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**Manson Creek Resources Ltd.**

**Assessment Report on the 2011 Geological and Geochemical Sampling Survey on the Frog Claims  
Nadaleen River and NW of Stewart River, Yukon**

**For quartz claims:**

**Frog 46 (YC10564)**

**Frog 55 – 56 (YC10573 - YC10574)**

**Frog 66 (YC10584)**

**Frog 69 – 70 (YC10587 - YC10588)**

**Frog 71 – 159 (YD105803 - YD105891)**

**Registered to: Manson Creek Resources Ltd.**

Grouping Certificate #HM02853

For work performed June 22, 2011 to July 8, 2011

By

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Location:

Nadaleen River, Latitude 64° 01' N, Longitude 133° 12' W

Mining District:

Mayo

NTS:

106 C/03 and 105 N/14

Date:

October 19, 2011

## **SUMMARY**

Manson Creek geologists, prospecting in the area of the original Tell natural spring gossan and vegetation kill zone, have now discovered six new, well developed active and previously active natural spring gossans; Crystal Springs, Ash Springs, Area 51, Roswell, Majestic and Corona. The new discoveries extend over an area 600 meters roughly east-west, from the large Tell Zone and 450 meters north-south. Many of the gossans contain numerous active and previously active spring vents. Soil and rock samples collected from the Tell Zone, Crystal Springs, Ash Springs, Roswell, Area 51, Majestic and Corona zones have returned highly anomalous zinc, nickel, lead, arsenic and numerous other gold pathfinder element values. Property-wide stream sampling has outlined two additional, regional geochemical anomalies Area 13 and Area 15. Manson Creek believes the seven Tell property gossans to be of extreme significance due to the number of successful drill discoveries made on similar gossans in the region. ATAC Resources Ltd.'s Ocelot discovery was made by targeting an undrilled natural spring surface gossan with associated strongly anomalous zinc and lead sample results. Like the Ocelot zone, the seven Tell property gossans are located near regional carbonate units within structurally complex geology in and proximal to the Rackla gold belt. The seven Tell property gossans have never been drill tested and each bears similarities to the Ocelot mineralized occurrence announced by ATAC.

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## **1.0 INTRODUCTION**

Manson Creek's 100% owned Frog property in the northern Selwyn Basin is well over 2,000 hectares with the claims located approximately 140 kilometers east of Mayo, Yukon and contiguous to Strategic Metals Ltd. Goz claims and ATAC Resources Ltd. Rau claims (Fig. 1). The most prominent prospective feature of the Frog property is the Tell showing, which is a natural spring gossan and vegetation kill zone above the Stewart River. The Tell gossan extends over 300 meters and is cored by a 75 meter by 240 meter zone hosting significant zinc values in soil samples ranging from 10,000 to 49,600 parts per million (ppm) along with significant lead values. This zone has never been drill tested and bears similarities to the Ocelot discovery announced by ATAC Resources Ltd. Many of the recent gold and silver discoveries in the region have been made in areas of prominent known, but not drill tested, gossan zones containing anomalous zinc, lead and other pathfinder elements.

The 2011 geochemical and geological exploration program undertaken on the Frog property involved stream sediment sampling of the main drainages present on the property, and geological reconnaissance and prospecting, particularly in the vicinity of the Tell gossan. This report describes the results of the work program conducted by Manson Creek personnel between June 22 and July 8, 2011. Highlights of the work program include discoveries of new surface mineralization at four well developed gossans with active mineral spring vents (Crystal Springs, Ash Springs, Roswell and Area 51 Zones), and two inactive natural spring gossan discoveries (Majestic and Corona). The new active spring gossan discoveries extend over 600 meters, roughly east-west, from the large Tell Zone, and the new inactive gossan discoveries extend downslope (south-southeast) from the Tell zone over 450 meters. Where possible, detailed water, soil, and rock samples were collected at each of the new discoveries. Reconnaissance soil samples collected in 2005 down slope from the Crystal Springs and Ash Springs Zones returned highly anomalous zinc, lead, arsenic and numerous other gold pathfinder element values. Prospecting for the source of the anomalies during the 2011 field program directly led to the discovery of the new zones.

## **2.0 PROPERTY LOCATION AND ACCESS**

The Frog Property is located in the Mayo Mining District in east-central Yukon (Fig. 1). Most of the claims are present within map sheet 106C/03, and some within 105N/14 (Fig. 2). The property is part of the southern Wernecke Mountains, with peaks that rise abruptly from wide, U-shaped glacially-

carved valleys to elevations of ~ 1600 m above sea level. Upland valleys are V-shaped whereas lowland U-shaped valleys contain abundant glacially-deposited overburden. Two westerly flowing rivers flow through the property. The Stewart River coincides with the southern boundary of the property, and Nadaleen River (a tributary to the Stewart River) bisects the central portion of the claim block. The Frog Claims are air accessible only, with the closest airport being at Mayo ~140 km west-southwest. The closest operating mine is Alexco Resources' Bellekeno mine in Keno City, ~ 100 km west of the property. There is no local infrastructure to support exploration activities. The fixed-wing accessible Rackla air strip ~ 18 km north, however, is a useful staging area where other companies have established exploration camps.

### 3.0 CLAIMS

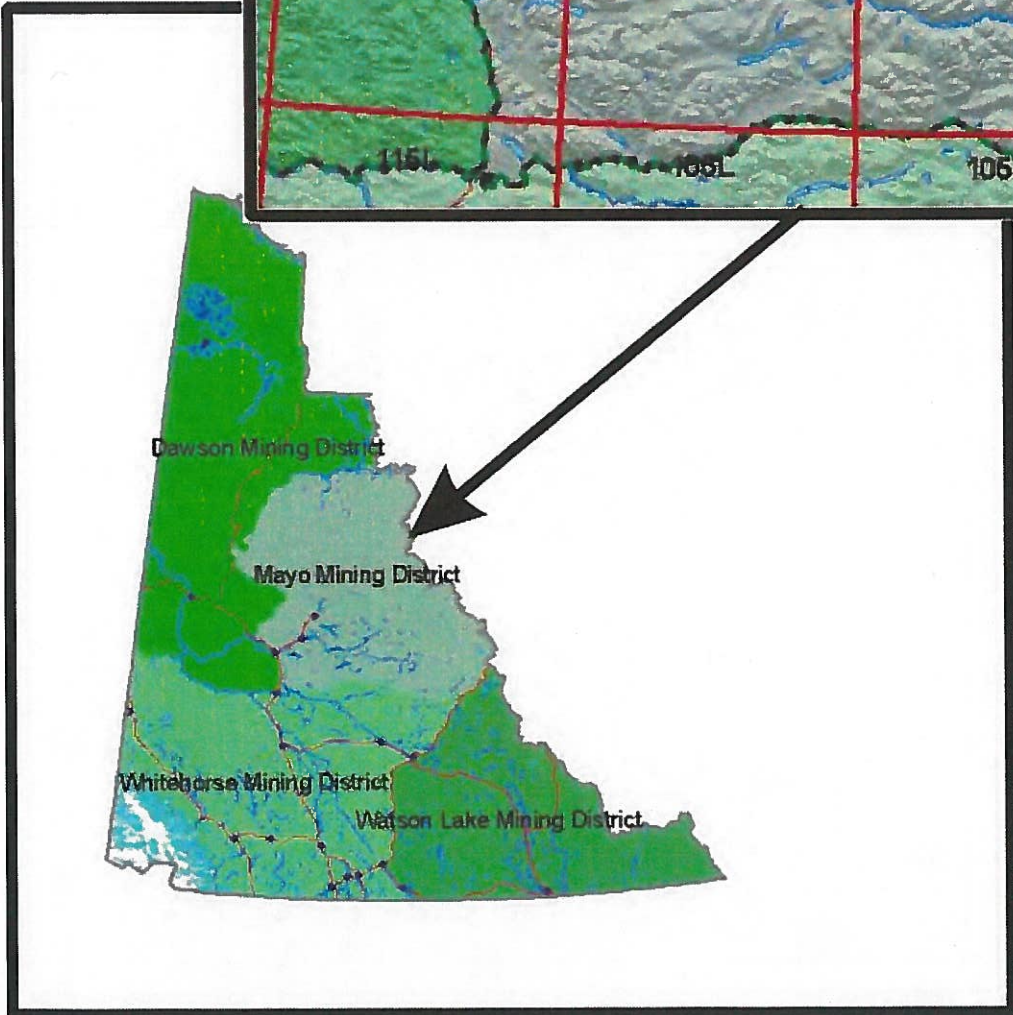
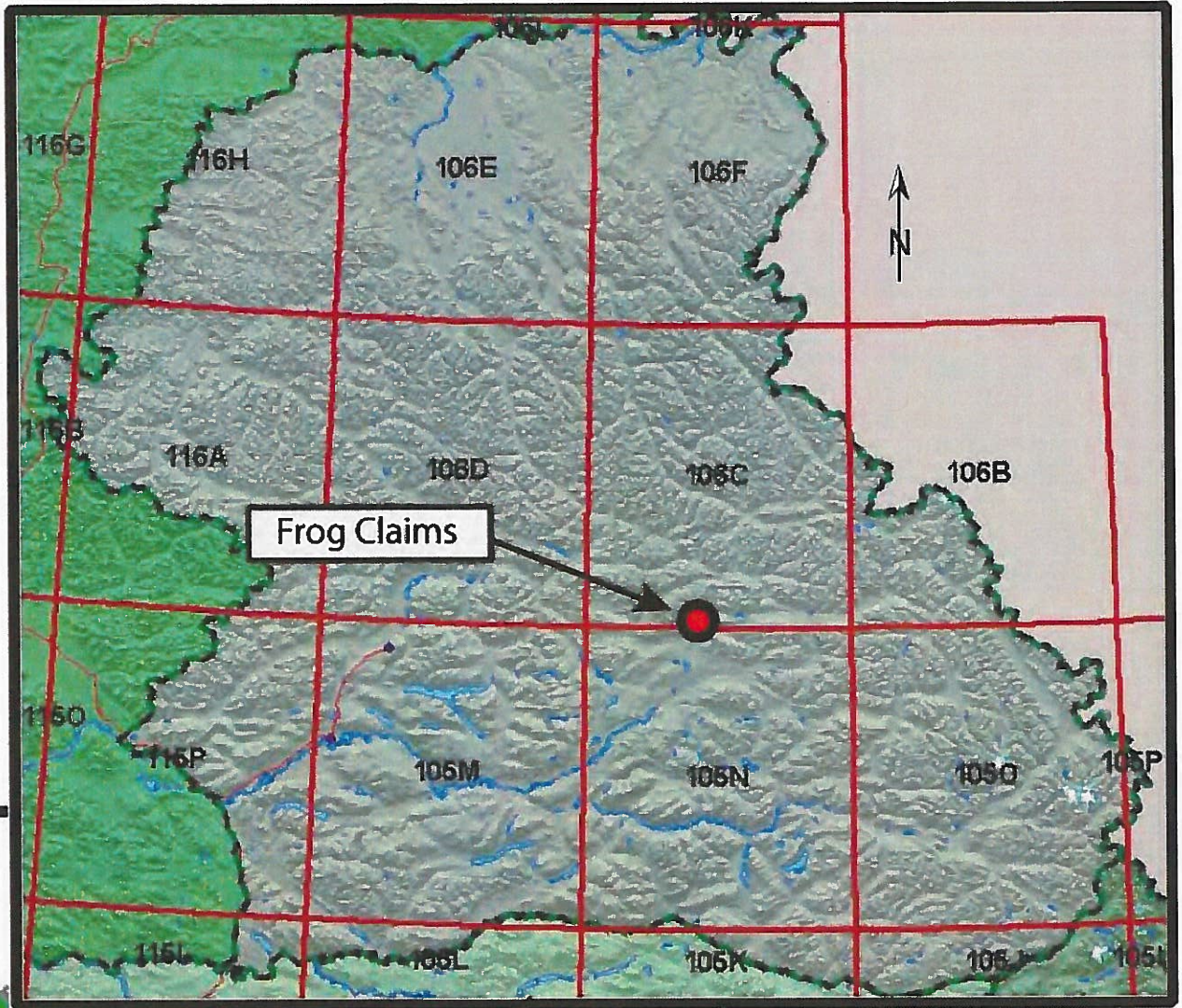
The Tell Property consists of 95 unsurveyed Quartz Claims in the Mayo Mining District that were staked in accordance with the Yukon Quartz Mining Act (Fig. 2). The claims are 100% owned by Manson Creek Resources Ltd..

Claim Name #	Grant Numbers	Expiry Date	Location
Frog 46	YC10564	2011/10/22	Nadaleen River
Frog 55 – 56	YC10573 -YC10574	2011/10/22	Nadaleen River
Frog 66	YC10584	2011/10/22	Nadaleen River
Frog 69 – 70	YC10587 - YC10588	2011/10/22	Nadaleen River
Frog 71 – 159	YD105803 - YD105891	2011/10/20	NW of Stewart River

### 4.0 HISTORY

Two MinFile occurrences, 105N 015 and 106C 091 (Deklerk and Traynor, 2005), are present in the southern portion of the Frog property. In 1975, McIntyre Mines Ltd. staked the area around MinFile 105N 015 and named it the Kidd property (claim Y97808). In 1975 and 1976, the company conducted mapping and geochemical sampling to target zinc mineralization. In 1975, the company drilled an 11.3 m Winkie hole that failed to reach its target. In 1991, Kennecott Canada Inc. staked 10 claims (Tell 1-10, claim YB18115) around MinFile 106C 091, which is the site of the Tell gossan. Kennecott conducted a mapping and geochemical sampling program in 1991 that targeted zinc mineralization. The company collected 30 stream sediment samples, 58 soil samples and 5 rock samples. Some samples returned anomalous Zn (up to 20,600 ppm), Mn (24,180 ppm), Cd (276 ppm), Ni (1670 ppm) and Co (432 ppm).





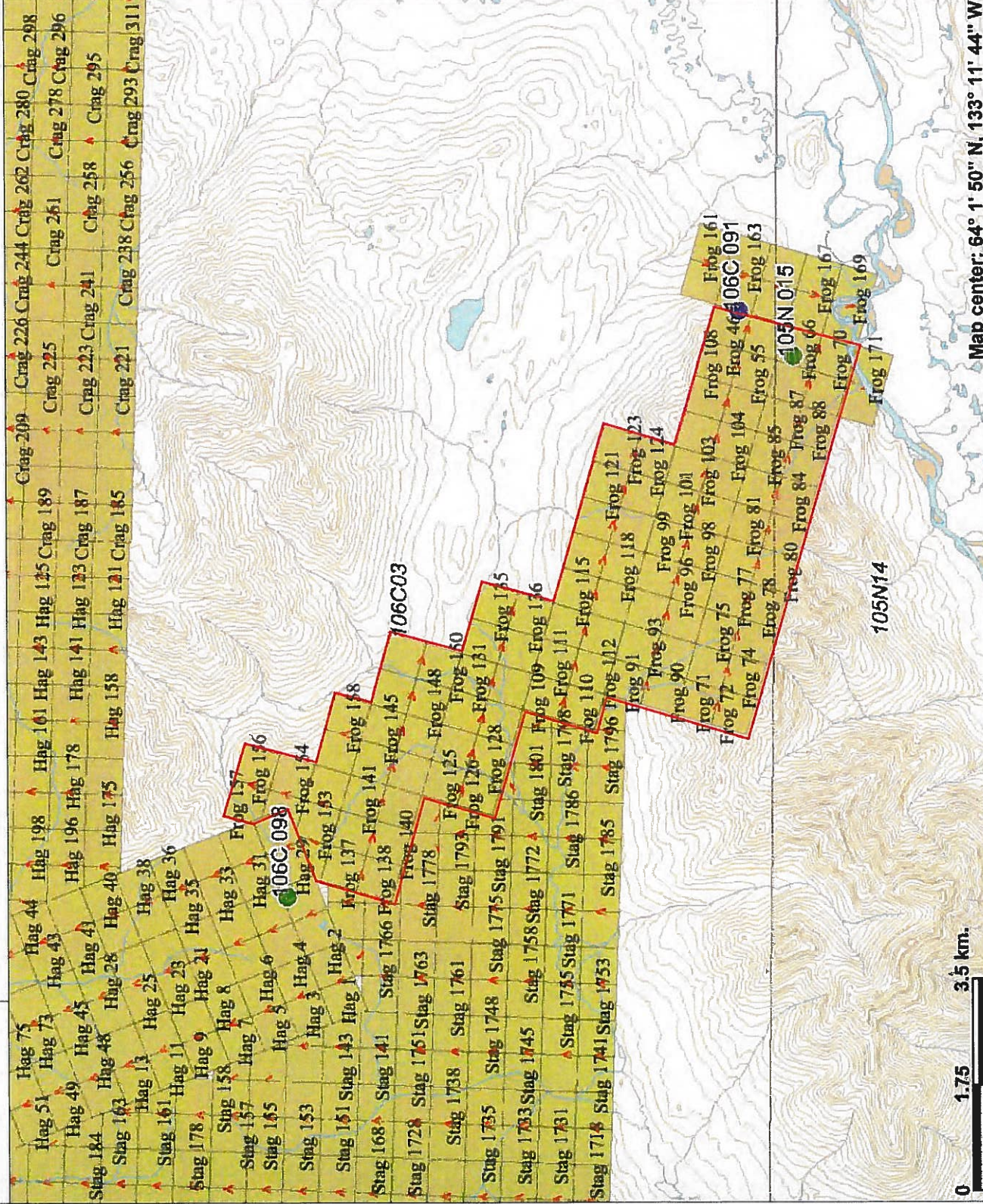
**MANSON CREEK RESOURCES**

**FIG URE 1**

**FROG CLAIM LOCATION**



# Fig 2: Frog Claims Location



## Legend

- Frog Claims
  - Frog 46 (YC10564)
  - Frog 55-56 (YC10573-  
YC10574)
  - Frog 66 (YC10584)
  - Frog 69-70 (YC10587-  
YC10588)
  - Frog 71-159 (YD105803-  
YD105891)
- Mineral Occurrences (250K)**
  - Anomaly
  - Deposit
  - Drilled Prospect
  - Open Pit Past Producer
  - Open Pit Producer
  - Prospect
  - Showing
- Scale: 1:100,000

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Frog Claims were staked out of Whitehorse in 2002, allowed to lapse in 2008, then re-staked in Fall 2010. In 2004, Aurora Geosciences Ltd. was hired by Manson Creek to conduct a soil-sampling program. A total of 40 samples were collected along two sample lines, with samples collected at 100 m intervals. The southern line samples returned anomalous Ag (1.14 ppm), Ba (3850 ppm), Cu (294 ppm), Ni (214 ppm), Pb (99.1 ppm), Zn (69 ppm) and Co (5.1 ppm). The northern line samples were less anomalous with elevated levels of Zn (268 ppm) and Ba (930 ppm) in a couple of samples. In 2005, two Manson Creek geologists conducted a reconnaissance program that involved a detailed soil sampling grid over the Tell showing, regional prospecting, and regional stream sediment sampling. A soil sample grid was established over the Tell showing, which is located near the southern margin of the Frog property. Handheld GPS was used to establish a grid center at 591,000 mE, 7,097,600 mN (NAD 27, Zone 8). The grid consisted of four, 400 m long east-west lines spaced 100 m apart. Where practicable, soil samples were collected every 25 m, for a total of 53 samples. Five rock samples were collected from the Tell showing, and regional traverses resulted in the collection of two rock samples and 5 stream sediment samples.

Results of the 2005 field program outlined a 400 m by 400 m zone over the Tell showing with Zn > 100 ppm and Ni > 20 ppm. A higher grade, 240 m by 75 m core had samples with 10,000 – 49,600 ppm Zn and 250 to 2600 ppm Ni. Anomalous Zn and Ni values were also encountered in samples east of the Tell showing, indicating additional zones of potential for a follow-up field program.

## **5.0 GEOLOGICAL SETTING**

### *5.1 Regional Geological Setting, Exploration Model and Commodities of Interest*

The Frog property lies in the northern part of the Selwyn Basin, which is a late Proterozoic to Paleozoic depositional basin underlying much of eastern Yukon, and is highly prospective for sedimentary exhalative (SEDEX) and volcanogenic massive sulphide (VMS) deposits. Regional mapping in the vicinity of the Frog property was conducted by S.L. Blusson in 1974, and incorporated into a digital compilation by Gordey and Makepeace (2003). In 2010, the Yukon Geological Survey's (YGS) South Wernecke Mapping project conducted detailed mapping of sheet 106C/04 to the west of the Frog property, however, updated regional geology is not available for 106C/03. Overlaying the Frog claim boundaries on regional maps for the area indicates that most of the Frog property is underlain by a northwest-southeast trending block of Ordovician to Silurian Duo Lake Formation of the Road River Group (Fig. 3). Duo Lake Formation rocks are dominated by black shales and cherts, with minor



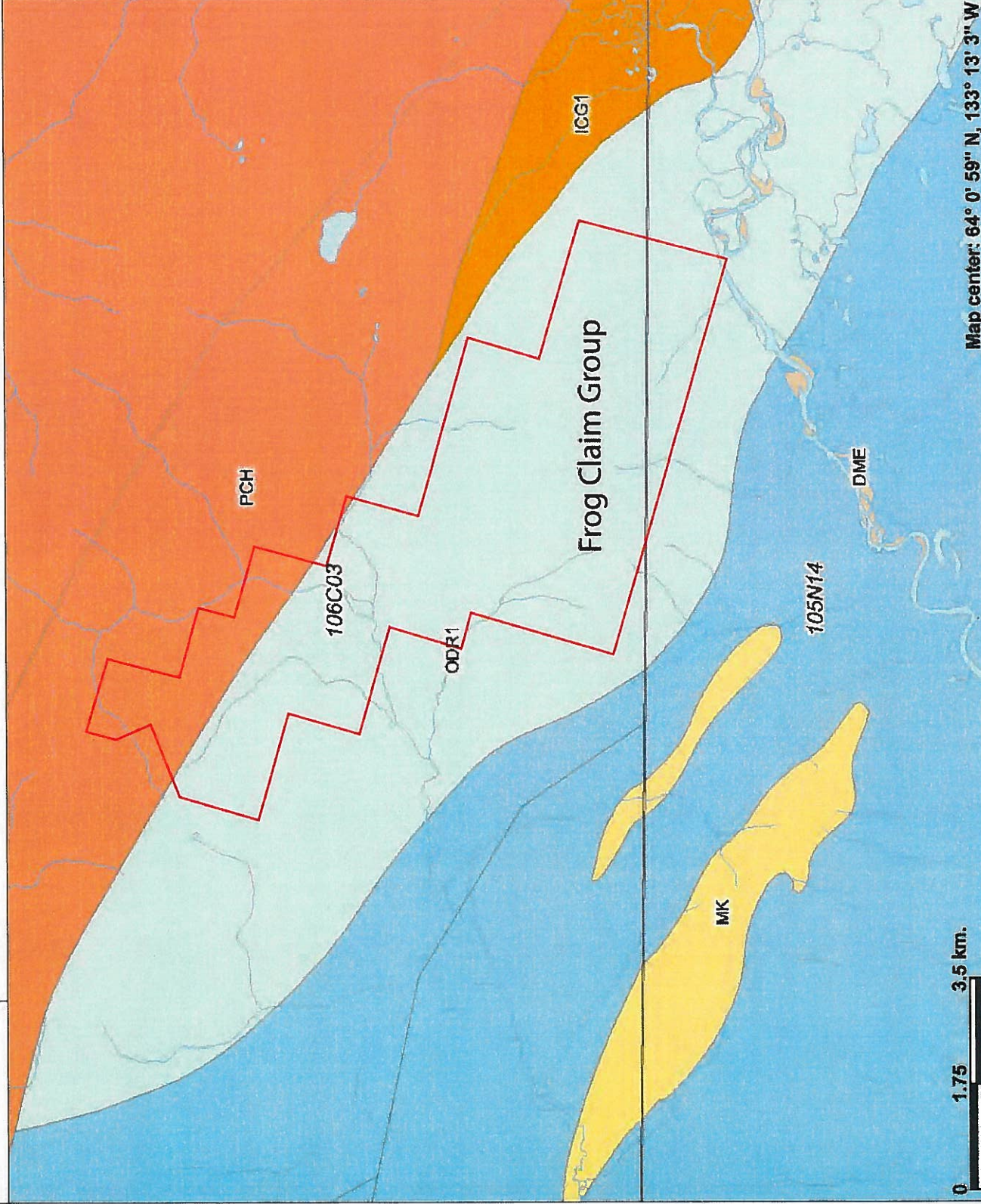
**Fig 3: Frog Property - Regional Geology**



**Legend**

<b>Mississippian</b>	<b>MK</b>	Keno Hill quartzite
<b>Devono-Mississippian</b>	<b>DME</b>	Earn Group shale and felsic volcanics
<b>Ordovician to Silurian</b>	<b>ODR1</b>	Duo Lake Formation shale and chert
<b>Lower Cambrian</b>	<b>ICG1</b>	Gull Lake Formation clastic sedimentary
<b>Upper Proterozoic to Lower Cambrian</b>	<b>PCH</b>	Hyland Group grit unit

Scale: 1:100,000



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limestone. The northeast portion of the claim block resides on Upper Proterozoic to Lower Cambrian Hyland Group clastic sedimentary rocks. Southwest of the Frog property are extensive Devonian to Mississippian Earn Group clastic sedimentary and felsic volcanic rocks. Located north of the property, the Dawson Thrust is the major regional structure in the area that bounds the Selwyn Basin.

The Selwyn basin formed off-shelf of Ancestral North America (Laurentia) and is bounded by coeval platform carbonates that are host to Mississippi-Valley Type (MVT) Pb-Zn deposits (Goodfellow, 2007). The Selwyn Basin hosts many major SEDEX deposits including the Cambrian-aged Faro deposit (Anvil District), the Silurian-aged Howards Pass deposit (Selwyn Project), and the Devonian-Mississippian-aged Macmillan Pass (Tom and Jason deposits). The Howards Pass deposit in east-central Selwyn Basin is hosted in the same Duo Lake Formation rocks that underlie the Frog property. As of September 2011, the Howards Pass deposit contained an indicated resource of 180,686,100 tonnes of 5.25% zinc and 1.38% lead, and an inferred resource of 216,040,100 tonnes of 4.47% zinc and 1.38% lead, both with a 2% zinc cut-off. VMS deposits, such as the nearby Marg deposit, have also formed in Devonian rocks of the Selwyn Basin. As of 2011, Redtail Metals Corp's Marg deposit contained an indicated resource of 3,960,000 tonnes of 1.57% copper, 1.92% lead, 3.90% zinc, 49.40 g/t silver, and 0.79 g/t gold and an Inferred resource of 7,780,000 tonnes of 1.12% copper, 1.36% lead, 2.89% zinc, 34.88 g/t silver, and 0.52 g/t gold, both with a 0.50% copper cutoff.

The Frog property is located immediately south of ATAC Resources Ltd. Rau claims, in the Yukon, and the presence of mineralized gossans is considered very significant as Frog gossans bear similarities to the ATAC gossans. ATAC's Ocelot discovery was made by targeting a natural spring surface gossan with associated strongly anomalous zinc and lead sample results. Like the Ocelot zone, the Frog gossans are located near regional carbonate units within structurally complex geology in and proximal to the Rackla gold belt. Base-metals and precious metal pathfinder elements contained in the mineralized natural spring gossans present on Manson Creek's Frog property suggest the presence of either subsurface Pb-Zn-Ag SEDEX or polymetallic (Cu-Pb-Zn-Ni-Au-Ag) VMS deposits.

## *5.2 Property Geology and Mineralization*

The Frog property is located on the boundary between Upper Proterozoic to Cambrian Hyland Group rocks to the north and Ordovician to Silurian Road River Group and Devonian to Mississippian

Earn Group rocks to the south. The northeast edge of the property is composed mainly of a grit unit with some interbedded shale. The grit unit varies from medium- to coarse-grained quartz-rich sandstone to quartz-pebble conglomerate. This suggests that contact between Hyland Group rocks and Road River Group rocks may be 1-3 km further southwest than indicated by regional mapping. Southeast of the grit unit is abundant chert interbedded with variably-coloured shale to slate. Minor amounts of limestone were found in the southwest part of the property capping the ridge above the Tell showing, and immediately upslope of the Crystal Springs gossan.

Besides rare amounts of pyrite, nowhere on the claim block was in-situ sulphide mineralization encountered at surface in bedrock. All surface mineralization encountered on the property formed as a result of hydrated iron-oxide minerals and significant amounts of trace metal oxide minerals (Zn, Pb, As, Ni, Co, Mn) precipitating from spring water to form gossans. Thus, the gossans are surficial expressions of subsurface mineralization that has been remobilized by spring water. The Tell gossan has been described as a ferricrete, whereby fluids percolate through surficial geological materials and cement them together by precipitating hydrated iron-oxide minerals. In places, the gossans encountered on the Frog property have incorporated surficial geological materials. Most of the gossans however, are mineral spring water precipitates that have accumulated on top of the ground.

There are no active seeps or springs in the vicinity of the Tell gossan, suggesting that the precipitates are relict, having formed post-deglaciation in the past several hundred to several thousand years. Much of the gossan is brown-orange-red weathered porous rubble with very little in-situ outcrop. All rocks forming the gossan however, display sedimentary textures formed by minerals precipitated in association with microbes. Microbial textures include irregular planar laminated stromatolites, botryoidal bedded stromatolites, and bundles to layers of thin, elongated filaments. These textures are typical of sedimentary environments created in the flow paths of mineral-precipitating springs.

The Tell gossan is the most lithified gossan on the property. Other gossans may have isolated areas containing lithified precipitates, however, sediments around the active springs are still very soft and muddy (and generally bright orange to rusty red). Gossans down-slope of the Tell showing that do not have associated active spring vents are poorly lithified, with the precipitates being soft and soil-like (and generally brown with a rusty-reddish hue).



## **6.0 2011 EXPLORATION PROGRAM**

Manson Creek personnel conduct the work program between June 22 and July 8, 2011. A fly camp was established in an alpine saddle to explore the north half of the property, then a camp was established on the north bank of the Stewart River to explore the south half of the claim block, which contains the Tell gossan. The 2011 exploration program on the Frog Property consisted of soil geochemical sampling at newly discovered gossans and springs, regional stream sediment sampling of all major drainages on the property, spring water sampling of newly discovered springs, and prospecting (Figs. 4 and 5). Stream sediment sampling was the prime focus of the program. Stream sediment sampling stations were located ~ 250 m apart. UTM (NAD27, zone 8) coordinates for stream sampling stations were loaded into handheld GPS units, and samples were collected as close as reasonably possible to each station. The actual UTM for each station was recorded.

### *6.1 Personnel and Equipment*

The following individuals conducted the work program:

Geologist 1: Regan Chernish, P. Geol

Geologist 2: Dustin Rainey, Geol. IT

Field Hand: Nicolas Motipa

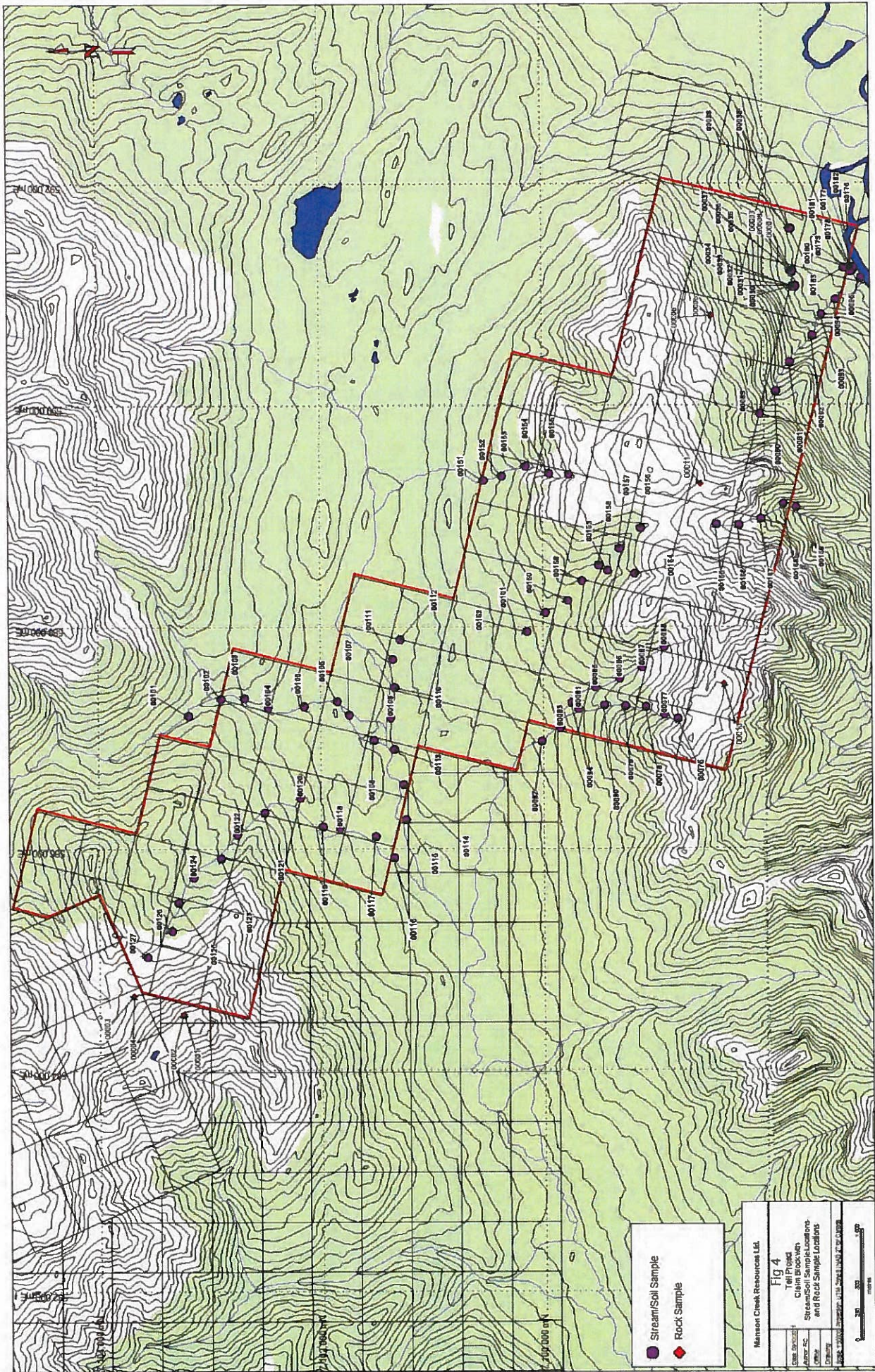
The following equipment was utilized for the work program:

- VHF Handheld radios, Garmin handheld GPS units, geological sampling tools, pH meter, 500 ml Nalgene containers for water sampling

### *6.2 Procedures*

Non-differential GPS was used to mark the locations of all samples collected using UTM Nad27 Zone 8 coordinates. A total of 84 soil/stream sediment samples, 11 rocks samples, and 6 spring water samples were collected for analysis. Stream sediment samples were collected at locations where the stream beds contained an abundance of fine sediments. At each stream station, sediments were placed in kraft bags and excess water was allowed to drain off. Descriptions were taken at each station and included stream width, stream velocity, sediment grain size distribution, and if applicable, sediment colour and lithology.





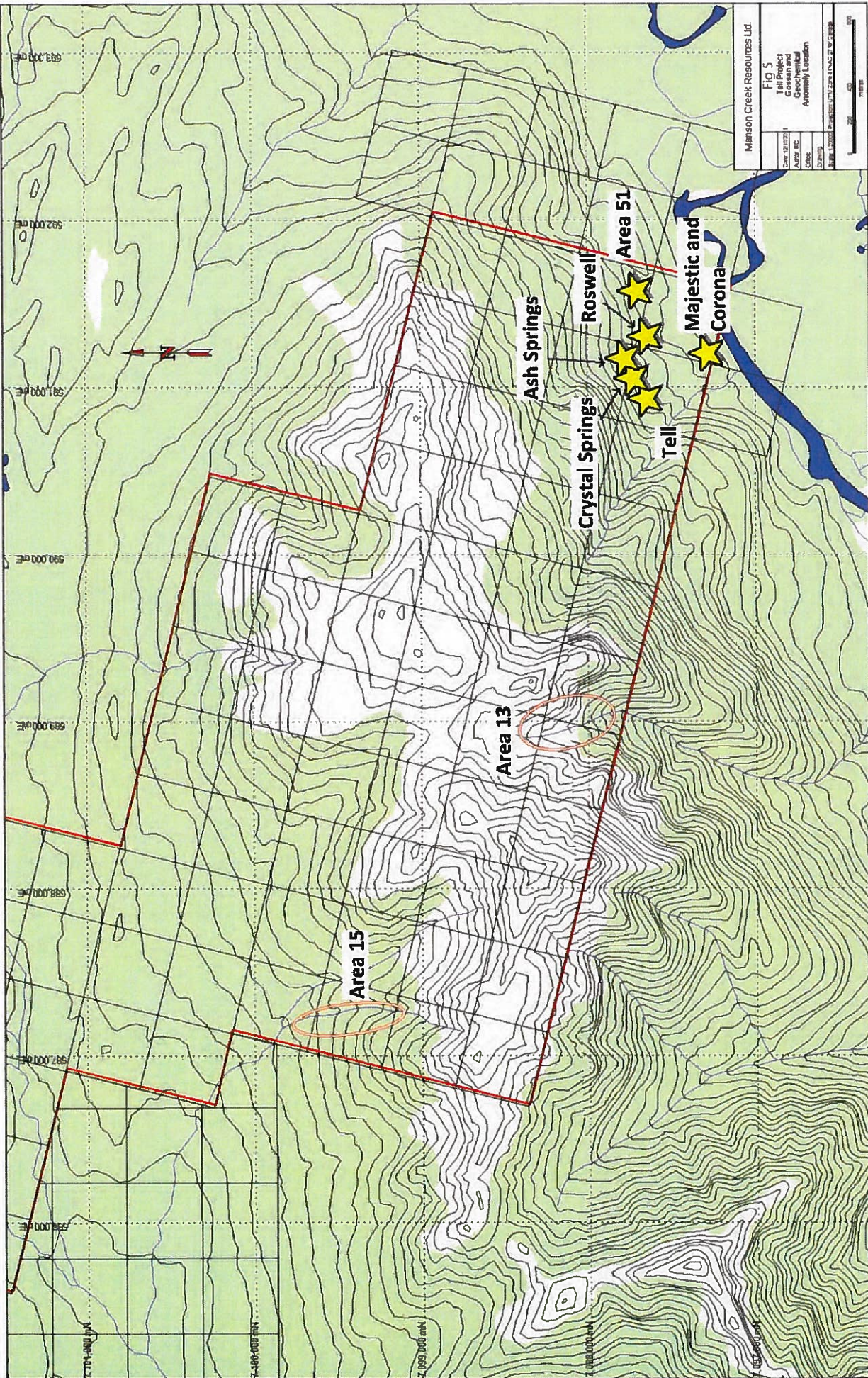
	Stream/Sol Sample
	Rock Sample

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**Fig 4**  
Teik Road  
Claim Brook  
Stream/Sol Sample Locations  
and Rock Sample Locations

Scale: 1:50,000  
0 250 500 1000 METERS





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 Fig 5  
 Tell Project  
 Geosens and  
 Anomaly Location

Scale (Meters)
0
100
200
300
400
500
600
700
800
900
1000



## **7.0 ANALYTICAL PROCEDURES**

### *7.1 Soil and Stream Sediment Geochemical Samples*

All samples were returned to Eco Tech Laboratories in Whitehorse for sample preparation prior to being sent to Eco Tech Laboratories in Kamloops for 46-element ICP-MS using aqua-regia digestion and Au-fire assay AA analyses.

### *7.2 Rock Samples*

All samples were returned to Eco Tech Laboratories in Whitehorse for sample preparation prior to being sent to Eco Tech Laboratories in Kamloops for 35-element ICP-MS using aqua-regia digestion and Au-fire assay AA-finish analyses.

### *7.3 Water Samples*

Unfiltered 500 ml water samples were sent to Maxxam Analytics for 19-element atomic spectroscopy analyses for trace elements. Temperature and pH of the water were measured in the field.

## **8.0 RESULTS**

### *8.1 Geological Reconnaissance and Prospecting*

An important component of the 2011 field program was to find the source of anomalous base and trace metals discovered east of the Tell gossan as a result of Manson Creek's 2005 soil sampling program (2005 Samples #279778 to 279781 with 788-21,500 ppm Zn, 47-836 ppm Ni, up to 4,290 ppm Pb). The 2011 field program located the sources of the anomalous metal concentrations and determined that they were precipitates formed from active mineral springs east of the Tell gossan. Four new gossan zones (Crystal Springs, Ash Springs, Roswell, and Area 51) with active cold springs were discovered extending ~600 m east of the Tell gossan, and 2 additional gossan zones (Majestic, Corona) without any active springs were discovered ~450 m downslope (south-southeast) of the Tell gossan (Fig. 5). The Majestic and Corona gossans are zones of orange to ochre coloured soil, interpreted to be unlithified hydrated iron oxide spring water precipitates. The lack of active seeps or springs in this zone required geochemical confirmation that the soils were in fact zinc-bearing, spring-derived precipitates. Another gossan zone with active iron seeps called Area 15 was also discovered ~4 km east-northeast from Tell.

The east-west alignment of the 4 new gossans (and active springs) with the Tell gossan at the base of a small scarp suggests that the springs delineate a relatively small, property-scale normal fault. Normal faults are commonly associated with active springs because the brittle nature of the tensional deformation in the upper crust provides conduits for groundwater to reach the surface (the compressive forces of reverse faulting commonly “lock up” the fault, preventing fluids from travelling along them). The presence of additional gossanous iron oxide soils ~ 450m down slope and southeast of the Tell gossan may also indicate a southeast/northwest trending fault (dextral offset strike-slip fault?) that spring waters emerged from at some point in the past. The Tell gossan would thus pinpoint the intersection of the east-west normal fault and the southeast-northwest trending fault. This intersection would have created a very permeable conduit for spring water (compared to the other springs on the property), which would have allowed for substantial spring water volumes to be emitted from the vents, and the formation of the relatively large, yet inactive, Tell mineral spring gossan.

#### *8.2 Soil and Rock Sampling Geochemical Results*

Geochemical results confirming that the Crystal Springs, Ash Springs, Roswell, Area 51, Majestic and Corona natural spring gossan discoveries on the Company's Frog property are strongly mineralized (Table 1). The soil/silt sample assays returned ranges of 5,792 parts per million (ppm) zinc to greater than 24,500 ppm zinc, 164 ppm to greater than 1,000 ppm nickel, and corresponding highly anomalous arsenic and other pathfinder element values. Three rock samples of lithified, laminated iron rich gossan material taken at Ash Springs returned zinc assays from 19,700 ppm to 27,500 ppm zinc and 0.6 to 1.0 grams per tonne (g/t) silver with high gold pathfinder element values. The silver is considered significant as this is the first time precious metals have been detected in the natural spring gossans. The sample data reveals that the Majestic zone contains extremely high zinc values with all seven samples greater than 10,000 ppm zinc. Nickel values are also correspondingly high with two samples reporting over 800 ppm nickel and five samples assaying greater than 1,000 ppm nickel. The Corona gossan returned 15,600 ppm zinc and 973 ppm nickel.

Table 1: Select geochemical assay results from Frog property gossans

Location	Type & # of Samples	Zinc (ppm)	Nickel (ppm)	Silver (g/t)	Arsenic (ppm)
Crystal Springs	5 soil samples	6,005 to 10,700	245 to 883	-	4.0 to 110
Ash Springs	3 soil/silt samples	10,800 to 24,500	425 to > 1,000	-	114 to 358
Ash Springs	3 rock samples	19,700 to 27,500	1,056 to 1,591	0.6 to 1.0	10 to 25
Area 51	2 soil/silt samples	5,792 to 7,315	164 to 734	-	1,149 to 1,654
Majestic	7 soil samples	12,500 to 17,700	808 to > 1,000	0.1 to 0.2	18 to 33
Corona	1 soil sample	15,600	973	0.1	31
Tell zone (historical samples)	1 soil/silt sample	49,600	2,560	0.2	16
Tell zone (historical sampling)	5 rock samples	15,700 to 24,900	401 to 526	-	8 to 25

### *8.3 Stream sediment Sampling Geochemical Results*

Two new, previously unknown regional geochemical anomalies (Area 15 and Area 13) have been identified by the property wide stream sampling program. Each of the anomalies represents a zone of anomalous multi-element values that are remarkably similar to the Tell area gossan discoveries. Area 13 is located approximately 2 kilometers to the west of the Tell Zone with Area 15 located 4 kilometers along strike to the west of the Tell Zone.

### *8.4 Water Sampling Results*

Spring water samples (+ temperature and pH) were collected as close to the vent as possible. One sample was collected ~ 30 m downstream of the Ash vents to determine if there were any obvious downstream geochemical effects. Spring water geochemical results are presented in Table 2. The 4 main anomalous commodities present in the spring water were Zn-Ni-Co-Mn. The metals dissolved in the spring water do not necessarily reflect the type of mineralization at depth, but are indicative of the minerals that are most soluble for the spring water temperature, chemistry and redox conditions. Total trace element content of the spring water indicates that the Frog property springs are similar in composition to Canadian Zinc's Prairie Creek Mine water in southwest NWT (Caron et al. 2008). The Prairie Creek Mine is a pyrite- and base-metal-rich, polymetallic Ag-Zn-Pb-Cu deposit with vein, stratabound and MVT-type mineralization. The mine has measured and indicated resources of 5,840,329 tonnes grading 10.71% zinc, 9.90% lead, 161.12 grams silver per tonne and 0.326% copper. In addition,



there is a large inferred resource of 5,541,576 tonnes grading 13.53% zinc, 11.43% lead, 215 grams per tonne silver and 0.514% copper.

Table 2: Spring water properties and geochemistry

Spring	#	T°C	pH	Sb	As	Cd	Co	Cu	Pb	Mo	Ni	U	Zn
Crystal West	55	3.7	6.6	1.2	43	47	23	2.7	3.7	4.4	330	13	7100
Crystal East	54	3.6	6.5	-	.7	.1	16	.3	-	4	170	2.4	1400
Crystal Downstream	29	5.4	7.4	-	3.8	1.5	17	-	-	4.7	280	2.9	3200
Ash West	53	4.4	6.6	-	-	-	30	.4	-	-	390	2.4	3200
Ash Pool	52	8.2	6.7	-	3.9	.4	46	1.3	.3	.8	430	7.2	3600
Roswell		4.2	6.8										
Area 51 West		2.0	7.4										
Area 51 East	51	2.4	7.4	3.3	38	1.1	2.1	1.1	.5	.6	10	4.1	580

- All concentrations in µg/L

All of the active vents emitted cold spring water (< 4.4°C – one stagnant pond measured 8.2°C) that was near neutral pH (6.5 – 7.4). The low flow rates and small volumes of cold water currently being emitted by the active spring vents (estimated at < 1-2 litres / second) suggests a relatively shallow subsurface origin for the water, and coincidentally, the subsurface mineralization. Caron et al. (2008) conducted geochemical exploration in southwest NWT using spring water chemistry, and used geothermometry to estimate the spring water circulation depth. They did not determine maximum circulation depths for cold water (which they deemed to be < 12°C), because they determined that all cold spring water originated within 200 m of the surface. This suggests a relatively shallow subsurface origin for Frog property mineralization.

## 9.0 CONCLUSIONS AND RECOMMENDATIONS

The Frog property contains numerous active and inactive mineral spring gossans with abundant base metals and precious metals pathfinder elements. The cold temperature spring water suggests shallow subsurface circulation (< 200 m depth) indicating the potential for near surface discoveries of SEDEX, VMS or vein-hosted base and precious metal mineralization. The lack of mineralized bedrock at surface suggests that additional soil sampling may be ineffectual at delineating additional targets. A geophysical survey such as induced polarization (IP) to detect zones of high chargeability associated with massive sulphide mineralization may be most effective to determine the location and orientation of potential drill targets. Delineated geophysical drill targets could initially be tested with a small number of relatively deep (~300 – 350 m) diamond drill holes.

## 10.0 REFERENCES

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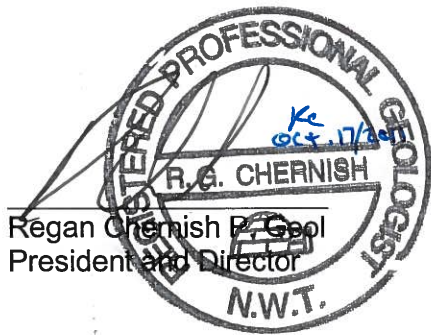
**Appendix A**  
**Statements of Qualifications**



## CERTIFICATE OF QUALIFICATIONS

I, Regan G. Chernish of 1411-108 Avenue S.W., Calgary, Alberta, hereby certify that:

1. I am a Professional Geologist with a residence and office at the above address,
2. I graduated from the University of Alberta with a Bachelor of Science Degree in Geology (1991),
3. I am a Registered Professional Geoscientist in good standing with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG),
4. I have worked as a geologist since my graduation from university,
5. The 2011 work described in this report was carried out under my supervision and I visited and conducted fieldwork at the Tell Project (Frog claims) between June 22<sup>nd</sup> and July 8<sup>th</sup>, 2011,
6. I am President and a Director of Manson Creek Resources Ltd. whose address is Suite 500, 926 – 5th Avenue S.W., Calgary, Alberta, T2P 0N7.



## CERTIFICATE OF QUALIFICATIONS

I, Dustin K. Rainey of #13-5 Klondike Road, Whitehorse, Yukon, hereby certify that:

1. I am a Geologist in Training with a residence and office at the above address,
2. I graduated from the University of Alberta with an Honors Certificate (Bachelor of Science Degree) in Geology in 2002,
3. I graduated from the University of Alberta with a Doctor of Philosophy Degree in Earth and Atmospheric Sciences in 2009,
4. I am a Registered Geologist in Training in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA), member #M73160
5. I have worked as a geologist since my graduation from university,
6. I participated in the 2011 work described in this report and I visited and conducted fieldwork at the Tell Project (Frog claims) between June 22<sup>nd</sup> and July 8<sup>th</sup>, 2011,

DATED at Whitehorse, Yukon this 19<sup>th</sup> day of October, 2011.



Dustin Rainey, PhD, Geol. I.T.  
Consultant to Manson Creek Resources Ltd.

**Appendix B**

**Statement of Expenditures**



**Expenditures**

2011 Frog Claims  
Frog 46, YC10564  
Frog 55-56, YC10573-YC10574  
Frog 66, YC10584  
Frog 69-70, YC10587-YC10588  
Frog 71-159, YD105803-YD105891

**DESCRIPTION**

**COST**

**Professional Services**

Field Time:			
Geologist 1:	17 Days	\$500.00/day	\$8,500.00
Geologist 2:	17 Days	\$425.00/day	\$7,225.00
Field Assistant	17 Days	\$200/day	\$3,400.00
		<b>SUBTOTAL</b>	<u>\$19,125.00</u>

**Vehicle Charges**

Truck Rental			\$2,015.25
Fuel			\$308.46
Helicopter Charter			\$10,246.90
Fixed Wing Charter			\$1,007.00
		<b>SUBTOTAL</b>	<u>\$13,577.61</u>

**Disbursements (GST included)**

Accommodations			\$1,332.62
Food			\$1,072.06
Satellite Phone			\$643.70
Field Supplies			\$3,300.79
Water Sample Analysis			\$598.50
Soil Samples	84 Samples	\$29.35/Sample	\$2,465.26
Rock Samples	11 Samples	\$35.64/Sample	\$392.04
Report Writing	7 Days	\$425/day	\$2,975.00
Expediting			\$270.00
		<b>SUBTOTAL</b>	<u>\$13,049.97</u>

**TOTAL** \$45,752.58

**Appendix C**

**Stream Sediment and Soil Assay Certificates**

Eco Tech Laboratory Ltd.  
10041 Dallas Drive  
Kamloops, BC  
V2C 6T4 Canada  
Tel + 250 573 5700  
Fax + 250 573 4557  
Toll Free + 1 877 573 5755  
www.stewartgroupglobal.com



**StewartGroup**  
Geochemical & Assay

**CERTIFICATE OF ASSAY AW 2011-8157**

**Manson Creek Resources Ltd.**  
500, 926 - 5th Ave. SW  
**Calgary, AB**  
T2P 0N7

9-Aug-11

*No. of samples received: 84*  
*Sample Type: Soil/Silt*  
**Project: Tell**  
*Submitted by: Regan Chernish*

<b>ET #.</b>	<b>Tag #</b>	<b>Zn (%)</b>
4	00033	1.07
6	00035	2.45
7	00036	1.08
8	00037	2.06
72	00165	1.43
74	00167	3.00
75	00168	1.42
77	00176	1.63
78	00177	1.56
79	00178	1.44
80	00179	1.35
81	00180	1.27
82	00181	1.77
83	00182	1.25
84	00183	1.56

**QC DATA:**

**Repeat:**

4 00033 1.04

**Standard:**

GBM908-14 4.30

NM/mb  
XLS/11

All business is undertaken subject to the Company's General Conditions of Business which are available on request. Registered Office: Eco Tech Laboratory Ltd., 100041 Dallas Drive, Kamloops, BC V2C 6T4 Canada.

**ECO TECH LABORATORY LTD.**

Norman Monteith  
B.C. Certified Assayer





El#	Tag #	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cu	Fe	Ga	Ge	Hg	K	La	Li	Mg	Mn	Mo	Nb	Ni	P	Pb	Pb	Se	Si	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr					
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
41	00111	2	<0.1	0.033	8.2	186.5	0.2	0.22	0.63	0.19	12.6	9.6	13.5	22.0	31.3	2.6	1.8	90	0.04	5.5	21.9	0.04	668	0.56	0.034	0.18	21.4	503	18.7	4.5	0.06	0.28	2.5	0.6	0.2	32.0	<0.05	0.04	1.8	0.002	0.04	<5	18	<0.1	6.6	87.9	2.61	
42	00112	2	<0.1	1.00	12.3	229.0	0.3	0.24	0.87	0.23	13.7	11.4	15.0	25.1	35.8	2.8	2.4	130	0.05	6.0	25.8	0.03	621	0.80	0.031	0.20	23.7	430	22.1	5.1	0.06	0.34	2.8	0.8	0.2	42.0	<0.05	0.02	2.9	0.003	0.06	<5	20	<0.1	7.2	101.4	3.05	
43	00113	1	<0.1	0.75	11.8	104.5	0.8	0.20	0.29	0.18	18.2	10.7	12.5	21.0	28.0	2.2	1.5	125	0.04	8.0	26.5	0.03	582	0.49	0.028	0.12	23.7	430	22.1	5.1	0.06	0.34	2.8	0.8	0.2	42.0	<0.05	0.02	2.9	0.003	0.06	<5	16	<0.1	5.3	106.1	1.57	
44	00114	1	<0.1	0.75	10.6	119.0	0.2	0.20	0.35	0.20	17.4	11.0	12.0	19.1	26.8	2.2	1.7	80	0.04	7.5	22.1	0.03	672	0.46	0.032	0.12	24.2	467	17.3	4.4	0.02	0.28	1.8	0.4	0.2	24.5	<0.05	0.04	2.7	0.003	0.08	<5	16	<0.1	5.4	108.8	1.62	
45	00115	1	<0.1	0.75	10.2	114.0	0.5	0.18	0.38	0.19	17.7	10.8	12.0	19.1	26.8	2.3	1.5	135	0.04	7.5	21.8	0.03	780	0.46	0.032	0.12	23.7	471	16.7	4.5	0.04	0.28	1.9	0.5	0.1	25.0	<0.05	0.02	2.4	0.003	0.08	<5	16	<0.1	5.8	102.8	1.88	
46	00116	2	<0.1	1.10	10.2	149.5	0.7	0.24	0.62	0.13	19.9	12.5	20.5	23.2	34.8	3.7	2.0	80	0.04	8.0	27.8	0.05	690	0.69	0.038	0.28	23.8	1206	17.4	4.1	0.04	0.28	3.0	0.6	0.3	49.5	<0.05	0.04	3.2	0.006	0.08	<5	30	0.1	6.1	92.5	1.78	
47	00117	2	<0.1	1.34	12.6	190.0	1.1	0.28	0.67	0.17	17.0	12.7	21.5	27.1	33.8	3.7	2.1	100	0.04	7.5	29.9	0.05	697	0.86	0.038	0.28	24.8	895	20.6	5.1	0.04	0.36	3.2	0.8	0.4	41.0	<0.05	0.04	4.8	0.013	0.12	<5	38	0.1	6.8	96.7	1.87	
48	00118	2	<0.1	1.38	11.3	155.5	0.3	0.28	0.85	0.15	28.1	14.9	24.5	27.2	36.5	4.9	2.9	85	0.06	12.0	33.0	0.07	691	0.79	0.060	0.30	28.9	2202	18.9	4.8	<0.02	0.32	3.8	0.6	0.4	74.0	<0.05	0.04	4.4	0.013	0.12	<5	38	0.1	7.2	117.4	1.80	
49	00119	2	<0.1	1.37	12.1	170.0	0.9	0.30	0.85	0.16	24.4	22.0	29.4	34.3	4.7	2.7	27.5	0.06	12.0	32.9	0.07	769	0.83	0.058	0.32	27.9	2247	19.7	5.5	0.04	0.38	3.6	0.7	0.7	77.5	<0.05	0.04	3.7	0.012	0.16	<5	36	0.1	7.9	115.6	1.73		
50	00120	2	<0.1	1.25	12.3	154.0	0.2	0.28	0.85	0.15	25.0	13.1	21.0	28.0	34.3	4.3	2.3	160	0.06	11.0	30.5	0.04	676	0.89	0.053	0.26	26.2	2119	18.3	4.9	0.02	0.34	3.2	0.8	0.3	70.5	<0.05	<0.02	3.2	0.010	0.14	<5	34	<0.1	7.1	107.6	1.59	
51	00121	2	<0.1	1.28	11.0	183.5	0.5	0.30	0.50	0.20	17.3	17.2	21.5	36.2	36.7	4.4	2.6	45	0.07	7.0	30.5	0.06	988	0.74	0.106	0.22	32.3	1069	21.5	3.8	<0.02	0.28	3.9	0.4	0.3	42.0	<0.05	0.04	3.8	0.017	0.14	<5	32	<0.1	5.4	119.0	1.22	
52	00122	2	0.2	1.22	16.7	212.5	0.7	0.32	0.36	0.49	11.6	16.5	26.5	38.5	36.3	4.2	2.5	145	0.04	5.0	31.0	0.05	111	1.54	0.031	0.18	41.2	687	23.1	7.7	0.06	0.34	2.7	0.9	0.4	35.0	<0.05	0.08	2.7	0.005	0.52	<5	34	0.1	6.9	151.1	1.34	
53	00123	3	0.4	1.08	29.2	343.0	1.0	0.30	0.50	0.99	15.5	15.9	21.0	36.9	36.5	4.2	3.0	305	0.06	7.0	22.6	0.04	1171	2.42	0.032	0.22	49.0	956	20.8	2.8	0.02	0.26	2.0	0.3	0.1	22.5	<0.05	<0.02	1.6	0.002	0.04	<5	14	<0.1	3.8	73.4	1.20	
54	00124	3	0.4	1.05	47.3	459.0	0.5	0.28	0.50	1.40	15.7	22.1	21.5	37.8	41.7	3.4	3.0	305	0.06	7.0	22.7	0.04	1853	3.47	0.032	0.22	80.7	952	22.9	8.8	0.06	1.30	2.1	2.0	0.4	45.0	<0.05	0.08	1.4	0.004	1.80	<5	44	0.1	7.7	265.2	1.29	
55	00125	3	0.1	1.08	14.1	243.0	0.7	0.30	0.24	0.34	16.4	14.8	24.0	39.8	37.3	3.8	2.3	125	0.06	7.0	23.6	0.04	953	3.00	0.033	0.14	24.1	130	21.2	0.40	0.1	0.04	1.06	2.6	1.0	0.4	34.0	<0.05	0.06	2.4	0.005	0.16	<5	38	0.1	5.6	124.2	0.73
56	00126	2	<0.1	0.73	8.3	227.0	0.3	0.32	0.22	0.27	13.4	16.2	23.5	35.5	36.8	4.7	2.6	45	0.05	5.5	31.8	0.06	1124	2.17	0.032	0.14	29.5	627	18.4	5.3	0.04	0.70	2.6	0.6	0.5	28.5	<0.05	0.02	3.1	0.004	0.10	<5	38	0.1	5.0	114.2	0.90	
57	00127	5	0.3	1.26	27.6	276.5	1.2	0.36	0.49	0.72	19.0	15.6	21.0	46.1	39.0	4.0	2.0	70	0.11	9.0	24.1	0.04	1409	5.80	0.033	0.18	34.2	2036	27.2	11.5	0.12	1.62	1.2	2.8	0.3	81.0	<0.05	0.12	0.9	0.004	0.18	<5	46	<0.1	13.0	155.7	1.95	
58	00151	1	<0.1	0.74	8.9	91.0	0.2	0.18	0.66	0.17	10.2	12.7	11.5	18.9	6.65	2.2	1.5	40	0.03	4.0	20.7	0.04	763	0.53	0.031	0.10	20.1	280	18.8	2.8	0.02	0.26	2.0	0.3	0.1	22.5	<0.05	<0.02	1.6	0.002	0.04	<5	14	<0.1	3.8	73.4	1.20	
59	00152	1	<0.1	0.91	11.9	119.0	1.1	0.26	0.67	0.25	12.9	13.0	14.0	22.4	31.7	2.7	1.9	80	0.05	5.5	19.9	0.04	588	0.51	0.030	0.16	22.7	495	23.9	6.3	0.04	0.32	2.5	0.9	0.2	36.0	<0.05	0.02	1.9	0.003	0.04	<5	18	<0.1	6.0	101.5	2.55	
60	00153	1	0.2	0.84	19.9	155.5	0.5	0.24	1.12	1.08	10.1	9.8	12.0	29.3	30.0	2.1	1.7	195	0.06	6.0	13.7	0.03	393	0.63	0.032	0.30	22.0	973	24.1	13.0	0.12	0.40	2.1	1.5	0.3	62.5	<0.05	0.04	1.1	0.005	0.08	<5	18	<0.1	9.7	109.8	3.14	
61	00154	1	<0.1	0.73	31.9	116.5	0.9	0.28	0.41	0.53	17.1	18.5	10.1	30.5	34.9	2.0	2.4	95	0.05	7.0	10.6	0.02	919	0.58	0.031	0.16	31.0	560	32.7	8.4	0.04	0.50	2.3	0.2	24.5	<0.05	0.04	3.8	0.017	0.14	<5	38	0.1	5.0	114.2	0.90		
62	00155	2	0.3	1.08	36.9	169.0	1.2	0.28	0.68	0.54	11.9	11.1	13.5	35.1	33.1	2.5	2.0	175	0.05	7.0	19.6	0.03	515	0.79	0.031	0.22	29.3	876	27.4	13.3	0.06	0.50	2.6	1.0	0.3	54.5	<0.05	0.04	1.6	0.003	0.10	<5	18	<0.1	13.5	196.1	4.48	
63	00156	2	0.2	1.31	11.1	460.5	1.0	0.28	0.52	0.40	15.6	11.3	20.5	27.8	31.1	3.4	1.9	85	0.06	7.5	21.0	0.03	668	1.26	0.028	0.22	29.7	930	26.4	9.0	0.06	0.66	2.6	0.7	0.2	28.0	<0.05	0.04	1.6	0.003	0.12	<5	28	0.1	9.2	123.7	3.57	
64	00157	1	<0.1	0.89	10.2	175.0	0.3	0.20	0.49	0.32	12.8	10.8	13.5	24.9	30.0	2.4	1.7	85	0.05	5.5	19.2	0.03	438	0.88	0.030	0.12	26.7	500	21.0	4.2	0.04	0.46	2.2	0.6	0.2	27.0	<0.05	0.04	1.8	0.002	0.06	<5	16	<0.1	6.8	101.0	2.15	
65	00158	2	<0.1	0.92	9.9	173.5	0.3	0.24	0.42	0.25	15.0	12.3	14																																			

El. #	Tag #	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cu	Fe	Ga	Ge	Hg	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr							
		ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm					
Standard:		11.5	0.82		5.3	61.0	0.2	0.42	0.46	59.42	10.4	5.1	12.0	1410.0	1.60	2.6	0.9	75	0.11	4.0	1.7	0.07	368	2.02	0.052	0.16	5.4	447	6219.0	3.5	0.84	16.66	0.8	0.1	1.3	30.0	<0.05	0.32	0.5	0.043	0.04	<5	18	0.2	2.2	>10000	1.90							
Pb129a		11.3	0.82		5.4	60.5	<0.1	0.42	0.47	58.34	10.1	5.1	12.0	1435.0	1.60	2.4	0.8	70	0.11	4.0	1.5	0.07	362	1.99	0.050	0.16	5.5	444	6245.0	3.6	0.84	16.28	0.8	0.2	1.2	29.0	<0.05	0.32	0.5	0.042	0.04	<5	18	0.2	2.2	>10000	1.81							
Pb129a		11.7	0.80		5.5	62.0	0.3	0.42	0.47	59.73	10.3	5.2	12.0	1422.0	1.61	2.6	1.0	70	0.11	4.5	0.8	0.07	371	1.92	0.048	0.16	5.8	454	6237.0	3.6	0.82	16.72	0.8	0.1	1.3	30.0	<0.05	0.28	0.4	0.042	0.04	<5	18	0.2	2.2	>10000	1.89							
OXE96																																																						
OXE96																																																						
OXE96																																																						

Aqua Regia Digest/ICPMS Finish

NM/mb/el  
date: 81575  
XLS/11

  
ECO TECH LABORATORY LTD.  
Norman Monteith  
B.C. Certified Assayer

**Appendix D**

**Stream Sediment and Soil Sample Descriptions and Assay Results**



## Frog Property 2011 Exploration Program - Collected Sediment Samples

NAD27 Zone 8

Sample #	Easting	Northing	Elev	Sample Type	Description	Location	stream vel	stream width
30	591068	7097730	759 m	stream sediment	Crystal springs east vent sample, abundant bright orange fine grained Fe-oxo-hydroxide modern spring precipitate, collected from bottom of small pool formed at spring vent, est 2-4L/s flow, T ~10C	CRYSTAL		
31	591068	7097724	760 m	stream sediment	Collected from slope between Crystal springs east and west vents, darker orange/ochre coloured fine grained Fe-O-OH precipitate on mossy boggy mound	CRYSTAL		
32	591061	7097724	758 m	stream sediment	Bright orange soft fine grained Fe-O-OH modern precipitates from west Crystal springs vent, est 1-2L/s flow, T ~10C	CRYSTAL		
33	591066	7097720	757 m	stream sediment	Fine grained bright to pale orange soft Fe-O-OH precipitates collected from middle of flow-path channel 3-4 m below west vent, channel 10-15cm wide, 1-2cm deep	GOSSAN		
34	591059	7097749	761 m	stream sediment	Mix of fine grained to coarse (1-2mm) black and orange seds, organics common, from a hole in the rocks in the forest floor fed by a very cold (~4C) non-Fe spring located ~25m N of crystal spring west vent			
35	591201	7097750	751 m	stream sediment	Ash springs, mostly fine grained dark orange Fe-O-OH seds/precipitates, some coarse shale fragments, not a modern active vent, more of a mound	ASH		
36	591208	7097751	750 m	stream sediment	Ash springs, bright orange, soft Fe-O-OH fine grained precipitates, collected at very slowly emitting seep, common hydrocarbon sheen on H2O surface	ASH		
37	591204	7097754	750 m	stream sediment	Ash springs, wet mound, no active water flow, dark orange fine grained Fe-O-OH ppt, rock sample #9 collected at same location	ASH		
38	591588	7097764	727 m	stream sediment	Area 51 springs, bright orange fine gr soft Fe-O-OH modern spring water ppt, small vent w/ est 1L/s flow, abndt cyanobacterial mats & stringers grow in flow path, upper E of 2 vents	51		

Sample #	Easting	Northing	Elev	Sample Type	Description	Location	stream vel	stream width
39	591585	7097775	724 m	stream sediment	Area 51 springs, bright orange fine grained soft Fe-OH modern spring water precipitates, small vent w/ est 1L/s flow, abundant cyanobacterial mats and stringers growin in spring water flow path, lower west of 2 vents	51		
76	587171	7098800	1388 m	stream sediment	Located above running stream, material is med-brown, 50% fines, 50% coarse angular material (>2-3mm), clasts mostly dark grey-green slate/shale, very little organics		none	
77	587208	7098920	1330 m	stream sediment	~6-7m below start of creek (spring/seep @ ~1-2L/s flow), 30-40cm wide, mod flow, v. rocky angular cobble & boulder stream bed of dark grey-green slate, mnr limestone w/light grey weathering but dk grey-cherty looking on fresh face, sample w/abndt coarse angular slate (60-70%) w/lesser fines, minor organics		low	0.4
78	587276	7099082	1250 m	stream sediment	Sample is deep/dark orange fine gr Fe-O-OH rich material, may be ferricrete formed by inactive Fe seep (2m long, 0.5m wide kill zone) at edge of 30-50cm wide mod flowing creek, fines in creek not abndt due to coarse angular slate/shale on creek bottom, sample from below where creek seds and rocks become orange from Fe-O-OH coating, first orange appearance @587270/7099039 where creek flows under 10m long strip of snow, other small Fe-seep below @587280/7099097 adjacent to creek on west side	Area 15		
79	587284	7099269	1190 m	stream sediment	sample mix of coarse angular shale/slate, abndt organics & brown mud mixed w/organics, creek flow through pasture w/vegetat banks, stream bed mostly 2mm-2cm angular to sub-ang shale/slate frags, no Fe-seeps visible		mod	.2 to .4
80	587286	7099457	1146 m	stream sediment	Mod fast flowing creek 30-50cm wide, sample is mix of coarse angular black shale, moss organics and brown fine gr/muddy sed			



Sample #	Eastings	Northing	Elev	Sample Type	Description	Location	stream vel	stream width
81	587255	7099694	1099 m	stream sediment	Sample collected where creek had re-emerged after flowing subsurface, slow flow, 10-40cm wide creek, sample from small pool @edge of creek, brown-grey fine gr/muddy sed, some organics			
82	586962	7100021	1033 m	stream sediment	Fast flowing creek up to 2m wide and 0.5m deep pools, rocky creek bed composed of gritstone, sample from creek margin, med-brown muddy to sandy sed w/organics common, v. little coarse fragments			
83	587086	7099858	1060 m	stream sediment	2m wide fast flowing creek up to 30cm deep, cobble to boulder bottom, mostly gritstone, occ limestone, sample from creek margin, med-brown fine gr muddy to sandy sed w/minor organics			
84	587314	7099752	1095 m	stream sediment	1-2m wide fast flow creek, up to 0.5m deep, stream bed mostly gritstone and some chert cobble and boulder, sample is med-brown-grey fine gr (mud to sand) sed with organics commons (10-20%), taken from pool @creek edge			
85	587455	7099541	1131 m	stream sediment	steep terrain, abundant whitewater, 0.5 m deep, gritstone black shale and chert creek bed, sample from calm pool @edge of creek, med-brown fine gr (mud-sand) sed w/common flat sub-ang shale clasts 2mm-1cm, minor organics		high	1
86	587528	7099320	1170 m	stream sediment	0.5-1m wide very fast creek, up to 0.5m deep, gritstone and black shale on creek bed, sample from pool @edge of creek, brown fine gr mud to sand sed w/minor coarse (>2mm) frags, organics common (20-30%)			
87	587629	7099117	1198 m	stream sediment	1m wide fast flow creek up to 40cm deep with sand and gravel creek bed, sample from mossy pool @creek edge with mix of fine gr dk brown mud with abundant organics and sand and up to 1cm long coarse black shale and gritstone, sample is 60% mud, 20%organics and 20% coarse (>2mm) material			

Sample #	Eastings	Northing	Elev	Sample Type	Description	Location	stream vel	stream width
88	587813	7098918	1255 m	stream sediment	1m wide mod-fast flow creek, 10-30cm deep, gravel & cobble creek bed of gritstone, black & green shale/slate & qtz float, difficult to find abundant fine gr seds with margins of creek being mix of angular shale frags 2-10cm long and mossy organics, sample 30-40% organics, 10-20% frags, 40-50% fine mud&sand			
89	589913	7098047	1058 m	stream sediment	Mod flow creek on steep terrain, 20-40cm wide, 5-20cm deep, med-grey brown fine gr (mud-sand) seds w/20-30% organics, coarse component of creek bed composed of black and light green shale/slate and gritstone			
90	590119	7097903	978 m	stream sediment	Mainly sub-vegetat stream flow in 30-40cm wide channels, abndt dark grey-brown fine gr (mud-sand) seds, no clasts, little organics			
91	590379	7097778	887 m	stream sediment	Mod flow stream in 30-50cm wide channels 10-30cm deep, sample from small plunge pool composed of med grey-brown fine gr (mud-sand) seds (70-80%), 20-30% sub ang 2-4mm wide platye clasts of black and grey-green shale, little to no organics			
92	590620	7097572	812 m	stream sediment	Low flow, 10-30cm wide creek 2-10cm deep, stream bed formed of abundant black-grey shale/slate, fine gr (mud-sand) med grey seds collected from small pool @edge, 10-20% coarse (2-4mm) material			
93	590813	7097487	754 m	stream sediment	Mod flow creek 20-40cm wide, 5-20cm deep, med grey fine gr (mud-sand) sed sample, little to no organics, 10-20% clasts 2-4mm wide black-grey slate/shale			
94	590947	7097361	707 m	stream sediment	Slow creek, 20-40cm wide 5-15cm deep, abundant light to med grey fine gr (mud-sand) seds, 10-20% coarse (2-4mm wide) black-grey shale/slate, little to no organics			
96	591144	7097132	666 m	stream sediment	Mod-fast creek 30-40cm wide, 10-20cm deep, more well rounded gravel & cobble on creek bottom but some angular shale, med grey to dk brown fine gr (mud-sand) seds w/10-20% fine organics (wood frags)			

Sample #	Easting	Northing	Elev	Sample Type	Description	Location	stream vel	stream width
101	587202	7103203	1035 m	stream	80% fines, 20% organics, taken in stream bank		high	2.5
102	587353	7102907	1003 m	stream	60% fines, 40% organics		high	3
103	587357	7102698	999 m	stream	30%coarse, 60%fines,10%organics		high	4
104	587274	7102483	978 m	stream	50/50 coarse/fines		high	3
105	587284	7102160	971 m	stream	25%coarse/25%organics/50%fines		high	4.5
106	587328	7101863	949 m	stream	35%coarse/40%fines/25%organics		high	4
107	587208	7101752	932 m	stream	30%coarse/40%fines/30%organics		high	3
108	586977	7101534	917 m	stream	30%coarse/60%fines/10%organics		high	4
109	587180	7101383	925 m	stream	50/50 organics/fines		mod	3.2
110	587453	7101341	929 m	stream	70%fines/30%organics		mod	6
111	587707	7101359	931 m	stream	80%fines/20%organics		mod	1.2
112	587885	7101289	940 m	stream	50/50 organics/fines		mod	2
113	586895	7101346	919 m	stream	50/50 sand/fine		high	3
114	586576	7101265	909 m	stream	50%sand/30%sand/20%organic		high	4.3
115	586261	7101250	892 m	stream	50%fine/30%organics/20%sand, in stream bank		high	5
116	585916	7101356	910 m	stream sediment	Fast-flowing stream ~1m wide, 30-40cm deep, angular cobble bottom with brown-purple colour fine grained seds along creek margins, sample contains 80% fines, 15% coarse fragments of purple shale, 5% organics			
117	586108	7101517	917 m	stream sediment	Fast-flowing stream 0.5-1m wide, angular cobble bottom, with brown-purple colour fine grained seds along creek margins, sample contains 90-95% fines (mud-sand), 5% organics			
118	586184	7101846	941 m	stream sediment	Fast-flowing stream 1-2m wide, 5-30cm deep, purple-brown seds on creek bottom, sample consists of 50-60% 1-4mm angular clasts, 40-50% fine gr seds (mud-sand), clastly mostly purple shale, some green shale			
119	586195	7101999	961 m	stream sediment	Fast-flowing 1-2m stream w/up to 0.5m diameter boulders on stream bed, sample from edge with 60-70% sub-angular to sub-rounded clasts (purple + green shales, gritstone), 30-40% mud-sand sized purple-brown seds			



Sample #	Eastings	Northing	Elev	Sample Type	Description	Location	stream vel	stream width
120	586460	7102200	995 m	stream sediment	Fast-flowing 1.5-2m wide stream, 10-30cm diameter cobble and angular boulders in stream bed, sample from calm spot @edge w/40-50% sub-rounded clasts and 50-60% purple-brown fines			
121	586321	7102521	1068 m	stream sediment	steep terrain (abndt white water), cobble & boulder stream bed, sample from edge in calm eddy, 50-60% coarse shale (1-4 mm), rest is purple-brown fine gr sed, some organics		high	2
122	586126	7102772	1125 m	stream sediment	Very fast flowing 1-1.5m wide creek on steep terrain, sample from calm pond with fine gr purple-brown sed layer over 2-5mm wide coarse angular purple shale			
123	585910	7102914	1178 m	stream sediment	Fast flowing stream 1.5-2m wide, sample from edge, mostly fine gr purple fines, some purple shale clasts, organics present			
124	585738	7103166	1218 m	stream sediment	Fast flowing 1m wide stream on steep terrain (common whitewater), fine gr purple-brown sed w/minor angular larger clasts, organics abundant, sample from side pool			
125	585514	7103296	1276 m	stream sediment	Moderate to fast flowing 0.5-1m wide creek, cobble to boulder stream bed, organic rich purple-brown fine gr sed collected from edges, some small angular clasts present in sample			
126	585261	7103360	1318 m	stream sediment	Mod-fast creek, 0.5-1m wide, on steep terrain, some whitewater, fine gr purple-brown sed collected from lateral pool, abundant organics, some small coarse fragments			
127	585026	7103582	1385 m	stream sediment	Slow shallow creek 0.5-1m wide, fine gr brown sed collected in pool formed by downed tree, some organics, mnr frags, little purple shale			
151	589320	7100539	1076 m	stream	gry-brwn, 30%pebbles/20%sand/50%fines		mod	1
152	589356	7100372	1105 m	stream	brwn, 50% coarse sand-sh/50%fines		mod	0.8
153	589449	7100157	1146 m	stream	50% organics(veg mat)/50%fines		low	0.45
154	589380	7099945	1233 m	stream	brwn, 40%coarse sand/20%organics/40% fines		dry	
155	589373	7099770	1308 m	stream	brwn, 80%fines/20%organics		low	0.4
156	588887	7099122	1346 m	stream	light brwn, 20%organics/60%fines/20%coarse sand		mod	0.5
157	588704	7099315	1265 m	stream	grit unit material, 60%pebbles/20%sand/20%fines		mod	1

Sample #	Eastings	Northing	Elev	Sample Type	Description	Location	stream vel	stream width
158	588552	7099503	1219 m	stream	brwn, 50%organics/50%fines		mod	0.75
159	588413	7099651	1186 m	stream	gry, 50%fines/30%sand/20%organics		mod	1.5
160	588236	7099779	1153 m	stream	brwn, 80%fines/15%organics/5%sand		high	1.5
161	588128	7099984	1118 m	stream	gry-brwn, 15%pebbles/50%sand/35%fines, grit unit		high	1
162	587955	7100151	1085 m	stream	brwn, 40%fines/40%sand/20%organics		high	1.5
163	588506	7099423	1240 m	stream	light brwn, 50%organics/30%fines/20%shale frags		high	0.4
164	588473	7099177	1356 m	stream	gry/blk, 60% blk shale, 40%fines		high	1
165	588920	7098442	1273 m	stream	brwn-blk, 20%pebbles/40%sand/40%fines		high	0.3
166	588913	7098236	1217 m	stream	brwn, 80%fines/5%sand/15%organics		high	0.4
167	588970	7098042	1185 m	stream	brwn-blk, 60%blk sh/40%fines		high	0.3
168	589101	7097839	1129 m	stream	blk, 60%blk sh,40%fines		high	0.5
169	589071	7097725	1090 m	stream	blk, 50%shale-pebbles/20%sand/30%fines		high	0.8
176	591199	7097230		soil	Dark brown-orange to medium orange-red soils, gossan-like appearance, possible inactive vent depressions and terrace	Majestic		
177	591207	7097212		soil	Dark brown-orange to medium orange-red soils, gossan-like appearance, possible inactive vent depressions and terrace	Majestic		
178	591213	7097217		soil	Dark brown-orange to medium orange-red soils, gossan-like appearance, possible inactive vent depressions and terrace	Majestic		
179	591218	7097222		soil	Dark brown-orange to medium orange-red soils, gossan-like appearance, possible inactive vent depressions and terrace	Majestic		
180	591225	7097196		soil	Dark brown-orange to medium orange-red soils, gossan-like appearance, possible inactive vent depressions and terrace	Majestic		
181	591230	7097200		soil	Dark brown-orange to medium orange-red soils, gossan-like appearance, possible inactive vent depressions and terrace	Majestic		
182	591236	7097206		soil	Dark brown-orange to medium orange-red soils, gossan-like appearance, possible inactive vent depressions and terrace	Majestic		
183	591230	7097286		soil	Dark brown-orange to medium orange-red soils, gossan-like appearance, possible inactive vent depressions and terrace	Corona		

Tag #	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hg ppb	K %	La ppm	Li ppm
00030	1	<0.1	0.06	93.2	44.5	0.7	<0.02	0.79	3.10	2.6	12.4	<0.5	1.1	>10	0.2	31.6	25	0.01	1.0	0.8
00031	2	<0.1	0.01	4.0	56.0	0.2	<0.02	0.71	0.73	0.1	61.0	<0.5	0.2	>10	<0.1	27.7	20	<0.01	<0.5	<0.1
00032	2	<0.1	0.06	109.7	31.0	0.2	<0.02	0.56	3.88	2.6	20.8	<0.5	0.5	>10	0.1	29.4	20	<0.01	1.0	0.5
00033	1	<0.1	0.05	63.5	113.5	0.3	<0.02	1.48	8.07	1.5	508.4	<0.5	0.5	>10	0.5	29.7	20	0.01	0.5	0.2
00034	1	<0.1	0.23	61.0	612.5	0.3	0.06	1.49	14.42	5.8	433.4	3.0	11.8	>10	1.0	21.5	50	0.03	3.0	2.6
00035	<1	<0.1	0.11	113.8	60.0	3.0	<0.02	0.88	3.10	2.3	564.4	1.0	1.5	>10	0.5	25.9	25	0.02	1.5	1.3
00036	1	<0.1	0.14	358.0	41.0	2.8	<0.02	1.02	2.00	5.5	36.0	0.5	1.0	>10	0.3	34.7	25	0.01	3.5	0.6
00037	<1	<0.1	0.11	144.1	51.5	3.2	<0.02	0.72	3.69	2.5	411.7	0.5	1.1	>10	0.3	29.2	25	0.01	1.5	0.6
00038	1	<0.1	0.11	1149.0	482.5	1.0	0.02	2.40	6.00	15.3	452.7	1.5	4.9	>10	1.8	22.6	30	0.03	5.5	2.1



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00039	2	<0.1	0.15	1654.0	260.5	0.7	0.02	1.67	13.75	75.0	67.7	2.0	4.6	>10	1.2	31.3	45	0.02	31.5	1.3
00076	5	0.1	1.30	18.3	185.5	0.7	0.34	0.05	0.28	25.2	20.7	20.0	77.2	4.34	4.4	3.1	45	0.08	11.0	11.7
00077	1	0.1	0.25	4.0	26.0	<0.1	<0.02	0.13	39.45	1.6	5.3	1.0	18.1	>10	0.2	31.6	35	0.01	0.5	0.5
00078	1	0.3	0.29	4.7	32.5	0.5	0.02	0.15	66.48	2.1	6.0	1.5	22.6	>10	0.2	36.9	60	0.01	1.0	<0.1
00079	2	0.6	0.74	33.6	432.0	0.9	0.20	0.80	34.11	15.9	44.0	12.5	49.1	5.78	2.0	5.4	185	0.04	8.0	10.0
00080	3	0.3	0.71	20.6	308.5	0.3	0.18	0.74	19.52	13.6	25.5	11.0	39.8	4.04	2.1	3.1	135	0.04	7.0	7.9

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00081	4	0.3	0.84	16.2	489.5	0.8	0.24	0.92	1.89	15.0	10.7	13.0	34.7	2.61	2.7	1.4	135	0.06	7.0	11.2
00082	2	0.2	0.84	9.1	435.0	0.2	0.22	0.69	3.20	14.2	9.9	13.0	34.1	2.59	2.6	1.8	125	0.06	6.5	12.4
00083	2	0.2	0.79	9.4	440.0	<0.1	0.22	0.55	2.39	15.5	8.8	12.5	29.3	2.48	2.6	1.4	105	0.07	7.0	13.7
00084	4	0.3	0.84	9.9	509.0	0.3	0.24	0.47	2.84	15.4	10.0	14.0	41.0	2.70	2.7	1.8	110	0.07	7.0	11.8
00085	2	0.2	0.78	9.1	432.5	0.2	0.20	0.68	3.96	12.7	8.8	12.5	33.1	2.50	2.5	1.5	290	0.06	6.0	13.1
00086	3	0.4	0.82	7.9	512.0	<0.1	0.20	0.77	8.81	13.8	9.9	14.0	42.2	2.37	2.5	1.5	160	0.08	6.5	13.8
00087	4	0.5	0.80	9.5	722.5	0.3	0.22	0.69	10.09	12.8	9.5	14.5	49.6	2.42	2.3	1.5	115	0.07	6.5	12.9

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00088	3	0.7	0.82	12.7	435.5	1.3	0.24	0.38	9.41	14.9	19.6	13.0	62.2	2.52	2.4	1.7	95	0.09	7.5	12.4
00089	3	0.5	1.14	11.2	933.5	1.0	0.32	0.85	3.34	11.5	9.2	19.0	34.1	2.98	3.4	1.9	115	0.05	5.5	24.8
00090	3	0.5	0.98	10.5	715.0	0.3	0.24	1.03	1.85	13.2	9.2	17.0	32.1	2.68	2.9	1.6	120	0.06	6.0	14.6
00091	2	0.2	0.73	8.5	485.5	0.5	0.18	0.97	0.89	14.1	9.0	12.0	21.7	2.31	2.2	1.4	90	0.04	6.5	17.9
00092	1	0.2	0.17	19.2	85.0	1.0	0.36	0.32	1.41	18.0	19.7	5.0	48.5	3.92	0.8	3.1	85	0.06	8.5	2.3
00093	2	0.4	0.62	15.3	503.5	0.5	0.24	0.88	1.71	15.1	12.5	11.0	40.3	3.38	2.0	2.3	130	0.05	7.0	14.0
00094	1	0.3	0.60	14.2	448.0	0.3	0.22	0.84	1.53	13.9	11.0	11.0	35.2	3.01	1.9	1.9	100	0.05	6.5	10.0
00096	2	0.4	0.77	10.3	651.5	0.8	0.22	1.59	1.12	13.0	10.2	13.0	35.1	2.46	2.4	1.7	125	0.05	6.0	15.8



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00101	5	<0.1	0.77	13.9	140.5	0.5	0.20	0.48	0.23	16.4	10.9	11.5	23.4	2.66	2.2	1.6	115	0.04	7.0	18.7
00102	2	<0.1	0.76	11.1	144.5	<0.1	0.20	0.48	0.22	16.6	11.1	12.0	21.3	2.53	2.2	1.5	160	0.05	7.0	14.5
00103	2	<0.1	0.71	10.9	126.0	0.3	0.20	0.66	0.29	14.6	10.3	11.5	22.3	2.56	2.0	1.6	110	0.04	6.5	19.1
00104	2	<0.1	0.63	11.2	76.5	0.8	0.18	0.37	0.21	15.0	10.5	10.0	18.8	2.69	1.9	1.6	60	0.03	6.5	16.7
00105	1	<0.1	0.70	10.0	118.0	0.2	0.18	0.49	0.23	16.2	10.2	11.5	20.2	2.57	2.1	1.6	145	0.04	7.0	17.9
00106	3	<0.1	0.78	14.2	93.5	0.3	0.24	0.42	0.22	16.5	13.6	13.0	24.4	3.54	2.4	2.0	75	0.04	7.0	26.6
00107	3	<0.1	0.86	11.8	135.5	0.3	0.22	0.53	0.26	21.0	12.3	13.5	23.9	2.96	2.7	1.8	120	0.04	9.0	21.7
00108	2	<0.1	0.71	13.7	67.5	0.3	0.24	0.19	0.16	17.5	12.8	12.0	22.5	3.34	2.3	2.0	65	0.03	7.0	22.4
00109	2	<0.1	0.92	12.5	242.5	<0.1	0.22	0.79	0.29	15.5	13.5	14.5	21.7	3.60	2.7	2.2	115	0.05	6.5	24.9
00110	2	0.2	1.11	13.9	408.0	0.5	0.30	1.67	0.42	16.8	17.3	16.5	33.8	3.82	3.1	2.8	150	0.06	8.0	16.8
00111	2	<0.1	0.93	8.2	186.5	0.2	0.22	0.63	0.19	12.6	9.6	13.5	22.0	3.13	2.6	1.8	90	0.04	5.5	21.9
00112	2	<0.1	1.00	12.3	229.0	0.3	0.24	0.87	0.23	13.7	11.4	15.0	25.1	3.58	2.8	2.4	130	0.05	6.0	22.8
00113	1	<0.1	0.75	10.8	104.5	0.8	0.20	0.29	0.18	18.2	10.7	12.5	19.0	2.80	2.2	1.5	125	0.04	8.0	26.5
00114	1	<0.1	0.76	10.5	119.0	0.2	0.20	0.35	0.20	17.4	11.0	12.0	19.0	2.83	2.2	1.7	80	0.04	7.5	22.1
00115	1	<0.1	0.75	10.2	114.0	0.5	0.18	0.38	0.19	17.7	10.8	12.0	19.1	2.68	2.3	1.5	135	0.04	7.5	21.8

00116

00117

00118

00119

Tag #	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hg ppb	K %	La ppm	Li ppm
00120	2	<0.1	1.25	12.3	154.0	0.2	0.28	0.85	0.15	25.0	13.1	21.0	28.0	3.43	4.3	2.3	160	0.06	11.0	31.4
00121	2	<0.1	1.28	11.0	183.5	0.5	0.30	0.50	0.20	17.3	17.2	21.5	36.2	3.67	4.4	2.6	45	0.07	7.0	30.5
00122	2	0.2	1.22	16.7	212.5	0.7	0.32	0.36	0.49	11.6	16.5	26.5	38.5	3.63	4.2	2.5	145	0.04	5.0	31.0
00123	3	0.4	1.08	29.2	343.0	1.0	0.30	0.50	0.99	15.5	15.9	21.0	36.9	3.65	3.4	2.3	305	0.06	7.0	22.6
00124	3	0.4	1.05	47.3	458.0	0.5	0.28	0.50	1.40	15.7	22.1	21.5	37.8	4.17	3.4	3.0	305	0.06	7.0	22.7
00125	3	0.1	1.08	14.1	243.0	0.7	0.30	0.24	0.34	16.4	14.8	24.0	39.8	3.73	3.8	2.3	125	0.06	7.0	23.6
00126	2	<0.1	1.34	8.3	227.0	0.3	0.32	0.22	0.27	13.4	16.2	29.5	35.5	3.68	4.7	2.5	45	0.05	5.5	31.8
00127	5	0.3	1.26	27.6	275.5	1.2	0.36	0.49	0.72	19.0	15.6	21.0	86.1	2.90	4.0	2.0	70	0.11	9.0	24.1
00151	1	<0.1	0.74	8.8	91.0	0.2	0.18	0.56	0.17	10.2	12.7	11.5	18.8	2.65	2.2	1.5	40	0.03	4.0	20.7
00152	1	<0.1	0.91	11.9	119.0	1.1	0.26	0.67	0.25	12.9	13.0	14.0	22.4	3.17	2.7	1.9	80	0.05	5.5	19.9
00153	1	0.2	0.84	19.9	155.5	0.5	0.24	1.12	1.08	10.1	9.8	12.0	28.3	3.00	2.1	1.7	195	0.06	6.0	13.7
00154	1	<0.1	0.73	31.9	116.5	0.9	0.28	0.41	0.53	17.1	18.5	10.0	30.5	3.49	2.0	2.4	95	0.05	7.0	10.6
00155	2	0.3	1.08	56.9	193.0	1.2	0.28	0.68	0.54	11.9	11.1	13.5	28.1	3.31	2.5	2.0	175	0.05	7.0	15.8
00156	2	0.2	1.31	11.1	460.5	0.2	0.28	0.52	0.40	15.6	11.3	20.5	27.8	3.11	3.4	1.9	85	0.06	7.5	21.0
00157	1	<0.1	0.81	11.8	171.0	0.9	0.22	0.36	0.31	13.9	13.0	14.0	29.3	3.16	2.4	1.9	85	0.04	6.0	17.4

Tag #	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hg ppb	K %	La ppm	Li ppm
00158	2	<0.1	0.92	9.9	173.5	0.3	0.24	0.42	0.25	15.0	12.3	14.5	26.3	2.99	2.6	1.8	100	0.05	7.0	22.3
00159	1	0.1	0.96	10.9	256.0	1.1	0.24	0.45	0.63	14.0	12.8	15.5	31.2	3.13	2.8	2.0	100	0.06	6.5	20.5
00160	2	0.1	1.09	9.1	234.5	0.8	0.22	0.57	0.32	20.2	12.2	17.5	27.5	3.17	3.2	1.9	100	0.05	9.5	19.1
00161	1	<0.1	0.89	11.0	190.0	0.7	0.22	0.46	0.36	13.3	12.5	13.5	27.5	3.07	2.5	2.0	85	0.04	6.0	20.7
00162	1	<0.1	0.86	10.2	175.0	0.3	0.20	0.49	0.32	12.8	10.8	13.5	24.9	3.00	2.4	1.7	85	0.05	5.5	19.2
00163	1	0.2	1.10	12.8	247.5	0.3	0.24	0.44	1.15	12.0	10.4	16.5	33.8	3.04	2.9	2.0	115	0.08	5.0	29.7
00164	2	0.1	1.16	15.9	300.0	0.7	0.24	0.39	1.84	15.2	11.2	17.5	3.5	3.53	3.0	2.4	55	0.05	6.5	33.6
00165	3	0.2	2.95	8.4	771.5	5.2	0.18	0.45	375.7	32.5	689.1	15.5	163.0	2.44	3.6	2.1	50	0.05	14.5	41.5
00166	3	0.4	1.88	12.5	386.0	1.8	0.24	0.42	71.5	19.4	132.1	19.5	55.1	3.15	3.7	2.2	80	0.08	10.0	32.9
00167	3	0.2	2.36	10.6	733.5	3.5	0.16	0.45	389.5	28.1	656.8	14.0	126.5	2.62	3.6	2.1	50	0.05	14.0	32.7
00168	2	0.1	1.88	10.9	557.0	2.5	0.18	0.37	208.6	22.4	384.0	16.0	79.5	2.89	3.3	2.1	50	0.05	10.0	30.5
00169	1	<0.1	0.66	5.2	149.5	<0.1	0.10	0.12	33.05	11.4	58.5	9.0	22.1	1.85	1.7	0.9	25	0.04	5.0	12.5
00176	2	0.1	0.69	30.7	261.0	<0.1	0.16	0.60	28.49	11.1	175.7	9.5	21.0	>10	2.0	11.0	125	0.05	5.5	11.1
00177	1	0.1	0.75	32.7	278.5	<0.1	0.16	0.61	25.45	12.4	170.1	10.0	20.5	>10	2.1	11.4	50	0.05	5.5	9.6
00178	2	0.2	0.89	22.5	220.0	0.6	0.18	0.89	28.91	11.8	103.7	11.0	23.9	>10	2.3	10.0	60	0.05	6.0	12.5
00179	1	0.2	0.82	24.0	223.0	1.2	0.18	0.81	27.67	11.5	91.1	11.5	25.0	>10	2.2	9.9	60	0.06	5.5	10.0
00180	2	0.2	0.98	19.4	218.0	0.6	0.20	0.36	35.81	15.6	115.4	13.0	26.4	>10	2.7	8.7	50	0.07	7.5	13.5
00181	1	0.2	0.80	18.2	219.5	1.1	0.16	0.72	47.22	10.5	147.1	10.0	25.0	>10	2.1	11.2	70	0.05	5.5	9.4
00182	1	0.1	0.77	19.6	198.0	1.6	0.16	0.60	28.49	10.4	75.1	10.5	21.8	>10	1.9	8.5	55	0.05	5.5	8.3
00183	1	0.1	0.59	31.3	226.0	0.2	0.14	0.93	18.58	10.0	123.1	8.5	18.7	>10	1.7	10.6	55	0.05	4.5	6.5



Tag #	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %
00030	<0.01	125	60.17	0.032	<0.02	245.1	616	3.4	0.5	0.24	1.78	1.1	0.1	<0.1	80.0	<0.05	<0.02	<0.1	0.001
00031	<0.01	511	8.21	0.028	0.02	255.7	79	2.3	0.2	0.12	0.10	<0.1	<0.1	<0.1	79.0	<0.05	0.02	<0.1	0.001
00032	<0.01	178	64.70	0.027	<0.02	259.2	705	9.7	0.3	0.14	1.94	1.2	0.2	<0.1	55.5	<0.05	<0.02	<0.1	0.001
00033	<0.01	>10000	45.58	0.027	<0.02	731.0	388	2.5	0.4	0.10	1.26	0.8	0.2	<0.1	165.5	<0.05	0.02	<0.1	0.001
00034	0.02	>10000	34.47	0.029	0.04	883.2	674	9.1	2.2	0.08	1.34	1.7	2.3	<0.1	176.0	<0.05	<0.02	0.8	0.001
00035	<0.01	8804	42.35	0.027	0.02	>1000	279	3.9	0.7	0.12	4.02	1.7	0.2	<0.1	67.5	<0.05	<0.02	0.2	0.001
00036	<0.01	487	150.60	0.026	0.02	424.8	1080	2.6	0.6	0.20	17.56	3.4	0.3	<0.1	67.0	<0.05	<0.02	0.2	0.001
00037	<0.01	6492	65.27	0.027	<0.02	>1000	277	2.5	0.5	0.08	5.26	2.1	0.2	<0.1	47.5	<0.05	0.02	0.1	0.001
00038	0.02	>10000	8.73	0.030	0.02	734.4	2737	4.5	0.9	0.08	30.80	4.1	1.3	<0.1	424.5	<0.05	0.04	0.3	0.001

Tag #	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %
00039	0.02	1985	7.19	0.031	0.02	164.3	3418	6.3	1.0	0.16	28.96	5.7	2.2	<0.1	267.5	<0.05	0.02	0.3	0.001
00076	0.03	2148	4.49	0.023	0.24	33.6	1411	32.6	9.9	0.08	1.64	2.1	1.2	0.4	25.5	<0.05	0.14	1.3	0.005
00077	<0.01	52	1.15	0.026	0.02	68.1	108	2.7	0.8	0.44	0.96	0.7	1.2	<0.1	15.5	<0.05	<0.02	0.2	0.001
00078	<0.01	77	1.38	0.047	0.06	83.2	137	5.0	0.9	0.50	1.18	0.7	1.5	<0.1	18.5	<0.05	<0.02	0.3	0.002
00079	0.02	924	8.79	0.025	0.24	260.6	1012	21.2	5.0	0.04	5.28	2.2	3.8	0.2	102.5	<0.05	0.06	1.7	0.004
00080	0.02	748	5.04	0.023	0.18	180.1	797	18.8	4.6	0.04	3.10	1.8	2.3	0.2	76.5	<0.05	0.06	1.4	0.003

Tag #	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %
00081	0.03	591	2.81	0.045	0.24	33.8	722	23.3	6.8	0.06	1.62	2.3	1.9	0.2	66.5	<0.05	0.10	1.9	0.004
00082	0.03	593	2.07	0.026	0.20	50.2	719	19.6	6.2	0.06	1.22	1.8	1.4	0.2	49.5	<0.05	0.08	1.6	0.003
00083	0.03	564	1.98	0.048	0.18	43.8	568	20.8	6.6	0.04	1.08	2.0	1.2	0.2	41.0	<0.05	0.04	2.0	0.004
00084	0.03	584	2.49	0.029	0.16	57.9	745	21.3	6.7	0.06	1.34	2.0	1.7	0.2	42.0	<0.05	0.04	1.5	0.002
00085	0.03	549	2.15	0.027	0.18	68.1	719	19.6	6.2	0.08	1.22	1.4	1.6	0.2	47.0	<0.05	0.06	1.3	0.003
00086	0.03	761	2.31	0.027	0.18	93.9	903	19.7	7.2	0.10	1.38	1.8	2.5	0.2	55.5	<0.05	0.06	1.2	0.003
00087	0.03	931	3.42	0.028	0.16	133.7	1040	20.8	8.4	0.10	1.90	1.3	3.4	0.4	56.5	<0.05	0.06	1.0	0.003



Tag #	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %
00088	0.02	1523	5.65	0.030	0.12	141.4	1109	23.0	7.1	0.12	3.12	1.3	3.8	0.4	39.0	<0.05	0.08	0.9	0.003
00089	0.04	403	3.58	0.029	0.22	68.0	782	26.7	5.0	0.06	3.04	2.0	2.7	0.2	59.5	<0.05	0.08	1.9	0.002
00090	0.04	456	2.35	0.027	0.30	42.2	756	20.8	5.1	0.08	2.06	2.0	2.5	0.2	69.0	<0.05	0.04	1.6	0.003
00091	0.04	408	1.38	0.028	0.16	34.2	573	17.7	3.5	0.06	1.06	1.6	1.3	0.2	57.5	<0.05	<0.02	1.8	0.002
00092	0.02	627	4.84	0.026	0.02	43.0	447	28.1	4.1	0.22	4.00	2.5	2.4	0.1	48.5	<0.05	0.08	5.2	<0.001
00093	0.04	854	4.18	0.028	0.14	47.4	719	21.7	5.3	0.10	2.20	2.2	2.3	0.2	72.5	<0.05	0.06	2.5	0.002
00094	0.04	452	3.52	0.030	0.12	41.6	678	20.0	4.3	0.10	2.06	2.1	2.3	0.2	62.5	<0.05	0.06	2.3	0.002
00096	0.05	601	2.04	0.029	0.18	37.4	689	19.9	4.1	0.08	1.42	2.0	2.3	0.2	88.5	<0.05	0.06	1.6	0.002

Tag #	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %
00101	0.03	399	0.64	0.030	0.16	28.4	539	18.8	5.3	0.04	0.42	2.2	0.7	0.2	32.5	<0.05	0.02	1.9	0.003
00102	0.03	286	0.56	0.029	0.18	26.3	512	18.5	6.0	0.04	0.34	2.2	0.9	0.2	33.5	<0.05	0.02	2.1	0.003
00103	0.03	483	0.53	0.027	0.16	27.3	529	19.0	4.9	0.04	0.30	1.9	0.9	0.2	40.5	<0.05	0.02	1.8	0.003
00104	0.03	455	0.44	0.026	0.10	23.0	328	18.2	3.6	<0.02	0.30	2.0	0.3	0.1	19.0	<0.05	0.02	2.7	0.002
00105	0.03	389	0.50	0.027	0.14	25.4	491	18.3	4.7	0.02	0.32	2.1	0.6	0.2	29.0	<0.05	0.04	2.4	0.003
00106	0.04	479	0.55	0.029	0.16	31.5	411	23.0	4.1	0.02	0.40	2.4	0.4	0.2	26.0	<0.05	0.04	3.4	0.004
00107	0.04	514	0.64	0.031	0.18	28.8	561	22.3	5.9	0.04	0.40	2.2	0.7	0.2	35.0	<0.05	0.04	2.2	0.004
00108	0.03	493	0.48	0.028	0.06	28.0	343	20.6	3.3	<0.02	0.34	2.2	0.3	0.2	17.5	<0.05	0.04	4.0	0.002
00109	0.04	1802	0.43	0.031	0.22	21.6	641	19.9	6.2	0.08	0.26	2.2	1.0	0.2	46.0	<0.05	0.04	2.2	0.003
00110	0.04	3533	0.65	0.033	0.30	24.6	968	24.6	8.3	0.14	0.38	2.5	1.3	0.3	90.5	<0.05	0.04	1.5	0.002
00111	0.04	608	0.56	0.034	0.18	21.4	503	18.7	4.5	0.06	0.28	2.5	0.6	0.2	32.0	<0.05	0.04	1.8	0.002
00112	0.04	621	0.60	0.031	0.20	24.0	605	22.1	5.1	0.08	0.34	2.8	0.8	0.2	42.0	<0.05	0.02	2.3	0.002
00113	0.03	532	0.49	0.028	0.12	23.7	434	18.2	4.1	0.02	0.30	1.9	0.3	0.2	20.5	<0.05	0.02	2.9	0.003
00114	0.03	772	0.46	0.032	0.12	24.2	467	17.3	4.4	0.02	0.28	1.8	0.4	0.2	24.5	<0.05	0.04	2.7	0.003
00115	0.03	680	0.43	0.031	0.12	23.7	471	16.7	4.5	0.04	0.28	1.9	0.5	0.1	25.0	<0.05	0.02	2.4	0.003
00116	0.05	690	0.69	0.038	0.28	23.8	1206	17.4	4.1	0.04	0.28	3.0	0.6	0.3	49.5	<0.05	0.04	3.2	0.006
00117	0.05	697	0.86	0.038	0.28	24.8	895	20.6	5.1	0.04	0.36	3.2	0.8	0.4	41.0	<0.05	0.04	2.8	0.006
00118	0.07	819	0.79	0.060	0.30	28.9	2202	18.9	4.8	<0.02	0.32	3.8	0.6	0.4	74.0	<0.05	0.04	4.4	0.013
00119	0.07	769	0.83	0.058	0.32	27.9	2247	19.7	5.5	0.04	0.38	3.6	0.7	0.4	77.5	<0.05	0.04	3.7	0.012

Tag #	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %
00120	0.06	745	0.89	0.053	0.26	26.2	2119	18.3	4.9	0.02	0.34	3.2	0.6	0.3	70.5	<0.05	<0.02	3.2	0.010
00121	0.06	988	0.74	0.106	0.22	32.3	1069	21.5	3.8	<0.02	0.28	3.9	0.4	0.3	42.0	<0.05	0.04	3.8	0.017
00122	0.05	1115	1.54	0.031	0.18	41.2	687	22.9	5.2	0.04	0.64	2.7	0.9	0.4	35.0	<0.05	0.08	2.7	0.005
00123	0.04	1171	2.42	0.032	0.22	49.0	956	23.1	7.7	0.06	1.04	2.0	2.0	0.4	51.5	<0.05	0.06	1.5	0.004
00124	0.04	1853	3.47	0.032	0.22	80.7	952	22.9	8.8	0.06	1.30	2.1	2.0	0.4	45.0	<0.05	0.08	1.4	0.004
00125	0.04	953	3.00	0.033	0.14	31.2	725	20.2	6.1	0.04	1.06	2.6	1.0	0.4	34.0	<0.05	0.06	2.4	0.005
00126	0.06	1124	2.17	0.032	0.14	29.5	627	18.4	5.3	0.04	0.70	2.6	0.6	0.5	28.5	<0.05	0.02	3.1	0.004
00127	0.04	1409	5.80	0.033	0.18	34.2	2036	27.2	11.5	0.12	1.62	1.2	2.8	0.3	81.0	<0.05	0.12	0.9	0.004
00151	0.04	763	0.53	0.031	0.10	20.1	280	18.8	2.8	0.02	0.26	2.0	0.3	0.1	22.5	<0.05	<0.02	1.6	0.002
00152	0.04	588	0.51	0.030	0.16	22.7	495	23.9	6.3	0.04	0.32	2.5	0.6	0.2	38.0	<0.05	0.02	1.9	0.003
00153	0.03	393	0.63	0.032	0.30	22.0	973	24.1	13.0	0.12	0.40	2.1	1.5	0.3	62.5	<0.05	0.04	1.1	0.005
00154	0.02	919	0.58	0.031	0.16	31.0	560	32.7	8.4	0.04	0.50	2.3	0.5	0.2	24.5	<0.05	0.04	1.5	0.004
00155	0.03	515	0.79	0.031	0.22	29.3	876	27.4	13.3	0.06	0.50	2.6	1.0	0.3	34.5	<0.05	0.04	1.6	0.003
00156	0.03	568	1.26	0.028	0.22	29.7	930	28.4	9.0	0.06	0.66	2.3	0.7	0.3	28.0	<0.05	0.04	1.6	0.003
00157	0.03	699	1.25	0.030	0.10	28.3	467	24.0	3.8	0.04	0.48	2.6	0.5	0.2	18.0	<0.05	0.04	1.8	0.003

Tag #	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %
00158	0.04	392	0.92	0.032	0.14	26.7	524	22.5	4.7	0.04	0.44	2.5	0.4	0.2	21.5	<0.05	0.02	2.0	0.003
00159	0.04	494	1.26	0.030	0.10	32.4	637	24.3	5.1	0.06	0.62	2.4	0.7	0.2	26.5	<0.05	0.08	1.9	0.002
00160	0.04	502	0.82	0.034	0.28	28.2	863	20.6	5.1	0.04	0.58	2.7	0.6	0.2	32.0	<0.05	0.04	2.0	0.007
00161	0.04	651	0.92	0.031	0.10	28.2	479	21.8	4.1	0.04	0.46	2.5	0.6	0.1	27.0	<0.05	0.06	2.0	0.002
00162	0.03	438	0.88	0.030	0.12	26.7	500	21.0	4.2	0.04	0.46	2.2	0.6	0.2	27.0	<0.05	0.04	1.8	0.002
00163	0.04	299	1.54	0.031	0.10	38.9	757	23.9	4.8	0.10	0.78	2.3	1.0	0.2	32.5	<0.05	0.04	2.3	0.002
00164	0.04	458	2.63	0.038	0.08	53.6	850	25.9	4.8	0.10	1.10	2.2	1.3	0.1	38.0	<0.05	0.06	2.6	0.003
00165	0.03	>10000	8.67	0.033	0.20	>1000	523	19.6	6.2	0.14	1.86	2.9	3.0	0.2	44.0	<0.05	0.02	2.0	0.004
00166	0.04	6041	5.22	0.032	0.22	441.3	1102	24.9	10.4	0.12	1.78	2.6	2.5	0.3	36.5	<0.05	0.06	2.1	0.005
00167	0.03	>10000	7.78	0.034	0.18	>1000	568	17.4	6.0	0.12	1.90	2.5	2.7	0.2	56.5	<0.05	0.06	1.7	0.004
00168	0.04	>10000	4.57	0.031	0.16	>1000	643	19.3	5.8	0.08	1.44	2.4	2.1	0.2	44.5	<0.05	0.08	2.1	0.004
00169	0.02	2786	1.32	0.029	0.08	210.2	292	11.1	3.3	0.02	0.52	1.2	0.6	<0.1	13.5	<0.05	<0.02	1.5	0.004
00176	0.02	3090	5.74	0.032	0.14	>1000	605	20.4	5.2	0.08	0.94	2.3	1.9	0.1	62.0	<0.05	0.02	1.6	0.002
00177	0.02	3044	5.55	0.032	0.14	>1000	672	19.1	5.7	0.08	1.04	2.5	1.9	0.1	55.0	<0.05	0.02	1.7	0.003
00178	0.03	1659	4.08	0.033	0.18	>1000	665	21.4	7.6	0.06	1.14	2.5	2.1	0.2	81.0	<0.05	0.04	1.9	0.003
00179	0.03	1651	3.84	0.029	0.16	>1000	745	21.3	7.3	0.08	1.12	2.5	2.3	0.2	74.0	<0.05	0.04	1.8	0.004
00180	0.03	1981	3.73	0.031	0.20	833.0	741	22.8	6.7	0.04	1.24	2.8	1.8	0.2	42.5	<0.05	0.04	2.5	0.006
00181	0.02	2048	3.46	0.028	0.16	>1000	661	22.6	6.1	0.06	1.16	2.2	2.2	0.2	76.0	<0.05	0.04	1.7	0.002
00182	0.02	1352	3.47	0.027	0.16	808.2	671	19.2	6.0	0.06	0.96	2.3	1.7	0.1	56.0	<0.05	0.02	1.8	0.003
00183	0.02	2235	4.84	0.029	0.12	973.1	524	17.8	5.0	0.06	0.82	2.1	2.0	0.1	85.5	<0.05	0.04	1.3	0.002



Tag #	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
00030	0.28	<5	<2	0.1	32.6	6424.0	0.48
00031	0.58	<5	<2	<0.1	1.2	6005.0	0.23
00032	0.38	<5	<2	0.1	37.5	6915.0	0.38
00033	1.84	<5	<2	<0.1	25.2	10700.0	0.30
00034	1.74	<5	4	0.1	41.6	8671.0	2.00
00035	0.68	<5	2	0.1	32.5	24500.0	0.98
00036	0.18	<5	4	0.4	114.9	10800.0	5.22
00037	0.50	<5	2	0.1	43.5	20600.0	1.17
00038	2.08	<5	10	1.0	220.8	7315.0	11.62

Tag #	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
00039	1.68	<5	14	1.1	328.2	5792.0	10.58
00076	0.20	<5	50	0.2	6.1	133.7	1.98
00077	0.28	<5	2	<0.1	4.7	2467.0	1.21
00078	0.36	<5	2	<0.1	5.7	2834.0	1.81
00079	0.68	<5	44	0.2	15.6	3943.0	1.87
00080	0.38	<5	32	0.1	10.8	2537.0	2.19

Tag #	Ti ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
00081	0.16	<5	28	0.1	6.7	252.0	3.53
00082	0.12	<5	24	<0.1	7.1	354.0	2.95
00083	0.12	<5	24	<0.1	6.1	308.4	2.65
00084	0.14	<5	26	0.1	7.2	375.3	2.35
00085	0.12	<5	24	<0.1	6.1	421.2	2.42
00086	0.16	<5	24	<0.1	9.2	523.6	2.84
00087	0.20	<5	28	<0.1	9.3	697.7	2.56

Tag #	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
00088	0.34	<5	40	0.1	11.8	552.8	1.85
00089	0.18	<5	30	0.1	6.6	657.7	4.72
00090	0.14	<5	30	0.1	6.7	345.8	3.73
00091	0.08	<5	22	<0.1	5.7	244.2	3.00
00092	0.28	<5	30	<0.1	7.9	262.3	4.23
00093	0.20	<5	32	<0.1	7.9	298.7	2.83
00094	0.18	<5	30	<0.1	7.1	274.8	2.78
00096	0.14	<5	30	<0.1	7.3	218.6	3.82



Tag #	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
00101	0.16	<5	16	<0.1	7.7	151.1	2.31
00102	0.20	<5	16	<0.1	7.4	121.6	2.52
00103	0.14	<5	14	<0.1	7.1	141.9	2.57
00104	0.08	<5	14	<0.1	5.1	98.3	1.61
00105	0.12	<5	14	<0.1	5.9	131.1	1.77
00106	0.12	<5	16	<0.1	6.1	136.6	1.59
00107	0.14	<5	18	0.1	7.6	138.9	1.90
00108	0.06	<5	16	<0.1	5.2	113.0	1.78
00109	0.06	<5	20	<0.1	6.7	104.0	2.24
00110	0.10	<5	24	<0.1	9.5	120.0	3.18
00111	0.04	<5	18	<0.1	6.6	87.8	2.61
00112	0.06	<5	20	<0.1	7.2	101.4	3.05
00113	0.08	<5	16	<0.1	5.3	106.1	1.57
00114	0.08	<5	16	<0.1	5.4	108.8	1.62
00115	0.08	<5	16	<0.1	5.8	102.8	1.88
00116	0.08	<5	30	0.1	6.1	92.5	1.78
00117	0.12	<5	30	0.1	6.8	95.7	1.87
00118	0.12	<5	38	0.1	7.2	117.4	1.60
00119	0.16	<5	36	0.1	7.9	115.6	1.73

Tag #	TI ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
00120	0.14	<5	34	<0.1	7.1	107.6	1.59
00121	0.14	<5	32	<0.1	5.4	119.0	1.22
00122	0.52	<5	34	0.1	6.9	151.1	1.34
00123	1.02	<5	34	0.1	8.9	204.4	1.48
00124	1.80	<5	44	0.1	7.7	265.2	1.29
00125	0.16	<5	38	0.1	5.6	124.4	0.73
00126	0.10	<5	38	0.1	5.0	114.2	0.90
00127	0.18	<5	46	<0.1	13.0	155.7	1.95
00151	0.04	<5	14	<0.1	3.8	73.4	1.20
00152	0.04	<5	18	<0.1	6.0	101.5	2.55
00153	0.08	<5	16	<0.1	9.7	109.8	3.14
00154	0.08	<5	18	<0.1	7.6	154.8	2.19
00155	0.10	<5	18	<0.1	13.5	196.1	4.48
00156	0.12	<5	26	0.1	9.9	123.7	3.57
00157	0.10	<5	16	<0.1	7.2	101.4	1.90

Tag #	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
00158	0.08	<5	18	<0.1	7.2	100.8	2.51
00159	0.10	<5	18	<0.1	7.6	128.3	2.08
00160	0.08	<5	26	0.2	9.2	101.6	1.92
00161	0.06	<5	16	<0.1	7.1	102.5	2.11
00162	0.06	<5	16	<0.1	6.8	101.0	2.15
00163	0.10	<5	18	<0.1	7.7	146.1	1.74
00164	0.16	<5	20	<0.1	6.7	259.1	2.32
00165	0.70	<5	22	<0.1	120.9	14300.0	3.65
00166	0.28	<5	36	<0.1	38.2	3999.0	4.65
00167	0.38	<5	24	<0.1	89.7	30000.0	3.01
00168	0.22	<5	28	<0.1	54.4	14200.0	2.89
00169	0.08	<5	14	<0.1	8.5	5157.0	0.90
00176	0.66	<5	14	<0.1	32.0	16300.0	2.40
00177	0.64	<5	16	<0.1	31.5	15600.0	2.55
00178	0.42	<5	18	<0.1	35.4	14400.0	3.05
00179	0.38	<5	18	<0.1	35.0	13500.0	3.02
00180	0.46	<5	22	<0.1	32.9	12700.0	3.22
00181	0.48	<5	18	<0.1	38.5	17700.0	2.77
00182	0.32	<5	18	<0.1	28.6	12500.0	2.73
00183	0.54	<5	12	<0.1	28.3	15600.0	2.16

**Appendix E**

**Rock Sample Assay Certificates**



Eco Tech Laboratory Ltd.  
 10041 Dallas Drive  
 Kamloops, BC  
 V2C 6T4 Canada  
 Tel + 250 573 5700  
 Fax + 250 573 4557  
 Toll Free + 1 877 573 5755  
 www.stewartgroupglobal.com



**StewartGroup**  
 Geochemical & Assay

**CERTIFICATE OF ASSAY AW 2011-8153**

**Manson Creek Resources Ltd.**

22-Jul-11

500, 926 - 5th Ave. SW

**Calgary, AB**

T2P 0N7

*No. of samples received: 20*

*Sample Type: Rock*

**Project: Tell**

*Submitted by: Regan Chernish*

ET #.	Tag #	Au (g/t)	Au (oz/t)	Cu (%)	Zn (%)
1	00001	0.03	0.001		
2	00002	<0.03	<0.001		
3	00003	<0.03	<0.001		
4	00004	<0.03	<0.001		
5	00005	<0.03	<0.001		
6	00006	<0.03	<0.001		
7	00007	<0.03	<0.001		2.75
8	00008	<0.03	<0.001		2.60
9	00009	<0.03	<0.001		1.97
10	00010	<0.03	<0.001		
11	00011	<0.03	<0.001		
12	00012	<0.03	<0.001		
13	00013	0.13	0.004	4.80	
14	00014	<0.03	<0.001		
15	00015	<0.03	<0.001		
16	00016	0.04	0.001	2.80	
17	00017	<0.03	<0.001		
18	00026	<0.03	<0.001		
19	00027	<0.03	<0.001		
20	00028	<0.03	<0.001		

**QC DATA:**

**Repeat:**

1	00001	<0.03	<0.001
10	00010	<0.03	<0.001
13	00013	0.11	0.003

  
**ECO TECH LABORATORY LTD.**

Norman Monteith  
 B.C. Certified Assayer

Eco Tech Laboratory Ltd.  
10041 Dallas Drive  
Kamloops, BC  
V2C 6T4 Canada  
Tel + 250 573 5700  
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**StewartGroup**  
Geochemical & Assay

**Manson Creek Resources Ltd. AW11-8153**

22-Jul-11

<b>ET #.</b>	<b>Tag #</b>	<b>Au (g/t)</b>	<b>Au (oz/t)</b>	<b>Cu (%)</b>	<b>Zn (%)</b>
19	00027	<0.03	<0.001		

**Resplit:**

1	00001	<0.03	<0.001		
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**Standard:**

OXK69		3.52	0.103		
GBM908-14				2.40	4.35

**FA/AA Finish**

NM/mb/el  
XLS/11

22-Jul-11

Stewart Group  
ECO TECH LABORATORY LTD.  
10041 Dallas Drive  
KAMLOOPS, B.C.  
V2C 6T4  
www.stewartgroupglobal.com

ICP CERTIFICATE OF ANALYSIS AW 2011-8153  
Total Digest

Manson Creek Resources Ltd.  
500, 926 - 5th Ave. SW  
Calgary, AB  
T2P 0N7

Phone: 250-573-5700  
Fax : 250-573-4557

No. of samples received: 20  
Sample Type: Rock  
Project: Tail  
Submitted by: Regan Chernish

Values in ppm unless otherwise reported

Et #	Tag #	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Hg	K%	La	Li	Mg	Min	Mo	Na	Na %	Ni	P	Pb	S	Sb	Sc	Se	Sn	Sr	Ti	U	V	W	Y	Zn
1	00001	0.4	0.58	<5	164	<1	<5	0.01	<1	3	202	24	0.88	<5	0.10	2	4	0.08	90	1	0.13	10	80	12	0.02	<5	2	<10	<5	8	0.02	<5	10	<5	2	48	
2	00002	0.4	2.37	5	2360	1	<5	0.04	<1	3	218	124	5.20	<5	0.81	16	16	0.51	1665	4	0.03	16	770	21	0.27	<5	6	<10	<5	52	0.10	<5	96	<5	11	74	
3	00003	<0.2	0.05	<5	70	<1	<5	<0.01	<1	<1	232	4	0.31	<5	0.02	<2	2	<0.01	40	1	<0.01	6	<10	3	<0.01	<5	<1	<10	<5	<2	<0.01	<5	2	<5	<1	<2	
4	00004	<0.2	0.40	<5	254	<1	<5	<0.01	<1	1	186	6	0.29	<5	0.16	<2	6	0.05	1210	<1	0.01	6	40	6	<0.01	<5	1	<10	<5	6	0.01	<5	8	<5	1	8	
5	00005	0.6	5.33	5	926	1	<5	0.02	<1	2	258	8	1.38	<5	1.40	32	8	0.26	35	3	0.52	8	80	39	0.03	<5	5	<10	<5	28	0.19	<5	60	<5	10	16	
6	00006	0.6	3.89	5	854	<1	<5	0.02	<1	4	288	8	1.18	<5	1.58	24	6	0.20	70	2	0.43	18	80	30	0.05	<5	4	<10	<5	24	0.15	<5	46	<5	8	16	
7	00007	0.8	0.72	20	166	4	<5	0.60	<1	483	16	68	>10	<5	0.33	4	4	0.13	9380	31	0.70	1591	100	123	0.15	5	<1	<10	5	88	0.01	<5	4	20	10	>10000	
8	00008	1.0	0.60	10	94	5	<5	1.04	<1	300	<2	8	>10	<5	0.29	4	<2	0.11	5695	11	0.70	1056	50	123	0.12	5	<1	<10	10	124	<0.01	<5	2	20	2	>10000	
9	00009	0.6	0.70	25	180	3	<5	0.33	<1	566	<2	10	>10	<5	0.32	4	2	0.08	8980	32	0.69	1193	110	123	0.06	5	<1	<10	5	52	0.01	<5	4	20	12	>10000	
10	00010	<0.2	0.89	<5	4850	<1	<5	<0.01	<1	4	154	12	0.91	<5	0.38	2	10	0.08	155	1	0.03	13	30	6	0.11	<5	2	<10	<5	160	0.04	<5	18	<5	1	100	
11	00011	0.8	7.41	25	6948	3	<5	0.03	<1	5	124	14	2.13	<5	2.33	46	104	0.98	50	29	0.16	13	430	66	0.28	<5	14	<10	<5	120	0.36	<5	322	<5	21	60	
12	00012	0.2	>10	10	1546	1	<5	6.24	<1	32	368	1014	8.51	<5	1.20	48	36	1.95	2675	5	0.94	116	2370	90	<0.01	<5	21	<10	<5	1322	0.29	<5	212	<5	39	192	
13	00013	4.0	>10	10	4620	2	15	5.14	<1	56	460	>10000	7.60	<5	1.21	72	84	4.69	3375	6	0.93	154	2180	21	0.37	<5	35	<10	<5	1608	0.32	<5	172	<5	76	384	
14	00014	0.2	>10	10	2260	1	<5	6.78	<1	40	372	2288	7.87	<5	0.88	46	62	3.40	3300	5	0.58	138	2390	93	<0.01	<5	22	<10	<5	1596	0.35	<5	188	<5	41	280	
15	00015	0.2	0.42	<5	48	<1	<5	3.73	<1	8	294	48	>10	<5	0.03	4	2	0.22	1150	1	0.04	18	130	12	<0.01	<5	3	<10	<5	42	0.23	<5	88	<5	3	40	
16	00016	2.0	6.88	<5	1356	<1	5	1.20	<1	43	428	>10000	4.65	<5	0.77	28	18	2.00	850	4	0.58	139	650	<3	0.06	<5	15	<10	<5	74	0.37	<5	72	<5	6	230	
17	00017	0.2	>10	5	798	3	<5	>10	<1	9	102	18	7.08	<5	1.31	54	6	0.18	550	7	0.48	20	420	120	0.67	<5	10	<10	<5	1794	0.33	<5	132	<5	23	8	
18	00026	1.2	3.50	<5	1350	2	<5	0.05	<1	3	158	114	3.77	<5	1.15	16	16	0.66	110	2	0.06	30	110	24	0.02	<5	8	<10	<5	18	0.15	<5	140	<5	9	110	
19	00027	0.2	1.39	<5	108	<1	<5	0.04	<1	5	326	8	1.31	<5	0.32	12	12	0.15	990	2	0.21	10	160	27	<0.01	<5	1	<10	<5	20	0.04	<5	12	<5	4	42	
20	00028	<0.2	1.18	<5	38	<1	<5	1.12	<1	5	358	12	1.30	<5	0.06	2	20	0.18	1470	1	0.27	15	350	9	<0.01	<5	3	<10	<5	58	0.07	<5	16	<5	4	34	

QC DATA:

Repeat:

1	00001	0.2	0.56	<5	162	<1	<5	<0.01	<1	3	198	24	0.87	<5	0.10	2	2	0.08	90	1	0.12	10	70	12	0.02	<5	2	<10	<5	8	0.02	<5	10	<5	2	44
10	00010	0.2	0.89	<5	4904	<1	<5	<0.01	<1	3	142	12	0.89	<5	0.38	2	10	0.08	145	1	0.03	12	30	6	0.12	<5	2	<10	<5	160	0.03	<5	16	<5	1	96
19	00027	0.2	1.45	<5	108	<1	<5	0.04	<1	5	332	8	1.34	<5	0.33	12	12	0.15	1010	2	0.21	10	170	24	<0.01	<5	1	<10	<5	22	0.04	<5	12	<5	5	42


Resplit:

1	00001	0.2	0.55	<5	166	<1	<5	<0.01	<1	3	200	24	0.85	<5	0.10	2	2	0.08	90	1	0.12	10	80	6	0.02	<5	2	<10	<5	8	0.02	<5	10	<5	2	44
---	-------	-----	------	----	-----	----	----	-------	----	---	-----	----	------	----	------	---	---	------	----	---	------	----	----	---	------	----	---	-----	----	---	------	----	----	----	---	----

Et #.	Tag #	Ag	Al %	As	Ba	Be	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	Hg	K%	La	Li	Mg %	Mn	Mo	Na %	Ni	P	Pb	S %	Sb	Sc	Se	Sn	Sr	Ti %	U	V	W	Y	Zn
OREAS52C	1.4	8.26	10	840	2	<5	2.46	<1	16	54	3400	5.21	<5	3.04	22	22	1.67	540	265	2.47	30	1130	33	0.47	<5	12	<10	<5	452	0.35	<5	150	<5	18	100	

Standard:  
OREAS52C

ICP: 4 Acid Digest / ICP- AES Finish.  
Ag : 4 Acid Digest / AA Finish.



**ECO TECH LABORATORY LTD.**  
Norman Monteith  
B.C. Certified Assayer

NM/EL  
dl/2\_TD8153S  
XLS/11

**Appendix F**

**Rock Sample Descriptions and Assay Results**



## Frog Property 2011 Exploration Program - Collected Rock Samples

Sample #	Eastings	Northing	Date	time	elevation	Description
1	584510	7103249	26-Jun-11	2:55:08PM	1707 m	5-10cm wide qtz vn, white bull qtz, mnr chert, 130/60 w/i chert dominated zone, stratigraphically below blk sh, rusty weathering, no sulphides
2	584501	7103254	26-Jun-11	3:05:07PM	1705 m	blk f. Laminated shale and f.laminated chert, rr qtz vns, no sulphides
3	584675	7103699	28-Jun-11	12:27:03PM	1485 m	bull qtz vn, ~10cm wide cutting chert horizon. White, msv, microcrystalline, no sulphides
4	584675	7103699	28-Jun-11	12:27:03PM	1485 m	msv finely laminated, gry-blk chert unit. 'crackle breccia' texture, no sulphides
5	590805	7098465	30-Jun-11	2:25:50PM	1155 m	qtz pebble conglomerate in talus on cliff. Tan-grey, rusty weathering, red ochre surface weathering, lcl tr-1% f.diss.py. ~5mm rounded chert/qtz clasts in poorly sorted f-m.gr.qtz matrix
6	590805	7098465	30-Jun-11	2:25:50PM	1155 m	qtz pebble conglomerate in talus on cliff. Tan-grey, rusty weathering, red ochre surface weathering, lcl tr-1% f.diss.py. ~5mm rounded chert/qtz clasts in poorly sorted f-m.gr.qtz matrix
7	591196	7097743	2-Jul-11	12:49:02PM	745 m	sample of ferrocrete 'chips', between vents on gossan. Red-black in colour, shaley
8	591196	7097743	2-Jul-11	12:49:02PM	745 m	50%organic material(moss) with 50%Fe oxide
9	591204	7097754			750 m	Ash springs, rock sample collected from wet mound (no active flow), weakly laminated Fe-O-OH tufa (plant/bacteria based rock formed by spring water), 2-5mm thick undulating beds separated by 1-3mm thick discordant voids/beds, light/bright orange to dark orange/ochre to hematitic grey colouring, collected next to stream sed sample #37
10	587484	7098371	3-Jul-11	8:37:10AM	1515 m	finely laminated/foliated chert. Tan to rusty weathering with v.f.diss py, 100/65N
11	589290	7098577	3-Jul-11	10:59:26AM	1398 m	blk shale w tr diss py, area of red ochre to red/yellow surface weathering, talus

Sample #	Au g/t	Tag #	Ag	Al %	As	Ba	Be	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	Hg	K%	La	Li	Mg %
1	0.03	00001	0.4	0.58	<5	164	<1	<5	0.01	<1	3	202	24	0.88	<5	0.10	2	4	0.08
2	<0.03	00002	0.4	2.37	5	2360	1	<5	0.04	<1	3	218	124	5.20	<5	0.81	16	16	0.51
3	<0.03	00003	<0.2	0.05	<5	70	<1	<5	<0.01	<1	<1	232	4	0.31	<5	0.02	<2	2	<0.01
4	<0.03	00004	<0.2	0.40	<5	254	<1	<5	<0.01	<1	1	186	6	0.29	<5	0.16	<2	6	0.05
5	<0.03	00005	0.6	5.33	5	926	1	<5	0.02	<1	2	258	8	1.38	<5	1.40	32	8	0.26
6	<0.03	00006	0.6	3.89	5	854	<1	<5	0.02	<1	4	288	8	1.18	<5	1.58	24	6	0.20
7	<0.03	00007	0.8	0.72	20	166	4	<5	0.60	<1	483	16	68	>10	<5	0.33	4	4	0.13
8	<0.03	00008	1.0	0.60	10	94	5	<5	1.04	<1	300	<2	8	>10	<5	0.29	4	<2	0.11
9	<0.03	00009	0.6	0.70	25	180	3	<5	0.33	<1	566	<2	10	>10	<5	0.32	4	2	0.08
10	<0.03	00010	<0.2	0.89	<5	4850	<1	<5	<0.01	<1	4	154	12	0.91	<5	0.38	2	10	0.08
11	<0.03	00011	0.8	7.41	25	6948	3	<5	0.03	<1	5	124	14	2.13	<5	2.33	46	104	0.98

Sample #	Mn	Mo	Na %	Ni	P	Pb	S %	Sb	Sc	Se	Sn	Sr	Ti %	U	V	W	Y	Zn	Zn %
1	90	1	0.13	10	80	12	0.02	<5	2	<10	<5	8	0.02	<5	10	<5	2	48	
2	1665	4	0.03	16	770	21	0.27	<5	6	<10	<5	52	0.10	<5	96	<5	11	74	
3	40	1	<0.01	6	<10	3	<0.01	<5	<1	<10	<5	<2	<0.01	<5	2	<5	<1	<2	
4	1210	<1	0.01	6	40	6	<0.01	<5	1	<10	<5	6	0.01	<5	8	<5	1	8	
5	35	3	0.52	8	80	39	0.03	<5	5	<10	<5	28	0.19	<5	60	<5	10	16	
6	70	2	0.43	18	80	30	0.05	<5	4	<10	<5	24	0.15	<5	46	<5	8	16	
7	9380	31	0.70	1591	100	123	0.15	5	<1	<10	5	88	0.01	<5	4	20	10	>10000	2.75
8	5695	11	0.70	1056	50	123	0.12	5	<1	<10	10	124	<0.01	<5	2	20	2	>10000	2.60
9	8980	32	0.69	1193	110	123	0.06	5	<1	<10	5	52	0.01	<5	4	20	12	>10000	1.97
10	155	1	0.03	13	30	6	0.11	<5	2	<10	<5	160	0.04	<5	18	<5	1	100	
11	50	29	0.16	13	430	66	0.28	<5	14	<10	<5	120	0.36	<5	322	<5	21	60	

**Appendix G**

**Water Sample Assay Results**

Manson Creek Resources Ltd.  
 Client Project #:  
 Site Location:  
 Sampler Initials:

Maxxam Job #: B164739  
 Report Date: 2011/07/25

**ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)**

Maxxam ID	BA6648	BA6649	BA6650	BA6651	BA6652	BA6653							
Sampling Date	Units	29	RDL	51	RDL	52	53	RDL	54	RDL	55	RDL	QC Batch
Total Aluminum (Al)	mg/L	0.036	0.001	0.083	0.001	0.12	0.008	0.001	0.006	0.001	0.61	0.001	5028279
Total Antimony (Sb)	mg/L	<0.0006	0.0006	0.0033	0.0006	<0.0006	<0.0006	0.0006	<0.0006	0.0006	0.0012	0.0006	5028279
Total Arsenic (As)	mg/L	0.0038	0.0002	0.038	0.0002	0.0039	<0.0002	0.0002	0.0007	0.0002	0.043	0.0002	5028279
Total Beryllium (Be)	mg/L	<0.001	0.001	<0.001	0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	5028279
Total Cadmium (Cd)	mg/L	0.0015	0.000005	0.0011	0.000005	0.00044	0.000027	0.000005	0.00014	0.000005	0.047	0.000005	5028279
Total Chromium (Cr)	mg/L	<0.001	0.001	<0.001	0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	5028279
Total Cobalt (Co)	mg/L	0.017	0.0003	0.0021	0.0003	0.046	0.030	0.0003	0.016	0.0003	0.023	0.0003	5028279
Total Copper (Cu)	mg/L	0.0003	0.0002	0.0011	0.0002	0.0013	0.0004	0.0002	0.0003	0.0002	0.0027	0.0002	5028279
Total Lead (Pb)	mg/L	<0.0002	0.0002	0.0005	0.0002	0.0003	<0.0002	0.0002	<0.0002	0.0002	0.0037	0.0002	5028279
Total Molybdenum (Mo)	mg/L	0.0047	0.0002	0.0006	0.0002	0.0008	<0.0002	0.0002	0.0040	0.0002	0.0044	0.0002	5028279
Total Nickel (Ni)	mg/L	0.28	0.0005	0.010	0.0005	0.43	0.39	0.0005	0.17	0.0005	0.33	0.0005	5028279
Total Selenium (Se)	mg/L	<0.0002	0.0002	<0.0002	0.0002	<0.0002	<0.0002	0.0002	<0.0002	0.0002	0.0004	0.0002	5028279
Total Silver (Ag)	mg/L	<0.0001	0.0001	<0.0001	0.0001	<0.0001	<0.0001	0.0001	<0.0001	0.0001	<0.0001	0.0001	5028279
Total Thallium (Tl)	mg/L	<0.0002	0.0002	<0.0002	0.0002	<0.0002	<0.0002	0.0002	<0.0002	0.0002	0.0007	0.0002	5028279
Total Tin (Sn)	mg/L	<0.001	0.001	<0.001	0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	5028279
Total Titanium (Ti)	mg/L	<0.001	0.001	<0.001	0.001	0.001	<0.001	0.001	<0.001	0.001	0.002	0.001	5028279
Total Uranium (U)	mg/L	0.0029	0.0001	0.0041	0.0001	0.0072	0.0024	0.0001	0.0024	0.0001	0.013	0.0001	5028279
Total Vanadium (V)	mg/L	<0.001	0.001	<0.001	0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	5028279
Total Zinc (Zn)	mg/L	3.2 ( 1 )	0.008	0.58	0.003	3.6 ( 1 )	3.2 ( 1 )	0.008	1.4	0.003	7.1 ( 1 )	0.02	5028279

RDL = Reportable Detection Limit

EDL = Estimated Detection Limit

( 1 ) Detection limits raised due to dilution to bring analyte within the calibrated range.

Results relate only to the items tested.



Manson Creek Resources Ltd.  
 Attention: Regan Chernish  
 Client Project #:  
 P.O. #:  
 Site Location:

Quality Assurance Report  
 Maxxam Job Number: CB164739

QA/QC Batch	QC Type	Date Analyzed	Parameter	Value	Recovery	Units	QC Limits
Num	Init	yyy/mm/dd					
5028279	TDB		Matrix Spike				
		7/22/2011	Total Aluminum (Al)		NC	%	80 - 120
		7/22/2011	Total Arsenic (As)		97	%	80 - 120
		7/22/2011	Total Beryllium (Be)		96	%	80 - 120
		7/22/2011	Total Cadmium (Cd)		100	%	80 - 120
		7/22/2011	Total Chromium (Cr)		96	%	80 - 120
		7/22/2011	Total Cobalt (Co)		100	%	80 - 120
		7/22/2011	Total Copper (Cu)		93	%	80 - 120
		7/22/2011	Total Lead (Pb)		95	%	80 - 120
		7/22/2011	Total Molybdenum (Mo)		106	%	80 - 120
		7/22/2011	Total Nickel (Ni)		95	%	80 - 120
		7/22/2011	Total Selenium (Se)		102	%	80 - 120
		7/22/2011	Total Silver (Ag)		104	%	80 - 120
		7/22/2011	Total Thallium (Tl)		95	%	80 - 120
		7/22/2011	Total Tin (Sn)		98	%	80 - 120
		7/22/2011	Total Titanium (Ti)		99	%	80 - 120
		7/22/2011	Total Uranium (U)		94	%	80 - 120
		7/22/2011	Total Vanadium (V)		102	%	80 - 120
		7/22/2011	Total Zinc (Zn)		NC	%	80 - 120
			Spiked Blank				
		7/22/2011	Total Aluminum (Al)		105	%	80 - 120
		7/22/2011	Total Antimony (Sb)		81	%	80 - 120
		7/22/2011	Total Arsenic (As)		94	%	80 - 107
		7/22/2011	Total Beryllium (Be)		106	%	80 - 120
		7/22/2011	Total Cadmium (Cd)		100	%	80 - 120
		7/22/2011	Total Chromium (Cr)		96	%	80 - 120
		7/22/2011	Total Cobalt (Co)		100	%	80 - 120
		7/22/2011	Total Copper (Cu)		98	%	80 - 120
		7/22/2011	Total Lead (Pb)		89	%	80 - 115
		7/22/2011	Total Molybdenum (Mo)		98	%	80 - 120
		7/22/2011	Total Nickel (Ni)		98	%	80 - 120
		7/22/2011	Total Selenium (Se)		105	%	80 - 120
		7/22/2011	Total Silver (Ag)		103	%	80 - 120
		7/22/2011	Total Thallium (Tl)		97	%	80 - 120
		7/22/2011	Total Tin (Sn)		92	%	80 - 120
		7/22/2011	Total Titanium (Ti)		99	%	80 - 120
		7/22/2011	Total Uranium (U)		95	%	80 - 120
		7/22/2011	Total Vanadium (V)		100	%	80 - 120
		7/22/2011	Total Zinc (Zn)		104	%	80 - 120
			Method Blank				
		7/22/2011	Total Aluminum (Al)	<0.001		mg/L	
		7/22/2011	Total Antimony (Sb)	<0.0006		mg/L	

	Total Arsenic (As)	7/22/2011	<0.0002	mg/L	
	Total Beryllium (Be)	7/22/2011	<0.001	mg/L	
	Total Cadmium (Cd)	7/22/2011	<0.000005	mg/L	
	Total Chromium (Cr)	7/22/2011	<0.001	mg/L	
	Total Cobalt (Co)	7/22/2011	<0.0003	mg/L	
	Total Copper (Cu)	7/22/2011	<0.0002	mg/L	
	Total Lead (Pb)	7/22/2011	<0.0002	mg/L	
	Total Molybdenum (Mo)	7/22/2011	<0.0002	mg/L	
	Total Nickel (Ni)	7/22/2011	<0.0005	mg/L	
	Total Selenium (Se)	7/22/2011	<0.0002	mg/L	
	Total Silver (Ag)	7/22/2011	<0.0001	mg/L	
	Total Thallium (Tl)	7/22/2011	<0.0002	mg/L	
	Total Tin (Sn)	7/22/2011	<0.001	mg/L	
	Total Titanium (Ti)	7/22/2011	<0.001	mg/L	
	Total Uranium (U)	7/22/2011	<0.0001	mg/L	
	Total Vanadium (V)	7/22/2011	<0.001	mg/L	
	Total Zinc (Zn)	7/22/2011	<0.003	mg/L	
RPD	Total Aluminum (Al)	7/22/2011	1.3	%	20
	Total Antimony (Sb)	7/22/2011	NC	%	20
	Total Arsenic (As)	7/22/2011	NC	%	20
	Total Beryllium (Be)	7/22/2011	NC	%	20
	Total Chromium (Cr)	7/22/2011	NC	%	20
	Total Cobalt (Co)	7/22/2011	NC	%	20
	Total Copper (Cu)	7/22/2011	1.2	%	20
	Total Lead (Pb)	7/22/2011	NC	%	20
	Total Molybdenum (Mo)	7/22/2011	5.8	%	20
	Total Nickel (Ni)	7/22/2011	NC	%	20
	Total Selenium (Se)	7/22/2011	NC	%	20
	Total Silver (Ag)	7/22/2011	NC	%	20
	Total Thallium (Tl)	7/22/2011	NC	%	20
	Total Tin (Sn)	7/22/2011	NC	%	20
	Total Titanium (Ti)	7/22/2011	NC	%	20
	Total Uranium (U)	7/22/2011	5.5	%	20
	Total Vanadium (V)	7/22/2011	NC	%	20
	Total Zinc (Zn)	7/22/2011	2.1	%	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.