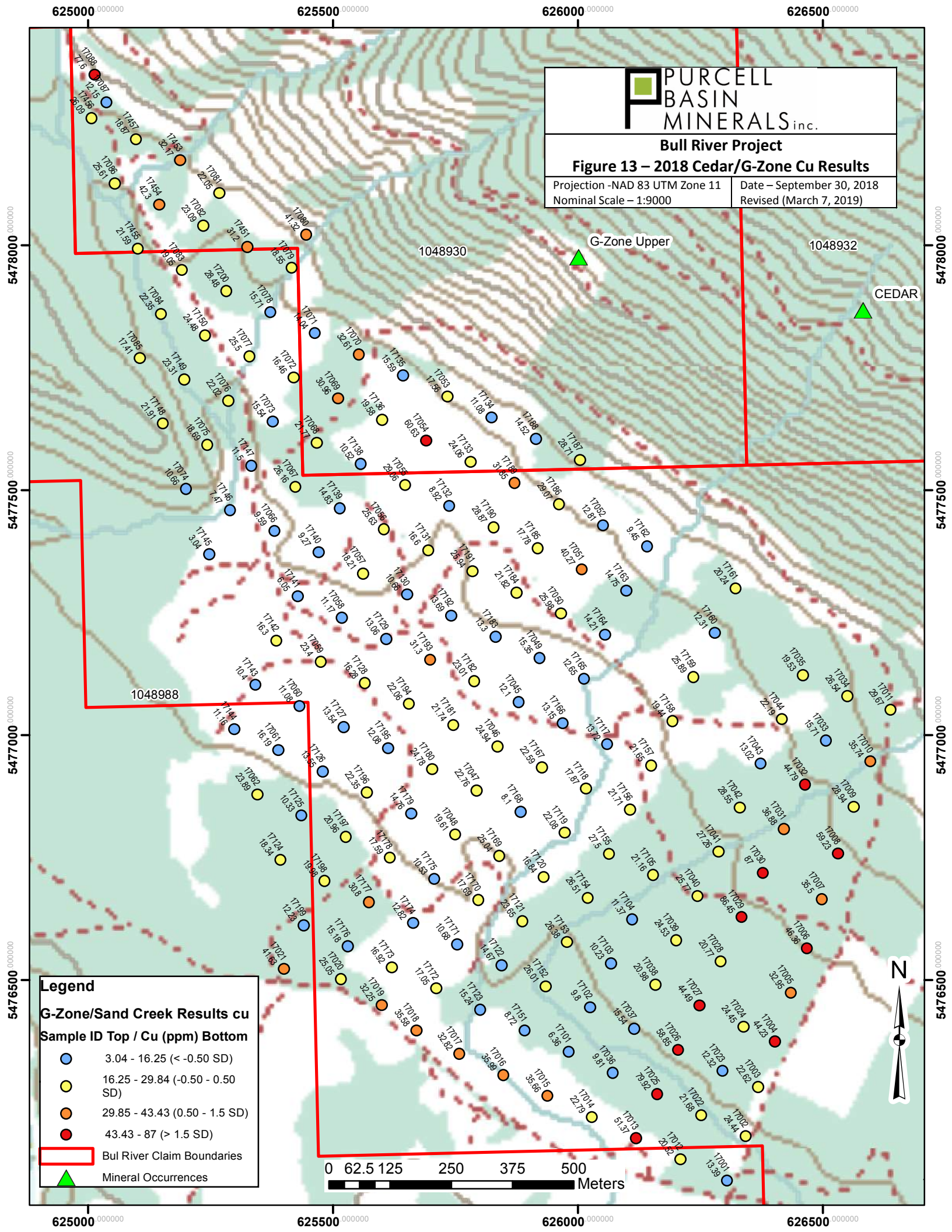
‘The T1 target and the G-Zone mineral occurrence appear to form an intersection of NE and NW magnetic and EM anomaly trends. As structural intersections are favorable sites for localization of mineralization, the T1/G-Zone target is considered high priority for follow-up exploration.”

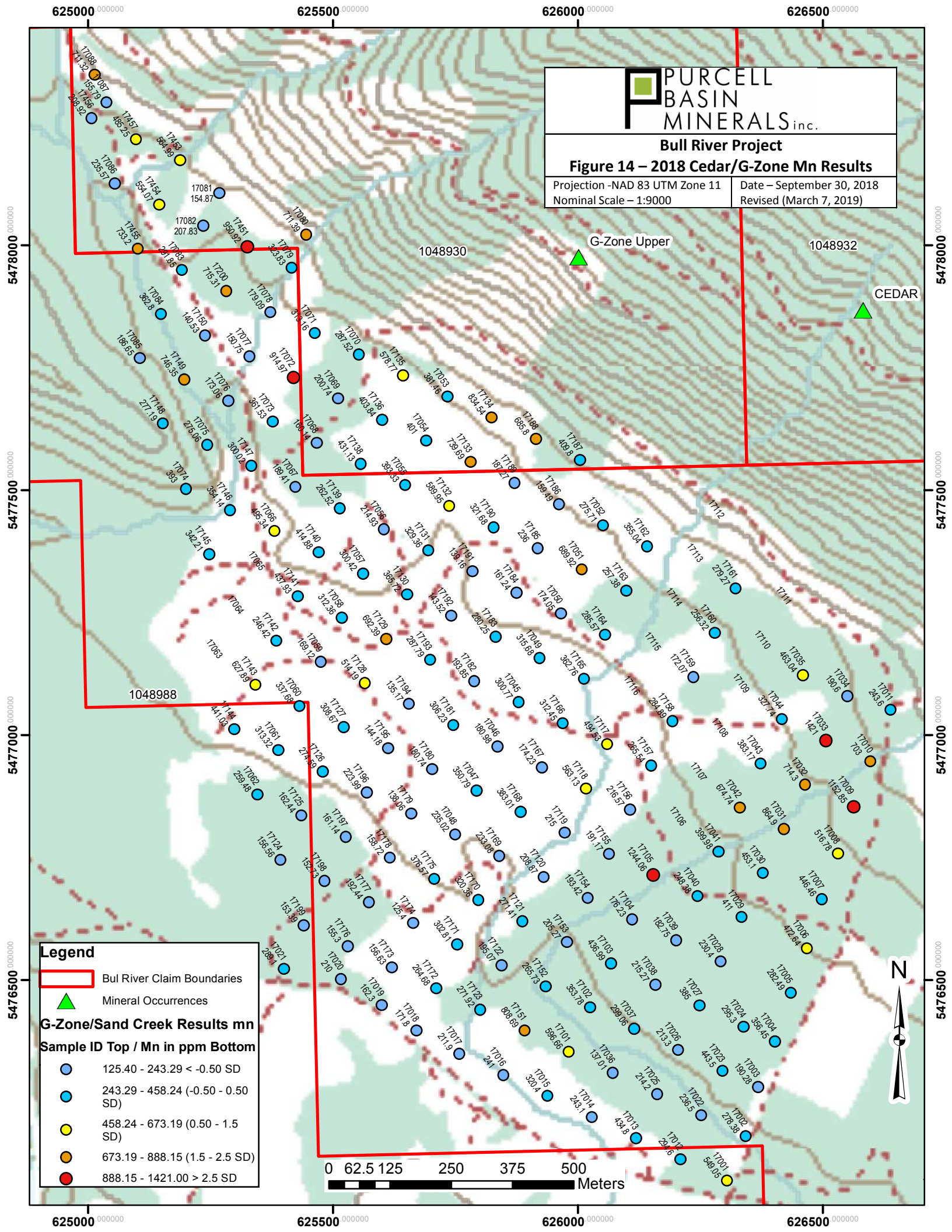
Table 4 – 2018 Soil Sample Statistics for Ag, Cu, Mn, Pb and Zn (G-Zone Cedar Area)

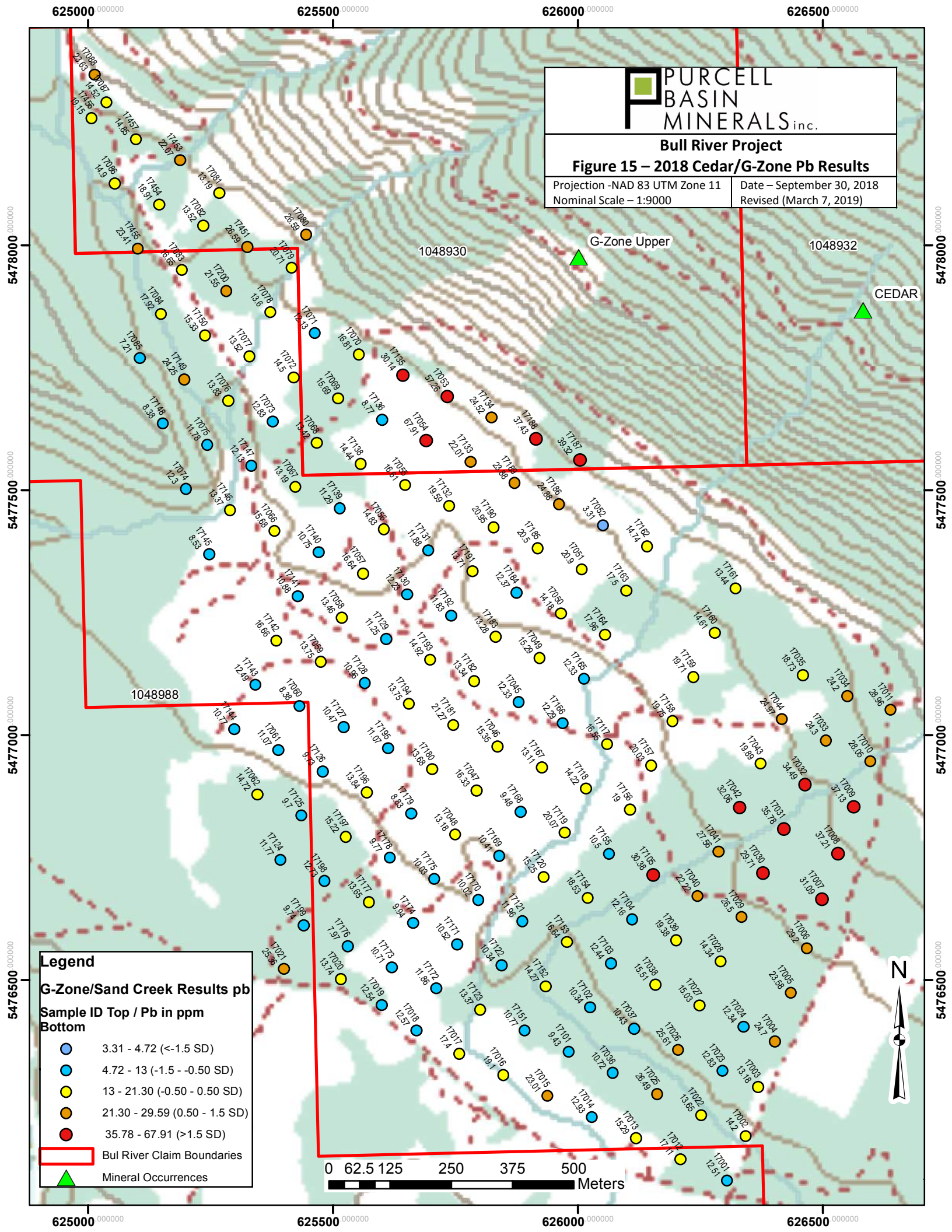
2018 Soil Sample Statistics for Ag, Cu, Mn, PB and Zn (G-Zone/Cedar)					
	Ag ppm	Cu ppm	Mn ppm	Pb ppm	Zn ppm
Count	179	179	179	179	179
Mean	1.6	23.05	350.77	17.15	95.62
Standard Deviation	0.48	13.59	214.95	8.29	55.28
Minimum	0.79	3.04	125.4	3.31	18.03
Maximum	4.96	87	1421	67.91	415.39

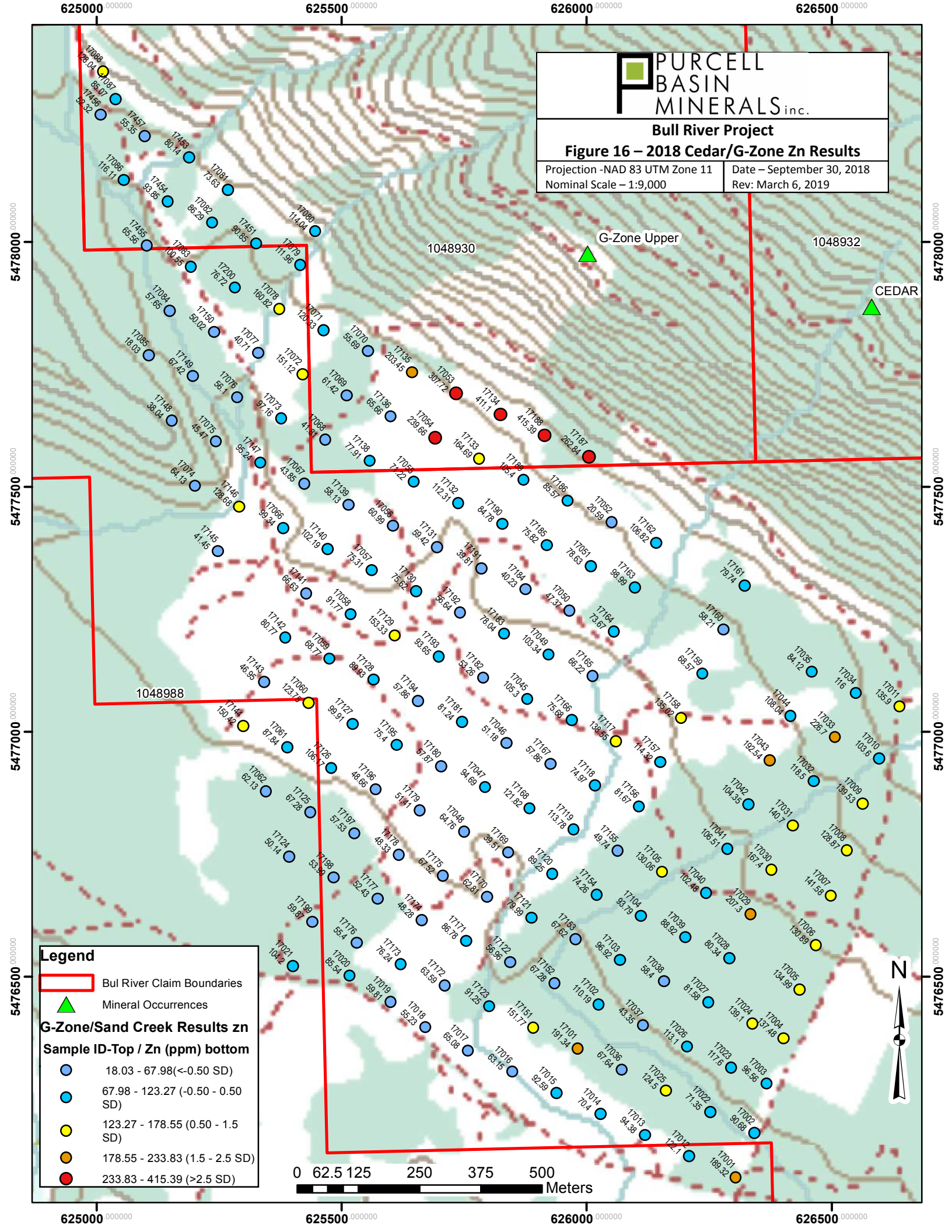

625000
625500
626000
626500
5478500
5478000
5477500
5477000
5476500
5476000
G-Zone Lower
G-Zone Upper
CEDAR
PIT
1048936
1048934
1048930
1048932
1048988
PURCELL BASIN MINERALS inc.
Bull River Project
Figure 11 – 2018 Soil Grid Cedar/G-Zone
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:10,000
Date – September 30, 2018
Legend
Bul River Claim Boundaries
Mineral Occurrences
2018 Sampling Grid
0 62.5125 250 375 500
Meters
N


PURCELL BASIN MINERALS inc.
Bull River Project
Figure 12 – 2018 Cedar/G-Zone Ag Results
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:9000
Date – September 30, 2018
Revised (March 7, 2019)
G-Zone Upper
CEDAR
1048930
1048932
1048988
Legend
G-Zone/Sand Creek Results ag
Sample ID Top / Ag (ppm) Bottom
.79 - .88 <-1.5 SD).
.88 - 1.36 (-1.5 - -0.50 SD)
1.36 - 1.84 (-0.50 - 0.50 SD)
1.84 - 2.32 (0.50 - 1.5 SD)
2.32 - 4.96 (>1.5 SD)
Bul River Claim Boundaries
Mineral Occurrences
0 62.5 125 250 375 500
Meters
N
625000
625500
626000
626500
5478000
5477500
5477000
5476500


PURCELL BASIN MINERALS inc.
Bull River Project
Figure 13 – 2018 Cedar/G-Zone Cu Results
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:9000
Date – September 30, 2018
Revised (March 7, 2019)
G-Zone Upper
CEDAR
1048930
1048932
1048988
Legend
G-Zone/Sand Creek Results cu
Sample ID Top / Cu (ppm) Bottom
3.04 - 16.25 (< -0.50 SD)
16.25 - 29.84 (-0.50 - 0.50 SD)
29.85 - 43.43 (0.50 - 1.5 SD)
43.43 - 87 (> 1.5 SD)
Bul River Claim Boundaries
Mineral Occurrences
0 62.5 125 250 375 500
Meters
N
625000
625500
626000
626500
5478000
5477500
5477000
5476500


PURCELL BASIN MINERALS inc.
Bull River Project
Figure 14 – 2018 Cedar/G-Zone Mn Results
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:9000
Date – September 30, 2018
Revised (March 7, 2019)
G-Zone Upper
CEDAR
1048930
1048932
1048988
Legend
Bul River Claim Boundaries
Mineral Occurrences
G-Zone/Sand Creek Results mn
Sample ID Top / Mn in ppm Bottom
125.40 - 243.29 < -0.50 SD
243.29 - 458.24 (-0.50 - 0.50 SD)
458.24 - 673.19 (0.50 - 1.5 SD)
673.19 - 888.15 (1.5 - 2.5 SD)
888.15 - 1421.00 > 2.5 SD
0 62.5 125 250 375 500
Meters
N
625000
625500
626000
626500
5478000
5477500
5477000
5476500


PURCELL BASIN MINERALS inc.
Bull River Project
Figure 15 – 2018 Cedar/G-Zone Pb Results
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:9000
Date – September 30, 2018
Revised (March 7, 2019)
G-Zone Upper
CEDAR
1048930
1048932
1048988
Legend
G-Zone/Sand Creek Results pb
Sample ID Top / Pb in ppm Bottom
3.31 - 4.72 (<-1.5 SD)
4.72 - 13 (-1.5 - -0.50 SD)
13 - 21.30 (-0.50 - 0.50 SD)
21.30 - 29.59 (0.50 - 1.5 SD)
35.78 - 67.91 (>1.5 SD)
Bul River Claim Boundaries
Mineral Occurrences
0 62.5 125 250 375 500
Meters
N
625000
625500
626000
626500
5478000
5477500
5477000
5476500


PURCELL BASIN MINERALS inc.
Bull River Project
Figure 16 – 2018 Cedar/G-Zone Zn Results
Projection -NAD 83 UTM Zone 11
Nominal Scale – 1:9,000
Date – September 30, 2018
Rev: March 6, 2019
625000
625500
626000
626500
5478000
5477500
5477000
5476500
1048930
1048932
1048988
G-Zone Upper
CEDAR
Legend
Bul River Claim Boundaries
Mineral Occurrences
G-Zone/Sand Creek Results zn
Sample ID-Top / Zn (ppm) bottom
18.03 - 67.98(<-0.50 SD)
67.98 - 123.27 (-0.50 - 0.50 SD)
123.27 - 178.55 (0.50 - 1.5 SD)
178.55 - 233.83 (1.5 - 2.5 SD)
233.83 - 415.39 (>2.5 SD)
0 62.5 125 250 375 500
Meters
N

Recommendations

Don Zone Grid Area Recommendations

Priority should be given to prospecting the soil anomalous areas, particularly the large zinc-silver-manganese-copper anomaly, as it is imperative at this stage of the exploration program to locate zinc mineralization in bedrock before committing to all of the following recommendations.

The first place to start prospecting is at 2018 soil sample station #17337 that contained 102 ppm lead, 963 ppm zinc, 1,387 ppm manganese, 13 ppm arsenic and 2.0 ppm silver. A second place to start prospecting is at soil sample station # 17356 that contained 25 ppm lead, 699 ppm zinc, 4,784 ppm manganese, 48 ppm copper, 2.4 ppm silver and 998 ppm barium.

While conducting the prospecting program, the bedrock geology underlying the anomaly also needs to be identified as to whether it is composed of Aldridge formation argillites or Devonian-Cambrian limestones and dolostones. The descriptions of these Devonian-Cambrian formations are in the Don claims geology section of this report and it would be very important to find any fossil bearing rocks as they would provide a marker unit from which the entire stratigraphic sequence could be constructed.

The Peacock showing needs to be located and its' potential to be part of a significant zone of mineralization needs to be evaluated. If the showing is deemed significant then infill soil lines need to be sampled around it at 25-meter intervals.

A ground magnetic survey should be conducted over the northern part of the Don claims where the airborne magnetic anomaly occurs to better refine the anomaly.

An EM/VLF survey should also be conducted over the area of the property where the magnetic anomaly occurs to explore for conductive mineralized zones and the location of the Hosmer thrust fault.

The two highest magnetic portions of the magnetic anomaly that occur at its' southeast end should be examined in the field to search for intrusive rocks, sulfide mineralization and/or magnetite that could be the cause of the anomaly. The easternmost high lobe of the magnetic anomaly occurs on 2016 sample lines PBL011 from sample stations 11+00E to !6+00E and PBL010 from sample stations 01+00W to 06+00W. As well, the magnetic high occurs on the 2018 sample line that is between the two 2016 lines from samples 17363 to 17366 and several of both these 2016 and 2018 samples are anomalous in zinc.

The southernmost high lobe of the magnetic anomaly occurs on the western ends of 2016 sample lines PBLPBL010 from sample stations 12+00W to 13+00W and PBL011 from sample stations 00+00E to 05+00E and extends off the soil grid. There are no anomalous soil values in this area.

The northern and western parts of the property should be geologically examined/mapped in order to better locate the position of the Hosmer thrust fault and the southern extent of the prospective Aldridge formation.

Backhoe/cat trenching should be conducted to expose any mineral showings that might be discovered in association of the soil anomalies, particularly the zinc anomaly.

G-zone/Cedar Grid Area Recommendations

There is a second, older adit ~ 300 meters north of the G-Zone adit that was driven into the mountain at a slightly lower elevation, and likely was exploring a separate mineralized zone from the G-Zone which should be located and examined.

An EM/VLF survey should be conducted over the structure that hosts the G-Zone mineralization.

The soil sample grid only covered southeastern corner of the Dighem magnetic anomaly and the grid should be extended for approximately 2 km to the west and northwest in order to cover the entire anomaly.

As well the soil sample grid should be extended to the southwest for 300 meters and to the southeast as far as to the Pit zone, as the copper +/- zinc-lead-silver-manganese soil anomaly occurs on the mainly on the easternmost two soil lines and is open both southeast and southwest.

A ground magnetic survey should be conducted over the Dighem anomaly in order to better refine it.

In 1999 and 2000, ground magnetic and resistivity surveys, that are in a Purcell Basin Minerals Inc. file named Camp Geophysics, were conducted by a Purcell Basin predecessor company over the area immediately south of the G-Zone soil grid and extended southward for 6.5 km. The ground geophysical coverage should have included the Pit zone and the Ross zone that lies ~ 1 km south of the Pit zone and this data should be reviewed and plotted on a Purcell Basin property map as well as on the Dighem magnetic map.

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Appendix I - Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Christopher W. Graf hereby certify that:

I am currently employed as a consulting Geologist with a business address:

6242 Cartwright Street, Wardner, B.C., V0B 2J0.

I graduated with a Bachelor of Applied Science degree in Geological Engineering from the University of British Columbia in 1974.

I have worked as a Geological Engineer for over 40 years since my graduation.

I am currently a member in good standing with APEGBC, Registration Number 12,222.

I have no interest in Purcell Basin Minerals Inc. nor in the Bull River Mine Property.

I have authored the report titled "Technical Report for the Bull River Mine Property" dated October 4, 2018 using data provided by Purcell Basin Minerals Inc.

Dated this 4th day of October, 2018 in Wardner, British Columbia.

Christopher W. Graf

Christopher W. Graf

Appendix II - Statement of Expenses

Don and Cedar/G-Zone Expense Sheet (Field Work Program June 23, 2018 to July 16, 2018)					
Geochemistry/Prospecting/Field Work					
Field Personnel			**Days**	**Day Rate**	**Subtotal**
Chris Graf, P.Eng	P. Eng		2.5	$600.00	$1,500.00
Rick Henderson (Pacific Rock Works)	Manager		3	$550.00	$1,650.00
Tanglefoot Consulting Employees (G-Zone/Don Grid)	Jordan Pelton, Zoe Chore, Jeff Davies		6.6	$750.00	$4,950.00
Tanglefoot Consulting Employees (Additional Don Grid)	Jordan Pelton, Zoe Chore, Jeff Davies		1.1	$750.00	$825.00
Office Studies			**Hours/Days**	**Rate**	**Subtotal**
Project Management	Rick Henderson (Pacific Rock Works)	Day Rate	3	$550.00	$1,650.00
Tenure Management /Program Support	Tim Hewison (Purcell Basin Minerals)	Hourly	32	$25.00	$800.00
Tenure Management /Program Support/Data Compiliation	Tim Hewison (Purcell Basin Minerals)	Hourly	40	$25.00	$1,000.00
GIS Mapping/Plotting (G-Zone/Don Zone Grids)	Tanglefoot (Keith McElhinney)	Hourly	6	$50.00	$300.00
GIS Mapping/Plotting (Additional Don Grid)	Tanglefoot (Keith McElhinney)	Hourly	3	$50.00	$150.00
Data Analysis, management and report preparation	Chris Graf P.Eng (Day Rate)	Day Rate	5	$600.00	$3,000.00
Geochemical Surveying			**# of Samples**	**Rate**	**Subtotal**
Soil Samples - ICP Analysis 30 Element	Loring Laboratories		263	$19.10	$5,023.30
Transportation					
Side-by-Side Rental			3	$200.00	$600.00
Tanglefoot Pickup Trucks			6	$60.00	$360.00
Tanglefoot Pickup Trucks 2nd Recording			1	$60.00	$60.00
Tanglefoot (per km rate)			660	$0.60	$396.00
Tanglefoot (per km rate) 2nd Recording			110	$0.60	$66.00
Truck Fuel Expenses (Pacific Rock Works)					$200.00
Geological and Geochemical					
Map Plotting Supplies					$239.96
Sampling Bags					$51.90
Shipping Geological Samples					$550.00
Total Program Expenditures (Don Zone, G-Zone/Cedar)					**$23,372.16**

Appendix III - Geochemical Protocol

3.1 Shipping, Handling and Sampling Protocol

All of the 2018 samples were collected by Tanglefoot Forestry Consultants Ltd. employees. The sampling process was continually monitored for quality assurance and quality control. Soil samples were the only type of sample collected during the survey. At the end of each working day, samples and tag-books were stored securely at Purcell Basin Mineral's Galloway camp site. Samples were organized and transported by Pacific Rock Works from the camp site location directly to Loring Laboratories Limited, Calgary, Alberta.

3.2 Sample Preparation and Analytic Procedures

No additional preparation was completed on the samples prior to shipment to Loring Laboratories for analysis.

Analysis procedures utilized for the processing and characterization of the 2018 soil samples is provided from Loring Laboratories in Calgary, Alberta at their website. (http://www.loringlabs.net/inductive_couple_plasma_analysis.html).

3.3 Software

The software listed below was used in the field and the writing of this report.

- ArcGIS 10.4
- Microsoft Office 2010
- Nitro Pro 11 PDF

Appendix IV - Sample Location Data

Don Zone Area (Sampling Location Data)								
SampleID	**Shape_ID**	**Stripline**	**Plot No.**	**Easting**	**Northing**	**Sample Depth (cm)**	**Soil Horizon**	**Description**
17301	PLOT POINT	13.5	7	631770.9117	5470121.8698	30	B	
17302	PLOT POINT	13.5	6	631837.8248	5470196.1843	30	B	
17303	PLOT POINT	13.5	5	631904.7378	5470270.4988	30	B	
17304	PLOT POINT	13.5	4	631971.6509	5470344.8132	30	B	
17305	PLOT POINT	13.5	3	632038.5640	5470419.1277	30	B	
17306	PLOT POINT	13.5	2	632105.4770	5470493.4422	30	B	
17307	PLOT POINT	13.5	1	632172.3901	5470567.7567	30	B	Start of Line
17308	PLOT POINT	12	1	632395.3335	5470367.0175	30	B	Sample Point
17309	PLOT POINT	11.5	1	632469.6480	5470300.1044	30	B	Start of Line
17310	PLOT POINT	11.5	2	632402.7350	5470225.7900	30	B	
17311	PLOT POINT	11.5	3	632335.8219	5470151.4755	30	B	
17312	PLOT POINT	11.5	4	632268.9088	5470077.1610	30	B	
17313	PLOT POINT	11.5	5	632201.9958	5470002.8465	30	B	
17314	PLOT POINT	11.5	6	632135.0827	5469928.5320	30	B	
17315	PLOT POINT	11.5	7	632068.1697	5469854.2176	30	B	End of Line
17316	PLOT POINT	13	3	632112.8785	5470352.2147	30	B	End of Line
17317	PLOT POINT	13	2	632179.7915	5470426.5291	30	B	
17318	PLOT POINT	13	1	632246.7046	5470500.8436	30	B	Start of Line
17319	PLOT POINT	14	2	632031.1625	5470560.3553	30	B	End of Line
17320	PLOT POINT	10	4	632491.8523	5469876.4218	30	B	End of Line
17321	PLOT POINT	10	3	632558.7653	5469950.7363	30	B	End of Line
17322	PLOT POINT	10	1	632692.5915	5470099.3653	30	B	Start of Line
17323	PLOT POINT	9.5	1	632766.9060	5470032.4522	30	B	Start of Line
17324	PLOT POINT	8.5	7	632514.0566	5469452.7392	30	B	End of Line
17325	PLOT POINT	8.5	6	632580.9696	5469527.0537	30	B	
17326	PLOT POINT	8.5	5	632647.8827	5469601.3682	30	B	
17327	PLOT POINT	8.5	4	632714.7957	5469675.6826	30	B	
17328	PLOT POINT	8.5	3	632781.7088	5469749.9971	30	B	
17329	PLOT POINT	8.5	2	632848.6219	5469824.3116	30	B	
17330	PLOT POINT	8.5	1	632915.5349	5469898.6261	30	B	Start of Line
17331	PLOT POINT	8	1	632989.8494	5469831.7130	30	B	Start of Line
17332	PLOT POINT	8	2	632922.9363	5469757.3985	30	B	End of Line

Don Zone Area (Sampling Location Data)								
SampleID	**Shape_ID**	**Stripline**	**Plot No.**	**Easting**	**Northing**	**Sample Depth (cm)**	**Soil Horizon**	**Description**
17333	PLOT POINT	7.5	1	633064.1639	5469764.8000	30	B	Start of Line
17334	PLOT POINT	7.5	2	632997.2508	5469690.4855	30	B	
17335	PLOT POINT	7.5	3	632930.3378	5469616.1710	30	B	
17336	PLOT POINT	13.5	8	631703.9987	5470047.5553	30	B	
17337	PLOT POINT	13.5	9	631637.0856	5469973.2408	30	B	
17338	PLOT POINT	13.5	10	631570.1725	5469898.9263	30	B	
17339	PLOT POINT	13.5	11	631503.2595	5469824.6119	30	B	
17340	PLOT POINT	13.5	12	631436.3464	5469750.2974	30	B	
17341	PLOT POINT	13.5	13	631369.4334	5469675.9829	30	B	End of Line
17342	PLOT POINT	14	1	632098.0756	5470634.6697	30	B	Start of Line
17351	PLOT POINT	12.5	7	631919.5407	5469988.0437	30	B	End of Line
17352	PLOT POINT	12.5	6	631986.4538	5470062.3582	30	B	
17353	PLOT POINT	12.5	5	632053.3668	5470136.6726	30	B	
17354	PLOT POINT	12.5	4	632120.2799	5470210.9871	30	B	
17355	PLOT POINT	12.5	3	632187.1929	5470285.3016	30	B	
17356	PLOT POINT	12.5	2	632254.1060	5470359.6161	30	B	
17357	PLOT POINT	12.5	1	632321.0191	5470433.9306	30	B	Start of Line
17358	PLOT POINT	11	1	632543.9625	5470233.1914	30	B	
17359	PLOT POINT	11	2	632477.0494	5470158.8769	30	B	
17360	PLOT POINT	10.5	1	632618.2770	5470166.2783	30	B	Start of Line
17361	PLOT POINT	10.5	2	632551.3639	5470091.9638	30	B	
17362	PLOT POINT	10.5	3	632484.4509	5470017.6494	30	B	
17363	PLOT POINT	10.5	4	632417.5378	5469943.3349	30	B	
17364	PLOT POINT	10.5	5	632350.6247	5469869.0204	30	B	
17365	PLOT POINT	10.5	6	632283.7117	5469794.7059	30	B	
17366	PLOT POINT	10.5	7	632216.7986	5469720.3914	30	B	End of Line
17367	PLOT POINT	9.5	7	632365.4276	5469586.5653	30	B	End of Line
17368	PLOT POINT	9.5	6	632432.3406	5469660.8798	30	B	
17369	PLOT POINT	9.5	5	632499.2537	5469735.1943	30	B	
17370	PLOT POINT	9.5	4	632566.1668	5469809.5088	30	B	
17371	PLOT POINT	9.5	3	632633.0798	5469883.8232	30	B	
No Sample	NO PLOT-WET	9.5	2	632699.9929	5469958.1377	No Sample	Plot Wet	N/A

Don Zone Area (Sampling Location Data)								
SampleID	**Shape_ID**	**Stripline**	**Plot No.**	**Easting**	**Northing**	**Sample Depth (cm)**	**Soil Horizon**	**Description**
17373	PLOT POINT	9	1	632841.2204	5469965.5391	30	B	Start of Line
17374	PLOT POINT	9	2	632774.3074	5469891.2247	30	B	End of Line
17375	PLOT POINT	7	1	633138.4784	5469697.8869	30	B	Start of Line
17376	PLOT POINT	7	2	633071.5653	5469623.5724	30	B	
17377	PLOT POINT	7	3	633004.6522	5469549.2579	30	B	
17378	PLOT POINT	7	4	632937.7392	5469474.9435	30	B	End of Line
17379	PLOT POINT	7.5	4	632863.4247	5469541.8565	30	B	
17380	PLOT POINT	7.5	5	632796.5116	5469467.5420	30	B	
17381	PLOT POINT	7.5	6	632729.5986	5469393.2275	30	B	
17382	PLOT POINT	7.5	7	632662.6855	5469318.9131	30	B	End of Line
17384	PLOT POINT	14.5	8	631555.3697	5470181.3814	30	B	Start of Line
17385	PLOT POINT	14.5	9	631488.4566	5470107.0669	30	B	
17386	PLOT POINT	14.5	10	631421.5436	5470032.7525	30	B	
17387	PLOT POINT	14.5	11	631354.6305	5469958.4380	30	B	
17388	PLOT POINT	14.5	12	631287.7175	5469884.1235	30	B	
17389	PLOT POINT	14.5	13	631220.8044	5469809.8090	30	B	End of Line
No Sample	NO PLOT-WET	10	2	632625.6784	5470025.0508	No Sample	Plot Wet	N/A

G-Zone/Cedar Zone Area (Sampling Location Data)								
SampleID	**Shape_ID**	**Stripline**	**Plot_No.**	**Easting**	**Northing**	**Sampling Depth (cm)**	**Soil Horizon**	**Description**
17001	PLOT POINT	1	1	626305.0000	5476090.0000	30	B	Line Start
17002	PLOT POINT	1	2	626343.0462	5476180.3589	30	B	
17003	PLOT POINT	1	3	626368.0715	5476281.2702	30	B	
17004	PLOT POINT	1	4	626402.5908	5476373.8425	30	B	
17005	PLOT POINT	1	5	626435.1909	5476473.1290	30	B	
17006	PLOT POINT	1	6	626468.2717	5476563.7826	30	B	
17007	PLOT POINT	1	7	626498.9532	5476664.5074	30	B	
17008	PLOT POINT	1	8	626531.5308	5476757.3829	30	B	
17009	PLOT POINT	1	9	626563.5413	5476852.8441	30	B	
17010	PLOT POINT	1	10	626597.6029	5476945.3431	30	B	
17011	PLOT POINT	1	11	626639.0097	5477050.8920	30	B	End of Line
17012	PLOT POINT	2	1	626209.7115	5476133.2223	30	B	Start of Line
17013	PLOT POINT	3	1	626119.4759	5476176.3213	30	B	Start of Line
17014	PLOT POINT	4	1	626029.2402	5476219.4204	30	B	Start of Line
17015	PLOT POINT	5	1	625939.0046	5476262.5194	30	B	Start of Line
17016	PLOT POINT	6	1	625848.7689	5476305.6184	30	B	Start of Line
17017	PLOT POINT	7	1	625758.5333	5476348.7175	30	B	Start of Line
17018	PLOT POINT	8	1	625671.1633	5476396.0445	30	B	Start of Line
17019	PLOT POINT	9	1	625600.6333	5476448.2158	30	B	Start of Line
17020	PLOT POINT	10	1	625517.0030	5476501.1972	30	B	Start of Line
17021	PLOT POINT	11	1	625400.8271	5476521.7041	30	B	Start of Line
17022	PLOT POINT	2	2	626252.8105	5476223.4579	30	B	
17023	PLOT POINT	2	3	626295.9096	5476313.6936	30	B	
17024	PLOT POINT	2	4	626339.0086	5476403.9292	30	B	End of Line
17025	PLOT POINT	3	2	626162.5749	5476266.5570	30	B	
17026	PLOT POINT	3	3	626205.6739	5476356.7926	30	B	
17027	PLOT POINT	3	4	626248.7730	5476447.0283	30	B	
17028	PLOT POINT	3	5	626291.8720	5476537.2639	30	B	
17029	PLOT POINT	3	6	626334.9711	5476627.4996	30	B	
17030	PLOT POINT	3	7	626378.0701	5476717.7352	30	B	
17031	PLOT POINT	3	8	626421.1692	5476807.9709	30	B	

G-Zone/Cedar Zone Area (Sampling Location Data)								
SampleID	Shape_ID	Stripline	Plot_No.	Easting	Northing	Sampling Depth (cm)	Soil Horizon	Description
17032	PLOT POINT	3	9	626464.2682	5476898.2065	30	B	
17033	PLOT POINT	3	10	626507.3673	5476988.4422	30	B	
17034	PLOT POINT	3	11	626550.4663	5477078.6778	30	B	End of Line
17035	PLOT POINT	4	11	626460.2307	5477121.7768	30	B	End of Line
17036	PLOT POINT	4	2	626072.3392	5476309.6560	30	B	
17037	PLOT POINT	4	3	626115.4383	5476399.8917	30	B	
17038	PLOT POINT	4	4	626158.5373	5476490.1273	30	B	
17039	PLOT POINT	4	5	626201.6364	5476580.3630	30	B	
17040	PLOT POINT	4	6	626244.7354	5476670.5986	30	B	
17041	PLOT POINT	4	7	626287.8345	5476760.8343	30	B	
17042	PLOT POINT	4	8	626330.9335	5476851.0699	30	B	
17043	PLOT POINT	4	9	626374.0326	5476941.3055	30	B	
17044	PLOT POINT	4	10	626417.1316	5477031.5412	30	B	
17045	PLOT POINT	9	8	625879.7553	5477066.5651	30	B	
17046	PLOT POINT	9	7	625836.6562	5476976.3295	30	B	
17047	PLOT POINT	9	6	625793.5572	5476886.0938	30	B	
17048	PLOT POINT	9	5	625750.4581	5476795.8582	30	B	
17049	PLOT POINT	9	9	625922.8543	5477156.8008	30	B	
17050	PLOT POINT	9	10	625965.9534	5477247.0364	30	B	
17051	PLOT POINT	9	11	626009.0524	5477337.2721	30	B	
17052	PLOT POINT	9	12	626052.1515	5477427.5077	30	B	End of Line
17053	PLOT POINT	13	10	625734.3079	5477690.1396	30	B	End of Line
17054	PLOT POINT	13	9	625691.2089	5477599.9039	30	B	
17055	PLOT POINT	13	8	625648.1098	5477509.6683	30	B	
17056	PLOT POINT	13	7	625605.0108	5477419.4326	30	B	
17057	PLOT POINT	13	6	625561.9117	5477329.1970	30	B	
17058	PLOT POINT	13	5	625518.8127	5477238.9613	30	B	
17059	PLOT POINT	13	4	625475.7136	5477148.7257	30	B	
17060	PLOT POINT	13	3	625432.6146	5477058.4900	30	B	
17061	PLOT POINT	13	2	625389.5155	5476968.2544	30	B	
17062	PLOT POINT	13	1	625346.4165	5476878.0187	30	B	

G-Zone/Cedar Zone Area (Sampling Location Data)								
SampleID	**Shape_ID**	**Stripline**	**Plot_No.**	**Easting**	**Northing**	**Sampling Depth (cm)**	**Soil Horizon**	**Description**
17066	PLOT POINT	15	4	625381.4404	5477415.3950	30	B	
17067	PLOT POINT	15	5	625424.5395	5477505.6307	30	B	
17068	PLOT POINT	15	6	625467.6385	5477595.8663	30	B	
17069	PLOT POINT	15	7	625510.7376	5477686.1020	30	B	
17070	PLOT POINT	15	8	625553.8366	5477776.3376	30	B	End of Line
17071	PLOT POINT	16	6	625463.6010	5477819.4367	30	B	End of Line
17072	PLOT POINT	16	5	625420.5019	5477729.2010	30	B	
17073	PLOT POINT	16	4	625377.4029	5477638.9654	30	B	
17074	PLOT POINT	17	1	625200.9691	5477501.5931	30	B	
17075	PLOT POINT	17	2	625244.0682	5477591.8288	30	B	
17076	PLOT POINT	17	3	625287.1672	5477682.0644	30	B	
17077	PLOT POINT	17	4	625330.2663	5477772.3001	30	B	
17078	PLOT POINT	17	5	625373.3653	5477862.5357	30	B	
17079	PLOT POINT	17	6	625416.4644	5477952.7714	30	B	
17080	PLOT POINT	17	7	625446.4014	5478020.6905	30	B	End of Line
17081	PLOT POINT	19	5	625268.7052	5478105.7481	30	B	End of Line
17082	PLOT POINT	19	4	625235.9931	5478038.9695	30	B	
17083	PLOT POINT	19	3	625192.8940	5477948.7338	30	B	
17084	PLOT POINT	19	2	625149.7950	5477858.4982	30	B	
17085	PLOT POINT	19	1	625106.6959	5477768.2625	30	B	
17086	PLOT POINT	21	1	625055.5218	5478125.1676	30	B	Start of Line
17087	PLOT POINT	22	2	625038.9660	5478290.5520	30	B	End of Line
17088	PLOT POINT	23	1	625014.1993	5478347.1420	30	B	Start of Line/End of Line
17101	PLOT POINT	5	2	625982.1036	5476352.7551	30	B	
17102	PLOT POINT	5	3	626025.2026	5476442.9907	30	B	
17103	PLOT POINT	5	4	626068.3017	5476533.2264	30	B	
17104	PLOT POINT	5	5	626111.4007	5476623.4620	30	B	
17105	PLOT POINT	5	6	626154.4998	5476713.6976	30	B	End of Line
17117	PLOT POINT	7	8	626060.2266	5476980.3670	30	B	End of Line
17118	PLOT POINT	7	7	626017.1275	5476890.1314	30	B	
17119	PLOT POINT	7	6	625974.0285	5476799.8957	30	B	

G-Zone/Cedar Zone Area (Sampling Location Data)								
SampleID	**Shape_ID**	**Stripline**	**Plot_No.**	**Easting**	**Northing**	**Sampling Depth (cm)**	**Soil Horizon**	**Description**
17120	PLOT POINT	7	5	625930.9294	5476709.6601	30	B	
17121	PLOT POINT	7	4	625887.8304	5476619.4244	30	B	
17122	PLOT POINT	7	3	625844.7313	5476529.1888	30	B	
17123	PLOT POINT	7	2	625801.6323	5476438.9531	30	B	
17124	PLOT POINT	12	1	625393.5531	5476744.6840	30	B	Start of Line
17125	PLOT POINT	12	2	625436.6521	5476834.9197	30	B	
17126	PLOT POINT	12	3	625479.7512	5476925.1553	30	B	
17127	PLOT POINT	12	4	625522.8502	5477015.3910	30	B	
17128	PLOT POINT	12	5	625565.9493	5477105.6266	30	B	
17129	PLOT POINT	12	6	625609.0483	5477195.8623	30	B	
17130	PLOT POINT	12	7	625652.1474	5477286.0979	30	B	
17131	PLOT POINT	12	8	625695.2464	5477376.3336	30	B	
17132	PLOT POINT	12	9	625738.3455	5477466.5692	30	B	
17133	PLOT POINT	12	10	625781.4445	5477556.8049	30	B	
17134	PLOT POINT	12	11	625824.5436	5477647.0405	30	B	End of Line
17135	PLOT POINT	14	9	625644.0723	5477733.2386	30	B	End of Line
17136	PLOT POINT	14	8	625600.9732	5477643.0029	30	B	
17138	PLOT POINT	14	7	625557.8742	5477552.7673	30	B	
17139	PLOT POINT	14	6	625514.7751	5477462.5317	30	B	
17140	PLOT POINT	14	5	625471.6761	5477372.2960	30	B	
17141	PLOT POINT	14	4	625428.5770	5477282.0604	30	B	
17142	PLOT POINT	14	3	625385.4780	5477191.8247	30	B	
17143	PLOT POINT	14	2	625342.3789	5477101.5891	30	B	
17144	PLOT POINT	14	1	625299.2799	5477011.3534	30	B	Start of Line
17145	PLOT POINT	16	1	625248.1057	5477368.2584	30	B	Start of Line
17146	PLOT POINT	16	2	625291.2048	5477458.4941	30	B	
17147	PLOT POINT	16	3	625334.3038	5477548.7297	30	B	End of Line
17148	PLOT POINT	18	1	625153.8325	5477634.9278	30	B	Start of Line
17149	PLOT POINT	18	2	625196.9316	5477725.1635	30	B	
17150	PLOT POINT	18	3	625240.0306	5477815.3991	30	B	End of Line
17151	PLOT POINT	6	2	625891.8679	5476395.8541	30	B	

G-Zone/Cedar Zone Area (Sampling Location Data)								
SampleID	**Shape_ID**	**Stripline**	**Plot_No.**	**Easting**	**Northing**	**Sampling Depth (cm)**	**Soil Horizon**	**Description**
17152	PLOT POINT	6	3	625934.9670	5476486.0897	30	B	
17153	PLOT POINT	6	4	625978.0660	5476576.3254	30	B	
17154	PLOT POINT	6	5	626021.1651	5476666.5610	30	B	
17155	PLOT POINT	6	6	626064.2641	5476756.7967	30	B	
17156	PLOT POINT	6	7	626107.3632	5476847.0323	30	B	
17157	PLOT POINT	6	8	626150.4622	5476937.2680	30	B	
17158	PLOT POINT	6	9	626193.5613	5477027.5036	30	B	
17159	PLOT POINT	6	10	626236.6603	5477117.7393	30	B	
17160	PLOT POINT	6	11	626279.7594	5477207.9749	30	B	
17161	PLOT POINT	6	12	626322.8584	5477298.2106	30	B	End of Line
17162	PLOT POINT	8	12	626142.3871	5477384.4087	30	B	End of Line
17163	PLOT POINT	8	11	626099.2881	5477294.1730	30	B	
17164	PLOT POINT	8	10	626056.1890	5477203.9374	30	B	
17165	PLOT POINT	8	9	626013.0900	5477113.7017	30	B	
17166	PLOT POINT	8	8	625969.9909	5477023.4661	30	B	
17167	PLOT POINT	8	7	625926.8919	5476933.2304	30	B	
17168	PLOT POINT	8	6	625883.7928	5476842.9948	30	B	
17169	PLOT POINT	8	5	625840.6938	5476752.7591	30	B	
17170	PLOT POINT	8	4	625797.5947	5476662.5235	30	B	
17171	PLOT POINT	8	3	625754.4957	5476572.2878	30	B	
17172	PLOT POINT	8	2	625711.3967	5476482.0522	30	B	
17173	PLOT POINT	9	2	625621.1610	5476525.1512	30	B	
17174	PLOT POINT	9	3	625664.2600	5476615.3869	30	B	
17175	PLOT POINT	9	4	625707.3591	5476705.6225	30	B	
17176	PLOT POINT	10	2	625530.9254	5476568.2503	30	B	
17177	PLOT POINT	10	3	625574.0244	5476658.4859	30	B	
17178	PLOT POINT	10	4	625617.1234	5476748.7216	30	B	
17179	PLOT POINT	10	5	625660.2225	5476838.9572	30	B	
17180	PLOT POINT	10	6	625703.3215	5476929.1929	30	B	
17181	PLOT POINT	10	7	625746.4206	5477019.4285	30	B	
17182	PLOT POINT	10	8	625789.5196	5477109.6642	30	B	

G-Zone/Cedar Zone Area (Sampling Location Data)								
SampleID	**Shape_ID**	**Stripline**	**Plot_No.**	**Easting**	**Northing**	**Sampling Depth (cm)**	**Soil Horizon**	**Description**
17183	PLOT POINT	10	9	625832.6187	5477199.8998	30	B	
17184	PLOT POINT	10	10	625875.7177	5477290.1355	30	B	
17185	PLOT POINT	10	11	625918.8168	5477380.3711	30	B	
17186	PLOT POINT	10	12	625961.9158	5477470.6068	30	B	
17187	PLOT POINT	10	13	626005.0149	5477560.8424	30	B	
17188	PLOT POINT	11	13	625914.7792	5477603.9415	30	B	End of Line
17189	PLOT POINT	11	12	625871.6802	5477513.7058	30	B	
17190	PLOT POINT	11	11	625828.5811	5477423.4702	30	B	
17191	PLOT POINT	11	10	625785.4821	5477333.2345	30	B	
17192	PLOT POINT	11	9	625742.3830	5477242.9989	30	B	
17193	PLOT POINT	11	8	625699.2840	5477152.7632	30	B	
17194	PLOT POINT	11	7	625656.1849	5477062.5276	30	B	
17195	PLOT POINT	11	6	625613.0859	5476972.2919	30	B	
17196	PLOT POINT	11	5	625569.9868	5476882.0563	30	B	
17197	PLOT POINT	11	4	625526.8878	5476791.8206	30	B	
17198	PLOT POINT	11	3	625483.7888	5476701.5850	30	B	
17199	PLOT POINT	11	2	625440.6897	5476611.3493	30	B	
17200	PLOT POINT	18	4	625283.1297	5477905.6348	30	B	
17451	PLOT POINT	18	5	625326.2287	5477995.8704	30	B	
17453	PLOT POINT	20	3	625188.8565	5478172.3042	30	B	End of Line
17454	PLOT POINT	20	2	625145.7574	5478082.0685	30	B	
17455	PLOT POINT	20	1	625102.6584	5477991.8329	30	B	Start of Line
17456	PLOT POINT	22	1	625008.3852	5478258.5023	30	B	Start of Line
17457	PLOT POINT	21	2	625098.6208	5478215.4032	30	B	End of Line

Appendix V - Analytic Certificates

ISO9001:2015 Certified

Loring Laboratories Ltd.

6835 8 St N.E.,
Calgary Alberta T2E 7H7
Tel: 403- 274-2777 Fax: 403-275-0541
loringlabs@telus.net

To: Tim Sewlson
Purcell Basin Minerals
Box 845, Cranbrook,
BC V1C 4J6

Tel. (250) 417-7761

File No : 62315
Date : August 16, 2018
Samples : Soil

30 ELEMENT ICP ANALYSIS

Sample No.	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
17001	1.8	2.52	4	300	5	0.29	<1	6	13	13	1.74	0.18	3	0.35	549	<1	0.04	14	0.09	13	1	2	16	17	0.05	<1	18	3	189	5
17002	2.2	3.90	5	366	7	0.21	<1	10	16	24	2.50	0.20	19	0.43	278	<1	0.05	20	0.05	14	1	6	35	26	0.07	<1	24	1	91	11
17003	2.0	4.09	4	366	7	0.13	<1	10	16	23	2.41	0.21	7	0.44	190	<1	0.05	20	0.05	13	1	4	38	24	0.07	<1	25	1	97	12
17004	1.6	3.42	7	318	9	0.19	<1	11	9	44	2.70	0.28	13	0.28	366	<1	0.07	21	0.06	25	2	4	37	27	0.06	<1	19	2	137	7
17005	1.6	1.41	9	121	9	0.11	<1	9	8	33	2.95	0.22	13	0.31	282	<1	0.04	18	0.05	24	3	2	14	30	0.02	<1	14	2	136	6
17006	1.2	1.08	9	105	9	0.17	<1	11	8	46	2.99	0.18	10	0.28	473	1	0.03	16	0.07	29	3	2	16	29	0.03	<1	18	2	131	5
17007	1.6	1.41	11	67	10	0.15	<1	12	9	36	3.32	0.21	13	0.34	446	1	0.04	19	0.07	31	3	3	17	34	0.02	<1	18	2	142	8
17008	1.8	1.52	10	110	7	0.19	<1	14	11	59	2.68	0.21	7	0.36	517	1	0.03	21	0.07	37	3	3	23	34	0.01	<1	20	1	129	5
17009	1.6	1.55	8	179	6	0.26	<1	15	11	29	2.61	0.21	7	0.36	1163	1	0.03	20	0.12	37	2	3	26	33	0.02	<1	20	1	140	3
17010	1.8	1.64	8	120	11	0.14	<1	12	9	36	2.23	0.21	7	0.31	703	1	0.02	18	0.08	28	2	3	18	36	0.01	<1	21	1	104	4
17011	1.8	1.97	5	122	10	0.12	<1	11	10	30	2.16	0.25	10	0.29	244	1	0.02	20	0.08	29	2	2	17	36	0.02	<1	21	1	136	5
17012	2.2	3.98	3	408	7	0.15	<1	10	17	21	1.78	0.21	7	0.36	295	<1	0.03	20	0.09	17	1	4	33	28	0.05	<1	27	1	122	3
17013	2.0	4.42	5	426	6	0.19	<1	10	17	51	1.82	0.18	9	0.36	435	1	0.05	20	0.13	15	1	5	20	28	0.08	<1	28	1	94	2
17014	2.0	3.64	7	254	7	0.17	<1	9	16	23	1.70	0.14	6	0.37	243	1	0.03	19	0.08	13	1	3	23	27	0.06	<1	26	1	70	5
17015	1.8	4.76	6	341	10	0.19	<1	12	12	36	2.23	0.33	11	0.32	320	1	0.07	20	0.19	23	2	4	28	37	0.07	<1	27	1	93	2
17016	1.0	1.89	10	161	9	0.08	<1	8	9	36	2.11	0.19	16	0.30	241	1	0.03	17	0.07	19	2	3	15	36	0.02	<1	13	1	63	7
17017	1.2	2.42	7	163	8	0.12	<1	8	10	33	1.97	0.33	14	0.29	212	<1	0.07	15	0.04	17	2	3	21	33	0.03	<1	17	1	65	15
17018	1.6	3.14	5	258	6	0.15	<1	7	7	36	1.62	0.23	10	0.22	172	<1	0.14	13	0.04	13	1	3	36	26	0.04	<1	16	<1	55	16
17019	1.6	3.88	4	361	6	0.13	<1	8	7	32	1.62	0.24	4	0.20	162	<1	0.14	13	0.14	13	1	3	27	25	0.05	<1	13	<1	60	2
17020	1.4	2.47	6	220	8	0.09	<1	7	9	26	1.93	0.24	10	0.32	210	<1	0.03	16	0.06	14	1	3	13	32	0.03	<1	14	1	86	8
17021	1.6	2.40	9	165	11	0.12	<1	10	10	42	2.32	0.27	15	0.31	289	1	0.04	21	0.06	25	3	4	19	41	0.02	<1	19	1	104	6
17022	1.8	4.17	4	344	8	0.20	<1	10	19	22	1.95	0.22	12	0.46	237	1	0.04	21	0.08	14	1	5	36	31	0.06	<1	30	1	71	5
17023	1.6	3.21	4	384	6	0.50	<1	8	22	12	1.68	0.26	3	0.67	444	<1	0.03	21	0.11	13	1	3	23	26	0.03	<1	27	1	118	8
17024	1.8	3.39	4	213	8	0.39	<1	9	26	24	1.97	0.21	16	0.60	295	1	0.04	24	0.10	12	1	6	18	33	0.04	<1	34	1	139	5
17025	2.0	2.12	8	102	12	0.12	<1	10	12	80	2.45	0.24	15	0.35	214	1	0.02	25	0.09	26	3	3	20	43	0.02	<1	20	1	125	5
17026	2.0	3.00	8	176	12	0.09	<1	10	12	59	2.41	0.31	13	0.34	213	1	0.04	23	0.07	26	2	4	20	42	0.03	<1	21	1	113	6
17027	2.0	3.91	4	266	8	0.28	<1	10	21	44	2.01	0.24	7	0.55	385	<1	0.03	23	0.04	15	1	4	22	32	0.04	<1	28	1	82	14
17028	2.2	5.49	4	538	8	0.24	<1	11	21	21	2.03	0.23	8	0.49	230	1	0.06	24	0.08	14	1	5	43	35	0.07	<1	31	1	80	6
17029	2.0	2.15	7	180	10	0.18	<1	11	14	86	2.24	0.30	9	0.32	411	1	0.03	20	0.10	27	2	2	28	37	0.02	<1	22	1	207	6
17030	2.0	2.37	8	136	13	0.15	<1	12	14	87	2.52	0.30	10	0.37	453	1	0.03	24	0.08	30	3	3	24	44	0.02	<1	23	1	167	6
Blank	<0.6	<0.01	<1	<1	<1	<0.01	<1	<1	<1	<1	<0.01	<0.01	<1	<0.01	<1	<1	<0.01	<1	<0.01	<1	<1		<1	<1	<0.01	<1	<1	<1	<1	<1

* Sample is digested with Aqua Regia at 95C for one hour and bulked to 10 ml with distilled water. Finished by ICP-OES. Ag by AA. Partial dissolution for Al, B, Ba,Ca, Cr,Fe,K,La,Mg,Mn,Na,P,Sr,Ti and W.

* Samples received on July 12, 2018

Certified by:

Loring Laboratories Ltd.

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ISO9001:2015 Certified

To: Tim Sewison
Purcell Basin Minerals
Box 845, Cranbrook,
BC V1C 4J6

Tel. (250) 417-7761

File No : 6 2 3 1 5
Date : August 16, 2018
Samples : Soil

30 ELEMENT ICP ANALYSIS

Sample No.	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
17031	1.6	2.06	9	143	13	0.23	<1	15	11	37	2.56	0.24	9	0.37	865	1	0.03	22	0.08	36	3	3	19	44	0.01	<1	22	1	141	5
17032	1.6	1.80	11	74	15	0.23	<1	17	12	45	2.77	0.14	8	0.42	714	1	0.02	23	0.09	34	3	3	15	49	0.03	<1	31	1	119	5
17033	1.4	1.85	5	303	9	0.20	<1	10	11	16	1.89	0.20	7	0.25	1421	1	0.02	14	0.12	24	2	2	33	30	0.02	<1	22	2	227	4
17034	1.4	1.70	7	95	11	0.14	<1	11	9	27	2.19	0.20	7	0.28	191	1	0.02	19	0.08	24	3	2	18	36	0.01	<1	19	1	116	4
17035	1.4	1.34	4	161	4	0.35	<1	8	11	20	1.73	0.18	4	0.30	463	1	0.02	15	0.05	19	1	2	12	20	0.01	<1	15	1	84	5
17036	1.6	2.28	2	197	3	0.15	<1	8	14	10	1.68	0.16	4	0.41	137	1	0.02	17	0.02	11	1	3	16	19	0.04	<1	21	1	68	15
17037	2.0	1.95	3	150	3	1.00	<1	8	16	16	1.73	0.17	3	0.65	299	<1	0.02	20	0.05	10	1	5	21	21	0.02	<1	19	<1	43	7
17038	1.4	1.34	5	111	4	0.08	<1	7	10	21	1.86	0.12	9	0.29	215	1	0.02	16	0.04	16	1	2	9	23	0.01	<1	14	<1	58	7
17039	1.6	1.37	7	103	5	0.07	<1	9	8	25	2.22	0.20	10	0.29	183	1	0.03	19	0.07	19	2	2	12	27	0.02	<1	14	1	89	3
17040	1.6	1.31	8	104	5	0.10	<1	10	8	26	2.33	0.20	14	0.30	248	1	0.02	18	0.07	22	2	2	12	30	0.02	<1	16	1	102	4
17041	1.6	1.32	8	117	6	0.13	<1	12	10	27	2.47	0.20	13	0.32	400	1	0.02	18	0.08	28	2	2	15	31	0.02	<1	20	1	107	4
17042	1.8	1.41	8	95	6	0.20	<1	16	9	29	2.49	0.21	13	0.34	675	1	0.03	19	0.09	32	2	3	20	32	0.02	<1	20	1	104	4
17043	1.4	1.52	5	140	3	0.15	<1	11	9	13	1.72	0.17	13	0.25	383	<1	0.03	18	0.07	20	1	2	20	22	0.05	<1	21	1	193	7
17044	1.4	1.07	7	101	5	0.14	<1	10	9	22	2.22	0.14	14	0.26	328	1	0.02	15	0.08	25	2	2	17	28	0.03	<1	20	1	108	4
17045	2.0	2.96	3	242	3	0.49	<1	9	16	12	1.73	0.14	7	0.38	301	<1	0.05	17	0.08	12	<1	4	20	21	0.08	<1	26	1	105	3
17046	1.2	1.10	8	110	4	0.04	<1	7	8	26	2.04	0.18	21	0.29	181	1	0.02	14	0.04	15	2	2	9	25	0.01	<1	9	<1	51	6
17047	2.0	3.64	8	402	3	0.21	<1	11	9	23	1.90	0.21	9	0.21	351	<1	0.15	25	0.24	16	1	3	26	23	0.09	<1	19	1	95	1
17048	1.6	2.31	6	146	4	0.29	<1	10	20	20	2.11	0.23	15	0.58	235	1	0.04	21	0.04	13	1	5	19	27	0.04	<1	28	1	65	23
17049	2.2	4.41	4	477	4	0.23	<1	12	21	16	2.23	0.26	8	0.49	316	1	0.07	25	0.05	15	1	5	38	28	0.09	<1	35	1	103	10
17050	1.2	1.39	10	101	5	0.06	<1	8	9	26	2.20	0.19	21	0.31	174	1	0.02	17	0.02	14	2	3	12	39	0.01	<1	13	<1	47	12
17051	2.0	1.93	15	203	5	1.47	<1	15	14	40	2.26	0.31	7	0.45	690	1	0.03	32	0.05	21	2	5	28	31	0.02	<1	28	1	79	23
17052	4.0	1.00	3	38	2	2.62	<1	5	12	13	0.93	0.30	<1	0.30	276	<1	0.02	14	0.07	3	1	3	328	11	<0.01	<1	14	<1	21	7
17053	2.4	4.48	10	233	4	0.47	1	15	9	18	1.96	0.26	7	0.21	381	1	0.13	34	0.21	57	1	4	52	25	0.12	<1	23	2	308	1
17054	2.0	1.91	22	138	8	0.10	1	13	7	61	2.82	0.26	12	0.16	401	1	0.05	31	0.04	68	5	4	13	41	0.02	<1	14	2	240	14
17055	1.4	2.42	8	241	4	0.12	<1	11	8	29	2.16	0.18	16	0.27	393	1	0.06	18	0.07	17	2	3	18	27	0.05	<1	18	1	71	5
17056	2.0	2.01	9	178	4	0.10	<1	9	13	26	2.19	0.32	26	0.31	215	1	0.04	23	0.03	15	2	3	19	32	0.01	<1	17	1	61	8
17057	2.0	3.83	6	351	4	0.29	<1	11	24	18	2.21	0.26	18	0.67	300	1	0.07	24	0.07	17	1	7	28	28	0.08	<1	34	1	75	7
17058	2.0	4.06	6	401	4	0.46	<1	11	22	11	2.06	0.29	16	0.66	312	1	0.09	27	0.07	13	1	6	29	26	0.08	<1	30	1	92	7
17059	1.2	1.83	7	230	4	0.07	<1	9	9	23	2.03	0.20	19	0.31	169	1	0.04	18	0.06	14	1	2	13	27	0.02	<1	13	1	69	7
17060	2.0	3.30	3	416	2	0.28	<1	8	14	11	1.53	0.18	8	0.28	338	<1	0.11	16	0.16	8	<1	4	26	18	0.09	<1	21	1	124	1
Blank	<0.6	<0.01	<1	<1	<1	<0.01	<1	<1	<1	<1	<0.01	<0.01	<1	<0.01	<1	<1	<0.01	<1	<0.01	<1	<1		<1	<1	<0.01	<1	<1	<1	<1	<1

* Sample is digested with Aqua Regia at 95C for one hour and bulked to 10 ml with distilled water. Finished by ICP-OES, Ag by AA.
Partial dissolution for Al, B, Be,Ca, Cr,Fe,K,La,Mg,Mn,Na,P,Sr,Ti and W.

* Samples received on July 12, 2018

Certified by:

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To: Tim Sewison
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Box 645, Cranbrook,
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Tel. (250) 417-7761

File No : 62316
Date : August 15, 2018
Samples : Soil

30 ELEMENT ICP ANALYSIS

Sample No.	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
17061	2.2	4.27	4	305	3	0.14	<1	10	14	16	1.82	0.17	13	0.32	313	1	0.09	17	0.12	11	<1	5	16	23	0.12	<1	31	1	88	2
17062	1.2	1.17	7	163	4	0.05	<1	6	8	24	2.00	0.15	17	0.30	269	1	0.02	15	0.04	15	2	2	9	26	0.01	<1	9	1	62	6
17066	1.2	1.34	5	247	4	0.08	<1	7	8	10	1.74	0.09	15	0.24	495	<1	0.01	13	0.11	16	1	1	7	22	0.01	<1	11	1	99	3
17067	1.0	1.01	7	113	4	0.05	<1	7	7	26	1.91	0.08	21	0.28	189	1	0.01	14	0.03	13	1	2	7	25	0.01	<1	8	<1	44	8
17068	1.2	1.06	7	123	4	0.04	<1	7	7	22	1.87	0.09	21	0.27	160	1	0.01	14	0.02	13	2	2	7	25	0.01	<1	9	<1	42	7
17069	1.4	1.36	13	163	5	0.07	<1	11	8	31	2.19	0.10	12	0.26	201	1	0.02	20	0.04	16	2	2	9	28	0.02	<1	11	1	61	8
17070	1.2	1.09	9	111	4	0.08	<1	8	8	33	1.94	0.11	17	0.25	288	1	0.02	15	0.04	17	2	2	10	25	0.01	<1	9	1	56	7
17071	1.4	1.39	6	160	4	0.05	<1	7	9	14	1.79	0.17	15	0.26	313	<1	0.02	16	0.05	12	2	2	11	23	0.02	<1	12	1	120	5
17072	2.0	3.13	9	331	3	0.18	<1	10	9	16	1.64	0.16	7	0.16	915	<1	0.07	17	0.29	15	1	3	19	19	0.09	<1	19	1	151	1
17073	1.4	1.57	6	385	3	0.11	<1	8	7	16	1.55	0.07	7	0.20	362	<1	0.03	17	0.16	13	1	1	13	18	0.04	<1	11	1	97	1
17074	1.6	2.98	1	238	4	1.05	<1	8	15	11	1.95	0.23	6	0.42	393	<1	0.03	16	0.03	12	1	5	22	24	0.05	<1	16	<1	64	18
17075	2.0	1.59	3	97	3	1.97	<1	7	14	19	1.67	0.16	<1	0.65	275	<1	0.03	16	0.02	12	1	4	33	20	0.02	<1	20	<1	45	21
17076	1.2	1.18	9	93	4	0.05	<1	7	7	22	2.00	0.12	16	0.28	173	1	0.02	15	0.05	14	2	2	7	26	0.01	<1	10	<1	66	6
17077	1.0	0.88	8	80	4	0.04	<1	8	7	26	1.91	0.09	17	0.28	151	1	0.01	14	0.03	14	2	1	6	25	<0.01	<1	7	<1	41	4
17078	1.2	1.24	10	111	5	0.07	<1	9	9	16	2.01	0.16	12	0.26	179	1	0.02	16	0.08	14	2	2	12	25	0.01	<1	12	1	161	3
17079	1.6	1.64	14	116	5	0.18	<1	11	10	19	2.06	0.24	13	0.28	324	1	0.03	16	0.04	21	2	3	17	27	0.01	<1	12	1	112	8
17080	1.4	1.13	14	83	5	0.43	1	12	8	41	2.21	0.11	3	0.23	711	1	0.01	16	0.07	27	3	3	26	29	0.01	<1	8	1	114	5
17081	1.0	0.91	13	65	5	0.08	<1	7	6	22	2.08	0.08	13	0.22	155	1	0.02	15	0.03	13	2	2	11	27	0.01	<1	8	1	74	4
17082	1.4	1.40	10	112	4	0.09	<1	8	9	23	2.06	0.14	14	0.28	208	1	0.02	17	0.07	14	2	2	12	27	0.02	<1	11	1	86	4
17083	1.6	2.34	8	192	4	0.09	<1	9	8	19	1.99	0.16	12	0.24	292	1	0.04	17	0.13	17	1	2	11	25	0.04	<1	16	1	101	2
17084	1.0	0.87	9	77	4	0.09	<1	9	7	22	2.02	0.08	13	0.30	363	<1	0.01	14	0.03	18	2	1	6	26	<0.01	<1	6	1	58	4
17085	5.0	0.66	3	37	2	>10	<1	3	6	17	0.58	0.13	4	0.70	167	<1	0.02	7	0.06	7	2	2	116	6	0.01	<1	9	<1	18	9
17086	1.4	1.44	8	104	4	0.08	<1	9	9	26	1.96	0.10	12	0.25	236	1	0.01	18	0.06	15	2	2	9	26	0.01	<1	12	1	116	5
17087	1.0	1.13	7	89	4	0.11	<1	7	7	12	1.86	0.09	11	0.23	156	<1	0.01	13	0.08	15	1	1	12	23	0.01	<1	11	1	85	3
17088	2.6	3.37	28	137	8	0.23	1	33	6	78	2.90	0.16	8	0.16	711	2	0.08	40	0.11	24	4	5	34	38	0.09	<1	20	1	128	2
17101	1.4	2.37	2	296	2	0.15	<1	6	9	6	1.07	0.12	2	0.19	597	<1	0.05	13	0.11	9	<1	2	15	12	0.07	<1	17	1	191	1
17102	2.0	3.68	3	331	3	0.11	<1	9	14	10	1.72	0.14	5	0.30	354	1	0.06	17	0.16	10	1	3	13	21	0.10	<1	28	1	110	1
17103	2.2	3.87	3	392	3	0.15	<1	9	15	10	1.79	0.18	4	0.37	437	1	0.06	19	0.10	12	1	3	16	21	0.08	<1	27	1	97	2
17104	1.2	1.39	3	116	3	0.08	<1	6	8	11	1.67	0.21	18	0.27	176	1	0.02	14	0.04	12	1	2	12	21	0.02	<1	12	1	94	6
17105	1.4	1.16	7	177	5	0.26	<1	12	8	21	2.19	0.11	13	0.31	1244	1	0.02	15	0.08	30	2	2	21	29	0.03	<1	17	1	130	4
Blank	<0.6	<0.01	<1	<1	<1	<0.01	<1	<1	<1	<1	<0.01	<0.01	<1	<0.01	<1	<1	<0.01	<1	<0.01	<1	<1		<1	<1	<0.01	<1	<1	<1	<1	<1

* Sample is digested with Aqua Regia at 95C for one hour and bulked to 10 ml with distilled water. Finished by ICP-OES, Ag by AA.
Partial dissolution for Al, B, Ba,Ca, Cr,Fe,K,La,Mg,Mn,Na,P,Sr,Ti and W.

* Samples received on July 12, 2018

Certified by:

Loring Laboratories Ltd.

6835 8 St N.E.,
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Tel: 403- 274-2777 Fax: 403-276-0541
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ISO9001:2015 Certified

To: Tim Sewlson
Purcell Basin Minerals
Box 845, Cranbrook,
BC V1C 4J6

Tel. (250) 417-7761

File No : 6 2 3 1 5
Date : August 15, 2018
Samples : Soil

30 ELEMENT ICP ANALYSIS

Sample No.	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
17117	1.2	1.31	3	181	3	0.12	<1	7	8	14	1.67	0.14	17	0.24	495	<1	0.02	13	0.06	17	1	2	14	23	0.02	<1	12	1	139	4
17118	1.8	2.86	4	246	3	0.47	<1	9	14	18	1.77	0.16	9	0.32	663	<1	0.03	18	0.06	14	1	4	18	22	0.05	<1	22	1	76	3
17119	2.0	3.48	5	351	5	0.14	<1	12	14	22	2.13	0.24	7	0.30	215	1	0.06	22	0.12	20	1	3	23	27	0.05	<1	25	1	114	2
17120	1.4	1.36	4	146	4	0.06	<1	7	8	17	1.84	0.17	20	0.27	209	1	0.02	14	0.05	16	1	1	11	25	0.01	<1	12	1	89	5
17121	1.8	3.18	2	377	3	0.25	<1	8	17	24	1.70	0.16	1	0.42	271	<1	0.04	19	0.03	12	1	3	18	20	0.08	<1	23	1	80	18
17122	1.8	2.62	3	280	4	0.19	<1	9	17	16	1.75	0.18	3	0.72	195	1	0.03	19	0.05	10	1	3	19	20	0.05	<1	22	<1	67	11
17123	1.4	2.03	6	300	3	0.10	<1	7	7	16	1.58	0.16	7	0.22	272	<1	0.06	19	0.10	13	1	2	16	19	0.03	<1	12	1	91	2
17124	1.0	0.91	7	106	3	0.03	<1	7	7	18	1.73	0.12	17	0.27	157	<1	0.02	13	0.03	12	2	1	6	22	0.01	<1	7	<1	50	5
17125	1.0	0.97	4	133	3	0.05	<1	5	6	10	1.41	0.15	16	0.23	162	<1	0.02	10	0.04	10	1	1	7	18	0.01	<1	8	1	67	2
17126	2.0	3.98	4	312	3	0.17	<1	9	14	14	1.72	0.14	6	0.28	275	<1	0.07	17	0.14	10	0	3	16	21	0.11	<1	28	1	106	1
17127	2.0	3.69	3	318	3	0.18	<1	10	14	14	1.76	0.17	8	0.30	309	1	0.07	18	0.09	10	0	4	21	22	0.10	<1	28	1	100	2
17128	1.6	2.39	7	344	3	0.16	<1	8	7	16	1.57	0.13	6	0.17	514	<1	0.10	18	0.21	11	1	2	21	18	0.06	<1	16	1	90	1
17129	1.4	2.42	6	378	3	0.11	<1	7	8	13	1.49	0.18	9	0.18	692	<1	0.08	16	0.20	11	1	2	16	18	0.06	<1	15	1	153	1
17130	2.0	2.82	4	215	4	0.85	<1	9	21	11	1.85	0.25	7	0.58	366	1	0.04	22	0.08	12	1	5	25	23	0.03	<1	24	1	76	5
17131	1.2	1.40	4	176	3	0.21	<1	7	10	17	1.67	0.24	14	0.28	329	<1	0.03	14	0.04	12	1	2	12	20	0.01	<1	13	1	59	5
17132	2.0	4.03	6	304	4	0.17	<1	11	12	9	1.86	0.26	5	0.26	690	1	0.09	23	0.05	20	1	3	18	23	0.08	<1	24	1	112	5
17133	2.0	3.84	10	266	4	0.23	<1	12	9	24	1.81	0.16	3	0.21	740	1	0.07	21	0.17	22	1	3	25	22	0.11	<1	23	1	186	1
17134	1.8	2.81	5	290	3	0.28	<1	9	11	11	1.67	0.23	4	0.24	835	<1	0.05	20	0.06	25	1	2	27	20	0.06	<1	21	3	411	9
17135	2.0	3.02	7	422	5	0.21	<1	13	13	16	2.16	0.29	7	0.32	579	1	0.05	28	0.07	30	2	4	27	27	0.05	<1	20	1	203	3
17136	2.0	3.51	5	228	3	0.26	<1	8	7	20	1.60	0.22	7	0.15	404	<1	0.20	22	0.09	9	<1	3	34	18	0.11	<1	23	1	66	2
17138	1.4	1.71	7	324	4	0.09	<1	8	7	11	1.73	0.20	11	0.20	431	<1	0.04	14	0.17	14	1	1	13	21	0.03	<1	14	1	78	1
17139	1.4	1.93	5	212	3	0.07	<1	7	9	15	1.57	0.24	15	0.23	263	<1	0.05	20	0.07	11	1	2	14	20	0.02	<1	14	<1	58	2
17140	2.0	3.41	3	339	3	0.20	<1	8	15	9	1.66	0.19	6	0.32	415	1	0.07	17	0.13	11	1	3	23	20	0.08	<1	25	1	102	1
17141	0.8	0.74	3	179	2	0.09	<1	6	6	6	1.13	0.08	14	0.16	438	<1	0.01	7	0.05	11	1	1	7	15	0.01	<1	9	1	67	2
17142	1.2	1.09	7	155	4	0.04	<1	9	7	16	1.94	0.12	13	0.27	246	<1	0.02	14	0.09	17	2	1	6	24	0.01	<1	8	1	81	3
17143	0.8	0.71	4	129	3	0.07	<1	6	6	10	1.36	0.10	13	0.20	628	<1	0.01	9	0.04	12	1	1	8	17	0.01	<1	6	<1	47	2
17144	1.8	3.33	5	362	3	0.12	<1	9	9	11	1.46	0.18	6	0.18	441	<1	0.08	22	0.14	11	0	2	16	18	0.09	<1	22	1	160	1
17145	0.8	0.76	2	169	1	0.03	<1	3	4	3	0.88	0.13	15	0.17	342	<1	0.01	7	0.02	9	<1	1	5	12	<0.01	<1	6	<1	41	1
17146	1.2	1.10	4	229	3	0.10	<1	6	7	7	1.60	0.16	11	0.25	354	<1	0.02	10	0.11	13	1	1	10	20	0.01	<1	9	1	129	2
17147	1.6	2.14	6	339	3	0.10	<1	7	7	12	1.63	0.17	8	0.20	300	<1	0.06	22	0.19	12	1	2	21	19	0.04	<1	13	1	95	1
Blank	<0.5	<0.01	<1	<1	<1	<0.01	<1	<1	<1	<1	<0.01	<0.01	<1	<0.01	<1	<1	<0.01	<1	<0.01	<1	<1		<1	<1	<0.01	<1	<1	<1	<1	<1

* Sample is digested with Aqua Regia at 95C for one hour and bulked to 10 ml with distilled water. Finished by ICP-OES, Ag by AA.
Partial dissolution for Al, B, Ba,Ca, Cr,Fe,K,La,Mg,Mn,Na,P,Sr,Ti and W.

* Samples received on July 12, 2018

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Loring Laboratories Ltd.

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ISO9001:2015 Certified

To: Tim Sewlson
Purcell Basin Minerals
Box 845, Cranbrook,
BC V1C 4J6

Tel. (250) 417-7761

File No : 6 2 3 1 5
Date : August 15, 2018
Samples : Soil

30 ELEMENT ICP ANALYSIS

Sample No.	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
17148	2.4	1.64	3	94	3	2.14	<1	6	15	22	1.54	0.15	10	0.66	277	<1	0.03	21	0.03	8	1	4	37	19	0.01	<1	19	<1	38	21
17149	1.2	1.20	8	199	5	0.18	<1	11	9	23	2.01	0.10	8	0.30	746	<1	0.02	14	0.03	24	2	2	12	25	0.01	<1	8	1	67	6
17150	1.0	0.96	7	84	4	0.06	<1	7	6	24	1.90	0.09	12	0.23	141	1	0.01	13	0.02	15	2	2	7	23	0.01	<1	8	<1	60	10
17151	1.4	2.46	2	416	3	0.21	<1	7	12	9	1.40	0.18	3	0.29	809	<1	0.06	17	0.10	11	<1	2	22	16	0.05	<1	17	1	152	2
17152	1.6	2.62	4	301	3	0.13	<1	8	6	26	1.65	0.20	4	0.19	266	<1	0.09	15	0.07	14	1	2	27	19	0.04	<1	13	1	67	3
17153	1.4	1.79	6	127	4	0.09	<1	8	7	26	2.00	0.15	8	0.26	205	1	0.04	17	0.05	17	2	2	17	24	0.03	<1	13	1	68	6
17154	1.4	1.61	7	99	5	0.12	<1	10	7	27	2.19	0.15	8	0.26	193	1	0.03	18	0.04	19	2	2	12	26	0.03	<1	17	1	74	6
17155	1.4	2.26	4	204	2	0.16	<1	7	6	28	1.26	0.15	5	0.14	191	<1	0.16	13	0.07	11	1	2	33	14	0.05	<1	13	<1	50	3
17156	1.2	1.52	5	101	5	0.08	<1	8	8	22	2.12	0.20	13	0.28	217	1	0.03	18	0.05	19	2	2	14	27	0.02	<1	15	1	82	4
17157	1.2	1.23	6	122	5	0.12	<1	8	8	22	2.10	0.19	12	0.28	266	1	0.02	16	0.07	20	2	2	16	27	0.02	<1	16	1	114	3
17158	1.2	1.32	5	124	5	0.11	<1	9	8	19	2.01	0.20	10	0.27	285	1	0.02	16	0.08	20	2	2	14	25	0.02	<1	16	1	135	3
17159	1.6	1.94	5	119	5	0.10	<1	8	8	26	2.16	0.24	11	0.28	172	1	0.05	17	0.02	20	2	3	18	27	0.03	<1	17	1	69	12
17160	1.8	2.84	4	233	4	0.23	<1	10	14	12	1.93	0.16	13	0.38	256	1	0.03	19	0.03	15	1	5	23	24	0.04	<1	22	<1	58	16
17161	1.8	3.72	4	228	3	0.21	<1	9	7	20	1.56	0.14	6	0.17	279	<1	0.11	13	0.04	13	1	3	30	18	0.10	<1	20	1	80	7
17162	2.0	3.73	3	363	4	0.25	<1	10	16	9	1.87	0.28	4	0.40	355	1	0.07	22	0.03	15	1	4	30	22	0.06	<1	22	1	107	18
17163	1.6	2.89	6	233	4	0.13	<1	10	9	15	1.77	0.20	6	0.24	257	1	0.05	19	0.05	18	1	2	16	21	0.05	<1	18	1	99	6
17164	1.4	2.00	4	181	4	0.19	<1	10	13	14	1.85	0.24	10	0.34	286	1	0.03	18	0.04	18	1	3	16	23	0.03	<1	22	1	74	8
17165	2.0	3.26	4	236	3	0.61	<1	9	17	13	1.77	0.23	10	0.53	363	1	0.05	18	0.05	12	1	5	26	22	0.05	<1	24	1	66	10
17166	2.0	3.39	3	296	3	0.18	<1	9	15	13	1.81	0.17	10	0.35	312	1	0.04	18	0.04	12	1	4	20	22	0.07	<1	25	1	76	11
17167	1.2	1.39	6	110	4	0.06	<1	8	7	23	1.76	0.15	13	0.28	174	1	0.03	15	0.03	13	1	2	9	22	0.01	<1	9	<1	58	8
17168	1.4	1.92	3	261	3	0.14	<1	7	13	8	1.61	0.14	4	0.32	383	<1	0.04	14	0.17	9	1	2	15	18	0.04	<1	17	1	122	1
17169	1.4	1.81	5	136	3	0.13	<1	7	6	25	1.64	0.16	7	0.19	233	<1	0.09	12	0.06	10	1	2	22	18	0.03	<1	12	<1	40	3
17170	1.8	3.07	3	210	3	0.13	<1	8	13	18	1.65	0.16	8	0.33	320	1	0.06	15	0.09	10	1	3	16	19	0.07	<1	24	1	63	2
17171	1.8	3.41	3	327	3	0.16	<1	9	14	11	1.83	0.20	8	0.37	303	<1	0.06	19	0.09	11	1	4	23	22	0.07	<1	24	1	87	3
17172	1.4	2.12	5	255	3	0.13	<1	7	7	17	1.64	0.14	10	0.22	265	<1	0.06	17	0.07	12	1	2	17	20	0.04	<1	13	1	64	4
17173	1.2	2.03	6	387	3	0.08	<1	7	6	17	1.67	0.17	6	0.23	167	<1	0.06	13	0.11	11	1	2	15	20	0.03	<1	9	1	76	2
17174	1.2	1.39	5	144	3	0.06	<1	7	8	13	1.68	0.19	18	0.32	125	<1	0.02	14	0.05	10	1	1	10	22	0.01	<1	10	<1	48	5
17175	1.4	2.43	3	280	3	0.16	<1	7	27	11	1.57	0.16	3	0.34	377	1	0.04	18	0.10	10	1	2	17	18	0.05	<1	22	1	68	2
17176	1.0	1.24	3	130	3	0.04	<1	6	7	15	1.52	0.20	17	0.29	165	<1	0.03	12	0.03	8	1	2	11	20	0.01	<1	8	<1	55	6
17177	1.4	1.60	7	160	5	0.05	<1	7	9	31	2.10	0.21	17	0.32	192	1	0.03	16	0.03	14	2	3	12	27	0.01	<1	11	<1	52	9
Blank	<0.5	<0.01	<1	<1	<1	<0.01	<1	<1	<1	<1	<0.01	<0.01	<1	<0.01	<1	<1	<0.01	<1	<0.01	<1	<1		<1	<1	<0.01	<1	<1	<1	<1	<1

* Sample is digested with Aqua Regia at 95C for one hour and bulked to 10 ml with distilled water. Finished by ICP-OES, Ag by AA.
Partial dissolution for Al, B, Ba,Ca, Cr,Fe,K,La,Mg,Mn,Na,P,Sr,Ti and W.

* Samples received on July 12, 2018

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To: Tim Sawison
Purcell Basin Minerals
Box 845, Cranbrook,
BC V1C 4J6

Tel. (250) 417-7761

File No : 6 2 3 1 6
Date : August 16, 2018
Samples : Soil

30 ELEMENT ICP ANALYSIS

Sample No.	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
17178	1.4	1.72	4	115	3	0.13	<1	8	16	18	1.79	0.10	11	0.43	169	1	0.02	19	0.03	10	1	4	11	22	0.02	<1	20	<1	48	16
17179	1.2	1.40	4	109	3	0.06	<1	7	13	16	1.67	0.11	10	0.34	138	1	0.02	16	0.03	9	1	3	9	20	0.02	<1	18	<1	51	9
17180	1.4	1.64	6	152	4	0.06	<1	8	6	25	1.86	0.11	10	0.23	181	1	0.04	13	0.05	14	1	2	10	22	0.03	<1	12	<1	58	4
17181	1.2	1.41	7	174	4	0.10	<1	9	8	22	1.84	0.13	10	0.23	306	<1	0.03	16	0.07	21	1	2	11	22	0.02	<1	10	1	81	3
17182	1.2	0.87	7	89	4	0.04	<1	7	6	23	1.92	0.10	12	0.26	194	1	0.02	14	0.03	13	2	2	7	23	<0.01	<1	6	<1	53	6
17183	2.2	3.74	4	272	3	0.22	<1	10	16	13	1.90	0.19	17	0.38	280	1	0.07	18	0.06	13	1	6	25	24	0.09	<1	27	1	78	8
17184	1.2	1.14	7	77	3	0.06	<1	7	8	22	1.81	0.19	16	0.22	161	1	0.02	15	0.02	12	2	2	11	23	0.01	<1	12	<1	40	9
17185	1.4	1.64	7	121	4	0.22	<1	10	11	18	1.97	0.16	10	0.30	236	1	0.02	16	0.03	21	2	3	12	24	0.02	<1	16	1	76	9
17186	1.2	1.22	12	71	5	0.07	<1	9	7	29	2.17	0.13	17	0.17	159	1	0.02	17	0.02	25	3	3	10	28	0.01	<1	10	1	86	9
17187	2.0	2.97	10	214	5	0.29	<1	17	9	28	2.15	0.26	8	0.22	410	1	0.06	39	0.14	39	2	3	42	26	0.06	<1	16	2	263	1
17188	1.6	2.42	7	332	3	0.31	1	13	8	15	1.67	0.22	3	0.18	686	1	0.05	32	0.10	37	1	2	42	19	0.06	<1	16	3	416	2
17189	1.8	2.86	10	250	5	0.09	<1	12	9	32	2.21	0.21	15	0.21	187	1	0.06	21	0.04	24	2	4	23	28	0.06	<1	19	1	105	6
17190	1.8	2.08	8	251	4	0.12	<1	10	7	29	1.81	0.13	15	0.16	322	1	0.06	22	0.04	21	2	3	21	23	0.04	<1	14	1	85	7
17191	1.2	1.12	9	66	4	0.06	<1	8	8	26	1.98	0.12	24	0.23	139	1	0.02	15	0.02	14	2	2	9	27	0.01	<1	11	<1	40	7
17192	1.4	2.00	4	179	3	0.17	<1	8	16	14	1.80	0.16	12	0.38	144	1	0.02	17	0.03	12	1	4	15	22	0.04	<1	24	1	57	24
17193	1.4	1.78	8	202	4	0.10	<1	10	8	31	1.91	0.12	8	0.23	288	1	0.03	16	0.10	16	1	2	10	22	0.03	<1	13	1	94	2
17194	1.4	1.23	10	96	4	0.05	<1	8	8	22	2.06	0.13	15	0.28	136	1	0.02	16	0.04	14	2	2	8	26	0.01	<1	11	<1	58	7
17196	1.8	2.61	4	259	4	0.14	<1	9	14	12	1.87	0.16	8	0.37	144	1	0.04	18	0.05	11	1	3	18	22	0.05	<1	23	1	75	6
17196	2.0	1.83	5	123	4	0.11	<1	8	8	22	1.88	0.19	14	0.26	224	<1	0.05	13	0.06	14	1	2	13	23	0.03	<1	12	0	49	6
17197	1.2	1.29	8	196	4	0.16	<1	8	9	21	1.97	0.10	9	0.28	161	1	0.01	18	0.07	15	1	2	8	23	0.01	<1	11	<1	58	3
17198	1.4	0.93	7	95	4	0.04	<1	7	7	20	1.92	0.08	17	0.28	153	<1	0.01	14	0.04	13	2	2	6	24	0.01	<1	7	<1	54	5
17199	1.2	0.99	5	131	3	0.06	<1	6	7	12	1.73	0.13	18	0.27	153	<1	0.02	13	0.05	10	1	1	9	22	0.01	<1	8	1	60	4
17200	1.8	1.87	11	136	5	0.23	<1	12	13	28	2.36	0.27	12	0.29	715	1	0.03	19	0.05	22	2	5	21	31	0.01	<1	11	1	77	7
17451	2.0	2.05	12	143	6	0.32	1	13	14	31	2.47	0.31	10	0.28	951	1	0.04	21	0.06	27	3	5	24	32	0.01	<1	12	1	91	8
17452	1.8	1.74	12	234	5	0.34	<1	16	11	34	2.22	0.24	8	0.26	1320	1	0.03	21	0.10	24	2	3	31	27	0.01	<1	12	1	111	4
17453	1.6	1.20	16	82	6	0.32	<1	12	8	32	2.48	0.17	4	0.30	565	1	0.02	18	0.05	22	3	3	20	30	<0.01	<1	8	1	80	5
17454	1.6	1.85	12	127	6	0.15	<1	10	12	42	2.47	0.17	13	0.26	554	1	0.02	22	0.04	19	3	5	17	32	0.01	<1	11	1	94	7
17455	1.4	1.15	9	147	4	0.14	<1	12	8	22	2.09	0.11	11	0.30	733	<1	0.02	14	0.05	23	1	2	10	25	0.01	<1	7	1	66	4
17456	1.0	0.76	10	27	4	0.07	<1	8	6	26	2.18	0.06	13	0.26	209	<1	0.01	14	0.03	19	2	2	6	26	<0.01	<1	6	<1	52	7
17457	1.0	0.72	10	82	4	0.07	<1	8	6	19	2.06	0.08	13	0.23	485	1	0.01	13	0.04	15	2	1	9	24	<0.01	<1	6	<1	56	3
Blank	<0.5	<0.01	<1	<1	<1	<0.01	<1	<1	<1	<1	<0.01	<0.01	<1	<0.01	<1	<1	<0.01	<1	<0.01	<1	<1		<1	<1	<0.01	<1	<1	<1	<1	<1

* Sample is digested with Aqua Regia at 95C for one hour and bulked to 10 ml with distilled water. Finished by ICP-OES, Ag by AA.
Partial dissolution for Al, B, Ba,Ca, Cr,Fe,K,La,Mg,Mn,Na,P,Sr,Ti and W.

* Samples received on July 12, 2018

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ISO9001:2015 Certified

To: Tim Sewlson
Purcell Basin Minerals
Box 846, Cranbrook,
BC V1C 4J6

Tel. (250) 417-7761

File No : 6 2 3 1 5
Date : August 15, 2018
Samples : Soil

30 ELEMENT ICP ANALYSIS

Sample No.	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
17301	2.4	0.27	12	249	4	0.14	<1	16	11	24	2.03	0.25	11	0.23	343	1	0.11	23	0.19	44	1	4	19	24	0.09	<1	23	1	190	1
17302	2.0	0.27	4	276	3	0.12	<1	10	15	10	1.90	0.20	12	0.29	695	1	0.08	18	0.11	13	1	5	16	23	0.10	<1	27	1	106	3
17303	1.4	0.24	4	210	3	0.13	<1	9	14	15	1.85	0.09	12	0.28	364	1	0.02	20	0.06	13	1	4	11	21	0.05	<1	20	1	72	5
17304	2.2	0.27	5	446	3	0.12	<1	12	16	23	1.95	0.16	14	0.28	370	1	0.06	28	0.12	15	<1	5	17	23	0.10	<1	27	1	101	2
17306	2.4	0.27	5	399	3	0.10	<1	11	15	14	1.93	0.17	12	0.27	465	1	0.07	23	0.12	13	<1	5	14	23	0.09	<1	26	1	105	2
17306	1.8	0.25	6	186	5	0.29	<1	16	13	44	2.40	0.24	8	0.36	482	1	0.03	39	0.03	25	1	4	19	28	0.03	<1	18	1	104	12
17307	2.0	0.26	4	254	3	0.22	<1	9	18	8	1.70	0.22	7	0.28	386	1	0.03	46	0.10	10	1	3	32	19	0.06	<1	28	2	210	2
17308	2.0	0.26	9	224	5	0.16	<1	19	13	44	2.47	0.17	5	0.33	735	1	0.04	32	0.06	20	1	3	20	28	0.05	<1	21	1	123	5
17309	2.2	0.27	5	256	3	0.12	<1	12	13	15	1.94	0.16	9	0.31	353	1	0.07	23	0.10	12	<1	4	17	22	0.10	<1	27	1	126	2
17310	2.0	0.26	5	226	4	0.11	<1	15	14	33	2.12	0.12	12	0.36	328	1	0.03	29	0.07	18	1	4	23	25	0.07	<1	24	1	117	4
17311	2.6	0.22	4	190	3	1.12	<1	8	18	19	1.48	0.16	13	0.86	323	1	0.12	60	0.07	8	1	4	36	16	0.04	<1	25	2	224	7
17312	2.8	0.17	5	81	2	2.18	1	6	19	12	1.11	0.19	11	3.33	364	1	0.03	60	0.11	8	1	3	40	12	0.01	<1	23	2	243	3
17313	2.8	0.17	5	81	2	2.22	1	5	19	10	1.06	0.21	11	3.62	324	1	0.03	60	0.10	6	1	3	40	11	0.02	<1	23	2	245	3
17314	3.0	0.25	8	257	4	0.87	1	11	40	22	2.18	0.40	12	0.57	841	1	0.05	195	0.13	13	1	6	60	26	0.04	<1	48	6	843	4
17315	2.0	0.28	4	445	4	0.13	<1	11	13	19	2.07	0.18	13	0.31	243	1	0.06	21	0.10	13	1	5	35	24	0.08	<1	25	1	95	2
17316	2.2	0.30	2	354	3	0.18	<1	10	18	15	1.84	0.26	7	0.28	262	1	0.11	51	0.06	9	<1	4	53	21	0.07	<1	28	2	198	8
17317	2.2	0.31	7	365	5	0.35	<1	20	18	36	2.63	0.31	9	0.47	962	1	0.06	43	0.07	26	1	5	42	31	0.08	<1	27	1	152	7
17318	2.0	0.30	5	243	5	0.29	<1	15	21	20	2.36	0.25	6	0.47	379	1	0.04	40	0.04	18	1	3	30	27	0.06	<1	31	1	130	12
17319	1.8	0.27	9	164	5	0.23	<1	17	17	36	2.64	0.24	11	0.64	497	1	0.03	36	0.03	21	1	3	21	31	0.03	<1	23	1	98	11
17320	2.8	0.27	10	220	4	1.75	1	11	45	25	2.15	0.39	8	1.45	741	1	0.04	132	0.19	13	1	6	67	25	0.03	<1	61	4	423	3
17321	2.6	0.32	6	294	3	0.36	<1	15	15	16	2.24	0.19	6	0.32	881	1	0.09	23	0.48	16	<1	3	26	25	0.14	<1	32	2	213	1
17322	2.4	0.85	7	281	7	0.12	<1	12	11	26	2.20	0.14	5	0.27	400	1	0.08	22	0.17	14	1	3	15	22	0.12	<1	24	3	145	10
17323	2.4	0.85	6	219	6	0.23	<1	11	13	22	2.31	0.21	11	0.30	405	<1	0.12	23	0.13	14	1	4	31	22	0.11	<1	28	2	116	2
17351	1.6	0.73	3	132	4	0.12	<1	6	13	9	1.92	0.21	12	0.31	186	1	0.05	14	0.04	9	1	3	19	20	0.03	<1	19	1	69	12
17352	2.2	0.81	6	364	7	0.35	<1	10	17	17	2.39	0.25	16	0.36	413	<1	0.07	30	0.09	13	2	5	22	24	0.07	<1	26	2	114	4
17353	3.0	0.56	6	81	3	5.87	1	6	23	12	1.35	0.25	12	4.37	432	1	0.04	64	0.13	8	1	3	50	14	0.01	<1	28	5	323	4
17354	3.2	0.49	4	67	2	7.50	<1	4	17	10	0.98	0.21	9	5.89	294	1	0.04	50	0.09	6	2	2	44	11	0.01	<1	20	3	217	7
17355	3.0	0.49	6	64	2	7.44	<1	4	17	8	0.95	0.23	9	5.84	300	1	0.04	43	0.09	6	1	2	48	11	0.01	<1	20	3	207	10
17356	2.4	0.76	7	998	7	1.27	1	14	16	48	2.30	0.22	11	0.23	4784	<1	0.06	21	0.47	25	1	4	83	21	0.07	<1	22	11	698	1
17357	2.0	0.85	7	375	7	0.18	<1	13	16	18	2.64	0.35	5	0.36	1167	1	0.09	27	0.05	21	1	3	24	24	0.09	<1	29	2	142	7
Blank	<0.5	<0.01	<1	<1	<1	<0.01	<1	<1	<1	<1	<0.01	<0.01	<1	<0.01	<1	<1	<0.01	<1	<0.01	<1	<1		<1	<1	<0.01	<1	<1	<1	<1	<1

* Sample is digested with Aqua Regia at 95C for one hour and bulked to 10 ml with distilled water. Finished by ICP-OES, Ag by AA. Partial dissolution for Al, B, Ba,Ca, Cr,Fe,K,La,Mg,Mn,Na,P,Sr,Ti and W.

* Samples received on July 12, 2018

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To: Tim Sawison
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Box 845, Cranbrook,
BC V1C 4J6

Tel. (250) 417-7761

File No : 6 2 3 1 5
Date : August 15, 2018
Samples : Soil

30 ELEMENT ICP ANALYSIS

Sample No.	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
17358	2.2	4.76	7	202	7	0.16	<1	14	16	30	2.84	0.21	12	0.38	352	1	0.08	28	0.08	17	1	4	22	27	0.11	<1	32	2	136	4
17359	2.4	5.83	10	236	5	0.37	<1	8	10	14	2.05	0.16	8	0.17	834	1	0.16	14	0.67	8	<1	4	24	20	0.15	<1	25	2	138	1
17360	1.6	3.28	6	161	7	0.14	<1	12	13	24	2.43	0.20	12	0.38	318	1	0.07	26	0.09	15	1	4	18	23	0.06	<1	23	2	101	4
17361	1.8	3.80	5	267	5	0.72	<1	11	16	19	2.11	0.22	10	0.29	770	<1	0.18	26	0.33	18	1	4	48	21	0.09	<1	21	4	233	2
17362	2.0	3.96	11	203	9	0.77	1	16	28	19	2.97	0.29	11	0.48	659	<1	0.09	35	0.18	22	2	4	28	29	0.07	<1	40	2	102	3
17363	1.8	3.56	11	222	8	0.47	1	14	44	17	3.19	0.59	31	0.43	1023	1	0.07	144	0.18	18	2	7	76	32	0.03	<1	65	11	704	3
17364	2.2	5.69	7	461	7	0.56	1	10	28	24	2.69	0.32	18	0.33	436	1	0.24	107	0.12	11	2	6	63	27	0.10	<1	39	7	460	4
17365	1.6	3.07	7	206	7	0.19	<1	10	24	22	2.66	0.29	20	0.31	422	1	0.08	68	0.10	13	1	5	61	26	0.04	<1	38	5	304	4
17366	2.0	5.29	7	578	8	0.17	<1	13	20	24	3.23	0.26	16	0.43	587	1	0.08	27	0.14	16	2	6	35	30	0.10	<1	36	2	141	3
Blank number tag	2.2	6.82	8	403	8	0.27	<1	15	14	57	2.92	0.20	17	0.31	606	1	0.12	27	0.16	30	2	6	34	28	0.18	<1	36	3	165	5
Blank	<0.5	<0.01	<1	<1	<1	<0.01	<1	<1	<1	<1	<0.01	<0.01	<1	<0.01	<1	<1	<0.01	<1	<0.01	<1	<1		<1	<1	<0.01	<1	<1	<1	<1	<1

* Sample is digested with Aqua Regia at 95C for one hour and bulked to 10 ml with distilled water. Finished by ICP-OES, Ag by AA. Partial dissolution for Al, B, Ba,Ca, Cr,Fe,K,La,Mg,Mn,Na,P,Sr,Ti and W.

* Samples received on July 12, 2018

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To: Tim Hewlson
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File No : 62336
Date : August 16, 2018
Samples : Soil

30 ELEMENT ICP ANALYSIS

Sample No.	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
17367	1.4	2.49	4	198	5	0.12	<1	8	18	11	2.10	0.20	13	0.24	578	1	0.04	49	0.11	15	1	3	27	20	0.03	<1	26	5	331	5
17368	1.2	2.43	4	192	4	0.13	<1	7	11	20	1.87	0.16	12	0.20	270	1	0.09	33	0.08	9	1	3	33	19	0.05	<1	23	3	185	7
17369	2.0	4.72	8	86	4	0.56	<1	7	12	28	1.50	0.10	13	0.11	354	<1	0.16	18	0.15	5	1	4	29	15	0.13	<1	17	1	64	10
17370	1.8	2.72	8	177	5	0.61	<1	10	22	20	2.19	0.17	8	0.22	848	<1	0.06	38	0.27	13	1	3	19	21	0.06	<1	24	3	154	2
17371	2.6	4.83	29	488	12	0.42	<1	25	46	39	4.78	0.29	29	0.25	6370	3	0.10	76	0.22	13	3	8	22	41	0.10	<1	54	1	54	4
17372	1.8	4.27	3	236	5	0.40	<1	8	12	14	1.76	0.16	11	0.21	423	<1	0.16	16	0.31	9	1	4	26	17	0.10	<1	17	3	160	3
17373	2.0	4.79	6	270	6	0.15	<1	11	14	23	2.46	0.17	9	0.33	490	1	0.10	21	0.13	12	1	4	21	23	0.10	<1	27	2	119	11
17374	2.2	4.31	3	266	7	1.00	<1	14	20	25	3.08	0.31	12	0.69	685	<1	0.06	27	0.05	19	2	5	24	29	0.06	<1	20	3	165	36
17375	1.6	3.81	7	258	8	0.23	<1	13	17	31	2.89	0.18	10	0.39	418	1	0.05	27	0.06	17	2	4	38	27	0.06	<1	27	2	112	16
17376	1.8	5.67	7	167	8	0.20	<1	14	13	32	2.83	0.17	12	0.32	342	<1	0.10	25	0.15	16	1	5	27	27	0.12	<1	28	2	144	9
17377	1.8	5.62	9	305	8	0.32	<1	17	15	32	3.05	0.20	12	0.38	441	1	0.07	32	0.09	23	1	5	37	28	0.10	<1	26	2	165	9
17378	1.2	3.06	3	256	4	0.07	<1	5	10	11	1.62	0.20	12	0.16	282	<1	0.08	11	0.15	5	<1	3	22	17	0.08	<1	19	1	47	6
17379	2.8	1.87	3	284	2	6.67	<1	4	14	11	1.04	0.12	10	4.86	275	<1	0.06	10	0.13	6	2	3	32	11	0.03	<1	12	1	37	8
17380	2.2	1.88	6	154	4	4.86	<1	10	17	29	1.95	0.13	10	1.54	415	<1	0.04	20	0.08	12	2	4	31	18	0.02	<1	17	1	52	19
17381	1.8	1.80	8	117	6	2.61	<1	10	15	27	2.30	0.17	14	0.96	461	1	0.04	19	0.15	16	2	5	24	22	0.03	<1	18	2	88	6
17382	2.0	5.74	7	646	7	0.23	<1	12	15	22	2.71	0.16	13	0.29	635	1	0.09	21	0.18	15	1	5	27	25	0.13	<1	30	3	176	7
17383	1.8	5.61	6	156	5	0.14	<1	8	9	24	2.00	0.14	13	0.17	441	1	0.17	12	0.17	9	<1	6	16	20	0.13	<1	25	1	60	14
17384	1.8	2.03	5	120	7	0.30	<1	8	19	29	2.74	0.31	21	0.42	228	1	0.05	21	0.05	16	2	4	14	27	0.02	<1	18	1	64	18
17385	1.2	2.25	6	133	7	0.13	<1	9	14	22	2.91	0.29	14	0.37	237	1	0.05	20	0.05	15	2	3	13	28	0.02	<1	18	1	66	13
17386	1.8	3.83	6	228	7	0.09	<1	10	12	36	2.80	0.28	11	0.20	306	1	0.10	29	0.13	26	3	3	43	27	0.05	<1	19	3	152	7
17387	1.6	2.72	4	226	7	0.12	<1	13	9	32	2.09	0.23	13	0.16	1436	1	0.05	29	0.05	19	2	5	32	22	0.04	<1	14	2	121	8
17388	1.2	1.40	4	93	5	0.11	<1	6	8	9	1.81	0.18	5	0.27	107	1	0.03	13	0.02	10	1	1	9	18	0.02	<1	13	1	53	12
17389	1.4	2.36	6	220	6	0.15	<1	7	9	11	1.86	0.22	3	0.27	179	1	0.05	18	0.07	10	1	2	13	19	0.04	<1	17	1	76	6
17390	1.0	1.20	5	70	6	0.08	<1	5	8	11	1.81	0.18	5	0.25	133	1	0.03	13	0.04	11	1	1	10	18	0.02	<1	12	1	61	5
17391	1.8	2.66	7	218	9	0.11	<1	9	12	14	2.44	0.31	14	0.32	293	1	0.05	28	0.10	18	1	2	21	25	0.03	<1	17	2	172	4
17324	1.8	3.26	5	230	7	0.15	<1	9	12	14	2.09	0.13	4	0.27	721	1	0.05	18	0.13	15	1	3	15	21	0.08	<1	24	2	164	6
17325	2.0	3.67	5	221	7	0.16	<1	11	13	23	2.17	0.16	6	0.26	717	1	0.06	23	0.23	16	1	4	14	22	0.09	<1	23	4	279	3
17326	1.4	2.26	4	153	5	0.16	<1	7	12	10	1.63	0.15	6	0.20	533	<1	0.05	15	0.17	10	1	3	13	16	0.04	<1	18	2	111	3
17327	2.2	1.88	3	351	16	1.18	<1	14	47	9	4.66	0.21	3	0.56	2245	<1	0.06	49	0.15	14	3	16	113	41	0.02	<1	62	1	71	11
17328	3.8	1.43	10	444	15	4.72	<1	30	11	101	4.75	0.20	<1	2.00	2347	<1	0.05	30	0.07	14	10	4	70	42	0.02	<1	20	1	38	13
Blank	<0.5	<0.01	<1	<1	<1	<0.01	<1	<1	<1	<1	<0.01	<0.01	<1	<0.01	<1	<1	<0.01	<1	<0.01	<1	<1	<1	<1	<1	<0.01	<1	<1	<1	<1	<1

* Sample is digested with Aqua Regia at 95C for one hour and bulked to 10 ml with distilled water. Finished by ICP-OES, Ag by AA.
Partial dissolution for Al, B, Ba,Ca, Cr,Fe,K,La,Mg,Mn,Na,P,Sr,Ti and W.

* Samples received on July 25, 2018

Certified by:

ISO9001:2015 Certified

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File No : 62336
Date : August 18, 2018
Samples : Soil

30 ELEMENT ICP ANALYSIS

Sample No.	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm	Zr ppm
17329	1.8	2.41	4	142	8	1.92	<1	12	17	26	2.52	0.25	8	1.09	362	<1	0.04	26	0.03	17	1	4	25	25	0.03	<1	18	2	105	27
17330	1.8	3.43	6	237	7	0.29	<1	10	12	17	2.12	0.16	6	0.32	689	<1	0.06	23	0.10	15	1	4	28	21	0.08	<1	21	2	148	8
17331	2.2	3.57	8	173	11	0.16	<1	18	13	45	3.05	0.21	8	0.40	753	1	0.06	36	0.07	24	2	5	26	30	0.07	<1	23	2	134	10
17332	1.8	4.31	8	325	9	0.20	<1	14	12	26	2.61	0.19	7	0.32	452	1	0.08	28	0.09	19	2	4	30	24	0.09	<1	24	2	140	10
17333	2.0	5.13	8	244	10	0.28	<1	16	19	28	2.98	0.24	11	0.46	595	1	0.09	33	0.10	22	1	5	33	29	0.12	<1	31	2	147	10
17334	2.0	6.24	9	307	11	0.25	<1	16	16	31	3.02	0.25	15	0.40	457	1	0.13	29	0.14	19	2	7	33	30	0.15	<1	32	2	155	12
17335	2.8	2.66	7	166	8	7.21	<1	12	20	47	2.44	0.27	8	1.28	529	<1	0.06	26	0.09	17	3	4	42	23	0.04	<1	22	2	126	23
17336	2.0	3.05	1	177	17	0.39	<1	5	6	7	5.55	0.44	3	0.25	980	4	0.10	6	0.06	38	2	10	40	47	0.03	<1	15	4	256	15
17337	2.0	4.74	13	321	12	0.26	1	14	16	17	3.75	0.28	2	0.35	1367	1	0.10	21	0.21	102	2	5	26	33	0.10	<1	31	13	963	5
17338	2.0	3.79	4	103	4	0.19	<1	8	6	19	1.39	0.12	7	0.13	492	1	0.14	10	0.16	9	<1	3	19	14	0.13	<1	21	2	111	9
17339	2.2	5.10	5	195	7	0.20	<1	9	10	16	2.38	0.18	8	0.22	805	1	0.12	11	0.18	9	1	4	21	23	0.15	<1	30	2	117	9
17340	2.0	3.93	2	261	10	0.35	<1	6	10	10	3.12	0.20	7	0.27	1612	2	0.14	8	0.13	27	1	5	35	28	0.13	<1	26	3	232	6
17341	2.2	2.84	3	140	18	0.20	<1	4	6	21	6.57	0.17	91	0.22	887	3	0.08	4	0.05	11	2	10	17	57	0.05	<1	16	2	134	12
Blank	<0.5	<0.01	<1	<1	<1	<0.01	<1	<1	<1	<1	<0.01	<0.01	<1	<0.01	<1	<1	<0.01	<1	<0.01	<1	<1	<1	<1	<1	<0.01	<1	<1	<1	<1	<1

* Sample is digested with Aqua Regia at 95C for one hour and bulked to 10 ml with distilled water. Finished by ICP-OES, Ag by AA.
Partial dissolution for Al, B, Ba,Ca, Cr,Fe,K,La,Mg,Mn,Na,P,Sr,Ti and W.

* Samples received on July 25, 2018

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