## ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Geological and Geochemical Work - Assessment Report on the Rollie Creek \& Frank Creek Properties, Cariboo Mining District, British Columbia.

TOTAL COST: \$20,813.00

## AUTHOR(S): Rein Turna

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YEAR OF WORK: 2016
PROPERTY NAME: Rollie Creek \& Frank Creek
CLAIM NAME(S) (on which work was done) 1038886 and 1038887

COMMODITIES SOUGHT: Gold, Silver \& Copper
MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN: N/K
MINING DIVISION: Cariboo
BCGS: 093A/11, 93A/12, 93A/13 \& 93A/14
LATITUDE $52.74^{\circ} \mathbf{N}$
LONGITUDE $\mathbf{1 2 1 . 4 5}{ }^{\circ} \mathbf{~ W}$
UTM Zone NAD 83 EASTING 604800 NORTHING 5844500
OWNER(S): Barker Minerals Ltd.
MAILING ADDRESS: 8384 Toombs Drive Prince George BC, V2K 5A3
OPERATOR(S) [who paid for the work]: Barker Minerals Ltd. MAILING ADDRESS: 8384 Toombs Drive Prince George BC, V2K 5A3

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude do not use abbreviations or codes)
Upper Triassic, Lower Jurrassic, Andesitic Volcanics, Gold, Silver \& Copper

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS


# GEOLOGICAL \& GEOCHEMICAL 

## ASSESSMENT REPORT

on the

# ROLLIE CREEK \& FRANK CREEK PROPERTIES 

Cariboo Mining Division, British Columbia

The geographic coordinates of the Rollie property are: $52.74^{\circ}$ North Latitude and $121.45^{\circ}$ West Longitude or 604800 E and 5844500 N UTM coordinates (NAD 83)

The relevant maps are:
N.T.S. Map No. 93A/11, 93A/12, 93A/13 and 93A/14.

for
Barker Minerals Ltd. 8384 Toombs Drive
Prince George, B.C.
V2K 5A3

Prepared by:
Rein Turna

July 20, 2016


Figure No. 1 Satellite image of Two Mile Creek in Rollie Area. The large lake is Cariboo Lake. The small dark lake is Two Mile Lake. Two Mile Creek, represented by the blue line, flows south out of the lake, then eastward to Cariboo Lake. The Rollie work area in this report is labelled "Stinger Sulphides in OC" in the lower portion of the creek. Red colours overlain on this image represent $1^{\text {st }}$ derivative magnetic high anomalies from the Geological Survey of Canada airborne geophysical survey of 2009. The central portion of Two Mile Creek has a mag high anomaly within a wider mag low area. The mag high on the creek is associated with pyrrhotite occurrences within an area of altered and sulphide mineralized outcrop. A discussion of the $B C$ and Federal governments' airborne geophysical surveys over this area, done in 2009, can be found in Assessment Reports 31389 and 35468by Turna, R.

### 1.0 SUMMARY

Work performed in 2016 on Barker Minerals Ltd.'s Rollie property consisted mainly of rock sampling in the lower portion of Two Mile Creek. There, a flash flood in 2015 exposed new outcrops containing massive sulphide mineralization. 129 geochemical analyses were made of rocks collected in the current program. Detailed maps and geochemical data are presented in Appendix H .

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### 2.0 INTRODUCTION

This report describes assessment work performed in 2016 on Barker Minerals Ltd.'s Rollie property. The work was concentrated in the area of tenure nos. 1038886 and 1038887. Rock samples were analyzed by X-ray fluorescence (XRF) for multiple elements. The purpose was to add geochemical information to the existing database and to identify potential mineralized lithologic horizons in an on-going mineral exploration program.

Definitions of technical terms used in this report are provided in Appendix A, Glossary of Technical Terms and Abbreviations. Chemical abbreviations are used for the elements discussed. The elements and abbreviations are:

| Ag | Silver | Cd | Cadmium | K | Potassium |
| :--- | :--- | :--- | :--- | :--- | :--- |
| As | Arsenic | Co | Cobalt | Pb | Lead |
| Au | Gold | Cr | Chromium | Sb | Antimony |
| Ba | Barium | Cu | Copper | Sn | Tin |
| Bi | Bismuth | Fe | Iron | Zn | Zinc |

### 3.0 PROPERTY DESCRIPTION and LOCATION

The Rollie property consists of contiguous claims listed in Appendix B - Barker Minerals Ltd. Mineral Claims Details. The property's location in British Columbia is indicated in Figure No. 2 - Two Mile Creek Property Location in British Columbia, and the mineral claims are outlined in Figure No. 3 - Barker Minerals Ltd. Mineral Claims. The mineral claims comprising the property are located generally in the area between Quesnel and Cariboo Lakes of the Cariboo Mining Division in British Columbia and are 100\% owned by Barker Minerals Ltd. of Prince George, B.C. The property is approximately 15 km northeast of the settlement of Likely and 80 km northeast the City of Williams Lake. The City of Prince George is 155 km to the north.

The geographic coordinates of the Rollie property are: $52.74^{\circ}$ North Latitude and $121.45^{\circ}$ West Longitude or 604800 E and 5844500 N UTM coordinates (NAD 83).
The relevant maps are:
N.T.S. Map No. 93A/11, 93A/12, 93A/13 and 93A/14.


Figure No. 2 Barker Minerals Ltd. Rollie Creek \& Frank Creek Property location in British Columbia.

### 4.0 MINERAL CLAIMS

Details about the mineral claims are provided in Appendix B - Barker Minerals Ltd. Mineral Claims Details. Fig. No. 3 on the next page illustrates the configuration of the mineral claims relevant to this report.


### 5.0 PHYSIOGRAPHY and ACCESSIBILITY

The following description in italics, is after McKinley, 2004:
The property is situated in the central part of the Quesnel Highland between the eastern edge of the Interior Plateau and the western foothills of the Columbia Mountains. This area contains rounded mountains that are transitional between the rolling plateaus to the west and the rugged Cariboo Mountains to the east. Pleistocene and Recent ice sheets flowed away from the high mountains to the east over these plateaus and down to the southwest (Cariboo River), west (Little River) and northeast (Quesnel Lake), carving U-shaped valleys. The elevation ranges from 700-1650 m.

Precipitation in the region is heavy, as rain in the summer and snow in the winter. Drainage is to the west via the Cariboo, Little and Quesnel Rivers to the Fraser River. Quesnel Lake, the main scenic and topographic feature in the region, is a deep, long, forked, glacier-carved lake with an outlet at 725 m elevation. Vegetation is old-growth spruce, fir, pine, hemlock and cedar forest in all but the alpine regions of the higher mountains (mainly above 1400 m elevation).

Access to the Rollie property is via gravel logging roads bearing northeast from Likely. Figure No. 4 shows access roads from Likely to Barker's mineral properties.


Figure No. 4 Access roads from Likely to several of Barker Minerals' properties.

### 6.0 HISTORY

Frank Creek has an extensive work history spanning two decades. The most detailed summary of this work is provided in Assessment Report 35157 by Turna, R.

### 6.1 History of Work Done in area of the Rollie property

### 6.1.1 Work done on the Peacock Showing (Minfile No. 093A 133) on Rollie).

For work done in 1926 and 1933 the relevant reports are the Minister of Mines Annual Reports (MMAR) for 1926, pg A178 and 1933, pg A138.

The Minister of Mines Annual Reports state a 50 foot width of schisted sediments show a 'stockwork' of quartz veins across Duck [Two Mile] Creek where a large number of veins average 1 foot wide, the widest 5 feet. The MMAR reports for 1926 and 1933 state the Peacock claims to be on Duck Creek. Geological Survey of Canada Map 278 (Bowman, 1889), indicates Duck Creek to be that which is now named Two Mile Creek. On the Peacock claims several quartz veins contained galena with silver values. A picked sample of galena contained $40 \% \mathrm{~Pb}, 6 \% \mathrm{Zn}, 29 \mathrm{oz} / \mathrm{Ton} \mathrm{Ag}$ and $0.02 \mathrm{oz} / \mathrm{Ton} \mathrm{Au}$. A rock sample from the enclosing pyritic schisted sedimentary rock assayed 1\% copper. A prominent outcrop of apparently silicified green mica-schist occurred on the property.

Work was done in 1987-1988 for C.E. Carlson on the Duck 1 and Duck 2 claim groups totaling 154 claim units covering the lower portions of Rollie and Asserlind Creek drainages at the southwest end of Cariboo Lake. For work done in the 1980's the relevant reports are Assessment Reports 17254, 17426, 18298, 18794.

In 1987 1,179 soil samples were collected over a $1.5 \mathrm{~km} \times 1.6 \mathrm{~km}$ area and analyzed for precious and base metals. The survey area was approximately 2.5 km north of Rollie (Duck) Creek. The area of the grid was underlain by dark grey and greenish phyllites and siltites in contact with diorite. Anomalous results in the soils were considered to result from abnormally high metal content of a dark grey phyllite formation carrying abundant up to 10$15 \%$ disseminated pyrite. This rock typically had geochem values of 200-300 ppm Cu and $300-350 \mathrm{ppm} \mathrm{Zn}$. This soil survey did not indicate any worthy drill targets. An EM geophysical survey was recommended.

In 1988 a soil survey ( 127 samples) and a total of 5.48 line km of a VLF-EM geophysical survey and 7 holes ( $1,034 \mathrm{~m}$ ) of drilling were done. The soil samples were collected over a $700 \mathrm{~m} \times 800 \mathrm{~m}$ area approximately 1.2 km south of Rollie Creek and adjacent to the Keithley Creek Road. The soils were analyzed for precious and base metals. No significant anomaly occurred. Further soil sampling was recommended but not done. The geophysical survey, done in the same area as the soil survey, defined a contact zone between granitic gneiss and weakly mineralized or graphitic phyllite. A moderately strong EM anomaly was attributed to a graphitic phyllite unit. Though no trenching or drilling targets were established by the EM survey further rock and soil sampling was recommended.

The drill program tested copper mineralization occurring in dark grey phyllite and siltite as strong disseminations and massive lenses. The drill holes were sparsely located, 3 on the north side of the lower portion of Rollie Creek, 4 holes near Two Mile Creek where the "Peacock" showing is located in the Minfile. The exploration target was a sedimentaryhosted large tonnage Cu-Ag deposit. The drill program did not indicate such a deposit but recommendations were made to continue exploration for fault and vein related mineralization.

### 6.1.2 Work done in 2014

The relevant report is Assessment Report 35157 by R. Turna.

Soils were sampled by Barker Minerals Ltd. along the Keithley Creek Road along the west shore of Cariboo Lake. Further soils and rocks were collected further west on the 1500 Road and Rollie Branch Road. Approximately 160 soils and 50 rocks were analyzed. A "vms" massive sulphide boulder was discovered on the lower portion of the 1500 Road, 1.0 km north of the "Unlikely" showing.

An intense vertical shear, striking E-W, was mapped at the "Unlikely" outcrop. An E-W topographic lineament, visible in satellite photos, runs from the Unlikely showing to the Frank Creek massive sulphide prospect, 5.0 km eastward.

### 6.1.3 Work done in 2015-2016

The relevant assessment reports are by Turna, R., 35468 dated July 31, 2015, 35717 dated November 30, 2015, March 15, 2016 and May 15, 2016.

Re. AR 35468, dated July 31, 2015 :
Reconnaissance rock sampling was done in the hills above the Keithley Creek Road on the west side of Cariboo Lake; in Area A ( 54 rocks), in Area B ( 160 rocks), in Area C ( 48 rocks). Numerous rocks had anomalous values in base and pathfinder metals. Sulphide mineralization was observed widespread in outcrops. Rock samples in Areas B6 and B7 had $17.41 \mathrm{ppm}, 27.93 \mathrm{ppm}, 10.38 \mathrm{ppm}$ and 22.00 ppm in gold. Follow- up geological, geochemical and geophysical surveys were recommended.

Re. AR 35717, dated November 30, 2015 :
Reconnaissance soil and rock sampling was done along roads in the Rollie Creek and Two Mile Creek areas; in Area A (52 soils, 132 rocks), in Area B ( 52 soils, 40 rocks), in Area C (20 soils, 20 rocks). Soil Sample No. 2941 in Area B had 11.15 ppm Au. Numerous rocks and soils had anomalous values in base metals. Sulphide mineralization was observed widespread in outcrops, including massive sulphide mineralization at the "vms boulder", indicating the known Unlikely and Peacock Minfile occurrences were underappreciated. Follow- up geological, geochemical and geophysical surveys were recommended.

## Re. AR dated March 15, 2016:

A beaver dam at the head of Two Mile Creek broke in 2015. The resulting flash flood in the creek exposed new outcrop revealing previously unknown semi and massive sulphide mineralization. 49 rock samples from the upper and middle portions of Two Mile Creek were analyzed for multiple metals. 47 soils were sampled along the Rollie-Kangaroo connector road on the west side of Rollie Lake. These rocks and soils had high values in base and pathfinder elements. A structural and genetic link was proposed between the new exposures on Two Mile Creek and the known "Unlikely" semi-massive showing 600 m to the east and the Frank Creek massive sulphide showing on the opposite side of Cariboo Lake. Follow- up geological, geochemical and geophysical surveys were recommended.

Re. AR dated May 15, 2016:
94 rock samples from the middle portion of Two Mile Creek were analyzed for multiple metals. 33 soils on the Rollie bench road were analyzed. New rock exposures, resulting from the previous year's flash flood. The 94 rocks sampled in 2016 had high values in Zn (up to 823 ppm ), Cu (up to $7,379 \mathrm{ppm}$ ), and Pb (up to $10,911 \mathrm{ppm}$ ) in argillite and quartzose schists. Rock sample 4585 had 12.04 ppm Au in pyritic argillite. The Hall vms showing, a $2 \mathrm{~m} \times 10 \mathrm{~m}$ massive sulphide body consisted of pyrite, pyrrhotite and chalcopyrite with Cu values up to $48,069 \mathrm{ppm}$ in a grab sample. Comprehensive geological, geochemical and geophysical follow up surveys recommended.

### 7.0 GEOLOGY

### 7.1 Regional Geology



Figure No. 5 Terrane Map of Southern British Columbia. Barker Minerals' properties are indicated by the red star over the Barkerville subterrane. The brown star to the SE is the Barkerville Gold Mine Ltd.' Goldstream volcanogenic massive sulphide deposit. Map is from Ferri, F. \& Schiarizza, P., 2006.


Figure No. 6 Terrane Map of Cariboo Lake - Wells Area. Several Barker Minerals' properties are indicated by red stars. Map is from Ferri, F. \& Schiarizza, P., 2006.


Figure No. 7 Geology of Wells-Cariboo Lake area. Highlighted on the BCGS map are Barker Minerals' Frank Creek and Unlikely massive sulphide prospects. The Harveys Ridge succession consists of siltstone, quartzite and the Frank Creek volcanics. Map is from Ferri, F. \& Schiarizza, P., 2006.

The geological descriptions below derive mainly from Struik (1988), Panteleyev et al. (1996) and Payne and Perry (2001).

During the mid-Jurassic the North American continental plate collided with a group of island arcs to the west. Regional deformation and metamorphism are related to these events.


Figure No. 8 Schematic regional structural section from southwest to northeast across the four Terranes in Barker Minerals' claims area, showing the relative structural position of the Terranes. The Terrane symbols are BV-Barkerville, C-Cariboo, Sma-Slide Mountain (Antler Formation), SMcSlide Mountain (Crooked amphibolite), QN-Quesnel and NA-North American. (after Struik, 1988).

## Quesnel Terrane

The Late Triassic to Early Jurassic Quesnel Terrane...was accreted to the North American continent, in part by subduction and in part by obduction. The Eureka Thrust fault marks the boundary between the Quesnel and Barkerville terranes. The terrane is partly submarine and partly subaerial, consisting of volcanic and volcaniclastic rocks and co-magmatic intrusions, with minor carbonate lenses and related sedimentary rocks.

The principal assemblage in the Quesnel Terrane is the Triassic-Jurassic Nicola Group island arc - marginal basin sequence. The underlying rocks are the Crooked Amphibolite, part of the Slide Mountain assemblage, a mylonitized mafic and ultramafic unit of oceanic marginal basin volcanic and sedimentary rocks. Rocks of Quesnel Terrane and Crooked Amphibolite are structurally coupled and tectonically emplaced by the Eureka Thrust onto the Barkerville Terrane, to the east.

Two lithostratigraphic subdivisions of the Quesnel Terrane consists of: a basal Middle to Late Triassic metasedimentary unit of dominantly black phyllitic rocks, approximately 7 km thick, and an overlying Late Triassic to Early Jurassic volcanic arc assemblage, approximately 9 km thick. The overlying volcanic rocks outline a northwesterly trending belt of subaqueous and subaerial volcanic rocks, deposited along a series of volcanic-intrusive centres that define the Quesnel island arc of predominantly alkalic basalts.

Within...the northern extension of the Quesnel Trough, the term...Takla Group has been applied to rocks identical to the Quesnel belt rocks...Equivalent rocks to the south...are generally referred to as Nicola Group...Baily (1978) pointed out the similarity of the Quesnel volcanic units with both the Nicola Group rocks to the south and the Takla Group rocks to the north... The term Takla leads to ambiguity because in northern British Columbia it has been used for rocks in both Quesnel and Stikine terranes...The usage for the TriassicJurassic volcanic arc and related rocks in Quesnellia currently preferred is Nicola Group. The term Takla Group possibly should be discarded... (Panteleyev et al., (1996).

The Quesnel Trough is a well-mineralized region typical of other Late Triassic to Early Jurassic volcano-plutonic island arcs in the Cordillera. It hosts a wide variety of mineral deposits. The principal recent exploration and economic development targets in the central Quesnel belt are alkalic intrusion-related porphyry copper-gold deposits and gold-bearing propylitic alteration zones formed in volcanic rocks peripheral to some of the intrusions. Other important targets are auriferous quartz veins in the black phyllite metasedimentary succession. The veins in some black phyllite members have potential to be mined as large tonnage, low-grade deposits. Tertiary rocks are mineralized with copper and gold. Antimony-arsenic and mercury mineralization in some apparently low temperature quartzcalcite veins indicated the potential for epithermal deposits. Placer mining for gold, said to occur together with platinum, has been of major historical and economic importance.

## Slide Mountain Terrane

Rocks of the Devonian to Late Triassic Slide Mountain Terrane were partly obducted, partly subducted during collision of an oceanic plate with the continent. Small slices of mainly mafic volcanic rocks and ultramafic rocks of the Slide Mountain Terrane occur in and parallel to the Eureka thrust. Minor lithologies include chert, meta-siltstone and argillite.

The Crooked Amphibolite, considered to likely be a part of the Slide Mountain Terrane, includes three major constituent rock types: greenstone, metagabbro and meta-ultramafite. North of Quesnel Lake, the map units consist of mafic metavolcanics, amphibolite, chlorite schist, serpentinite, ultramafic rocks and pillow lavas. Chemical analyses indicate subalkaline tholeiitic compositions of basalts formed on the ocean floor. If the Crooked Amphibolite is a sheared and metamorphosed equivalent of the Antler Formation and is part of the Slide Mountain Terrane, it is separated from the underlying Barkerville Terrane by the Eureka Thrust, a wide zone of mylonitization. The Crooked amphibolite and the overlying rocks of Quesnel Terrane are structurally coupled and emplaced tectonically onto Barkerville Terrane.

## Barkerville Terrane

The Barkerville Terrane is made up of the Snowshoe Group and Quesnel Lake gneiss. The Snowshoe Group rocks are Upper Proterozoic to Upper Devonian metasediments, considered correlative in age with the Eagle Bay Formation in the Kootenay Terrane to the south. The Snowshoe Group rocks are dominated by varieties of grit, quartzite, pelite,
limestone and volcaniclastic rocks. The stratigraphic sequence is not well understood. The region was deformed by intense, complex, in part isoclinal folding and overturning. Locally, strong shear deformation produced mylonitic textures. The Quesnel Lake Gneiss is a Devonian to Mississippian intrusive unit varying in composition from diorite to granite to syenite. It is generally coarse grained, leucocratic, often with megacrysts of potassium feldspar. The main body of gneiss is 30 km long by 3 km wide and is elongated parallel to the eastern border of the Intermontane belt. Its contacts are in part concordant with, and in part perpendicular to, metamorphic layering.

The contact between the Barkerville Terrane and Cariboo Terrane to the east is the Pleasant Valley Thrust. The Barkerville and Cariboo Terranes were juxtaposed prior to emplacement of the Slide Mountain Terrane which was thrust over both of them. The northeastern third of the Barkerville Terrane is the main zone of economic interest in the Cariboo district. Struik described it as "gold-enriched", because it contains the historic Wells and Barkerville gold mines and the Cariboo Hudson deposit, approximately 40 km and 20 km northwest of the project area, respectively.

## Cariboo Terrane

The northeastern part of Barker Minerals' 'Peripheral' claim group is underlain by Precambrian to Permo-Triassic marine peri-cratonic sedimentary strata of the Cariboo terrane. The Cariboo Terrane consists mainly of limestone and dolomite with lesser siliceous, clastic, sedimentary rocks and argillite. Some geologists believe that the Cariboo Terrane is a shallow, near-shore facies and the Barkerville is a deeper, offshore facies of the same erosion-deposition system. No rifting is suspected between the Cariboo Terrane and the North American continent, in contrast to that between the Barkerville Terrane and the North American continent. Lithologies within the Cariboo Terrane correlate well with parts of the Classier Platform and Selwyn Basin of Yukon and northern British Columbia.

The Cariboo and Barkerville Terranes are separated by the regional Pleasant Valley Thrust fault, which dips moderately to steeply northeast. Struik (1988) states the Cariboo block was thrust from the east over the Barkerville block along a strike length of over 100 km . The Cariboo Terrane was cut by the Jurassic-Cretaceous Little River stock, a medium-grained granodiorite grading to quartz monzonite. Some of the carbonate layers in the lowest part of the Cariboo terrane (or upper part of the Barkerville Terrane) are enriched in zinc and lead. Since the 1970's, preliminary exploration on stratiform $\mathrm{Zn}-\mathrm{Pb}$ targets has been conducted in this area.

## Glaciation and glacial deposits

The last glacial stage that affected the Quesnel Highland, the Fraser glaciation, began 30,000 years ago. Much of this ice had melted by 10,000 years ago, but small remnants are preserved high in the alpine areas of the Cariboo Mountains. At lower elevations, glaciers of this age scoured the debris left by preceding ice advances, almost completely destroying them, leaving a chaotic assemblage of unsorted till, moraine and drift, with lenses of gravel and sand that had been roughly sorted by melt water and rivers, leaving behind beds of silt and clay that were stratified by settlement in ice-dammed lakes. In the Cariboo area, the
debris covers bedrock in valleys below $1,700 \mathrm{~m}$, leaving typical glacial features such as U shaped valleys, ice-sculpted drumlins, moraine terraces and glacier and river benches. On the Barker Minerals properties, glacial deposits range from one to a few tens of metres thick. Some glacial till deposits are overlain by well-bedded glaciolacustrine clay and silt deposits up to a few tens of metres thick.

In much of the Cariboo district, a layer of distinctive, hard, compact, semi-rigid blue clay sits either on or slightly above bedrock and acts as "false" bedrock. It was formed from glacial drift left behind by the last ice advance prior to the Fraser glaciation and was compacted by the weight of the Fraser stage ice. In the placer-gold areas of the Cariboo, large amounts of gold were recovered from gravel resting on this clay. In places the clay layer was penetrated by the placer miners to reach richer "pay streaks" on true bedrock below.

### 7.2 Local Geology at Unlikely - Rollie Area, Southern Cariboo Lake

The Unlikely prospect is a volcanogenic massive sulphide prospect, similar to the Frank Creek prospect on the opposite side of Cariboo Lake. The geology (Figure No. 7) for WellsCariboo Lake area shows the location of the Unlikely and Frank Creek massive prospects.

### 7.2.1 The Unlikely Showing, (Minfile No. 093A 163)

For relevant reports see F. Ferri, $(2002,2003)$.

The "Unlikely" Cu-bearing semi massive sulphide occurrence was discovered in 2001. It is located along the Keithley Creek Road, approximately 2 kilometres southwest of the community of Keithley Creek on the west side of Cariboo Lake.

Mineralogy, overall characteristics and association with mafic metavolcanics suggest this a stratiform massive sulphide mineralization similar to that at Frank Creek ( 5.0 km to the east). The showing is up to 1.5 m thick and can be traced for approximately 10 to 15 m . The mineralized zone is highly siliceous and appears to be silicified Harveys Ridge lithologies. Green-mica bearing, ankerite altered and silicified horizons up to several metres thick occur above the showing. Chemical analyses suggest these are highly altered mafic volcanic sequences originally of alkaline composition (Minfile No. 093A 163).

The stratiform nature, lithologic association and mineralogy are similar to that at Frank Creek, 5 km to the east. Sulphides consist of disseminated pyrite, pyrrhotite and chalcopyrite. Sulphide mineralization is variable from about 10 to $50 \%$. The main sulphide body is about 2 metres wide by 10 metres long. The strike of the sulphide horizon is parallel with overall bedding. The mineralized zone appears to be silicified and there are quartz veins nearby. The sulphides also form discontinuous lenses parallel to the bedding.

Little attention has been paid to the Unlikely showing $t$ during the course of work in previous years at Frank Creek to the east. A re-examination of Unlikely in 2014 outlined two mineralized horizons similar in nature to that found at Frank Creek, 3 metres apart, in
addition to the known main sulphide body. They run parallel to each other and are approximately 150 cm to 350 cm in thickness. One layer is exposed over a strike length of 4 metres; the second layer is exposed over 3 metres. Both horizons have sulphides comprised of pyrite with minor chalcopyrite and are open in both directions along strike, and at depth.

Host rocks are dark grey to black phyllites and siltstones. Relatively massive, blocky Fe carbonate-altered horizons of volcanic rock occur above the showing. Bedding is locally intensely folded adjacent to an east-west shear in the outcrop. This tight folding may be related to drag within a shear zone that has had significant movement as it contrasts sharply with the overall much more gentle folding in the outcrops around.

### 8.0 EXPLORATION PROGRAM, 2016

### 8.1 Sampling Method and Approach

Rock samples were analyzed for multiple elements using the Niton XL3t handheld X-ray fluorescence analyzer from Thermo Scientific Inc. Further information on this instrument is at the Niton website http://www.niton.com/en/niton-analyzers-products/x|3/x|3t. An overview of sample analysis using energy dispersive X-ray fluorescence (EDXRF), adapted from the Niton website, is in Appendix C.

Most rock analyses were done at Barker Minerals' field office in Likely. Coordinates were collected at all sample locations. The coordinates are provided in Table No. 1. The rocks were analyzed in a manner to determine both their "high grade" and "low grade" values at each site, in order to minimize a "nugget" effect and to determine background values. The XRF analysis method does not replace laboratory assay. It detects the presence or absence of multiple elements in prospecting and, up to a certain point, the intensity of mineralization and correlation among elements in a specimen. The XRF is very useful in analysis for base economic and pathfinder metals though Au needs to be in relatively high grade in order to be detected by the XRF. Altogether 129 geochemical analyses were made of rocks.

### 8.2 Economic Targets and Work Done

Rock sampling was done over outcrops, many newly exposed by a recent major flood on Two Mile Creek. The economic target is volcanogenic massive sulphide and gold-bearing quartz veins.

Two Mile Creek was swept by a flash flood in July, 2015 when a beaver dam in the creek's head waters burst. The flood scoured the entire creek down from Two Mile Lake down and exposed new mineralized outcrops and temporarily blocked the Keithley Creek Road at the Cariboo Lake shore.

### 8.3 Rollie Area (Two Mile Creek, lower portion)

One hundred and five rock samples were collected from outcrop, exposed by the flash flood in 2015. Semi and massive sulphide mineralization occur in the outcrop, consisting mainly of pyrite, pyrrhotite and chalcopyrite was identified. Zn (up to 510 ppm ), Cu (up to 21,122 ppm), and Pb (up to $1,767 \mathrm{ppm}$ ) anomalies occurred in quartz and mica schists and argillites and siltstones.

### 8.4 Frank Area

Twenty four rock samples were collected from outcrops. The sampling targets were quartz veins in argillite. Pyrite occurred in most of the rocks sampled. The best results were for Zn (up to 779 ppm ) and Cu (up to $1,397 \mathrm{ppm}$ ).

### 9.0 CONCLUSIONS

The $\mathrm{Zn}, \mathrm{Cu}$ and Pb results in rocks in this small work program provide encouragement for further sampling, particularly at Two Mile Creek in the Rollie Area.

### 10.0 RECOMMENDATIONS

More extensive and intensive geochemical sampling in the Unlikely-Two Mile Creek area is required to follow up this massive sulphide and gold prospect. Comprehensive geological mapping and geophysical surveys are also warranted. Frank Creek has an extensive work history and previous recommendations for continued follow-up stand.

## APPENDIX A

Glossary of Technical Terms and Abbreviations

## Glossary of Technical Terms and Abbreviations

Anomalous Chemical and mineralogical changes and higher than typical background values in elements in a rock resulting from reaction with hydrothermal fluids or increase in pressure or temperature.

Anomaly The geographical area corresponding to anomalous geochemical or geophysical values.

Argentiferous Containing silver.

| Background | The typical concentration of an eleme <br> generally referring to values below so <br> designated as anomalous. |
| :--- | :--- |
| BBE | Black Bear East property. |
| BCGS | British Columbia Geological Survey. |

B.C. MEMPR British Columbia Ministry of energy Mines and Petroleum Resources.
cm Centimetre.

| Cratonic | Pertaining to a craton, an old part of the continental crust, generally making up <br> the interior portion of a continent such as North America. |
| :--- | :--- |
| DCIP | An electrical method which uses the injection of current and the measurement of <br> voltage and its rate of decay to determine the subsurface resistivity and <br> chargeability. |
| DDH | Diamond drill hole. |
| eg. | exemp/İ grātiā (for the sake of example). |
| EM | Electromagnetic. |
| E-W | East-West. |
| Float | Loose rocks or boulders; the location of the bedrock source is not known. |
| GBC | Geoscience BC. |
| GSC | Geological Survey of Canada. |


| Grab sample | A sample of a single rock or selected rock chips collected from within a restricted area of interest. |
| :---: | :---: |
| $\mathrm{g} / \mathrm{t}$ | Grams per tonne (metric tonne). |
|  | $34.29 \mathrm{~g} / \mathrm{t}$ (metric tonnes) $=1.00 \mathrm{oz} / \mathrm{T}$ (short tons). |
| Ha | Hectare - an area totalling 10,000 square metres, e.g., an area 100 metres by 100 metres. |
| HLEM | Horizontal loop electromagnetic. |
| IP | Induced polarization. |
| km | Kilometre. |
| lb . | Pound. |
| Leucocratic | Light-coloured. |
| m | Metre. |
| Max-Min | An HLEM technique to test for resistivity and conductivity of rocks. |
| MT | Magnetotelluric. A electrical method that uses natural variations in the Earth's magnetic field to induce electric current in the ground to determine the subsurface resistivity. |
| my | Million years. |
| NE-SW | Northeast-Southwest. |
| NNW-SSE | North northwest - South southeast. |
| NW | Northwest. |
| NW-SE | Northwest - Southeast. |
| N-S | North-South. |
| OF | Open File. |
| oz. | Ounce. |
| oz/T | ounces per ton (Imperial measurement). |

$34.29 \mathrm{~g} / \mathrm{t}$ (metric tonnes) $=1.00 \mathrm{oz} / \mathrm{T}$ (short tons).

| oz/st | ounces per short ton (Imperial measurement, same as oz/T). <br> $34.29 \mathrm{~g} / \mathrm{t}$ (metric tonnes) $=1.00 \mathrm{oz} / \mathrm{st}$ (short tons). |
| :--- | :--- |
| ppb | Parts per billion. |
| ppm | Parts per million (1 ppm = 1,000 ppb = 1 g/t). |
| Protolith | The original rock before it was metamorphosed. |
| QUEST | Quesnellia Exploration Strategy, a BCGS geophysical survey. |
| Sedex | Sedimentary-exhalative mineral deposit type. |
| SE | Southeast. |
| TEM or TDEM Time Domain EM. |  |
| Tensor-magnetotelluric $\quad$ See MT. |  |

Tholeiitic A type of basalt. The most common volcanic rocks on Earth, produced by submarine volcanism at mid-ocean ridges and make up much of the ocean crust. Chemically, these basalts have been described as subalkaline, that is, they contain less $\left(\mathrm{Na}_{2} \mathrm{O}\right.$ plus $\left.\mathrm{K}_{2} \mathrm{O}\right)$ at similar $\mathrm{SiO}_{2}$ than alkali basalt.

TRIM Terrain Resource Information Management, series of 1:20,000 scale maps.
VLF Very low frequency.
VLF-EM Very low frequency electromagnetic.
VMS Volcanic-related massive sulphide.

XRF X-ray florescence.

## APPENDIX B

Barker Minerals Ltd. - Mineral Claim Details

| Title <br> Number | Claim <br> Name | Owner | Title <br> Type | Title Sub <br> Type | Map <br> Number |  | Good To <br> Issue Date | Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | Status Area (ha)

## APPENDIX C

Analytical Methods

# Overview of sample analysis using energy dispersive X-ray fluorescenc using the Thermo Scientific Niton XL3t handheld XRF analyzer 

Thermo Scientific portable energy-dispersive x-ray fluorescence (EDXRF) analyzers, commonly known as XRF analyzers, can quickly and nondestructively determine the elemental composition of metal and precious metal samples of rocks, ore and soil.

Up to 40 elements may be analyzed simultaneously by measuring the characterisitic fluorescence x -rays emitted by a sample. XRF analyzers can quantify elements ranging from magnesium ( Mg - element 12) through uranium ( $U$ - element 92) and measure $x$-ray energies from 1.25 keV up to 85 keV in the case of Pb K-shell fluorescent x-rays excited with a ${ }^{109} \mathrm{Cd}$ isotope. These instruments also measure the elastic (Raleigh) and inelastic (Compton) scatter x-rays emitted by the sample during each measurement to determine, among other things, the approximate density and percentage of the light elements in the sample.

## Elemental Analysis - A Unique Set of Fingerprints

How does XRF work? Each of the elements present in a sample produces a unique set of characteristic x-rays that is a "fingerprint" for that specific element. XRF analyzers determine the chemistry of a sample by measuring the spectrum of the characteristic x-ray emitted by the different elements in the sample when it is illuminated by $x$-rays. These $x$-rays are emitted either from a miniaturized $x$-ray tube, or from a small, sealed capsule of radioactive material.

1. A fluorescent $x$-ray is created when an $x$-ray of sufficient energy strikes an atom in the sample, dislodging an electron from one of the atom's inner orbital shells.
2. The atom regains stability, filling the vacancy left in the inner orbital shell with an electron from one of the atom's higher energy orbital shells.
3. The electron drops to the lower energy state by releasing a fluorescent x-ray, and the energy of this $x$-ray is equal to the specific difference in energy between two quantum states of the electron.


Atom emits characteristic X -rays when illuminated by x -rays from a primary source.

When a sample is measured using XRF, each element present in the sample emits its own unique fluorescent $x$-ray energy spectrum. By simultaneously measuring the fluorescent $x$-rays emitted by the different elements in the sample, the Thermo Scientific portable XRF analyzers can rapidly determine those elements present in the sample and their relative concentrations - in other words, the elemental chemistry of the sample.


Overview of the Thermo Scientific Niton XL3t handheld XRF analyzer.

APPENDIX D

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APPENDIX E

STATEMENT of AUTHOR'S QUALIFICATIONS

## Statement of Author's Qualifications

I, Rein Turna, of the City of West Vancouver, British Columbia, hereby certify that:

1. I am Vice President of Exploration of Barker Minerals Ltd.
2. I am a graduate of the University of British Columbia with a B.Sc. in Geological Sciences granted in 1975.
3. I am a registered member of the Professional Engineers and Geoscientists of British Columbia.
4. I have worked as a geologist in British Columbia, Saskatchewan, Ontario, Yukon and Northwest Territories in Canada since 1975.
5. I carried out or supervised work described in this report.
R. Turna, P.Geo.

July 20, 2016

APPENDIX F

STATEMENT of EXPENDITURES

## Barker Minerals Ltd.

Work was completed between October 15, 2015 and March 11, 2016
Work was done on claim \#'s 1038886 \& 1038887
Event \# 5595433
Rollie Creek - Frank Creek Properties - Geological - Office
Louis Doyle
Planning, managing \& interpretation
Room \& board

| 1 | $\$ 600.00$ | $\$$ | 600.00 |
| ---: | ---: | ---: | ---: |
| 1 | $\$ 150.00$ | $\$$ | 150.00 |
|  |  |  |  |
| 5 | $\$ 600.00$ | $\$$ | $3,000.00$ |
| 5 | $\$ 150.00$ | $\$$ | 750.00 |
|  |  |  |  |
| 1 | $\$ 350.00$ | $\$$ | 350.00 |
| 1 | $\$ 150.00$ | $\$$ | 150.00 |
|  |  | $\$$ | $\mathbf{5 , 0 0 0 . 0 0}$ |

## Rollie Creek - Frank Creek Properties - Geochemical - Field

## Louis Doyle

Rock sample collections
(C Rd. - 8400 Rd. target)
Rock sample collections (2 Mile)
Rock sample collections (2 Mile)
Rock sample collections (2 Mile)
Rock sample collections (2 Mile)
Room \& board
Vehicle \& gas
Brian Hall
Rock sample collections
(C Rd. - 8400 Rd. target)
Rock sample collections (2 Mile)
Rock sample collections (2 Mile)
Rock sample collections (2 Mile)
Rock sample collections (2 Mile)
Room \& board
Louis Doyle
Rock sample preparation \& descriptions
Rock sample preparation \& descriptions
Room \& board

| Date | Days | Rate | Sub-total |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| March 3, 2016 | 1 | $\$ 600.00$ | $\$$ | 600.00 |
|  |  |  |  |  |
| March 4, 2016 | 1 | $\$ 600.00$ | $\$$ | 600.00 |
| March 5, 2016 | 1 | $\$ 600.00$ | $\$$ | 600.00 |
| March 6, 2016 | 1 | $\$ 600.00$ | $\$$ | 600.00 |
| March 7, 2016 | 1 | $\$ 600.00$ | $\$$ | 600.00 |
|  | 5 | $\$ 150.00$ | $\$$ | 750.00 |
|  | 5 | $\$ 150.00$ | $\$$ | 750.00 |
|  |  |  |  |  |
|  | 1 | $\$ 500.00$ | $\$$ | 500.00 |
|  |  |  |  |  |
|  | 1 | $\$ 500.00$ | $\$$ | 500.00 |
|  | 1 | $\$ 500.00$ | $\$$ | 500.00 |
| March 3, 2016 4, 2016 | 1 | $\$ 500.00$ | $\$$ | 500.00 |
| March 5, 2016 | 1 | $\$ 500.00$ | $\$$ | 500.00 |
| March 6, 2016 | 5 | $\$ 150.00$ | $\$$ | 750.00 |
| March 7, 2016 |  |  |  |  |
|  | 1 | $\$ 600.00$ | $\$$ | 600.00 |
|  | 1 | $\$ 600.00$ | $\$$ | 600.00 |
| March 8, 2016 | 2 | $\$ 150.00$ | $\$$ | 300.00 |

## Barker Minerals Ltd.

Work was completed between September 28 and November 23, 2015
Work was done on claim \# 1038887
Event \# 5579853
Rollie Creek - Frank Creek Properties - Geochemical - Field (continued)
Brian Hall - XRF operator
XRF analysis

| March 8, 2016 | 1 | $\$ 500.00$ | $\$$ | 500.00 |
| :--- | :--- | :--- | :--- | ---: |
| March 9, 2016 | 1 | $\$ 500.00$ | $\$$ | 500.00 |
|  | 2 | $\$ 150.00$ | $\$$ | 300.00 |
|  | 7 | $\$ 200.00$ | $\$$ | $1,400.00$ |
|  |  | Sub-total | $\$$ | $\mathbf{1 1 , 9 5 0 . 0 0}$ |

Rollie Creek - Frank Creek Properties - Travel to/from
Louis Doyle

| Travel from | 1 | $\$ 600.00$ | $\$$ | 600.00 |
| :--- | :--- | :--- | :--- | :--- |
| Room \& board | 1 | $\$ 150.00$ | $\$$ | 150.00 |
| Vehicle \& gas | 1 | $\$ 150.00$ | $\$$ | 150.00 |
| Brian Hall |  |  |  |  |
| Travel from | 1 | $\$ 500.00$ | $\$$ | 500.00 |
| Room \& board | 1 | $\$ 150.00$ | $\$$ | 150.00 |
| Vehicle \& gas | 1 | $\$ 150.00$ | $\$$ | 150.00 |
|  |  | Sub-total | $\$$ | $\mathbf{1 , 7 0 0 . 0 0}$ |

Rollie Creek - Frank Creek Properties - Misc. expenditures
Safety equipment (MTC), exploration supplies \& equipment, communication devices \& quad
Exploration supplies \& equipment
MTC rental
7 \$ 250.00 \$ $1,750.00$
Communication devices


Rollie Creek - Frank Creek Properties Expenditure Summary

| Geological Sub-total | $\$$ | $5,000.00$ |
| ---: | ---: | ---: |
| Geochemical Sub-total | $\$$ | $11,950.00$ |
| Travel to/from Sub-total | $\$$ | $1,700.00$ |
| Misc. Expenditures Sub-total | $\$$ | $2,163.00$ |

APPENDIX G

ROCK SAMPLE DESCRIPTIONS AND COORDINATES

Table No. 1
Sample Coordinates and Descriptions

$\longrightarrow$| Po = pyrrhotite |
| :--- |
| $\mathrm{Py}=$ pyrite |
| $\mathrm{Cpy}=$ chalcopyrite |
| $\mathrm{Y}, \mathrm{N}=\mathrm{Yes}$, No |

Cpy = chalcopyrite
Y,N = Yes, No

|  |  | Rollie - Two Mil | eek 20 | ock Samp |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Magnetic | Colour | Alteration | Minerals | Rock <br> Type | Sample Type |  |
| 4627 | 2 mile-01 | Fig. 11 / Rollie | Rock | 605326 | 5844349 | Y | Rusty | Y | Po/Py/Cpy | Mica schist | Float |  |
| 4628 | 2 mile-01a | Fig. 11 / Rollie | Rock | 605326 | 5844349 | Y | Rusty | Y | Po/Py/Cpy | Mica schist | Float |  |
| 4629 | 2 mile-01b | Fig. 11 / Rollie | Rock | 605326 | 5844349 | Y | Rusty | Y | Po/Py/Cpy | Mica schist | Float |  |
| 4630 | 2 mile-02 | Fig. 11 / Rollie | Rock | 605310 | 5844350 | Y | Rusty | Y | Po/Py/Cpy | Mica schist | Float |  |
| 4631 | 2 mile-02a | Fig. 11 / Rollie | Rock | 605310 | 5844350 | Y | Rusty | Y | Po/Py/Cpy | Mica schist | Float |  |
| 4632 | 2 mile-02b | Fig. 11 / Rollie | Rock | 605310 | 5844350 | Y | Rusty | Y | Po/Py/Cpy | Mica schist | Float |  |
| 4633 | 2 mile-03 | Fig. 11 / Rollie | Rock | 605285 | 5844350 | Y | Rusty | Y | Po/Py/Cpy | Quartz schist | Outcrop |  |
| 4634 | 2 mile-03a | Fig. 11 / Rollie | Rock | 605285 | 5844350 | Y | Rusty | Y | Po/Py/Cpy | Quartz schist | Outcrop |  |
| 4635 | 2 mile-03b | Fig. 11 / Rollie | Rock | 605285 | 5844350 | Y | Rusty | Y | Po/Py/Cpy | Quartz schist | Outcrop |  |
| 4636 | 2 mile-04 | Fig. 11 / Rollie | Rock | 605271 | 5844351 | Y | Rusty | Y | Po/Py/Cpy | Quartz schist | Outcrop |  |
| 4637 | 2 mile-04a | Fig. 11 / Rollie | Rock | 605271 | 5844351 | Y | Rusty | Y | Po/Py/Cpy | Quartz schist | Outcrop |  |
| 4638 | 2 mile-04b | Fig. 11 / Rollie | Rock | 605271 | 5844351 | Y | Rusty | Y | Po/Py/Cpy | Quartz schist | Outcrop |  |
| 4639 | 2 mile-05 | Fig. 11 / Rollie | Rock | 605256 | 5844347 | N | Rusty | N | N | Quartz | Outcrop |  |
| 4640 | 2 mile-05a | Fig. 11 / Rollie | Rock | 605256 | 5844347 | N | Rusty | N | N | Quartz | Outcrop |  |
| 4641 | 2 mile-05b | Fig. 11 / Rollie | Rock | 605256 | 5844347 | N | Rusty | N | N | Quartz | Outcrop |  |
| 4642 | 2 mile-06 | Fig. 11 / Rollie | Rock | 605246 | 5844341 | $N$ | Rusty | N | N | Quartz | Outcrop |  |
| 4643 | 2 mile-06a | Fig. 11 / Rollie | Rock | 605246 | 5844341 | N | Rusty | N | N | Quartz | Outcrop |  |
| 4644 | 2 mile-06b | Fig. 11 / Rollie | Rock | 605246 | 5844341 | N | Rusty | N | Po/Py | Quartz | Outcrop |  |
| 4645 | 2 mile-07 | Fig. 11 / Rollie | Rock | 605230 | 5844328 | Y | Rusty | N | Po/Py | Argillite | Outcrop |  |
| 4646 | 2 mile-07a | Fig. 11 / Rollie | Rock | 605230 | 5844328 | Y | Rusty | N | Po/Py | Argillite | Outcrop |  |
| 4647 | 2 mile-07b | Fig. 11 / Rollie | Rock | 605230 | 5844328 | Y | Rusty | N | Po/Py | Argillite | Outcrop |  |
| 4648 | 2 mile-08 | Fig. 11 / Rollie | Rock | 605213 | 5844324 | Y | Rusty | N | $\mathrm{Po} / \mathrm{Py}$ | Argillite | Outcrop |  |
| 4649 | 2 mile-08a | Fig. 11 / Rollie | Rock | 605213 | 5844324 | Y | Rusty | N | Po/Py | Argillite | Outcrop |  |
| 4650 | 2 mile-08b | Fig. 11 / Rollie | Rock | 605213 | 5844324 | Y | Rusty | N | Po/Py | Argillite | Outcrop |  |
| 4651 | 2 mile-09 | Fig. 11 / Rollie | Rock | 605196 | 5844318 | Y | Rusty | N | $\mathrm{Po} / \mathrm{Py}$ | Argillite | Outcrop |  |
| 4652 | 2 mile-09a | Fig. 11 / Rollie | Rock | 605196 | 5844318 | Y | Rusty | N | $\mathrm{Po} / \mathrm{Py}$ | Argillite | Outcrop |  |
| 4653 | 2 mile-09b | Fig. 11 / Rollie | Rock | 605196 | 5844318 | Y | Rusty | N | Po/Py | Argillite | Outcrop |  |
| 4654 | 2 mile-10 | Fig. 11 / Rollie | Rock | 605185 | 5844316 | Y | Rusty | Oxidized | $\mathrm{Po} / \mathrm{Py}$ | Schist | Outcrop | Rusty shell, blue inside |
| 4655 | 2 mile-10a | Fig. 11 / Rollie | Rock | 605185 | 5844316 | Y | Rusty | Oxidized | Po/Py | Schist | Outcrop | Rusty shell, blue inside |
| 4656 | 2 mile-10b | Fig. 11 / Rollie | Rock | 605185 | 5844316 | Y | Rusty | Oxidized | Po/Py | Schist | Outcrop | Rusty shell, blue inside |
| 4657 | 2 mile-11 | Fig. 11 / Rollie | Rock | 605169 | 5844319 | Y | Rusty | Oxidized | $\mathrm{Po} / \mathrm{Py}$ | Schist | Outcrop | Rusty shell, blue inside |
| 4658 | 2 mile-11a | Fig. 11 / Rollie | Rock | 605169 | 5844319 | Y | Rusty | Oxidized | Po/Py | Schist | Outcrop | Rusty shell, blue inside |
| 4659 | 2 mile-11b | Fig. 11 / Rollie | Rock | 605169 | 5844319 | Y | Rusty | Oxidized | Po/Py | Schist | Outcrop | Rusty shell, blue inside |
| 4660 | 2 mile-12 | Fig. 11 / Rollie | Rock | 605158 | 5844315 | Y | Black | $N$ | $\mathrm{Po} / \mathrm{Py}$ | Argillite schist | Outcrop |  |
| 4661 | 2 mile-12a | Fig. 11 / Rollie | Rock | 605158 | 5844315 | Y | Black | N | Po/Py | Argillite schist | Outcrop |  |
| 4662 | 2 mile-12b | Fig. 11 / Rollie | Rock | 605158 | 5844315 | Y | Black | N | Po/Py | Argillite schist | Outcrop |  |
| 4663 | 2 mile-13 | Fig. 11 / Rollie | Rock | 605158 | 5844315 | Y | Black | N | Po/Py | Argillite schist | Outcrop |  |
| 4664 | 2 mile-13a | Fig. 11 / Rollie | Rock | 605158 | 5844315 | Y | Black | N | $\mathrm{Po} / \mathrm{Py}$ | Argillite schist | Outcrop |  |

Table No. 1
Sample Coordinates and Descriptions

| XRF No. | Sample No. | Fig. No. / Area | Type | Easting | Northing | Sample | criptions |  |  |  |  | Comment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4665 | 2 mile-13a | Fig. 11 / Rollie | Rock | 605158 | 5844315 | Y | Black | N | Po/Py | Argillite schist | Outcrop |  |
| 4666 | 2 mile-14 | Fig. 11 / Rollie | Rock | 605113 | 5844304 | Y | Black | N | $\mathrm{Po} / \mathrm{Py}$ | Argillite schist | Outcrop |  |
| 4667 | 2 mile-14a | Fig. 11 / Rollie | Rock | 605113 | 5844304 | Y | Black | N | Po/Py | Argillite schist | Outcrop |  |
| 4668 | 2 mile-14b | Fig. 11 / Rollie | Rock | 605113 | 5844304 | Y | Black | N | Po/Py | Argillite schist | Outcrop |  |
| 4669 | 2 mile-15 | Fig. 11 / Rollie | Rock | 605106 | 5844299 | N | Grey | N | N | Quartz schist | Outcrop |  |
| 4670 | 2 mile-15a | Fig. 11 / Rollie | Rock | 605106 | 5844299 | N | Grey | N | N | Quartz schist | Outcrop |  |
| 4671 | 2 mile-15b | Fig. 11 / Rollie | Rock | 605106 | 5844299 | N | Grey | N | N | Quartz schist | Outcrop |  |
| 4672 | 2 mile-16 | Fig. 11 / Rollie | Rock | 605095 | 5844293 | N | Grey | N | N | Quartz schist | Outcrop |  |
| 4673 | 2 mile-16a | Fig. 11 / Rollie | Rock | 605095 | 5844293 | N | Grey | N | N | Quartz schist | Outcrop |  |
| 4674 | 2 mile-16b | Fig. 11 / Rollie | Rock | 605095 | 5844293 | N | Grey | N | N | Quartz schist | Outcrop |  |
| 4675 | 2 mile-17 | Fig. 11 / Rollie | Rock | 605082 | 5844303 | N | Blue/green | N | N | Green mica | Float |  |
| 4676 | 2 mile-17a | Fig. 11 / Rollie | Rock | 605082 | 5844303 | N | Blue/green | N | N | Green mica | Float |  |
| 4677 | 2 mile-17b | Fig. 11 / Rollie | Rock | 605082 | 5844303 | N | Blue/green | N | N | Green mica | Float |  |
| 4678 | 2 mile-18 | Fig. 11 / Rollie | Rock | 605073 | 5844297 | Y | Brown | N | Po | Mica schist | Float |  |
| 4679 | 2 mile-18a | Fig. 11 / Rollie | Rock | 605073 | 5844297 | Y | Brown | N | Po | Mica schist | Float |  |
| 4680 | 2 mile-18b | Fig. 11 / Rollie | Rock | 605073 | 5844297 | Y | Brown | $N$ | Po | Mica schist | Float |  |
| 4681 | 2 mile-19 | Fig. 11 / Rollie | Rock | 605081 | 5844290 | Y | Brown | Oxidized | Po | Mica schist | Float |  |
| 4682 | 2 mile-19a | Fig. 11 / Rollie | Rock | 605081 | 5844290 | Y | Brown | Oxidized | Po | Mica schist | Float |  |
| 4683 | 2 mile-19b | Fig. 11 / Rollie | Rock | 605081 | 5844290 | Y | Brown | Oxidized | Po | Mica schist | Float |  |
| 4684 | 2 mile-20 | Fig. 11 / Rollie | Rock | 605072 | 5844283 | N | Brown | Oxidized | Py | Argillite schist | Outcrop |  |
| 4685 | 2 mile-20a | Fig. 11 / Rollie | Rock | 605072 | 5844283 | N | Brown | Oxidized | Py | Argillite schist | Outcrop |  |
| 4686 | 2 mile-20b | Fig. 11 / Rollie | Rock | 605072 | 5844283 | N | Brown | Oxidized | Py | Argillite schist | Outcrop |  |
| 4687 | 2 mile-21 | Fig. 11 / Rollie | Rock | 605063 | 5844277 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4688 | 2 mile-21a | Fig. 11 / Rollie | Rock | 605063 | 5844277 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4689 | 2 mile-21b | Fig. 11 / Rollie | Rock | 605063 | 5844277 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4690 | 2 mile-22 | Fig. 11 / Rollie | Rock | 605052 | 5844267 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4691 | 2 mile-22a | Fig. 11 / Rollie | Rock | 605052 | 5844267 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4692 | 2 mile-22b | Fig. 11 / Rollie | Rock | 605052 | 5844267 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4693 | 2 mile-23 | Fig. 11 / Rollie | Rock | 605017 | 5844276 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4694 | 2 mile-23a | Fig. 11 / Rollie | Rock | 605017 | 5844276 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4695 | 2 mile-23b | Fig. 11 / Rollie | Rock | 605017 | 5844276 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4696 | 2 mile-24 | Fig. 11 / Rollie | Rock | 605011 | 5844286 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4697 | 2 mile-24a | Fig. 11 / Rollie | Rock | 605011 | 5844286 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4698 | 2 mile-24b | Fig. 11 / Rollie | Rock | 605011 | 5844286 | N | Greenish | Surface ox | Py | Schist, QV | Outcrop |  |
| 4699 | 2 mile-25 | Fig. 11 / Rollie | Rock | 604969 | 5844314 | Y | Black | $N$ | Po/Py | Black argillite | Outcrop | Falls |
| 4700 | 2 mile-25a | Fig. 11 / Rollie | Rock | 604969 | 5844314 | Y | Black | N | Po/Py | Black argillite | Outcrop | Falls |
| 4701 | 2 mile-25b | Fig. 11 / Rollie | Rock | 604969 | 5844314 | Y | Black | N | Po/Py | Black argillite | Outcrop | Falls |
| 4702 | 2 mile-26 | Fig. 11 / Rollie | Rock | 604975 | 5844313 | Y | Black | N | Po/Py | Black argillite | Outcrop | Falls |
| 4703 | 2 mile-26a | Fig. 11 / Rollie | Rock | 604975 | 5844313 | Y | Black | N | Po/Py | Black argillite | Outcrop | Falls |
| 4704 | 2 mile-26b | Fig. 11 / Rollie | Rock | 604975 | 5844313 | Y | Black | N | Po/Py | Black argillite | Outcrop | Falls |
| 4705 | 2 mile-27 | Fig. 11 / Rollie | Rock | 605030 | 5844250 | Y | Blue | N | Po/Py/Cpy | Schist | Outcrop | Blue schist with quartz veins (1st log jam) |
| 4706 | 2 mile-27a | Fig. 11 / Rollie | Rock | 605030 | 5844250 | Y | Blue | N | Po/Py/Cpy | Schist | Outcrop | Blue schist with quartz veins (1st log jam) |
| 4723 | 2 mile-27b | Fig. 11 / Rollie | Rock | 605030 | 5844250 | Y | Blue | N | Po/Py/Cpy | Schist | Outcrop | Blue schist with quartz veins (1st log jam) |
| 4707 | 2 mile-28 | Fig. 11 / Rollie | Rock | 605016 | 5844253 | Y | Blue | N | Po/Py/Cpy | Schist | Outcrop | Blue schist with quartz veins (1st log jam) |
| 4708 | 2 mile-28a | Fig. 11 / Rollie | Rock | 605016 | 5844253 | Y | Blue | N | $\mathrm{Po} / \mathrm{Py} / \mathrm{Cpy}$ | Schist | Outcrop | Blue schist with quartz veins (1st log jam) |
| 4709 | 2 mile-28b | Fig. 11 / Rollie | Rock | 605016 | 5844253 | Y | White | N | Po/Py | Quartz schist | Outcrop | Falls |

Table No. 1
Sample Coordinates and Descriptions

| XRF No. | Sample No. | Fig. No. / Area | Type | Easting | Northing | Sample De | criptions |  |  |  |  | Comment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4710 | 2 mile-29 | Fig. 11 / Rollie | Rock | 604984 | 5844302 | Y | White | N | Po/Py | Quartz schist | Outcrop | Falls |
| 4711 | 2 mile-29a | Fig. 11 / Rollie | Rock | 604984 | 5844302 | Y | White | N | Po/Py | Quartz schist | Outcrop | Falls |
| 4712 | 2 mile-29b | Fig. 11 / Rollie | Rock | 604984 | 5844302 | Y | White | N | $\mathrm{Po} / \mathrm{Py}$ | Quartz schist | Outcrop | Falls |
| 4713 | 2 mile-30 | Fig. 11 / Rollie | Rock | 604956 | 5844320 | Y | White | N | Po/Py | Quartz schist | Outcrop | Falls |
| 4714 | 2 mile-30a | Fig. 11 / Rollie | Rock | 604956 | 5844320 | Y | White | N | Po/Py | Quartz schist | Outcrop | Falls |
| 4715 | 2 mile-30b | Fig. 11 / Rollie | Rock | 604956 | 5844320 | Y | White | N | Po/Py | Quartz schist | Outcrop | Falls |
| 4716 | 2 mile-31 | Fig. 11 / Rollie | Rock | 604987 | 5844318 | Y | Black | N | Po/Py | Argillite schist | Outcrop | Falls |
| 4717 | 2 mile-31a | Fig. 11 / Rollie | Rock | 604987 | 5844318 | Y | Black | N | Po/Py | Argillite schist | Outcrop | Falls |
| 4718 | 2 mile-31b | Fig. 11 / Rollie | Rock | 604987 | 5844318 | Y | Black | N | Po/Py | Argillite schist | Outcrop | Falls |
| 4719 | 2 mile-32 | Fig. 11 / Rollie | Rock | 604980 | 5844326 | N | Rusty brown | N | Po/Py | Quartz vein | Outcrop | Quartz vein at falls |
| 4720 | 2 mile-32a | Fig. 11 / Rollie | Rock | 604980 | 5844326 | N | Rusty brown | N | Po/Py | Quartz vein | Outcrop | Quartz vein at falls |
| 4721 | 2 mile-32b | Fig. 11 / Rollie | Rock | 604980 | 5844326 | $N$ | Rusty brown | N | Po/Py | Quartz vein | Outcrop | Quartz vein at falls |
| 4722 | 2 mile-33 | Fig. 11 / Rollie | Rock | 604949 | 5844325 | $N$ | Bluish | Sericite | Po/Py | Quartz vein | Outcrop | Falls |
| 4724 | 2 mile-33a | Fig. 11 / Rollie | Rock | 604949 | 5844325 | N | Bluish | Sericite | Po/Py | Quartz vein | Outcrop | Falls |
| 4725 | 2 mile-33b | Fig. 11 / Rollie | Rock | 604949 | 5844325 | N | Bluish | Sericite | Po/Py | Quartz vein | Outcrop | Falls |
| 4726 | 2 mile-34 | Fig. 11 / Rollie | Rock | 604996 | 5844296 | N | White | Sericite | N | Siltstone | Outcrop | Below falls |
| 4727 | 2 mile-34a | Fig. 11 / Rollie | Rock | 604996 | 5844296 | N | White | Sericite | N | Siltstone | Outcrop | Below falls |
| 4728 | 2 mile-34b | Fig. 11 / Rollie | Rock | 604996 | 5844296 | $N$ | White | Sericite | N | Siltstone | Outcrop | Below falls |
| 4729 | 2 mile-35 | Fig. 11 / Rollie | Rock | 605006 | 5844305 | N | White | Sericite | N | Siltstone | Outcrop | Below falls |
| 4730 | 2 mile-35a | Fig. 11 / Rollie | Rock | 605006 | 5844305 | N | White | Sericite | N | Siltstone | Outcrop | Below falls |
| 4731 | 2 mile-35b | Fig. 11 / Rollie | Rock | 605006 | 5844305 | $N$ | White | Sericite | N | Siltstone | Outcrop | Below falls |
| Frank Creek 2016 Rock Sampling |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | Magnetic | Colour | Alteration | Minerals | Rock <br> Type | Sample <br> Type |  |
| 4732 | C84-01 | Fig. 12 / Frank | Rock | 607404 | 5844587 | N | Bluish | N | N | Bluish quartz | Outcrop | Similar to quartzite |
| 4733 | C84-01a | Fig. 12 / Frank | Rock | 607404 | 5844587 | N | Bluish | N | N | Bluish quartz | Outcrop | Similar to quartzite |
| 4734 | C84-01b | Fig. 12 / Frank | Rock | 607404 | 5844587 | $N$ | Bluish | N | N | Bluish quartz | Outcrop | Similar to quartzite |
| 4735 | C84-02 | Fig. 12 / Frank | Rock | 607424 | 5844561 | N | Bluish | N | N | Bluish quartz | Outcrop | Similar to quartzite |
| 4736 | C84-02a | Fig. 12 / Frank | Rock | 607424 | 5844561 | N | Bluish | N | N | Bluish quartz | Outcrop | Similar to quartzite |
| 4737 | C84-02b | Fig. 12 / Frank | Rock | 607424 | 5844561 | $N$ | Bluish | $N$ | N | Bluish quartz | Outcrop | Similar to quartzite |
| 4738 | C84-03 | Fig. 12 / Frank | Rock | 607442 | 5844543 | $N$ | Grey | N | Py | Argillite | Outcrop | Similar to quartzite |
| 4739 | C84-03a | Fig. 12 / Frank | Rock | 607442 | 5844543 | N | Grey | N | Py | Argillite | Outcrop | Similar to quartzite |
| 4740 | C84-03b | Fig. 12 / Frank | Rock | 607442 | 5844543 | N | Grey | N | Py | Argillite | Outcrop | Similar to quartzite |
| 4741 | C84-04 | Fig. 12 / Frank | Rock | 607463 | 5844532 | N | Grey | N | Py | Argillite | Outcrop | Similar to quartzite |
| 4742 | C84-04a | Fig. 12 / Frank | Rock | 607463 | 5844532 | N | Grey | N | Py | Argillite | Outcrop | Similar to quartzite |
| 4743 | C84-04b | Fig. 12 / Frank | Rock | 607463 | 5844532 | N | Grey | N | Py | Argillite | Outcrop | Similar to quartzite |
| 4744 | C84-05 | Fig. 12 / Frank | Rock | 607481 | 5844515 | N | Grey | N | Py | Argillite | Outcrop | Similar to quartzite |
| 4745 | C84-05a | Fig. 12 / Frank | Rock | 607481 | 5844515 | N | Grey | N | Py | Argillite | Outcrop | Similar to quartzite |
| 4746 | C84-05b | Fig. 12 / Frank | Rock | 607481 | 5844515 | N | Grey | N | Py | Argillite | Outcrop | Similar to quartzite |
| 4747 | C84-06 | Fig. 12 / Frank | Rock | 607501 | 5844487 | N | Grey | N | Py | Argillite | Outcrop | Similar to quartzite |
| 4748 | C84-06a | Fig. 12 / Frank | Rock | 607501 | 5844487 | N | Grey | N | Py | Argillite | Outcrop | Similar to quartzite |
| 4749 | C84-06b | Fig. 12 / Frank | Rock | 607501 | 5844487 | $N$ | Grey | $N$ | Py | Argillite | Outcrop | Similar to quartzite |
| 4750 | C84-07 | Fig. 12 / Frank | Rock | 607517 | 5844454 | N | Blue/grey | N | Py | Quartz vein | Outcrop | Quartz vein in argillite, higher in creek |
| 4751 | C84-07a | Fig. 12 / Frank | Rock | 607517 | 5844454 | N | Blue/grey | $N$ | Py | Quartz vein | Outcrop | Quartz vein in argillite, higher in creek |
| 4752 | C84-07b | Fig. 12 / Frank | Rock | 607517 | 5844454 | N | Blue/grey | N | Py | Quartz vein | Outcrop | Quartz vein in argillite, higher in creek |


| XRF No. | Sample No. | Fig. No. / Area | Type | Easting | Northing | Sample | iptions |  |  |  |  | Comment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4753 | C84-08 | Fig. 12 / Frank | Rock | 607530 | 5844431 | N | Blue/grey | N | Py | Quartz vein | Outcrop | Quartz vein in argillite, higher in creek |
| 4754 | C84-08a | Fig. 12 / Frank | Rock | 607530 | 5844431 | N | Blue/grey | N | Py | Quartz vein | Outcrop | Quartz vein in argillite, higher in creek |
| 4755 | C84-08b | Fig. 12 / Frank | Rock | 607530 | 5844431 | N | Blue/grey | N | Py | Quartz vein | Outcrop | Quartz vein in argillite, higher in creek |

## APPENDIX H

Rollie Creek \& Frank Creek Property Maps and XRF Data Tables






Table No. 2
Rollie Area (Two Mile Creek) - XRF Sampling Results

| o. | Sample No. | Fig. No./Area | Type | Units | Mo | Zr | Sr | U | Rb | Th | Pb | Se | As | Hg | Au | Zn | W | Cu | Ni | Co | Fe | Mn | Sb | Sn | Cd | Ag | Nb | Y |  | Bi Cr | Cr | V | Ti |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4722 | 2 mile-33 | Fig. 11 / Rollie Area | rock | ppm | <LOD: | <LOD |  | $5<$ LOD | 4 | 18 | <LOD | < LOD : | 15 | <LOD | < LOD | 43 | 110 | 211 | < LOD : | < LOD | 96468 | <LOD | < LOD | < LOD | < LOD | < LOD |  | 4 |  | < LOD | LO |  | < LOD |
| 4724 | 2 mile-33a | Fig. 11 / Rollie Area | ck | ppm | <LOD: | 66 |  | 4 <LOD | 2 | 14 | < LOD | <LOD : | LOD : | < LOD | < LOD | 54 | < LOD | < LOD | < LOD | <LOD | 39156 | < LOD | : < LOD | < LOD | < LOD | < LOD | < LOD |  | - | < LOD < | < LOD | LOD | OD |
| 4725 | 2 mile-33b | Fig. 11 / Rollie Area | rock | ppm | <LOD | OD: |  | 12 |  | OD | 393 | 22 | OD | LOD | < LOD | 41 | LOD | 344 | 219 | LOD | 216193 | <LOD | :<LOD | < LOD | < LOD | < LOD | LOD |  | 5 | $93<$ | < LOD | LOD | OD |
| 4726 | 2 mile-34 | Fig. 11 / Rollie Area | rock | ppm | <LOD | 78 |  | 55 <LOD: |  | OD | LOD | <LOD |  | LOD | < LOD | 121 | LOD | 55 |  | LOD | 97991 | LOD | < LOD | <LOD | < LOD | LOD |  |  |  | < LOD < | < LOD | < LOD | LOD |
| 4727 | 2 mile-34a | Fig. 11 / Rollie Area | rock | ppm | <LOD: | 74 |  | 8 < LOD: |  | LOD | LOD | D |  | < LOD | D | 70 | < LOD | 33 | < LOD : | 669 | 48 | LOD | : < LOD |  | < LOD | OD |  |  | OD $<$ | < LOD < | < LOD | < LOD | LOD |
| 4728 | 2 mile-34b | Fig. 11 / Rollie Area | rock | ppm | <LOD | 93 |  | < LOD : | OD | LOD | LOD | <LOD |  | < LOD | < LOD | 176 | <LOD | < LOD |  | < LOD | 1166 | LOD | : < LOD | < LOD | < LOD | LOD |  | 4 |  | < LOD < | < LOD | LOD | < LOD |
| 4729 | 2 mile-35 | Fig. 11 / Rollie Area | rock | ppm | 15 | 22 |  | 64 < LOD: | 7 | 26 | 115 | LOD |  | < LOD | LOD | 96 | LOD | 1603 |  | LOD: | 1622 | LOD | < LOD | < LOD | < LOD | LOD |  | 1 |  | < LOD | < LO | LO | LOD |
| 4730 | 2 mile-35a | Fig. 11 / Rollie Area | rock | ppm | 10 | 22 |  | 9 < LOD: | 6 | 18 | 263 | <LOD |  | LOD | LOD | 414 | LOD | 694 |  | LOD | 1758 | LOD | < | < | < LOD | LOD |  | 8 |  | < | < LOD | < LO | LOD |
| 4731 | 2 mile-35b | Fig. 11 / Rollie Area | rock | ppm | 11 | 26 | 46 | 610 |  | < LOD |  | < LOD |  | < | < LOD | 373 | LOD | 471 | 470 | <LOD | 1922 | D | :<LOD | < LOD | < LOD | < LOD |  | 9 |  | < LOD < | < LOD | < LOD | LOD |

In all cases <LOD means below level of detection


Table No. 3
Frank Area - XRF Sampling Results

| XRF No. | Sample No. | Fig. No./Area | Type | Units | Mo | Zr | Sr | U | Rb | Th | Pb | Se | As | Hg | Au | Zn | W | Cu | Ni | Co | Fe | Mn | Sb | Sn | Cd | Ag | Nb | Y | Bi | Cr | V | Ti |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4732 | C84-01 | Fig. 12 / Frank | rock | ppm | 11 | 78 | 170 | LOD: | 26 | 34 | LOD | < LOD |  | LOD : | <LOD | 91 | < LOD | 98 | <LOD | < LOD | 67889 | < LOD : | 43 | 3 | 38 LOD | < LOD | 23 |  | 2 <LOD | < LOD | LOD | LOD |
| 4733 | C84-01a | Fig. 12 / Frank | rock | ppm | 9 | 99 | 128 | 10 | 25 | 22 | LOD | < LOD | 99 | LOD : | <LOD | 190 | LOD | 41 | LOD | <LOD | 666 | LOD : |  | 3 < | - LOD | LOD | 28 |  | $2<$ LOD | < LOD | < LOD | LOD. |
| 4734 | C84-01b | Fig. 12 / Frank | rock | ppm | 12 | 93 | 155 | OD: | 32 |  | LOD | < LOD | 200 | LOD | < LOD | 129 | LOD | 140 | LOD | < LOD | 67551 | LOD |  | 32 | D < LOD | <LOD | 26 |  | $2<$ | < LOD | < LOD | OD |
| 4735 | C84-02 | Fig. 12 / Frank | rock | ppm | 15 | 66 | 176 | OD: | 22 |  | LOD | < LOD | 68 | LOD | <LOD | 84 | < LOD | 72 | <LOD | <LOD | 368 | LOD |  | 2 < | D < LOD | LOD | 20 |  | $3<$ | LOD | < LOD | LOD. |
| 4736 | C84-02a | Fig. 12 / Frank | rock | ppm | 12 | 86 | 135 | 10 | 23 |  | LOD | < LOD |  | LOD | LOD | 120 | LOD | < LOD | LOD | < LOD | 6545 | OD |  | 5 < LO | D < LOD | < LOD | 31 |  | 2 <LOD | < LOD | < LOD | OD |
| 4737 | C84-02b | Fig. 12 / Frank | reck | ppm | 9 | 76 | 175 | 12 | 26 | 20 | LOD | < LOD | 17 | LOD | <LOD | 109 | <LOD | 71 | <LOD | < LOD | 654 | OD | 51 | 51 | $1<$ L | LOD |  |  | 2 <LO | < LOD | <LOD | OD |
| 4738 | C84-03 | Fig. 12 / Frank | rock | ppm | 10 | 137 |  | OD: | 53 | 37 | < LOD | < LOD | 15 | LOD | < LOD | 132 | < LOD | 410 | < LOD | OD | 5058 | LOD |  | 7 < LO | - LOD | LOD |  |  | $3<$ L | LO | LOD | OD |
| 4739 | C84-03a | Fig. 12 / Frank | rock | ppm | 12 | 86 |  | OD: | 48 | 26 | LOD | < LOD | LOD | LOD | < LOD | 102 | < LOD | < LOD | <LOD | LOD | 1523 | LOD : | < LOD | D < | - < Lo | LOD |  |  | - L | < LOD | < LOD | OD |
| 4740 | C84-03b | Fig. 12 / Frank | rock | ppm | <LOD | 45 |  | OD: |  | D | LOD | < LOD | LOD | LOD | <LOD | 115 | <LOD | 109 | LOD | <LOD | 19967 |  | < LOD | - | - LO | < LOD |  |  | < LOD | < LOD | < LOD | OD |
| 4741 | C84-04 | Fig. 12 / Frank | rock | ppm | <LOD | 88 |  | LOD: | 37 | LOD: | <LOD | < LOD | 13 | LOD | <LOD | 161 | LOD | 10 | LOD | <LOD | 381 | LOD | < LOD | < | - LOD | < LOD |  |  | $2<$ | < LOD | < LOD | OD |
| 4742 | C84-04a | Fig. 12 / Frank | rock | ppm | <LOD | 70 | 163 | LOD: |  | LOD: | <LOD : | < LOD | 28 | LOD | <LOD | 271 | < LOD | 359 | <LOD | <LOD | 6369 | LOD | < LOD | - | D < LOD | < LOD |  |  | $2<$ L | LOD | LOD | LOD. |
| 4743 | C84-04b | Fig. 12 / Frank | rock | ppm | <LOD | 101 |  | OD: | 40 |  | LOD | < LOD | LOD | <LOD | <LOD | 125 | <LOD | 57 | < LOD | < LOD | 3290 | LOD: | < LOD | - LO | D < LOD | < LOD |  |  | $2<$ Lo | LOD | LOD | LOD. |
| 4744 | C84-05 | Fig. 12 / Frank | rock | ppm | <LOD: | 66 | 63 | OD: | 32 |  | LOD | < LOD | 37 | OD | < LOD | 779 | LOD | 532 | OD | < LOD | 7106 | LOD | <LOD | - LOD | D < LOD | < LOD |  |  | D < L | < LOD | < LOD | OD |
| 4745 | C84-05a | Fig. 12 / Frank | rock | ppm | <LOD | 165 | 83 | 14 | 64 |  | <LOD | < LOD | 15 | LOD | < LOD | 137 | LOD | 296 | LOD | < LOD | 5961 | LOD | < LOD | D < | - LOD | <LOD | 11 |  | $3<$ | < LOD | < LOD | < LOD |
| 4746 | C84-05b | Fig. 12 / Frank | rock | ppm | <LOD | 122 |  | OD: |  | OD | LOD | < LOD | LOD | LOD | LOD | 101 | <LOD | 392 | LOD | <LOD | 4457 | LOD | <LOD | D < | D < LO | < LOD |  |  | $2<$ L | < LOD | < LOD | LOD |
| 4747 | C84-06 | Fig. 12 / Frank | roc | ppm | <LOD | 111 |  | OD: |  | OD : | <LOD | < LOD |  | < LOD | <LOD | 15 | LOD | 191 | LOD | <LOD | 513 | <LOD : | < LOD | - LOD | D < LOD | < LOD |  |  | $2<$ L | < LOD | LO | LOD |
| 4748 | C84-06a | Fig. 12 / Frank | ck | ppm | <LOD | 202 | 24 | 10 | 94 | 16 | LOD | < LOD | LOD | < LOD | <LOD | 210 | < LOD | 243 | < LOD | < LOD | 52465 | 1410 | <LOD | - LO | - LO | < LOD |  |  | $5<$ | < LOD | < LOD | LOD |
| 4749 | C84-06b | Fig. 12 / Frank | rock | ppm | <LOD | 89 |  | OD: | 34 | 21 |  | <LOD |  | LOD | < LOD | 184 | < LOD | 34 | < LOD | < LOD | 6355 | < LOD | < LOD | - | - LOD | < LOD |  | < L | D < L | < LOD | < LOD | OD |
| 4750 | C84-07 | Fig. 12 / Frank | rock | ppm | 6 | 18 |  | OD: | 4 | 14 | 27 | 42 |  | LOD | <LOD | 169 | <LOD | 1397 | < LOD | <LOD | 115966 | < LOD : | < LOD | - | - LO | < LOD |  |  | - LOD | LO | LO | LOD |
| 4751 | C84-07a | Fig. 12 / Frank | rock | ppm | <LOD | 9 |  | LOD: |  | <LOD : | < LOD : | < LOD | 25 |  | <LOD | 53 | < LOD | 123 | < LOD | < LOD | 18893 |  | < LOD | - LOD | - LOD | < LOD | < LOD | < L | - < LO | LOD | LOD | LOD |
| 4752 | C84-07b | Fig. 12 / Frank | rock | ppm | 4 | 4 |  | < LOD: | LOD: |  | <LOD : | 10 | 277 | <LOD | <LOD | 50 | <LOD | 86 | <LOD | < LOD | 28815 |  | < LOD | - LOD | - LOD | < LOD |  | L | - LOD | < LOD | < LOD | LOD |
| 4753 | C84-08 | Fig. 12 / Frank | rock | ppm | <LOD | 70 | 186 | LOD: | 18 |  | <LOD : | < LOD |  | LOD | <LOD | 115 | <LOD | 116 | <LOD | <LOD | 3464 | < LOD | < LOD | - | - LOD | LOD | 16 |  | $2<$ LO | < LOD | < LOD | < LOD |
| 4754 | C84-08a | Fig. 12 / Frank | rock | ppm | <LOD | 77 |  | <LOD |  | <LOD | <LOD | < LOD |  | LOD | <LOD |  | < LOD | 61 | < LOD | < LOD | 45280 | <LOD : | < LOD | - LOD | D < LOD | < LOD |  | < | < LOD | LOD | LO | LOD. |
| 4755 | C84-08b | Fig. 12 / Frank | rock | ppm | <LOD: | 209 | 75 | 10 | 58 | 18 |  | < LOD | 174 | < LOD : | < LOD | 253 | < LOD | 169 |  | < LOD | 101917 | < LOD : | < LOD | - LO | - LOD | < LOD | 48 |  | $3<$ LOD | < LOD | < LOD | LOD |

[^0]
[^0]:    In all cases <LOD means below level of detection

