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NTS 092H/04

**ASSESSMENT REPORT FOR THE SLESSE CREEK PROPERTY,  
SARDIS, BRITISH COLUMBIA**

**Approximate Property Location**

**Latitude: 49° 01' 00"N**

**Longitude: 121° 38' 00"W**

**BC Geological Survey  
Assessment Report  
33679**

**Prepared For:**  
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January 14, 2013  
Vancouver, BC  
Canada

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## 1 Summary

This assessment report is written as an assessment Report (the “Report”) for the Slesse Creek Property (the “Property”), which is currently held by Wedge Resource Pty. Ltd (Wedge Resources), of South Perth, Western Australia, Australia. The Property is comprised of 11 contiguous mineral claims, 100% owned by Wedge, and is located in southwestern British Columbia, 110km southeast of Vancouver, B.C, within the New Westminster Mining Division. This Report is a technical summary of available historic geological, geophysical and geochemical information in addition to the recent work completed.

The Slesse Creek area has a long history of mineral exploration dating back to 1897 when the Red Mountain and Lone Jack gold bearing quartz veins were discovered to the south of the Canada-U.S. border. The veins occupy a series of en-echelon tensional gashes within metamorphosed Yellow Aster Group diorite. The northerly projection of the vein structure was traced by air approximately 914 metres to the north into the Slesse Creek Property. Total production estimates reported by Grant (1987) were 80,000 tons with an average grade of 0.60 ounce/ton gold, or 48,000 total ounces of gold production. Within the Property a number of historic open cuts and short adits were excavated at the Queen, Jumbo and Slesse Creek showings along narrow gold bearing quartz veins. More recent exploration by Sauer (1989) resulted in the discovery of the Torb Zone, a shear zone hosted gold, silver and copper bearing sulphide lens, and a strong gold and silver stream sediment geochemical anomaly within Glacier Creek. At the Torb Zone Showing, a discontinuous lens of quartz with pyrite and chalcopyrite is exposed over a 15 metre strike length. In 1988, a rock grab sample (103752H) collected from the Torb Zone retuned assays of 22.90 grams-per-tonne (g/t) Au and more than 1% Copper (Cu). In 2008 and 2009 exploration program a 40 centimetre chip sample (08KRP611) collected from across a sulphide lens returned assays of 2.14 g/t gold (Au), 25.4 parts-per-million (ppm) silver (Ag) and 6.11 % Cu. The results of stream sampling confirm that Glacier Creek, which drains the Boundary Red Mine area, contains anomalous Au concentrations (up to 115 ppb Au in Sample 8212). A second drainage on the east side of Slesse Creek is also anomalous (up to 89 ppb Au in Sample 08MBH002).

Between the dates of October 24th and November 10<sup>th</sup>, intermittently, a geological consulting team from Apex completed soil sampling and rock grab sampling on the claim Wedge1 of the Wedge property. A total of 17 rock grab samples and 222 soil samples were collected from the Property. Soil samples were collected at a spacing of 25-meters along topographic contour intervals of 80 meters. Rock samples were collected from the southern edge of the property, near the US-Canada border. The total cost to complete the 2012 exploration program was \$50,445.

The Slesse Creek Property is dominated by southeast-dipping high-angle faults that have juxtaposed and imbricated rocks of different ages, lithologies and metamorphic grade. The eastern margin of the Property has been intruded by Tertiary granitic rock. To the north along strike of the Boundary Red Mountain Mine fragments of Yellow Aster Complex, serpentinized ultramafic rock, Darrington Phyllite and clastic and volcanic rocks of the Chilliwack Group are juxtaposed in an imbricate structure by a series of

subparallel, subvertical faults. A number of fault traces are manifested by intensely deformed shear zones that show mylonitic rock. On the east side of Slesse Creek rocks have been affected by thermal recrystallization, folding and deformation as a result of igneous intrusion. Between Crossover Peak and Pierce Mountain the batholith contact forms an injection zone where hydrothermal alteration and metasomatism extends 20 to 30 metres into hostrocks. The Darrington Phyllite displays the highest grade of metamorphism due to its structural position directly in contact with the Chilliwack Batholith.

The geology and geochemistry suggest that the Slesse Creek Property may be analogous to the adjacent Boundary Red Mountain Mine. In addition, thermal recrystallization, deformation, hydrothermal alteration and metasomatism are present within rocks adjacent to the Chilliwack batholith. Therefore the Slesse Creek Property covers an area that is underlain by rocks favourable to host Au-Quartz vein, intrusion related Au-Pyrrhotite vein, and gold skarn deposits.

The 2012 soil sampling revealed two poly-metallic anomalous zones, and several in-spot gold, copper, and zinc anomalies. Along the southern edge of the property, 300 m west-southwest of Torb Zone, there are overlapping anomalous zones of gold, copper, and zinc, which also coincide with elevated arsenic values. Coincident gold and copper anomalies occur in soil samples in the vicinity of Jumbo showing. The limited 2012 rock sampling failed to produce any significant results.

Based on the presence of gold, silver and copper anomalies (soils), exceptional gold results from adjacent properties, and favourable geology the Slesse Creek Property is of high priority for follow-up exploration. The summer and fall of 2013 exploration should comprise but not be limited to: collection of 150 stream-silt samples from tributaries between east of Slesse Creek, and the west of Chilliwack batholith contact; geologic mapping and collection of approximately 50 rock samples from the anomalous zones identified by the 2012 soil sampling Program, and collection of approximately 150 rock grab and rock chip samples from fault imbricated lithologies to the north of the Boundary Red Mountain Mine and to the west of the margin of the Chilliwack batholith.

Contingent on the results of the recommended sampling in 2013, a helicopter-borne time domain electromagnetic and magnetic survey with 100 metre spaced survey lines is proposed. Flight lines should be oriented east to west, perpendicular to the dominant lithological and structural trends.

The total cost to complete the recommended exploration is CDN \$134,775.

## Introduction and Terms of Reference

This assessment Report (the Report), on the metal potential of the Slesse Creek Property (the Property), was prepared by APEX Geoscience Ltd. (APEX) for Wedge Resources Pty Ltd (Wedge). APEX acted as consultants to complete an exploration program and Report on behalf of Wedge specific to the Slesse Creek Property. Exploration during 2012 included rock sampling and soil sampling. The exploration was conducted between the dates of October 24th and November 10th, and was supervised by Mr. Kristopher J. Raffle, P.Geo., a senior geologist of APEX.

The supporting documents which were used in the Report are referenced in the 'History', 'Geological Setting' and 'References' sections below and are used solely as background information and are not the basis of the report. Any reference in this Report to the 'current author' refers to Mr. Raffle, unless otherwise indicated. In writing this report, the author has used as sources of information those publications listed in the reference section. All coordinates presented in this Report are in Universal Transverse Mercator (UTM). The datum used for the projection of these coordinates is the North American Datum 83 (NAD83) in zone 10 of B.C.

## 2 Property Description and Location

The Slesse Creek Property is 100% owned by Wedge Resources Pty Ltd. The Property consists of 11 contiguous mineral claims within the New Westminster Mining District of BC. It is located approximately 30 kilometres (km) southeast of Chilliwack, B.C and 110km southeast of Vancouver, B.C. The claims are centered at 49° 01' 25.6" north latitude 121° 37' 55.7" west longitude, Universal Transverse Mercator (UTM), North American Datum (NAD)1983 Zone 10 coordinates, 600,000 East, 5,431,000 North, within National Topographic System (NTS) map-sheet 92H/04E (Figure 1). The mineral claims were digitally acquired from the British Columbia Ministry of Energy and Mines. The claims comprise a total area of 3981.49 hectares (9838.47 acres) within Slesse Creek (Figure 2 and Table 1).

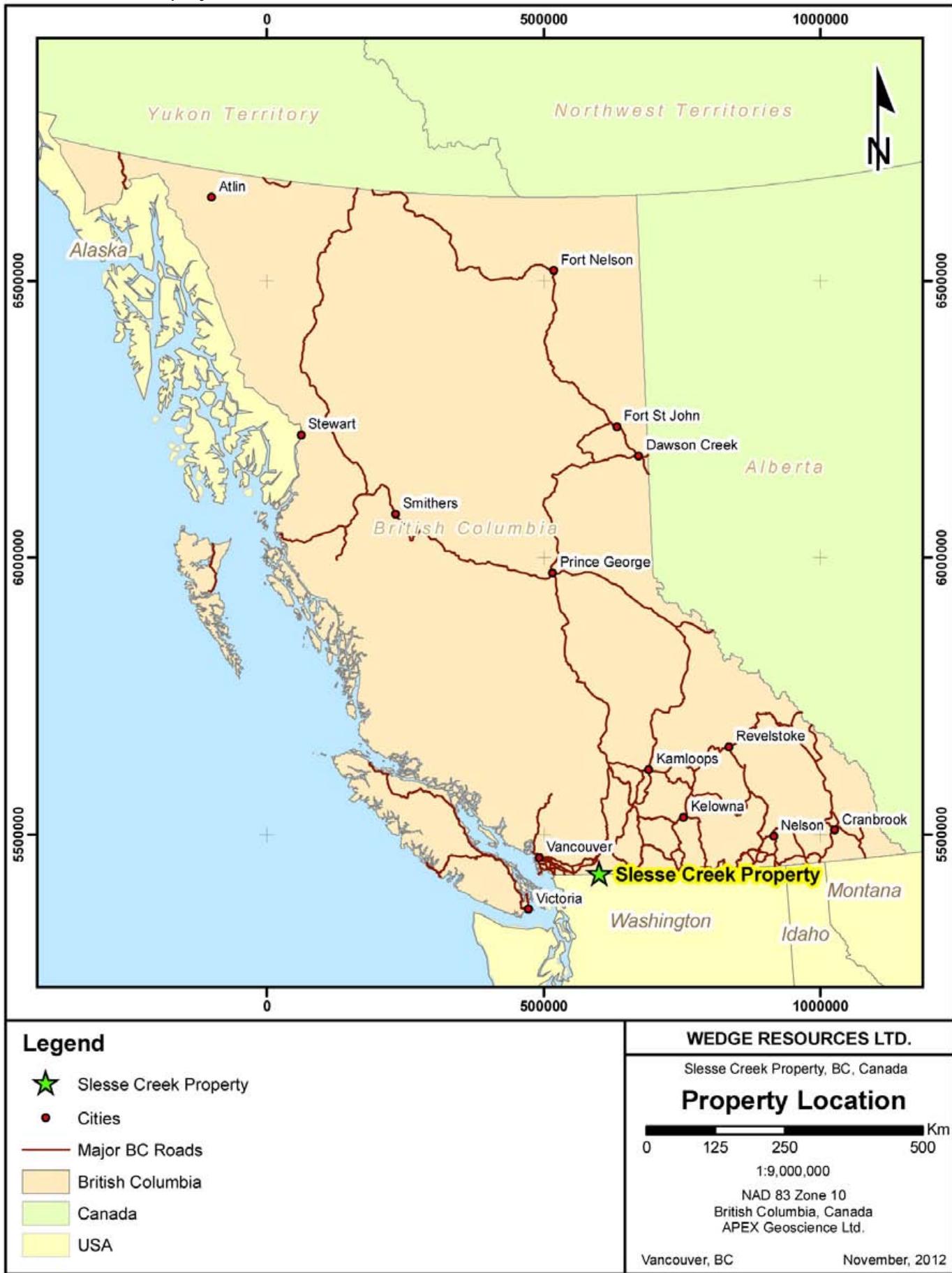
Table 1. Slesse Creek Claims

Tenure Number	Tenure Name	Good to Date	Updated Good to Date*	Area (ha)	Owner	% Owned
1013574	Wedge1	October 5, 2013	June 16, 2015	508.53	Moore, Derek N.	100
567268	Torp 2	December 20, 2012	June 16, 2015	529.58	Moore, Derek N.	100
567930	West Slesse	December 20, 2012	June 16, 2015	211.88	Moore, Derek N.	100
559239	Torp 2	December 20, 2012	June 16, 2015	169.47	Moore, Derek N.	100
567933	East Slesse	December 20, 2012	June 16, 2015	169.51	Moore, Derek N.	100
570240	Torp 4	December 20, 2012	June 16, 2015	529.49	Moore, Derek N.	100
570244		December 20, 2012	June 16, 2015	529.32	Moore, Derek N.	100
570245	Torp 6	December 20, 2012	June 16, 2015	381.05	Moore, Derek N.	100
913009	Silesia3	October 12, 2013	October 12, 2013	317.44	0814492 BC LTD.	100
841520	West Slesse	December 21, 2012	June 16, 2015	486.97	Moore, Derek N.	100
1013575	Wedge2	October 5, 2013	June 16, 2015	148.25	Moore, Derek N.	100
		<b>Total</b>		<b>3981.49</b>		

\* The updated good to date after applying the Reports expenditures (events 5421815 and 5421817).

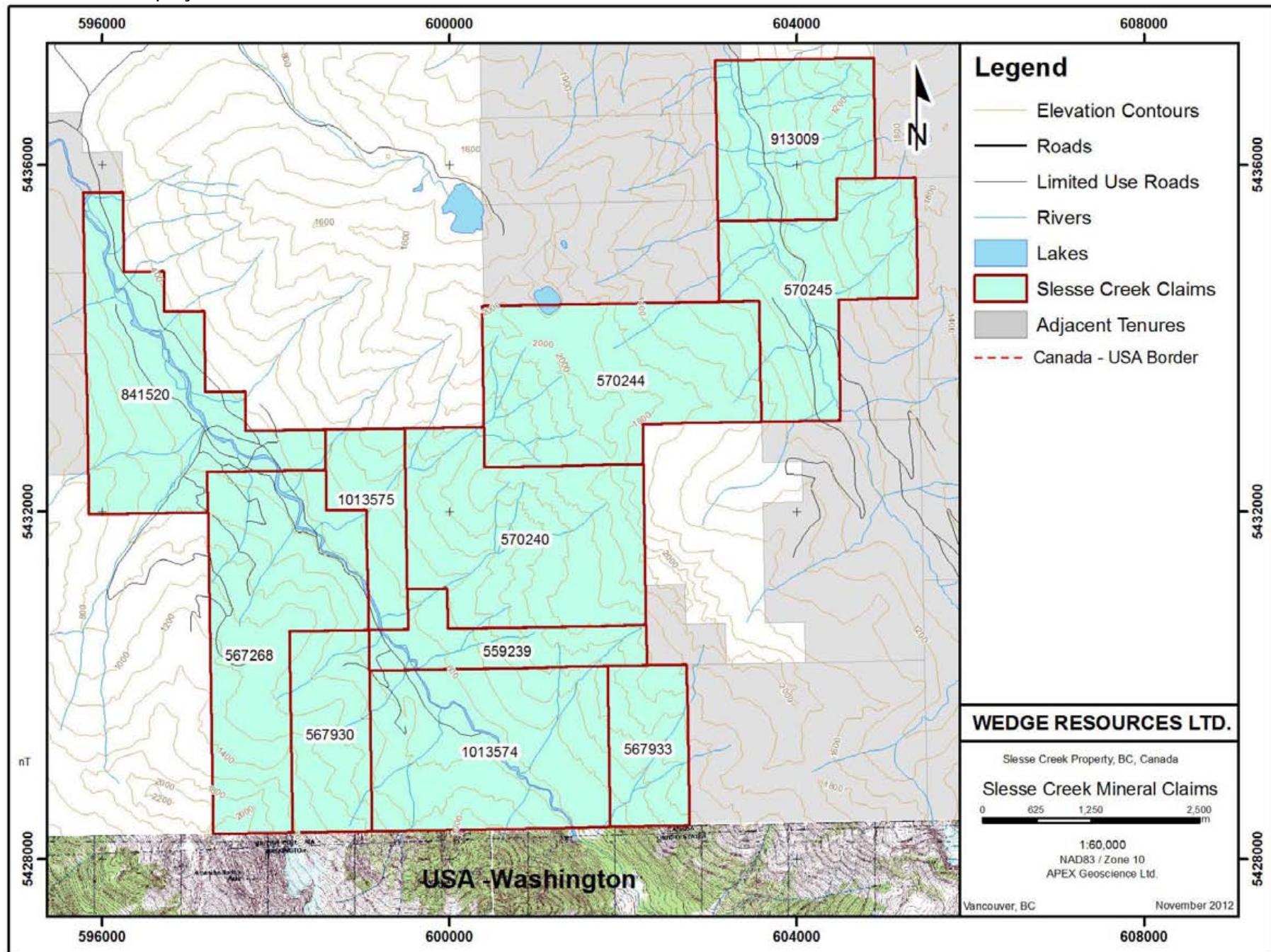
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Figure 1. Slesse Creek Property Location



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Figure 2. Slesse Creek Property Claims



There are no known mineral reserves or resources at the Property; it remains an early-stage, grass roots exploration property. A number of historic mineralized zones occur throughout the property including (from north to south): Queen, Slesse Creek, Jumbo and Torb.

The 11 claims that comprise the Property were acquired by Wedge from Derek Newell Moore and 0814492 BC LTD. 0814492 BC LTD is a wholly owned subsidiary of Wedge resources and the details of the terms of the agreement between Derek Newell Moore and Wedge are not known to the author at this time.

The Slesse Creek Property claims have not been legally surveyed and were acquired digitally from the British Columbia Ministry of Energy and Mines. In British Columbia an individual mineral claim may consist of up to 100 complete or partial adjoining mineral cell claims ("cells"). Cells range in size from approximately 21 hectares (457 metres x 463 metres) in the south to approximately 16 hectares at the north of the province. This is due to the longitude lines that gradually converge toward the North Pole. The process of digital claim staking provides secure title by eliminating mapping issues such as overlap and map location challenges inherent with physical ground staking methods. The position of a cell is absolute in UTM NAD 83 format.

In British Columbia, the owner of a mineral claim acquires the right to the minerals which were available at the time of claim location and as defined in the Mineral Tenure Act of British Columbia ("Act"), Surface rights are not included. As of July 1st 2012 certain changes to the Act will come into effect. To aid in the adjustment to the new work requirements, all claims will be treated as if they are in their first anniversary year for assessment purposes as of the date of implementation (July 1, 2012). Claims are valid for one year and the anniversary date is the annual occurrence of the date of record (the staking completion date of the claim). To maintain a claim in good standing the claim holder must, on or before the anniversary date of the claim, pay the prescribed recording fee and either: (a) record the exploration and development work carried out on that claim during the current anniversary year; or (b) Payment instead of exploration and development work. The amount of work required in the first and second years is \$5.00 per hectare, for years three and four it is \$10.00 per hectare, for years five and six it is \$15.00 per hectare, and \$20.00 per hectare for subsequent anniversary years. Only work and associated costs for the current anniversary year of the mineral claim may be applied toward that claim unit. If the value of work performed in a year exceeds the required minimum the value of the excess work, in full year multiples can be applied to cover work requirements on the claim for additional years (subject to the regulations). A report detailing work done and expenditures must be filed with, and approved by, the B.C. Ministry of Energy and Mines.

Payment instead of exploration and development work ("PIED") rate used to be equivalent to the value of exploration and development work. The new PIED rate will be set at double the value of the corresponding assessment work requirement. The old regulations allowed a minimum of one day of PIED can be applied to the expiry date of a mineral tenure, the new minimum requirement for PIED will be 6 months. The 12 month (1 year) maximum will remain in place. Similar to the assessment work requirements, if a recorded holder wishes to register PIED, the claim will also be treated

as if it is in its first anniversary year for the purposes of calculating the assessment requirement, as of the date of implementation (July 1, 2012). PIED will be \$10.00 per hectare for anniversary years 1 and 2 for mineral claims (double the work amount).

All work carried out on a claim that disturbs the surface by mechanical means (including drilling, trenching, excavating, blasting, construction or demolition of a camp or access, induced polarization surveys using exposed electrodes and site reclamation) requires a Notice of Work under the Mines Act and the owner must receive written approval from the District Inspector of Mines prior to undertaking the work. The Notice of Work must include: the pertinent information as outlined in the Mines Act; additional information as required by the Inspector; maps and schedules for the proposed work; applicable land use designation; up to date tenure information; and, details of actions that will minimize any adverse impacts of the proposed activity. The claim owner must outline the scope and type of work to be conducted, and approval generally takes approximately one month.

Exploration activities that do not require a Notice of Work include: prospecting with hand tools, geological/geochemical surveys, airborne geophysical surveys, ground geophysics without exposed electrodes, hand trenching (no explosives) and the establishment of grids (no tree cutting). These activities and those that require Permits are outlined and governed by the Mines Act of British Columbia.

The Chief Inspector of Mines makes the decision whether or not land access will be permitted. Other agencies, principally the Ministry of Forests, determine where and how the access may be constructed and used. With the Chief Inspector's authorization, a mineral tenure holder must be issued the appropriate "Special Use Permit" by the Ministry of Forests, subject to specified terms and conditions. The Ministry of Energy and Mines makes the decision whether land access is appropriate and the Ministry of Forests must issue a Special Use Permit. However, three ministries, namely the Ministry of Energy and Mines; Forests; and Environment, Lands and Parks, jointly determine the location, design and maintenance provisions of the approved road.

At present the author does not know of any environmental liabilities associated with the Slesse Creek Property.

### 3 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Property is located at the eastern end of the lower mainland region of British Columbia (BC) approximately 30 km southeast of Chilliwack BC, or 110 km to east of Vancouver, BC (Figure 1). The lower mainland region of BC has a population in excess of 2.5 million people and a wide range of infrastructure to meet the needs of the exploration and mining industry.

Access to the Property is gained by driving south from the Trans Canada Highway towards Sardis along Vedder Road and then heading approximately 20 km east along Chilliwack River Road to the junction of the Chilliwack River and Slesse Creek. Logging roads continue along the north side of Slesse Creek a further 7 km to a point where a creek washout bars vehicle access. The eastern portion of the Property can be reached

by travelling a further 9 km along Chilliwack River Road to Nesakwatch Creek and travelling 7 km south along Nesakwatch Creek Forest Service Road.

The Property claims are located in the rugged Northern Cascade Range. The range lies to the southeast of the uppermost extent of the Fraser Valley. Elevations within the claims range from 2200 metres (m) above sea level along the northwest ridge of Mount Slesse down to 280 m within Slesse Creek near the point where it joins the Chilliwack River. During Fraser glaciation the Slesse Creek Valley was deepened to its present form with steep walls and tributary streams that descend steeply from hanging valleys. Small permanent icefields remain on the highest peaks (Saunders et al., 1987)

The climate varies between interior and coastal environments with annual precipitation on the order of 1750 millimetres (mm). The lower elevations are generally free of snow for most of the year as precipitation is in the form of rain, although higher elevations may have heavy snowpack well into June. Exploration programs can usually be carried out through September and into October.

#### 4 History

Exploration in the Slesse Creek drainage began in 1897 with the discovery of gold bearing quartz veins and staking of the Post-Lambert Group; later known as the Lone Jack Mine. The group was located approximately 6 km to the south of the Slesse Creek Property, within Washington State, and was most easily reached at the time by travelling south up Slesse Creek (Robertson, 1905). Following the discovery of the Lone Jack Mine mineral exploration in the area intensified and progressed northward. Total documented production from the Lone Jack Mine through discovery until 1969, as reported by Wolff et al. (2005), was 9,463 ounces gold and 1900 ounces silver. Based on a total of approximately 10,000 to 15,000 tons mined the gold grade ranges from 0.63 to 0.94 ounces/ton (oz/T) gold (Au).

Shortly following the discovery of the Lone Jack vein, C.W Both and associates discovered the Red Mountain vein on the northern slopes of Mt. Larrabee (Red Mountain) approximately 1 kilometer (km) to the south of the Slesse Creek Property within Washington State. The Klondike, Rocky Draw, Mountain Boy, Glacier, Climax and Climax Extension No. 1 claims were located between 1898 and 1900 and surveyed for patent in 1902 (Wolff et al., 2008). A total of 5 quartz veins were discovered, however only the Red Mountain vein ever saw production. By 1915 a 10 stamp, 60 ton/day capacity, mercury amalgamation mill and turbine power plant on Slesse Creek had been constructed. The mine is reported to have been in near continuous production, under the ownership of numerous companies, from 1913 until 1942 following loss of the stamp mill to fire (Wolff et al, 2008). Total production estimates reported by Grant (1987) were 80,000 tons with an average grade of 0.60 oz/T gold, or 48,000 total ounces of gold production.

Despite the discoveries south of the border there was little concurrent work within the Slesse Creek drainage on the Canadian side. One area that did receive work was the Pierce Group of claims. The Pierce claims were located on Pierce Mountain between Slesse and Nesakwatch creeks, approximately 700 metres to the north of the Slesse

Creek Property. Robertson, (1905) states that there exists a 1.2 metre (m) wide quartz vein containing gold at 0.12 oz/Ton. Robertson (1916) conducted an examination of the Pierce claims noting two quartz veins exposed in open cuts occurring at the contact between Chilliwack Group argillites and the Slesse diorite. Several open cuts and a 27 metre deep shaft were found along a northeast trending ore zone which dipped 75 degrees to the northwest. Two samples collected at the time returned only trace gold and silver assays.

Further to the south, within the Slesse Creek Property, the historic Queen mineral claim occurred on the west side of Slesse Creek near the mouth of Glacier Creek. Robertson (1905) reported that a 6 metre drift had been driven on a 0.60 to 0.90 metre wide zone of altered argillite cut by a felsic dyke. Mineralization chiefly in the form of pyrite returned assays of a trace gold and 0.20 oz/T silver (Ag).

The Jumbo, Gold Bug and Lincoln Crown Grant claims (Lot numbers 187, 188 and 186 respectively) occur on the mountainside between Glacier and Slesse creeks along the Canada-U.S. border. Robertson (1905) noted that approximately 45 metres tunnelling had occurred on the claims within sheared iron stained slate crosscut by felsic dykes. Robertson, (1916) reported that several open cuts and 2 adits exist on the Jumbo Claim. The most extensive development occurs high up on the ridge, where a 50 metre adit was driven along a 30 centimetre wide quartz vein. The vein was intersected approximately 9 metres in from the entrance of the adit and followed to a point 30 metres from the entrance where the vein pinched out. An assay collected from the vein returned no significant values. A second adit occurs below a large open cut at a lower elevation on the Lincoln Claim. The lower adit was driven approximately 18 metres into iron stained argillite. A sample collected from the open cut returned assays of a trace gold and 0.80 oz/T Ag.

In 1929 Slesse Creek Mining and Development Co. Ltd. completed two short adits and an open cut ("Slesse Creek Showing") within Canyon Creek which drains the summit western slopes of Mount Slesse. The first adit was 15 metres in length. The second adit, 27 metre in length, was located a short distance above the first at an elevation of 754 metres. The object of the development was apparently a number of small pyritized quartz veins carrying gold values exposed in an open cut above the adits. McKenzie (1929) reported that upon visiting the property that the open cut had filled with slide rock and no indication of the vein could be found.

Galloway (1930) makes note of two other prospects on the east side of Slesse Creek; the Wissota and Zenith group of claims. The Wissota Group occurs at an elevation of 1,300 metres within Boundary Creek and consists of a 3 metre long open cut which continued as an adit that starts on a small weakly copper stained seam of soft gouge along the west wall of a belt of diorite. The gouge widens to a width of 1.2 metres within the tunnel however no sulphides were observed. The Zenith Group occurs a below Canyon Creek where a tunnel was started on an iron-stained slaty outcrop in the bank of Slesse Creek. There was no indication of any copper mineralization.

No work was reported within the Slesse Creek drainage until 1978 when Aquarius Resources Ltd. (Aquarius) completed a soil geochemical reconnaissance program. At

the time Aquarius held the 252 hectare Sles 1 claim which covered the historic Jumbo, Gold Bug, Lincoln and Ensign (Lot number 82) Crown Grant claims along the Canada-U.S. border. In September 1978, Aquarius collected a total of 194 soil geochemical samples from road cuts and cutlines along the west and east sides of Slesse Creek. Of the 194 soils samples only one sample, which returned an assay of 35 parts-per-billion (ppb) Au was considered anomalous (Giroux, 1978).

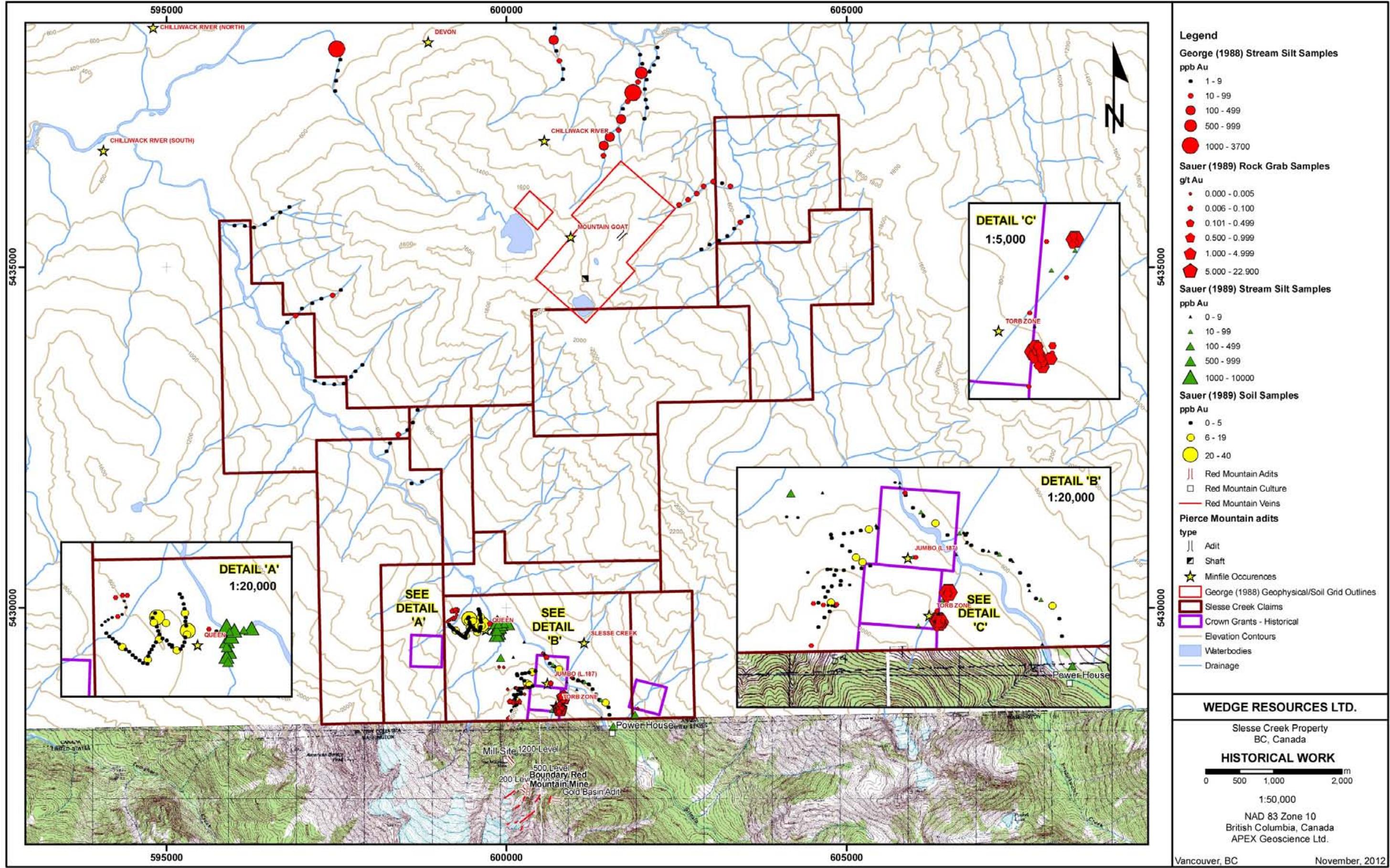
Brian Sauer completed a series of short reconnaissance prospecting visits to his Roy 1, 2, 5 and 6 claims during January 1987, January 1988 and April 1988. The claims comprised 32 units, or approximately 672 hectares, staked over the Jumbo, Gold Bug, Lincoln, Ensign and Last Chance (Lot number 574) Crown Grant claims which were still active at the time. Sauer collected a total of 17 rock grab samples, and was successful in locating two historic adits. One of the rock samples collected (Sample #2) was from an ore dump located at the Boundary Red Mountain mine a short distance to the south of the claims. The samples returned an assay of 3.39 oz/T Au. The remainder of the samples collected did not return significant values. The first historic adit located was found along the west bank of Slesse Creek near the mouth of Glacier Creek. The adit was reportedly 30 metres long and based on it's location it likely represents the historic Queen claim. The second adit occurs within Canyon Creek and likely represents the historic Slesse Creek Showing.

Later in 1988 Brian Sauer completed a more comprehensive prospecting program at the Roy claims that included the collection of 58 rock grab, 92 soil and 30 stream silt geochemical samples (Figure 3). The program resulted in the discovery of a new showing named the "Torb Zone". The Torb Zone is located less than 100 metres from the historic Jumbo Crown Grant claim and approximately 1300 metres to the northeast of the Boundary Red Mountain Mine. A rock grab sample (103752H) collected from the Torb Zone retuned assays of 22.90 grams per ton (g/t) Au and >10,000 ppm Cu. Sample 103751H located 180 metres to the north of the Torb Zone retuned assays of 14.10 g/t Au and 3100 ppm Cu. A third sample not marked on Figure 3 due to its uncertain location retuned assays of 28.40 ppm Au (0.828 oz/T Au). The sample was collected from a north trending tributary draining the Red Mountain Mine area approximately 1200 metres to the west of the Torb Zone (B. Sauer, pers com). In addition to samples returning high gold values a single quartz vein float sample from Canyon Creek (8312038) returned 0.21% molybdenum (Mo).

Soil samples were collected along existing logging roads traversing along the east side of Slesse Creek and up a series of switchbacks at the "West Torb Zone" and "Hark Zone". Samples were collected at 100 metres intervals on the east side of Slesse Creek, 50 metres intervals at the West Torb Zone and 25 metre intervals at the Hark Zone (Figure 3). Of the 92 samples collected, only one sample, collected from the Hark Zone to the north of Glacier Creek, returned assays of greater than 20 ppb Au and was considered anomalous (SG106, 40 ppb Au).

Silt sampling was concentrated along small tributaries along the east side of Slesse Creek, and west side of Slesse Creek within Glacier Creek and a creek draining the Torb Zone. A small number of samples were also collected within Slesse Creek. Where possible, moss from the stream bed was used as a sample medium. Of the 30

Figure 3. Historical Work



stream silt samples collected a total of 14 contained greater than or equal to 100 ppb Au. A total of 12 of the 14 anomalous stream samples were collected from the mouth of Glacier Creek. Sample G #3 returned assays of 10,000 ppb Au and 1.7 parts-per-million (ppm) Ag. Sample G #5 collected 60 metres upstream returned assays of 7,000 ppb Au and 22.7 ppm Ag. A second tributary, on the east side of Slesse Creek, contained the remaining two anomalous samples, 8314016 and 8314018, which returned 145 ppb Au and 100 ppb Au respectively.

More recent work on the Property was undertaken by J. Hobday and W.K. Fletcher (2003). The authors completed a stream sediment geochemical study of the Slesse Creek drainage and its tributaries. The purpose of the study was to determine the effectiveness of low-density regional stream sediment sampling as an exploration tool in evaluating large drainage basins. The Slesse Creek drainage presents an ideal location to test these methods in that a significant gold source, the Boundary Red Mountain Mine, is present within its headwaters. A total of 24 stream samples were collected from within Slesse Creek and 14 from within its tributaries. Sample sites on Slesse Creek were approximately 500 m apart and sampling involved field screening with 11 millimetre (mm) and 2 mm sieves to obtain a bulk sample of about 12 kilograms (kg) of less than 2 mm material. Field duplicates and background samples from other drainages in the Chilliwack River valley were also collected.

The results of stream sampling show that samples from tributaries 5 and 6 (Glacier Creek) which drain the Boundary Red Mountain Mine contained 80-90 ppm Cu and 250 to 2330 ppb Au. The Cu values were considered only weakly anomalous compared with other tributaries. The Au content of Glacier Creek is much greater than those of other tributaries that contain 5-50 ppb Au with a median of 5 ppb Au. Continuing down Slesse Creek gold values are erratic with a minimum of 4 ppb Au versus peak concentrations of 340 ppb and 360 ppb at 6 and 9 km downstream from Glacier Creek (Hobday and Fletcher, 2003).

The study found that concentration of Au by fluvial processes can counteract the dilution that would otherwise result from increasing the drainage basin area. Anomalous Au values within Slesse Creek are associated with anomalous heavy mineral element (Vanadium and Titanium) values reflecting strong fluvial concentration. Strong Au anomalies within Glacier Creek are associated with relatively low heavy mineral element values (compared with Slesse Creek). This is consistent with these anomalies being close to their bedrock source rather than a result of fluvial concentrations of Au (Hobday and Fletcher, 2003). The work of Hobday and Fletcher shows that stream sediment sampling is an effective geochemical tool for detecting Au anomalies within the Slesse Creek drainage.

In 2008 the author visited the Slesse Creek Property, with a crew of two other geologists on the dates of April 9 and April 11, 2008 and September 25 and 26, 2008, and collected a total of 26 rock grab samples, 5 stream pan concentrate samples, 4 stream screen and 4 stream silt geochemical samples from the Property. The samples were collected to verify reports of historic mineralization and to conduct a preliminary test of the effectiveness of stream geochemical sampling methods.

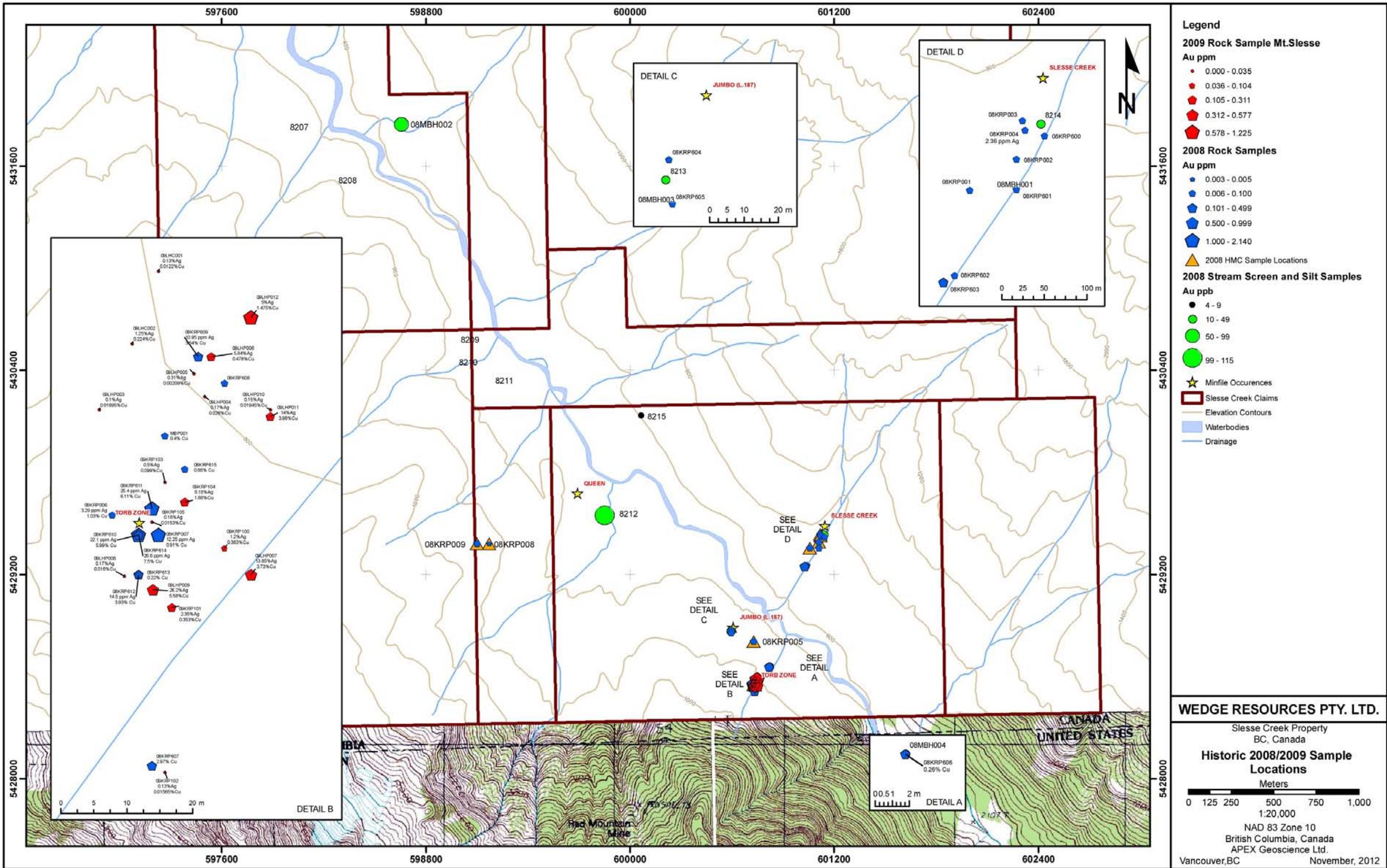
At the Torb Zone a discontinuous lens of quartz, pyrite and chalcopyrite and a 50 centimetre wide quartz ( $\pm$  tetrahedrite) vein is exposed over a 15 metre strike length. A 40 centimetre chip sample collected from across the sulphide lens returned assays of 2.14 ppm Au, 25.4 ppm Ag and 6.11% Cu (08KRP611) (Table 3). A grab sample from the 50 centimetre quartz vein returned 206 ppb Au, 14.5 ppm Ag and 3.93% Cu (08KRP612). Approximately 10 metres to the south a grab sample from a narrow quartz vein containing pyrite and chalcopyrite retuned assays of 1.68 ppm Au, 12.25 ppm Ag and 0.91% Cu (08KRP007) (Table 3). Of the 4 stream silt samples collected, one sample contained greater than or equal to 100 ppb Au and was considered anomalous. Sample 8212 returned assays of 115 ppb Au. (Figure 4)

Four stream samples were collected from tributary drainages on the east and west sides of Slesse Creek and submitted to for Au fire assay and ICP-MS analysis (Figure 4). A single sample returned 89 ppb Au (08MBK002) and is considered anomalous. The sample was collected from a tributary on the east side of Slesse Creek draining the Mt. MacFarlane-Crossover Peak area. Rocks of the Yellow Aster Group, which host gold bearing quartz veins at the Boundary Red Mountain Mine to the south, have been mapped in the headwaters of the drainage.

Table 2. 2008 Rock Rock Grab Assay Results

Sample	Easting*	Northing*	Showing	Type	Au ppb (ppm)	Ag ppm	Cu %
08KRP001	601056	5429356	Canyon Creek	Outcrop	60	0.23	0.01
08KRP002	601111	5429393	Canyon Creek	Outcrop	270	0.47	0.01
08KRP003	601118	5429438	Canyon Creek	Outcrop	120	0.65	0.01
08KRP004	601121	5429427	Canyon Creek	Float	280	2.36	0.01
08KRP005	600726	5428809	Jumbo	Outcrop	900	0.4	0.02
08KRP006	600726	5428555	Torb Zone	Outcrop	820	3.29	1.03
<b>08KRP007</b>	<b>600733</b>	<b>5428552</b>	<b>Torb Zone</b>	<b>Outcrop</b>	<b>(1.68)</b>	<b>12.25</b>	<b>0.91</b>
08KRP008	599172	5429382	Queen	Float	30	0.13	0.01
08KRP009	599101	5429382	Queen	Outcrop	100	0.11	0.01
08KRP600	601144	5429420	Canyon Creek	Float	9	0.26	-
08KRP601	601111	5429357	Canyon Creek	Float	64	1.03	0.01
08KRP602	601038	5429256	Canyon Creek	Float	70	4.58	0.01
08KRP603	601025	5429248	Canyon Creek	Float	361	1.25	0.03
08KRP604	600593	5428873	Jumbo	Float	7	0.36	-
08KRP605	600594	5428860	Jumbo	Float	53	1.19	0.01
08KRP606	600817	5428657	N/A	Float	171	1.98	0.26
08KRP607	600732	5428517	Torb Zone	Float	204	11	2.97
08KRP608	600743	5428575	Torb Zone	Float	12	0.28	0.09
08KRP609	600739	5428579	Torb Zone	Float	206	10.95	3.54
08KRP610	600730	5428552	Torb Zone	Outcrop	(1.61)	22.1	5.99
<b>08KRP611</b>	<b>600732</b>	<b>5428556</b>	<b>Torb Zone</b>	<b>Chip**</b>	<b>(2.14)</b>	<b>25.4</b>	<b>6.11</b>
<b>08KRP612</b>	<b>600730</b>	<b>5428546</b>	<b>Torb Zone</b>	<b>Outcrop</b>	<b>206</b>	<b>14.5</b>	<b>3.93</b>
08KRP613	600730	5428546	Torb Zone	Outcrop	14	0.65	0.22
08KRP614	600730	5428552	Torb Zone	Outcrop	288	26.6	7.50
08KRP615	600737	5428562	Torb Zone	Outcrop	93	2.84	0.86
MBP001	600734	5428567	Torb Zone	Outcrop	63	1.65	0.40

Figure 4. 2008-2009 Sampling



Most recently the author and an APEX crew of two visited the Slesse Creek Property between the dates of September 23 and September 25, 2009. A total of 18 rock grab geochemical samples were collected from the Torb Zone Showing as a follow-up to 2008 rock geochemical sampling. In addition a total of 0.675 Line-km of ground magnetic geophysical surveys were completed.

A grab sample from float collected to the north of the Torb Zone Showing returned an assay of 1.23 ppm Au, 5 ppm Ag, and 1.48 % Cu (09LHP012). Approximately 40 metres to the southwest a grab sample of float returned assay values of 0.58 ppm Au, 26.2 ppm Ag, and 5.58 % Cu (09LHP009), similar results were returned for float collected 15 metres to the northeast (0.50 ppm Au, 13.85 ppm Ag, and 3.73 % Cu) (09LHP007) (Table 4) (Figure 3).

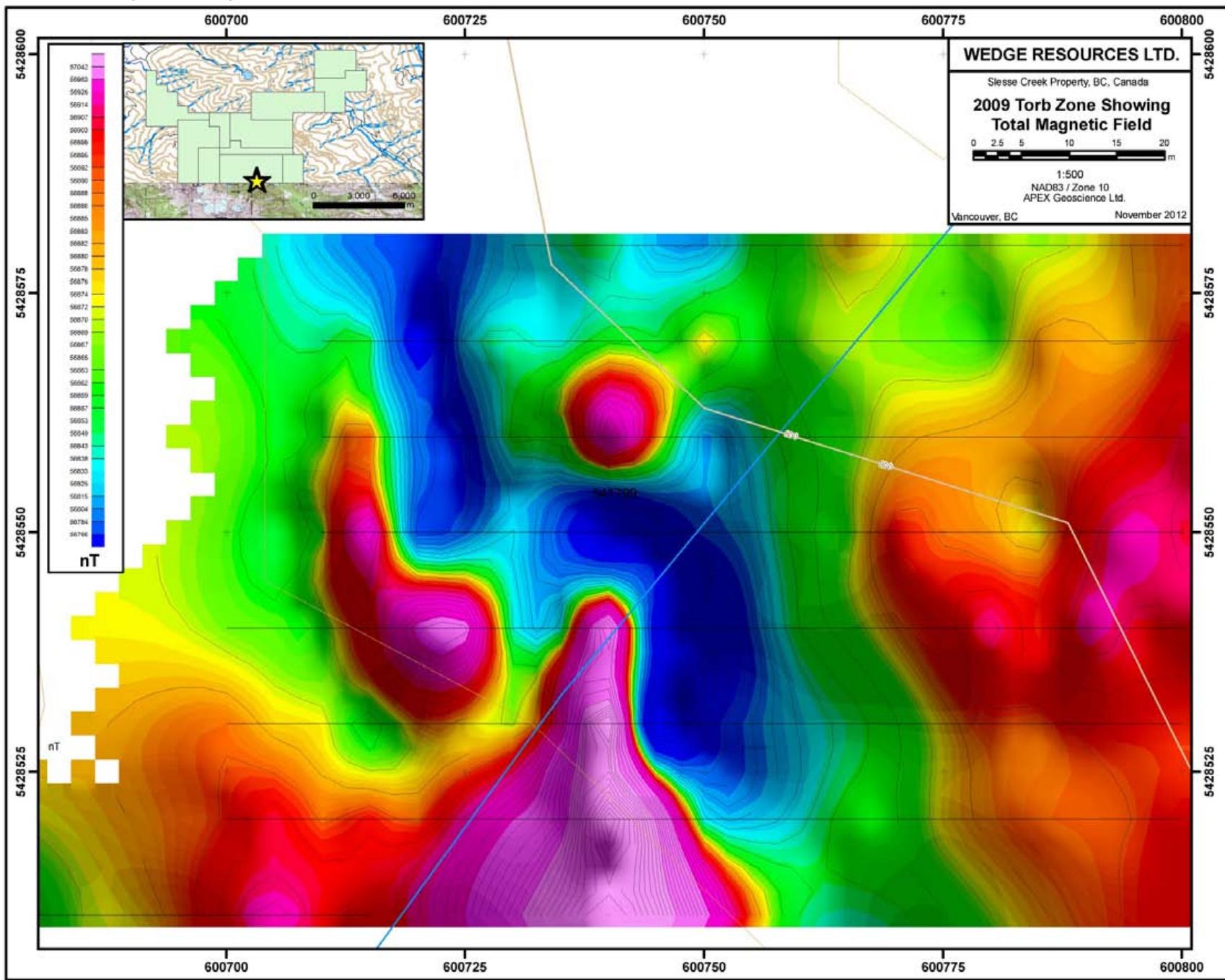
Table 3. 2009 Rock Rock Grab Assay Results

<b>Sample</b>	<b>Easting*</b>	<b>Northing*</b>	<b>Showing</b>	<b>Type</b>	<b>Au ppm</b>	<b>Ag (ppm)</b>	<b>Cu %</b>
09LHC001	600733	5428592	Torb Zone	Chip**	0.00	0.13	0.01
09LHC002	600729	5428581	Torb Zone	Outcrop	0.04	1.25	0.22
09LHP003	600724	5428571	Torb Zone	Outcrop	0.00	0.1	0.02
09LHP004	600740	5428573	Torb Zone	Outcrop	0.01	0.17	0.03
09LHP005	600732	5428597	Torb Zone	Outcrop	0.02	0.31	0.00
09LHP006	600741	5428579	Torb Zone	Outcrop	0.25	5.84	0.48
<b>09LHP007</b>	<b>600747</b>	<b>5428546</b>	<b>Torb Zone</b>	<b>Float</b>	<b>0.50</b>	<b>13.85</b>	<b>3.73</b>
09LHP008	600724	5428540	Torb Zone	Outcrop	0.00	0.17	0.02
<b>09LHP009</b>	<b>600736</b>	<b>5428531</b>	<b>Torb Zone</b>	<b>Talus</b>	<b>0.58</b>	<b>26.2</b>	<b>5.58</b>
09LHP010	600750	5428571	Torb Zone	Outcrop	0.01	0.15	0.02
09LHP011	600750	5428570	Torb Zone	Float	0.31	14	3.98
<b>09LHP012</b>	<b>600747</b>	<b>5428585</b>	<b>Torb Zone</b>	<b>Float</b>	<b>1.23</b>	<b>5</b>	<b>1.48</b>
09KRP100	600743	5428550	Torb Zone	Outcrop	0.10	1.2	0.36
09KRP101	600735	5428541	Torb Zone	Outcrop	0.18	2.35	0.35
09KRP102	600734	5428516	Torb Zone	Outcrop	0.00	0.13	0.02
09KRP103	600734	5428560	Torb Zone	Outcrop	0.01	0.5	0.10
09KRP104	600737	5428557	Torb Zone	Outcrop	0.17	8.18	1.88
09KRP105	600732	5428554	Torb Zone	Outcrop	0.00	0.18	0.02

The purpose of the 2009 geophysical survey was to determine the magnetic response of fault controlled quartz-sulphide mineralization at the Torb Zone. Ground magnetic geophysical survey data was collected at 5 metre intervals along a series of 10 metre spaced east-west oriented gridlines. Survey instruments used included one GEM Systems GSM-19 "mobile" magnetometer and one stationary GEM Systems GSM-19 "base" magnetometer used to correct for diurnal fluctuation. An examination of colour contoured total magnetic intensity survey data reveals the presence of an approximately 100 nanotesla (nT) magnitude NNW north-northwest trending linear magnetic low anomaly transecting the survey grid. The magnetic low anomaly has dimensions of approximately 60 metres x 10 metres and extends off the survey grid to the north. The magnetic low anomaly is coincident with north striking, steeply east dipping fault zones that host quartz-sulphide lenses at the Torb Zone Showing. (Figure 5)

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Figure 5. 2009 Torb Showing Ground Magnetic



## 5 Geological Setting and Mineralization

### 5.1 Regional Geology

The Slesse Creek Property is located within the Cascade Mountains of Southwestern British Columbia. The claims lie within the faulted contact zone between sedimentary and volcanic rocks of the Devonian to Permian Chilliwack group and paraconformable Jurassic to Triassic Cultus Formation to the west and Tertiary Chilliwack Batholith to the east. The faulted contact represents the northern extension of the Shuksan Fault and consists of a zone of complexly imbricated tectonic blocks of the Chilliwack Group and a suite of metamorphosed plutonic rocks known as the Yellow Aster Complex. The Yellow Aster Complex consists broadly of meta-gabbro, meta-diorite and meta-quartz diorite which are fault imbricated with Alpine type ultramafic rocks (Jewett, 1984).

### 5.2 Property Geology

The Slesse Creek Property is dominated by southeast-dipping high-angle faults that have juxtaposed and imbricated rocks of different ages, lithologies and metamorphic grade. The eastern margin of the Property has been intruded by Tertiary granitic rock (Figure 6). The following description of Property Geology was adapted from the work of Jewett (1984).

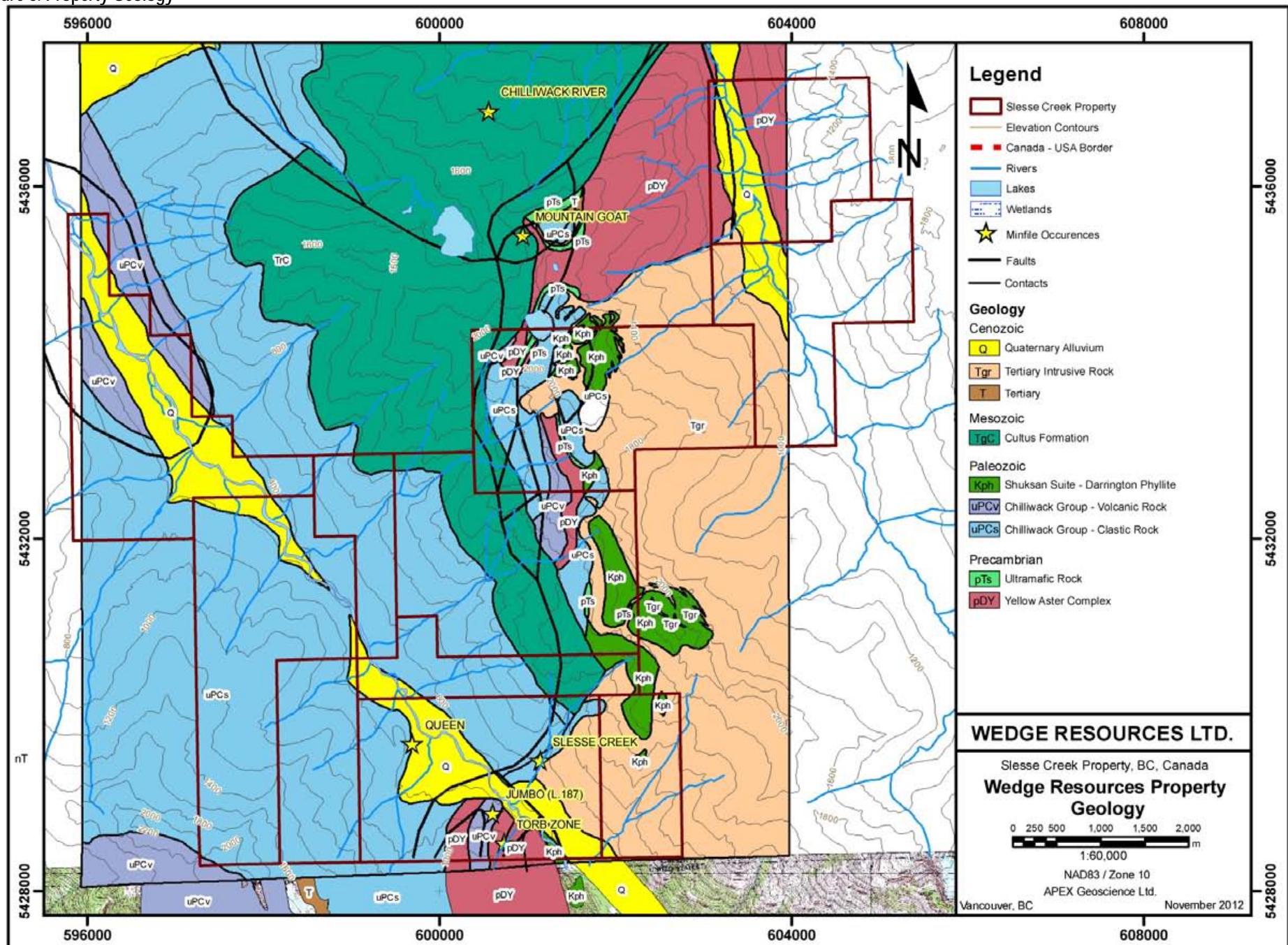
The Proterozoic to Paleozoic Yellow Aster Complex is the oldest lithologic unit present on the Property and consists of meta-gabbro, meta-diorite and meta-quartz diorite which display intrusive contact relationships (Monger, 1989). Actinolite overprinting chlorite and epidote indicate a single greenschist facies metamorphic event. A penetrative tectonic fabric is present within meta-dioritic rock that is typically coplanar with the trace of the Shuksan fault. Alpine type ultramafic rocks, which have undergone varying degrees of serpentization, occur as fault bounded blocks and lenses imbricated with rocks of different age and composition. Ultramafic rock is also commonly intercalated along fault surfaces within the Yellow Aster Complex. Individual ultramafic bodies range from 2 to 20 metres across and are distributed throughout the Property.

Rocks of the Devonian to Permian Chilliwack Group outcrop on the east side of Slesse Creek. The group comprises a stratigraphic sequence from top to bottom of Pennsylvanian limestone: upper clastic sequence, Permian limestone, and Permian volcanic sequence. The upper clastic sequence is the lowest most exposed unit on the east side of Slesse Creek. Permian limestone, below the upper clastic sequence, outcrops as a discontinuous bed interlayered with Permian volcanic rock. The rocks of the Cultus Formation paraconformably overly the Chilliwack Group. Within Slesse Creek the Cultus Group consists of rust-brown to black argillite and siltstone. The formation possesses a well-developed slaty cleavage parallel to bedding planes. The lower contact is marked by a breccia made up of clasts up to 30 centimetres across of siltstone and arenite.

The upper contact is marked by a high angle fault that juxtaposes Yellow Aster Complex rocks over the Cultus Formation. Rocks mapped as Darrington Phyllite of the Shuksan Suite occur as blocks bounded to the northwest by high angle, southeast dipping faults and by the contact of the Chilliwack Batholith to the east. The phyllite is black to silver-

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Figure 6. Property Geology



grey, possesses a relict S1 foliation, and locally relict F2 folds. The unit has been affected by thermal recrystallization, folding and deformation as a result of the intrusion of igneous magma.

The Chilliwack composite batholith ranges from dioritic to granitic composition and has been dated at 26-29 million years (Richards and White, 1970). Within the Property the batholith consists of light grey to grey hornblende-biotite tonalite and associated pegmatite-aplite dykes. The contact of the Chilliwack Batholith and the country rock runs along the crest of the Slesse-Crossover Peak ridge where it is steep and sharp. To the north, between Crossover Peak and Pierce Mountain the contact is less distinct and forms an injection zone with hydrothermal alteration and some metasomatism. Foliation within country rock near the batholith is weakly realigned parallel with the trace of the contact. Large scale assimilation and partial melting are not common; however in the upper Pierce Lake area injection and hydrothermal alteration of country rock is present within 20 to 30 metres from the contact.

Hornblende and transitional-pyroxene hornblende facies metamorphism has developed within rocks of the Chilliwack Group, Darrington Phyllite, ultramafic unit and Cultus Formation. The Darrington Phyllite displays the highest grade of metamorphism due to its structural position directly in contact with the Chilliwack Batholith. A transitional-pyroxene hornblende facies has developed in pelitic rocks in a 50-75 metre contact metamorphic aureole surrounding the batholith. The pressure and temperature of thermal metamorphism within the contact aureole are estimated at 2.2-3.8 kilobars (7-13 km depth) and from between 600°C-650°C near the contact and 300°C-400°C 1.5 km from the contact.

In the Slesse Creek drainage a set of steeply-dipping faults that have imbricated exotic slices of Yellow Aster Complex and ultramafic rock with discrete blocks of Chilliwack Group clastic and volcanic rock, and Darrington Phyllite. The zone of imbrication is separated from the underlying Chilliwack Group and Cultus Formation by 2 well exposed boundary faults.

The boundary fault near the Boundary Red Mountain Mine is nearly vertical, strikes to the North-Northeast and separates imbricated lithologies from relatively undisturbed Chilliwack Group rocks to the west. To the north of the mine the fault strikes northeast across Slesse Creek up Canyon Creek where it eventually disappears into the contact of the batholith. The boundary fault along Slesse Peak-Pierce Mountain strikes north-northwest and dips steeply to the northeast. At Mt McFarland the fault turns around a subvertical axis, striking northeast and dipping steeply to the southeast. At Pierce Mountain the dip lessens to 30° for a distance of 750 metres after which point it steepens again and trends toward the mouth of Nesakwatch Creek.

### 5.3 Mineralization

Within the Slesse Creek Property a total of 3 historic Minfile occurrences have been documented by the BC Geological Survey. These include the Queen, Jumbo and Slesse Creek. These showings have been previously described in the "History" section.

More recent exploration by Sauer (1989) resulted in the discovery of the Torb Zone, described below.

The Torb Zone is located about 1,300 metres to the north along strike of gold-bearing veins at the Boundary Red Mountain Mine. The showing was discovered during 1988 after following up on a small amount of malachite float. The Torb Zone consists of a sulphide lens stained with malachite and containing chalcopyrite, pyrite, minor pyrrhotite and possibly bornite. The rocks in the area are heavily fractured (Sauer, 1989).

In the vicinity of the Torb Zone fragments of Yellow Aster Complex, Darrington Phyllite and clastic and volcanic rocks of the Chilliwack Group, are juxtaposed in an imbricate structure by a series of subparallel, subvertical faults (Figure 4). A number of fault traces are manifested by intensely deformed shear zones that show mylonitic rock. Stretching lineations mapped in the mylonites trend north-northeast and plunge shallowly to the northeast (Jewett, 1984).

## 6 Deposit Types

### 6.1 Gold-Quartz Veins

Gold-bearing quartz veins and veinlets with minor sulphides which crosscut a wide variety of host rocks and are localized along major regional faults and related splays. Host wallrock is typically altered to silica, pyrite and muscovite within a broader carbonate alteration halo.

The deposit type is associated with moderately dipping fault zones related to continental margin collisional tectonism. En-echelon veins form within fault and joint systems produced by regional compression or transpression and may be associated with second and third order splays. The deposits are commonly closely associated with late, syncollisional, structurally controlled intermediate to felsic magmatism.

Veins may exhibit a variety of textures including massive, ribboned or banded and stockworks with anastamosing gashes and dilations. Ore mineralogy consists of native gold, pyrite, arsenopyrite, pyrrhotite and lesser tellurides, bismuth and tetrahedrite. Gold is deposited near the brittle-ductile transition zone at depths of 6-12 km and pressures between 1-3 kilo-bar (kb) and temperatures from 200°C-400°C. Host rock type is highly variable though generally metamorphosed to greenschist facies. The largest concentrations of free gold are commonly at, or near the intersection of quartz veins and serpentinized or carbonate altered ultramafic rocks. Alteration mineralogy includes silicification, pyritization and potassium metasomatism nearest the veins. Quartz-carbonate (listwanite) and pyrite are often the most common alteration minerals in the wallrock. Fuchsite, sericite, tourmaline and scheelite are common where veins are associated with felsic to intermediate intrusions (Ash and Alldrick, 1996).

Examples of this deposit type within British Columbia are mainly Middle Jurassic, or Late Cretaceous in age; those along the Juneau belt in Alaska are of Early Tertiary age. Individual deposits average 30,000 tons with grades of 16 g/t Au and 2.5 g/t Ag (Berger, 1986) and may be as large as 40 million tons (Mt). The largest BC example, the

Bralorne-Pioneer produced in excess of 117,800 kilograms of Au with an average grade of 9.3 g/t Au.

Exploration guides include: anomalous gold values in stream sediments useful as a regional and property scale vectors, linear magnetic anomalies may indicate fault zones, and negative magnetic anomalies may delineate areas of carbonate alteration, which results in magnetite destruction.

## 6.2 Intrusion Related Gold-Pyrrhotite Veins

This deposit type represents a recent subdivision of the mesothermal lode gold deposit type. The deposits form planar, en-echelon or shear veins sets ranging in width from a few centimetres to several metres that can be traced up to hundreds of metres. Ore mineralogy includes native gold, electrum, pyrite, pyrrhotite, chalcopyrite, arsenopyrite and lesser tetrahedrite and tellurobismuthite. Alteration minerals may include chlorite, sericite, pyrite, carbonate, epidote and ankerite which may occur as narrow vein selvages and moderate alteration halos extending up to several metres into country rocks. The veins are controlled by well-defined faults and shears peripheral to and spatially associated with intrusive rocks. Mineralization has been described as syn-intrusive and syn-volcanic and forms along the “brittle-ductile transition envelope” that surrounds subvolcanic intrusions (Alldrick, 1996).

Exploration guides include prospecting the area extending from 100 metres inside the intrusive to 1000 metres outside the intrusive contact of a prospective pluton. Once the vein orientation of an initial or historic discovery is made additional parallel veins should be anticipated. Current recognized examples are Jurassic in age and include the Snip and Johnny Mountain mines in northwest BC and the Rossland Gold Camp in southeast BC. Gold/Silver ratios may be close to 1:1 and copper may be a recoverable by product. Typical grades are 10 to 20 g/t Au (Alldrick, 1996).

## 6.3 Gold Skarns

Skarn deposits can form during regional or contact metamorphism through a variety of metasomatic processes. They are found in a number of geological environments and exhibit widely varying mineral assemblages. Skarn deposits can be hosted by any type of rock but are most commonly found within or proximal to calcareous sedimentary rocks. The most common types of skarn deposits are associated with elevations of one or more of the following metals: Cu, Pb, Zn, Au, W (tungsten), Sn (tin) and Mo (molybdenite).

The majority of Au skarn deposits are hosted by calcareous rocks, the more rare being the manganese variety which are hosted by dolomites or Mg rich volcanics. Au skarn deposits form primarily in orogenic belts at convergent plate margins and are often linked to syn to late arc intrusives which were emplaced into calcareous sequences in arc or back arc environments (Ray, 1998). Au skarn deposits in B.C. are dominantly early to middle-Jurassic in age. As a result of poor correlation between Au and Cu in some Au skarns, the economic potential of a particular prospect can be overlooked if Cu-sulphide rich outcrops are preferentially sampled over those of other sulphide bearing or sulphide poor assemblages. The Au is often found in close association with

bismuth or Au tellurides and is commonly found as small blebs (<40 microns) that form within or on sulphide grains (Ray, 1998).

Cu skarn deposits are most common where Andean type plutons intrude older continental-margin carbonate sequences. Important to B.C. but less common worldwide Cu skarns can be found related to oceanic island arc plutonism. These oceanic island arc Cu skarns tend to be related to more mafic intrusions while those formed at continental margin environments are associated with felsic intrusives (Ray, 1995). Most Cu skarns are found to be Mesozoic, but may be of any age and in B.C. they are found to be mainly early to mid-Jurassic. Generally, Cu skarns that are related to mineralized Cu porphyry intrusions are larger, lower grade and emplaced at higher structural levels than those which are associated with barren intrusives. Most Cu skarns contain oxidized mineral assemblages and mineral zoning is common in the skarn envelope. Moderate to high sulphide content is found within Cu skarns, where the inner garnet-pyroxene zone contains chalcopyrite ± pyrite ± magnetite, while mainly bornite ± chalcopyrite ± sphalerite ± tennanite, make up the outer wollastonite zone. Of the 340 Cu skarn occurrences in B.C. over half lie in the Wrangellia Terrane of the Insular Belt and another third are associated with intraoceanic island arc plutonism in the Quesnellia and Stikinia terranes (Ray, 1995).

## 7 2012 Exploration

The 2012 exploration program on the Slesse Creek Property consisted of soil and rock sampling within the Wedge 1 Claim (1013574). The sampling was conducted intermittently between the dates October 24th and November 10th, 2012.

A brief summary of the exploration work is provided below. A complete list of soil samples and rock samples along with full descriptions of the samples is provided in Appendix 1 and 2 respectively. All original lab analytical certificates are included in Appendix 3. The total expenditures for the 2012 exploration program on the Property was \$50,445. A complete list of expenditures with details is included in Appendix 4.

### 7.1 Soil Sampling

A total of 222 soil samples were collected on the Property including 10 duplicates (Figure 7). Soil samples were collected at a spacing of 25-meters along topographic contour intervals of 80 meters. Due to the high topographic relief in the area it was not always possible to maintain the sampling intervals.

Out of the 222 soil samples a total of 22 samples assayed above 10 ppb Au, and were considered anomalous. The highest gold assay value was 198 ppb Au (Sample 12ERS542) also containing 128 ppm Cu, and it was collected from the southwest of the Torb Zone. Adjacent to Sample 12ERS542, coincident copper (232 ppm in Sample 12ERS530), arsenic (57 ppm in Sample 12AHS013) anomalies can be seen at the very south of the property along the road and near the United States – Canada border (Figures 8, 9, 10, 11). Coincident gold (up to 58 ppb – Sample 12KPS014) and copper (up to 308 ppm – Sample 12MBS023) anomalies occur in soil samples located in the

Figure 7. 2012 Sample Locations

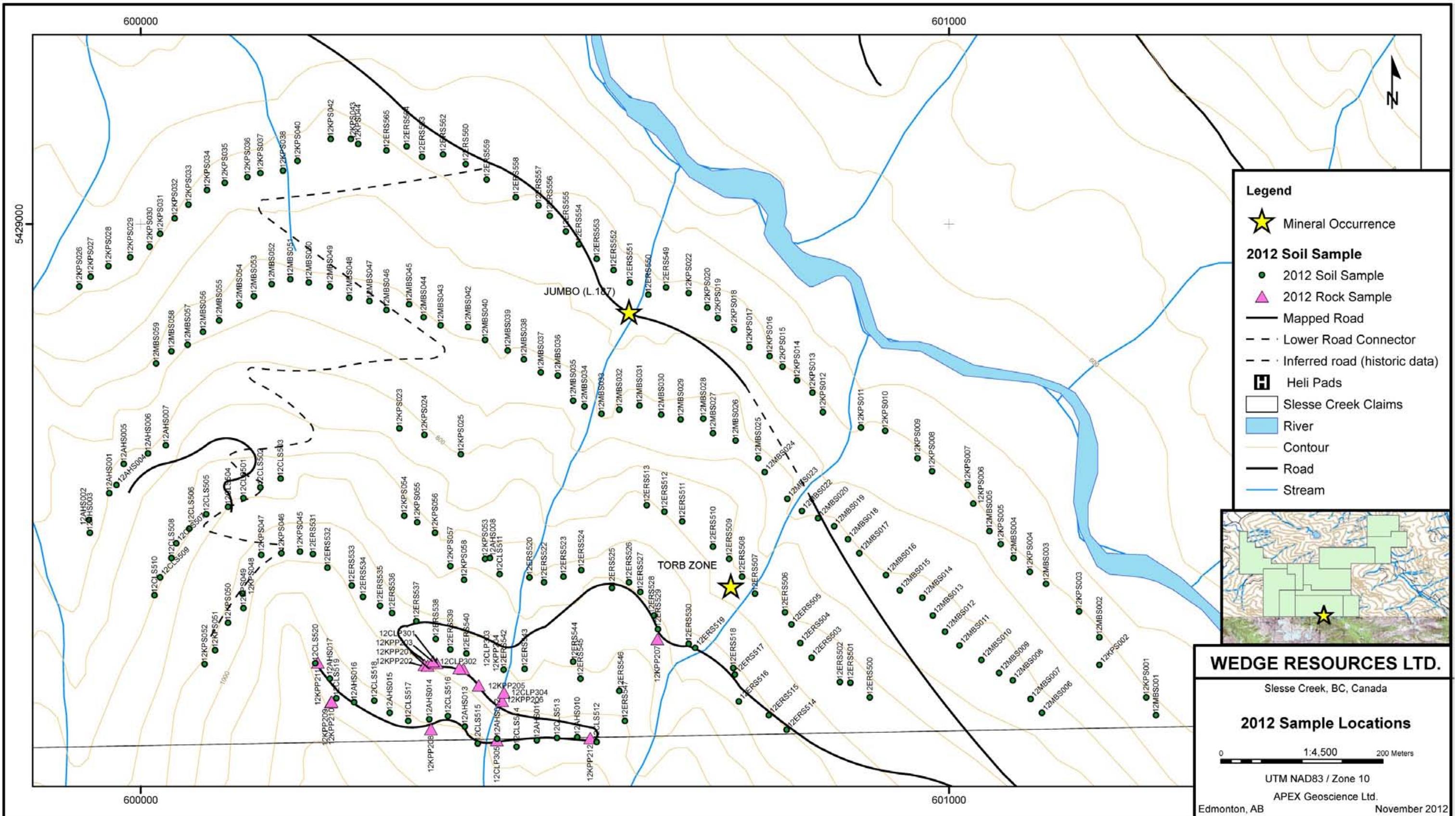


Figure 8. 2012 Samples Assay Results (Au)

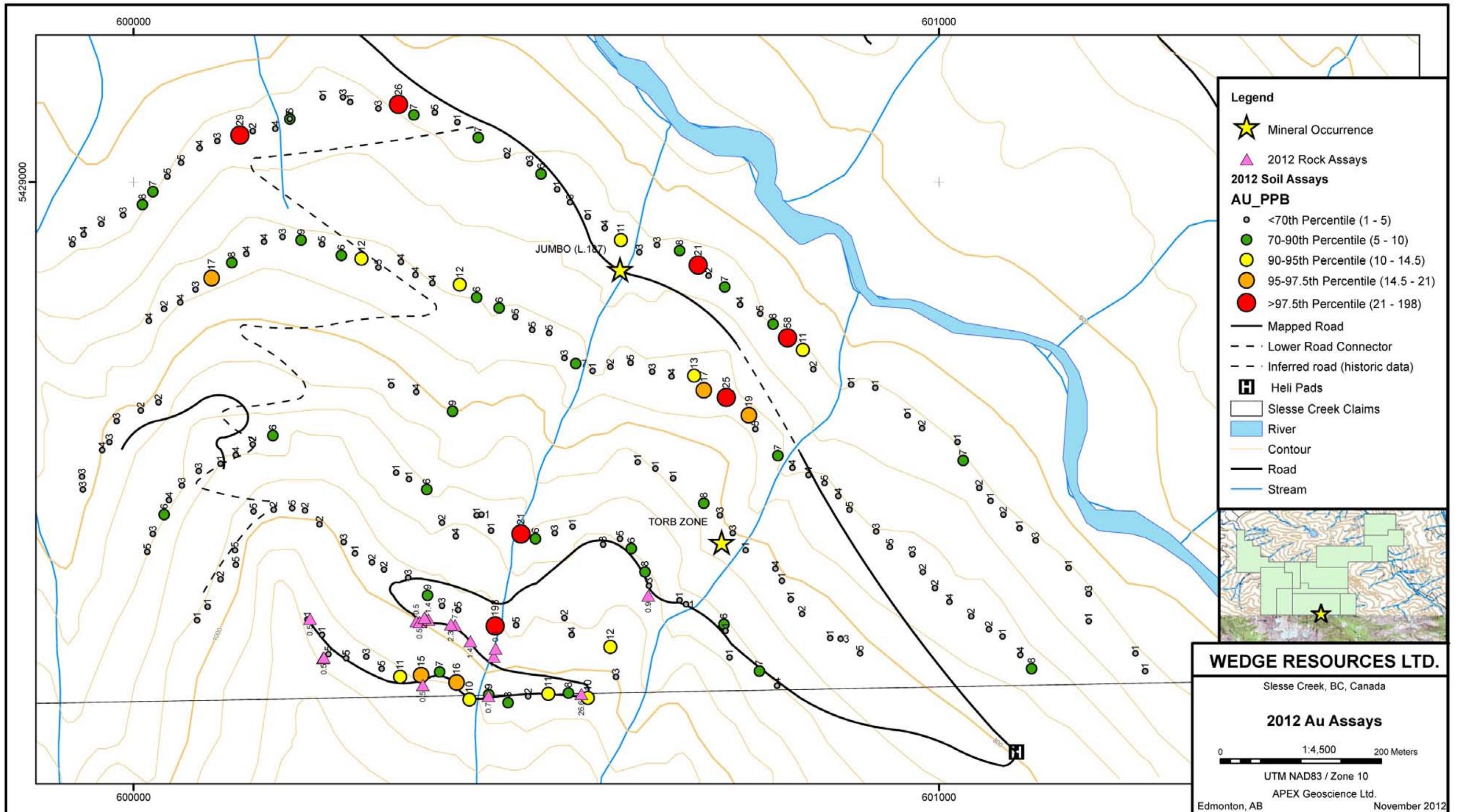


Figure 9. 2012 Samples Assay Results (Cu)

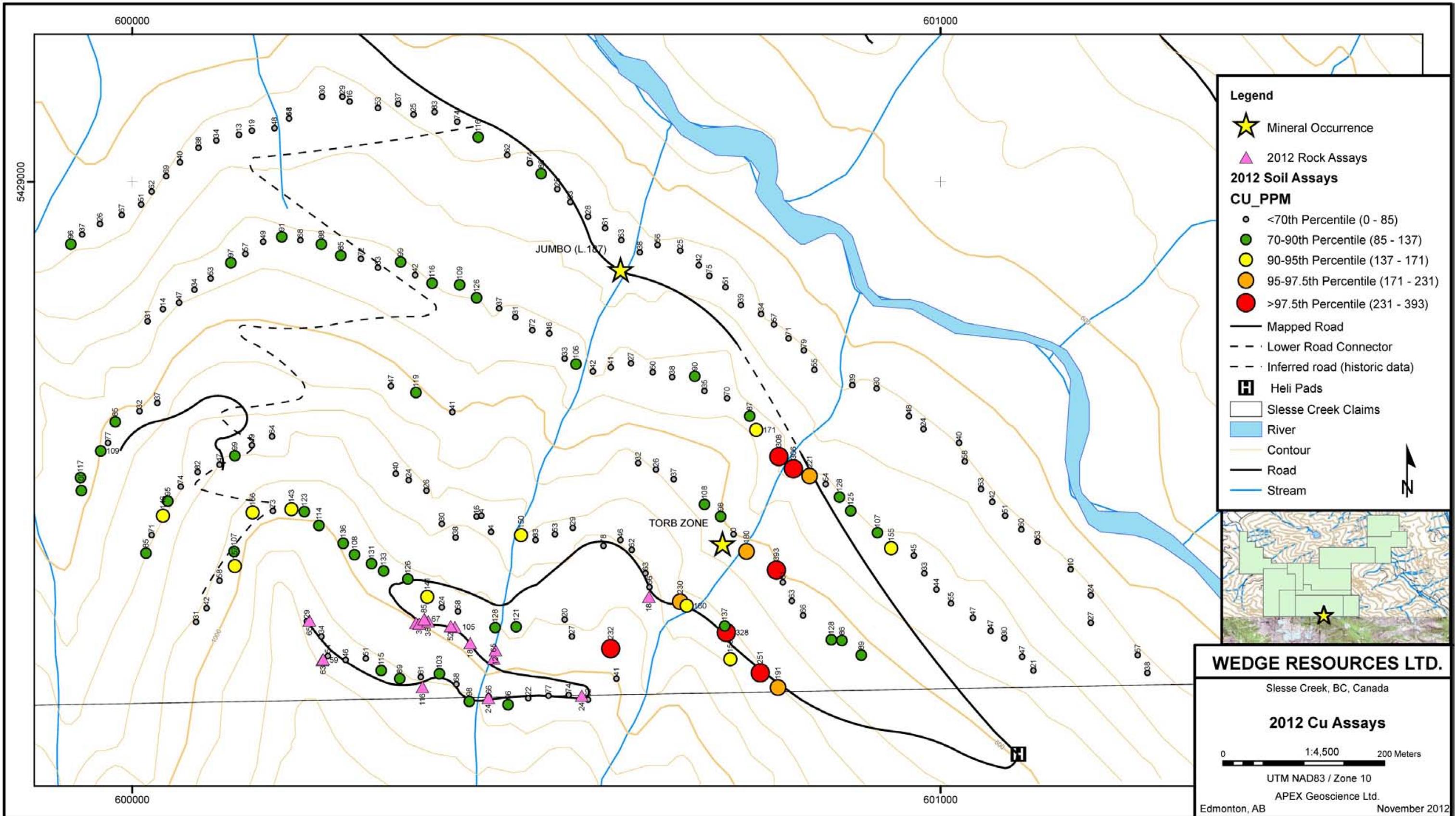


Figure 10. 2012 Samples Assay Results (As)

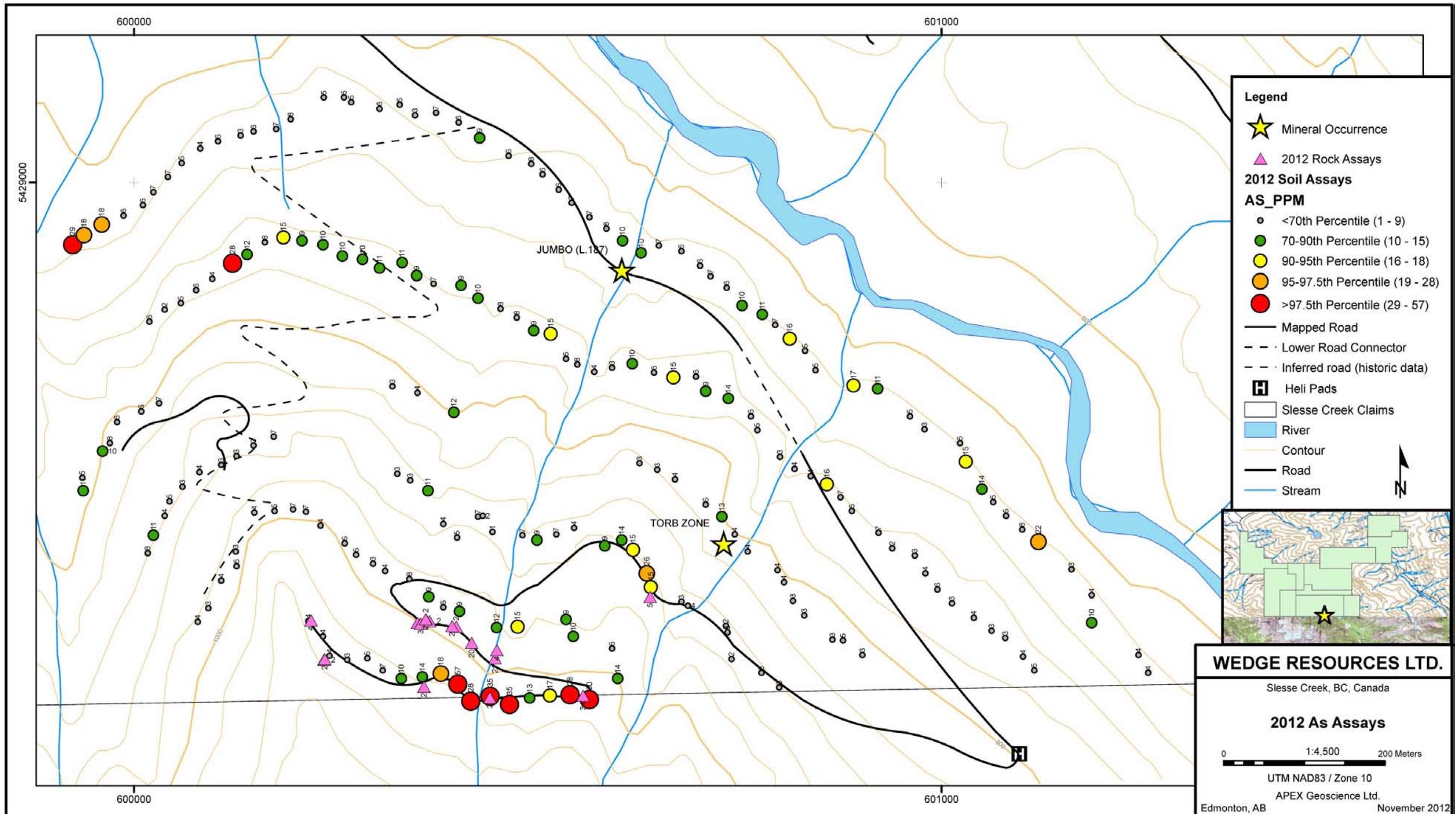
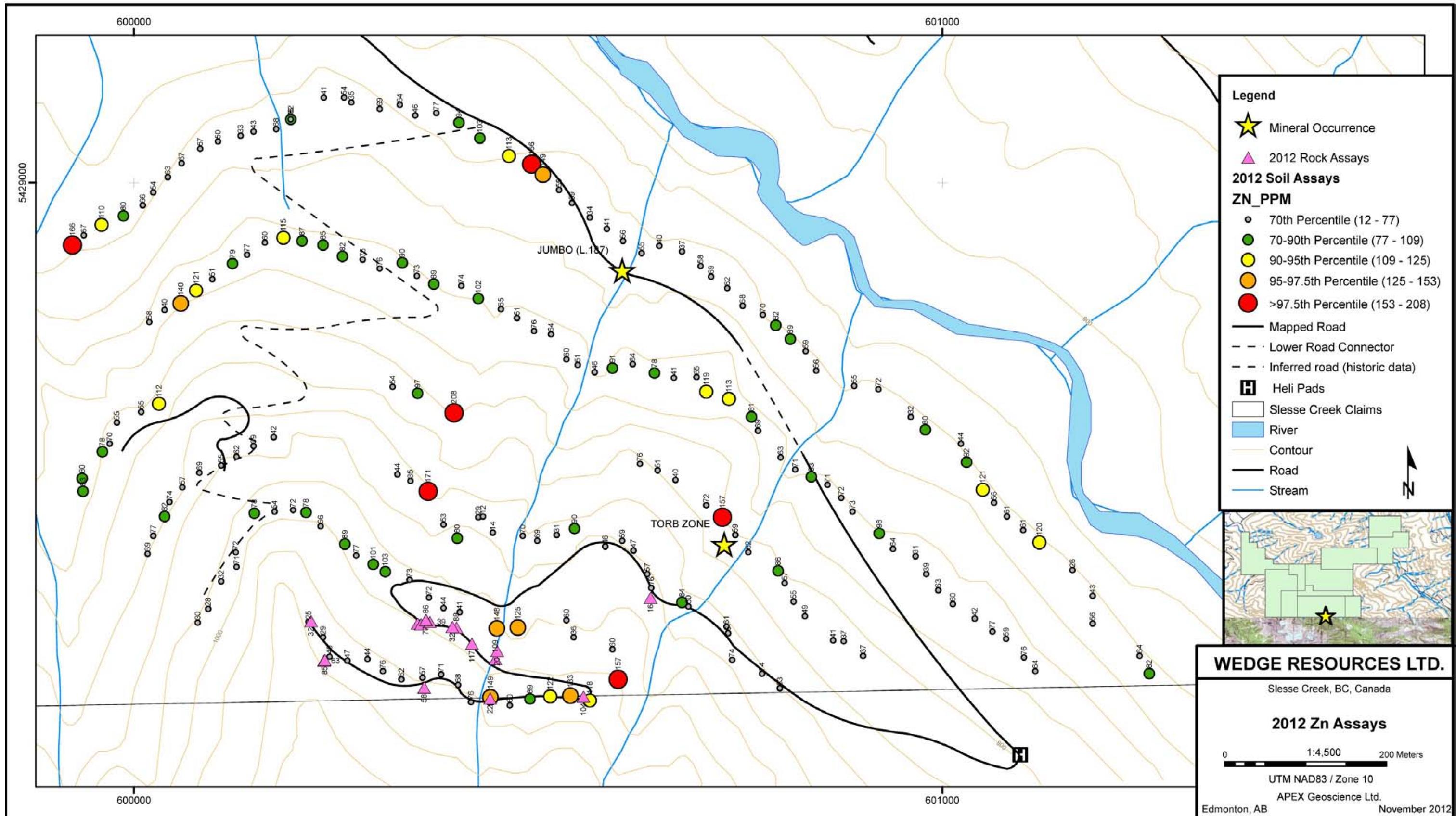


Figure 11. 2012 Samples Assay Results (Zn)



vicinity of Jumbo Showing (Figures 8, 9). The soil sampling failed to produce a gold anomaly over the Torb Zone; however Sample 12ERS506, with the highest copper value of 393 ppm, was collected from the Torb Zone.

## 7.2 Rock Sampling

A total of 17 rock samples were collected on the Property (Figures 7 to 9). Rock sampling was limited to a small area to the west and southwest of the Torb zone. The 2012 rock sample failed to return any significant assay values. The highest assay value for gold was returned from a dacitic rock containing 27 ppb Au (Sample 12KPP212). The highest assay value for copper was 116 ppm (Sample 12KPP208), collected from a metabasite with 2 cm sulphide rich quartz vein.

# 8 Sampling Method and Approach

The soil and rock samples were submitted to ACME Analytical Laboratories Ltd. (ACME), Vancouver, B.C. for analysis. ACME is an International Standards Organization (ISO) 9001 geochemical analysis and assaying laboratories. ACME did not report anything unusual with respect to the shipments, once received. The author and the Apex crew did not have control over the samples at all times during transport, and therefore cannot personally verify what happened to the samples from shipping up to the time they were received by the laboratory. However, the author has no reason to believe that the security of the samples was compromised.

## 8.1 Soil Sampling

Two-hundred and twelve soil samples were collected by the Apex crew from the “B” horizon, generally at a depth of 15 to 20 centimetres (cm) using a shovel, and placed in Kraft paper sample bags labelled with the appropriate grid line and station coordinates. Soil site locations recorded using GPS accurate to plus or minus 5 m. Samples were dried prior to submission by Apex to ACME for analysis. At ACME, soil samples were dried at 60°C and a 100 g sample was sieved to -80 mesh (0.18 mm) up to 0.5 kilogram samples, and subject to ACME’s “1DX2” method, whereby a 15 g samples split is dissolved in hot (95°C) aqua-regia and inductively coupled mass spectrometry (ICP-MS) analysis. Detection limits of 0.1 ppm to 10,000 ppm Cu and 0.5 ppb to 100 ppm Au were achieved using the 1DX2 method.

## 8.2 Rock Sampling

Seventeen rock samples were submitted to ACME for ICP-ES and 3A analysis. One kg samples were crushed to 10 mesh (1.7 mm) with 80% passing using a jaw crusher. The samples were then split using a riffle splitter to 250 grams, and sample splits were further pulverised to pass 200 mesh using a ring mill pulverizer to 85% passing (ACME R200–250 procedure). Samples were then subject to ACME’s “1D01” method, whereby a 0.5 g sample split is dissolved in hot (95°C) aqua-regia and subject to ICP-ES analysis. Detection limits of 1ppm to 10,000 ppm Cu and 2 ppm to 100 ppm Au were achieved using the 1D01 method. For the 3A02 analysis the samples are subject to Au by wet digestion whereby a 30 g sample split is dissolved in hot (95oC) aqua-regia and subject to ICP-ES analysis.

## 9 Data Verification

The current author has relied extensively on information pertaining to previous exploratory programs as contained in a number of reports which were accepted for assessment work credit and are on file with the BC Ministry of Energy and Mines. The author is of the opinion that all of the reports reviewed for the purposes of this Technical Report were prepared by competent, qualified persons.

Specific to this report, all rock samples were collected by a qualified Apex crew. As well, to the best of the author's ability, the samples were kept under the control of APEX; therefore the author believes this data to be of acceptable quality. A total 10 duplicate soils samples were collected as part of QA/QC. Two samples with elevated gold values failed to produce assay result of same magnitude in their duplicates (Table 4). All other samples showed similar values between original and duplicate samples in all elements of interest.

Table 4. Soil Sampling Duplicates Analysis

Duplicate Sample	Au ppb	Cu ppm	Pb ppm	Zn ppm	Original Sample	Au ppb	Cu ppm	Pb ppm	Zn ppm
12AHS009	1.2	11.6	16.5	24	12AHS008	0.5	3.8	6.3	12
12CLS521	1.3	24.9	6.7	23	12CLS520	0.8	29	6.7	25
12ERS521	9.9	151.5	10.3	71	12ERS520	21	150	10.9	70
12ERS541	3.3	44.9	22.5	35	12ERS540	5.3	58.4	20.4	41
12ERS561	0.9	72.7	11.5	98	12ERS560	0.9	73.7	11.5	94
12KPS021	8.9	41.5	8.2	57	12KPS020	21	41.5	7.8	58
12KPS041	2.1	46.1	7.8	77	12KPS040	1.6	43.7	7.2	76
12KPS059	2	38.8	12.9	83	12KPS058	4.3	38.4	12.6	80
12MBS021	5.1	225.8	6.7	86	12MBS020	4.2	221	6.8	83
12MBS041	5	128.3	16.8	103	12MBS040	6.1	126	16.2	102

ACME performs standard quality assurance/quality control ("QA/QC") procedures with respect to all the samples that were sent for analysis. They routinely analyze analytical blank and standard samples. The data for all of these standard analyses were found to be within acceptable limits. Due to the number of samples collected a rigorous QA/QC program beyond that already established by ACME was not warranted.

The author cannot comment on the quality control measures that may or may not have been taken by other companies during previous sampling programs that are discussed in the history section of this report. The author does not see any reason to question the quality, accuracy and security of the historical data.

## 10 Interpretation and Conclusions

The Slesse Creek area has a long history of mineral exploration dating back to 1897 when the Red Mountain and Lone Jack gold bearing quartz veins were discovered to

the south of the Canada-U.S. border. The veins occupy a series of en-echelon tensional gashes within metamorphosed Yellow Aster Group diorite. The northerly projection of the vein structure was traced by air approximately 914 metres to the north into the Slesse Creek Property (Grant and Beach, 1989). Total production estimates reported by Grant (1987) were 80,000 tons with an average grade of 0.60 ounce/ton gold, or 48,000 total ounces of gold production.

Within the Property a number of historic open cuts and short adits were excavated at the Queen, Jumbo and Slesse Creek showings along narrow gold bearing quartz veins. More recent exploration by Sauer (1989) resulted in the discovery of the Torb Zone; a shear zone hosted gold, silver and copper bearing sulphide lens, and a strong gold and silver stream sediment geochemical anomaly within Glacier Creek. The work of Hobday and Fletcher (2003) shows that stream sediment sampling is an effective geochemical tool for detecting Au anomalies within the Slesse Creek drainage.

The Slesse Creek Property is dominated by southeast-dipping high-angle faults that have juxtaposed and imbricated rocks of different ages, lithologies and metamorphic grade. The eastern margin of the Property has been intruded by Tertiary granitic rock. To the north along strike of the Boundary Red Mountain Mine at the Torb Zone, fragments of Yellow Aster Complex, serpentinized ultramafic rock, Darrington Phyllite and clastic and volcanic rocks of the Chilliwack Group are juxtaposed in an imbricate structure by a series of subparallel, subvertical faults. A number of fault traces are manifested by intensely deformed shear zones that show mylonitic rock. On the east side of Slesse Creek rocks mapped as Darrington Phyllite have been affected by thermal recrystallization, folding and deformation as a result of igneous intrusion. Between Crossover Peak and Pierce Mountain the batholith contact forms an injection zone where hydrothermal alteration and metasomatism extends 20 to 30 metres into host rocks. The Darrington Phyllite displays the highest grade of metamorphism due to its structural position directly in contact with the Chilliwack Batholith.

The geology and geochemistry suggest that the Slesse Creek Property may be analogous to the adjacent Boundary Red Mountain Mine. In addition, thermal recrystallization, deformation, hydrothermal alteration and metasomatism are present within rocks adjacent to the Chilliwack batholith. Therefore the Slesse Creek Property covers an area that is underlain by rocks favourable to host Au-Quartz vein, intrusion related Au-Pyrrhotite vein, and gold skarn deposits.

The 2012 soil sampling revealed two poly-metallic anomalous zones, and several in-spot gold, copper, and zinc anomalies. Along the southern edge of the property, 300 m west-southwest of Torb Zone, there are overlapping anomalous zones of gold, copper, and zinc, which also coincide with elevated arsenic values. Coincident gold and copper anomalies occur in soil samples in the vicinity of Jumbo showing. The limited 2012 rock sampling failed to produce any significant results.

## 11 Recommendations

Based on the presence of gold, silver and copper anomalies (soils), exceptional gold results from adjacent properties, and favourable geology the Slesse Creek Property is

of high priority for follow-up exploration. The summer and fall 2013 exploration should comprise but not be limited to:

Phase 1:

(a) Collection of approximately 150 stream sediment samples at 100 metre sample spacing. Sampling should be concentrated along tributaries between east of Slesse Creek, and the west of Chilliwack batholith contact. As part of a standard quality control /quality assurance program, ten percent (10%) of all samples should be collected in duplicate (i.e. An additional 15 samples; 165 samples total)

(b) Geologic mapping and collection of approximately 50 rock samples from the anomalous zones identified by the 2012 soil sampling Program. Collection of approximately 150 rock grab and rock chip samples from fault imbricated lithologies to the north of the Boundary Red Mountain Mine and to the west of the margin of the Chilliwack batholith (A total of 200 rock samples). As part of a standard quality control /quality assurance program, ten percent (10%) of all samples should be collected in duplicate (i.e. An additional 20 samples; 220 samples total)

Phase 2, contingent on the results of Phase 1: Acquisition of a helicopter-borne time domain electromagnetic and magnetic survey with 100 metre spaced survey lines (approximately 250 Line-Kilometres, at \$250/Line-Km all up). Flight lines should be oriented east to west, perpendicular to the dominant lithological and structural trends.

The total cost to complete the recommended exploration is CDN \$134,775 which is summarized in Table 5 below.

Table 5. Recommended Exploration Budget

<u>Budget Item</u>	<u>Estimated Cost</u>
PHASE 1: Geologic Mapping, Prospecting, Rock Grab, Chip and Stream Sediment Geochemical Sampling	
Salaries Field/Office - 2 Geologists and 2 Students for 16 days field	\$28,800.00
Accommodations and Meals - 14 days	\$8,400.00
Helicopter (1.0 hours / day for 14 days @ \$1,200/ hour)	\$16,800.00
Truck and operating expenses (gas)	\$1,800.00
Field gear - hammers, compasses, GPS, sat phone, radios, etc.	\$3,000.00
Analytical - 385 samples @ \$35 / sample	\$13,475.00
<b>TOTAL PHASE 1</b>	<b>\$72,275.00</b>
PHASE 2: Airborne electromagnetic and magnetic survey (250 line-km @ \$250/line-km)	<b>\$62,500.00</b>
<b>Total Project Costs, Excluding GST</b>	<b>\$134,775.00</b>

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### 13 Certificate of Author

I, Kristopher J. Raffle, residing at 1277 Nelson Street, Vancouver, British Columbia, Canada do hereby certify that:

1. I am a Senior Geologist employed by APEX Geoscience Ltd. ("APEX"), Suite 200, 9797 – 45 Avenue, Edmonton, Alberta, Canada. I am the author of the report entitled: "Technical Report for the Slesse Creek Property, Sardis British Columbia", and am responsible for the preparation of the entire report.
2. I am a graduate of the University of British Columbia, Vancouver, British Columbia with a B.Sc. in Geology (2000) and have practised my profession continuously since 2000.
3. I am a Professional Geologist registered with APEGGA (Association of Professional Engineers, Geologists and Geophysicists of Alberta), and a 'Qualified Person' in relation to the subject matter of this report.
4. I have not received, nor do I expect to receive, any interest, directly or indirectly, in the Slesse Creek Property and do not hold securities of Wedge Resources Pty. Ltd. I did not have any prior involvement with the Property.
5. To the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
6. I have read and understand National Instrument 43-101 and the Report has been prepared in compliance with the instrument. I am considered independent of the issuer as defined in Section 1.5.
7. I visited the Property that is the subject of this Report during April 2008 and directed exploration at the Property on behalf of Wedge Resources Pty. Ltd.
8. I hereby consent to the use of this Report and my name in the preparation of a prospectus for the submission to any Provincial or Federal regulatory authority.



Kristopher J. Raffle, B.Sc., P.GeoL.

Edmonton, Alberta, Canada  
January 14, 2013

## Appendix 1 – 2012 Soil Sample Descriptions

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12AHS001	599961	5428668	1	10		MOD	Moist	Medium Brown	Feldspar	MED	POOR		4.1	9.6	109	78
12AHS002	599936	5428635	1	10	MOSS	MOD	Moist	Medium Brown	Feldspar	MED	POOR		2.7	4.5	117	80
12AHS003	599937	5428619	3	10			Moist	Medium Brown	Feldspar	MED	POOR		2.5	11.1	99.8	83
12AHS004	599970	5428678		10		MOD		Medium Brown	Feldspar	MED	POOR		2.7	7.6	76.7	70
12AHS005	599979	5428704	10	20		MOD	Moist	Medium Brown	Feldspar	MED	MED		3.3	6.2	84.8	55
12AHS006	600009	5428717	10	50	MOSS	MOD	Moist	Dark Brown	Feldspar	MED	POOR		1.7	5.5	31.6	55
12AHS007	600031	5428727		30		MOD	Moist	Dark Brown	Feldspar	MED	POOR		2.3	6.7	37	112
12AHS008	600432	5428588	40	15	DEC/MOSS	MOD	Moist	Medium Brown	Feldspar			ORGANIC RICH	0.5	1.6	3.8	12
12AHS009	600432	5428588	40	15	DEC/MOSS	MOD	Moist	Medium Brown	Feldspar	MED		DUPLICATE OF 12AHS008; ORGANIC RICH	1.2	15	11.6	24
12AHS010	600540	5428367	5	10	DEC/MOSS	MOD		Red/Brown	Feldspar	MED	POOR		8.1	28	73.9	133
12AHS011	600490	5428363	3	20		MOD	Moist	Red	Feldspar		MED		1.6	12.5	22.2	89
12AHS012	600441	5428365	10	20	DEC/MOSS		Moist	Dark Brown	Feldspar	MED	POOR	ORGANICS	9.4	34.8	66.4	149
12AHS013	600401	5428380	3	15	DEC/MOSS		Dry	Medium Brown	Feldspar	POOR	POOR		16	56.9	68.1	68
12AHS014	600357	5428389	3	10	DEC/MOSS		Dry	Medium Red/Brown	Feldspar	MED	POOR		14.6	13.8	80.6	57
12AHS015	600308	5428397	5		DEC/MOSS		Dry	Medium Brown	Feldspar	POOR	MED		4.7	7.4	115	76

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12AHS016	600264	5428410	10	20	DEC/MOSS		Moist	Dark Red/Brown	Feldspar	MED	MED		5.3	3.3	45.7	47
12AHS017	600234	5428439			DEC/MOSS		Moist	Dark Brown	Feldspar	WELL	MED		0.6	3.8	33.6	29
12CLS501	600127	5428662	5	20	DEC/GRS/MOS S	MOD	Moist	Red/Brown	Feldspar	MED	MED		3.5	3.4	98.6	62
12CLS502	600148	5428675	10	20		WF	Moist	Red/Brown	Feldspar	MED	WELL		1.8	2.8	49.2	69
12CLS503	600173	5428686	15	25	CON	MOD	Moist	Red/Brown	Feldspar	POOR	MED		5.8	7.2	64.2	42
12CLS504	600108	5428651	15	30	DEC/GRS/MOS S	MOD	Moist	Medium Red/Brown	Feldspar	POOR	POOR		1.3	2.7	46.5	55
12CLS505	600081	5428642	10	20	CON/DEC/GRS /MOSS	WF	Moist	Medium Red/Brown	Feldspar	MED	WELL		3.1	4.3	81.9	69
12CLS506	600060	5428624	1	20	CON/DEC/GRS /MOSS	WF	Moist	Medium Brown		MED	WELL		2.9	3.4	73.8	57
12CLS507	600044	5428606	1	15	CON/DEC/GRS /MOSS	WF	Moist	Medium Red/Brown	Feldspar		POOR		3.5	5.2	95.3	74
12CLS508	600038	5428588	5	15	DEC/GRS/MOS S	WF	Moist	Medium Brown	Feldspar	MED	POOR		6.4	3.7	146	82
12CLS509	600024	5428564	2	20	CON/DEC/GRS /MOSS	WF	Moist	Medium Brown		MED	MED		2.8	11.3	71.2	77
12CLS510	600017	5428542	5	20	CON/DEC/GRS /MOSS	WF	Moist	Medium Brown	Feldspar	POOR	POOR		4.6	7.7	84.8	69
12CLS511	600444	5428568	20	15	CON/MOSS	WF	Dry	Medium Red/Brown		MED	WELL	ORGANIC RICH	0.5	1	3.9	14
12CLS512	600564	5428361	5	30	CON/DEC/GRS /MOSS	WF	Moist	Medium Brown		MED	MED		9.7	29.8	61.9	118
12CLS513	600515	5428366	2	20	CON/DEC/GRS /MOSS	WF	Moist	Medium Red/Brown		MED	WELL		10.6	16.8	77.4	122

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12CLS514	600465	5428355	5	20	CON/DEC/GRS /MOSS	WF	Moist	dark brown		WELL	MED		8.4	35	95.8	60
12CLS515	600417	5428359	8	10	CON/DEC/GRS /MOSS	WF	Moist	dark brown		MED	POOR	ORGANIC RICH	9.7	27.8	98.2	76
12CLS516	600380	5428393	5	10	CON/MOSS	WF	Dry	Dark Red/Brown		POOR	MED	ORGANIC RICH	7.4	18	103	71
12CLS517	600331	5428387	5	20	CON/MOSS	WF	Dry	Medium Brown		POOR	MED	ORGANICS	10.7	9.8	88.6	62
12CLS518	600289	5428412			CON/DEC/MO SS	WF	Moist	Dark Red/Brown		MED	MED	ORGANIC RICH	2.7	4.7	50.7	44
12CLS519	600242	5428415	10	20	CON/DEC/GRS /MOSS	WF	Dry	Dark Red/Brown		MED	POOR		4.7	3.9	54.2	40
12CLS520	600216	5428458	40		CON/DEC/GRS /MOSS	WF	Moist	Dark Red/Brown		MED	POOR	ORGANIC RICH; MIXED O AND B HORIZON, MANY BOULDERS	0.8	3.9	29	25
12CLS521	600216	5428458			CON/DEC/GRS /MOSS	WF	Moist	Dark Red/Brown/ BLK		MED	POOR	DUPLICATE OF 12CLS020; ORGANIC RICH; MIXED O AND B HORIZON, MANY BOULDERS	1.3	3.8	24.9	23
12ERS500	600902	5428416	30	10	n/a	WF	Dry	Medium Brown		MED	POOR		4.5	3.2	89.2	37
12ERS501	600878	5428434	40	5	n/a	WF	Dry	Medium Brown		MED	MED		3	5.2	86.1	37
12ERS502	600865	5428435	40	10	n/a	WF	Dry	BRN		MED	POOR		1	2.8	128	41

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12ERS503	600830	5428465	30	10	n/a	WF	Dry	light brown		MED	WELL		1.8	2.6	65.9	49
12ERS504	600816	5428483	30	10	n/a	WF	Dry	light brown		MED	WELL		1	2.5	63.2	55
12ERS505	600805	5428506	30	10	n/a	WF	Dry	Medium Brown		POOR	WELL		0.5	3.7	81.2	57
12ERS506	600797	5428521	35	10	n/a	WF	Dry	Medium Brown		MED	POOR		3.5	4.1	393	86
12ERS507	600760	5428544	40	10	n/a	WF	Dry	Light Brown		MED	MED		0.5	3.8	180	62
12ERS508	600744	5428565	30	10	n/a	WF	Dry	Light Brown		MED	MED		3	4.1	421..	59
12ERS509	600728	5428587	30	5	n/a	WF	WET	Medium Brown		WELL	WELL		3.1	12.8	97.9	157
12ERS510	600708	5428602	30	10	n/a	WF	B	Medium Brown		MED	MED	Sample location estimated, GPS reception bad	8.4	6	108	72
12ERS511	600670	5428633	30	10	n/a	WF	Dry	Medium Brown		POOR	WELL	GPS reception very bad. Sample location more south	0.5	3.9	37.4	40
12ERS512	600648	5428645	25	5	n/a	WF	Dry	Medium Brown		POOR	med	Very thin B-horizon	0.5	3	26.3	51
12ERS513	600626	5428653	30	10	n/a	WF	Dry	Medium Brown		MED	med		0.5	3.2	31.9	76
12ERS514	600799	5428376	30	10	n/a	WF	Dry	Medium Brown/Grey		POOR	MED		3.7	2.9	191	53
12ERS515	600777	5428394	30	10	n/a	WF	Dry	Light Brown/GRY		MED	MED		7.1	4.7	251	74

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12ERS516	600740	5428411	20	10	n/a	WF	Dry	Medium Brown					0.5	2	153	74
12ERS517	600735	5428444	20	10	n/a	WF	Dry	Medium Brown					1.1	3	328	67
12ERS518	600733	5428452	30	10	n/a	WF	Dry	Medium Brown		MED	MED		6.1	2.2	137	31
12ERS519	600686	5428477	30	10	n/a	WF	Dry	Medium Brown		MED	WELL		0.7	3.6	160	50
12ERS520	600481	5428564	20	10	n/a	WF	WET	Medium Brown/Grey		MED	POOR		20.8	6.9	150	70
12ERS521	600481	5428564	20	10	n/a	WF	WET	Medium Brown/Grey		MED	POOR		9.9	6.9	152	71
12ERS522	600499	5428558	30	10	n/a	WF	Moist	Medium Brown		MED	MED		6.1	9.4	82.7	69
12ERS523	600523	5428565	25	10	n/a	WF	Dry	Medium Brown		POOR	WELL		3.3	6.5	52.9	31
12ERS524	600545	5428573	25	10	n/a	WF	Dry	Medium Brown		MED	WELL		0.5	3.9	29.3	90
12ERS525	600583	5428551	25	10	n/a	WF	Dry	Medium Brown		MED	MED		3.1	9.1	78.4	46
12ERS526	600604	5428558	25	10	n/a	WF	Dry	Medium Brown					4.6	13.7	46.4	59
12ERS527	600618	5428546	25	10	n/a	WF	Dry	Medium Brown					5.5	14.7	62.2	47
12ERS528	600635	5428517	30	10	n/a	WF	Dry	Medium Brown					8.1	25.9	62.6	57
12ERS529	600640	5428500	20	7	n/a	WF	Dry	Light Brown		MED	MED	Not possible to get to the proposed sample location due to steep cliff	2.8	15.3	66	76

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12ERS530	600678	5428482	30	10	n/a	WF	Dry	BRN					0.5	2.8	230	84
12ERS531	600213	5428593			n/a	WF						Soil Card Missing	2.4	6.6	123	78
12ERS532	600231	5428576	20	10	n/a	WF	Dry	Medium Brown		POOR	MED		1.5	4.1	114	66
12ERS533	600261	5428554	30	10	n/a	WF	Dry	Medium Brown		MED	MED		3.2	5.6	136	89
12ERS534	600275	5428540	20	10	n/a	WF	Dry	Medium Brown		MED	MED		1.2	4.6	108	77
12ERS535	600296	5428529	20	10	n/a	WF	Dry	Medium Brown		MED	MED		1.9	3.3	131	101
12ERS536	600311	5428520	20	10	n/a	WF	Dry	Medium Brown					2.4	4.2	133	103
12ERS537	600341	5428510	20	10	n/a	WF	Dry	Medium Brown		MED	MED		3.4	7.9	126	73
12ERS538	600365	5428488	20	10	n/a	WF	Moist	Medium Brown		MED	POOR		9.1	8.6	141	72
12ERS539	600383	5428475	25	10	n/a	WF	Dry	Medium Brown		MED	MED		2.7	6.1	23.7	44
12ERS540	600403	5428470	20	10	n/a	WF	Dry	Light Yellow/Brown		MED	MED	Original	5.3	9.3	58.4	41
12ERS541	600403	5428470	20	10	n/a	WF	Dry	Light Yellow/Brown		MED	MED	Duplicate of 12ERS540	3.3	9.2	44.9	35
12ERS542	600449	5428450	25	10	n/a	WF	Moist	Medium Brown		MED	MED		198.1	12.3	128	148
12ERS543	600475	5428451	25	10	n/a	WF	Moist	Light Brown		MED	POOR		5.3	14.6	121	125
12ERS544	600535	5428460			n/a	WF	Dry	Dark Brown		MED	MED		2	9.1	19.5	60
12ERS545	600544	5428439			n/a	WF	Moist	Light Brown		POOR	WELL		4	9.5	26.5	36
12ERS546	600592	5428424	30	10	n/a	WF		Medium Brown		MED	POOR		11.7	6.1	232	60
12ERS547	600599	5428387	30		n/a	WF		Medium Brown		MED	MED		2.6	13.8	41.1	157

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12ERS548					n/a	WF						Soil Card Missing	4.8	17.9	32.3	102
12ERS549	600650	5428922	30	10	n/a	WF	Dry	Medium Red/Brown		MED	MED		2.6	7.3	56	40
12ERS550	600628	5428913	30	10	n/a	WF	Dry	Light Brown		MED	MED		2.9	10.2	38.1	55
12ERS551	600605	5428928	25	10	n/a	WF		Medium Brown		POOR	POOR		11.4	9.6	62.8	56
12ERS552	600585	5428943	25	10	n/a	WF	Dry	Light Brown		MED	MED		4.2	7.8	60.9	41
12ERS553	600564	5428957	30	10	n/a	WF	Dry	Light Brown		MED	MED		1.1	7.2	28.1	34
12ERS554	600542	5428975	25	10	n/a	WF	Dry	Medium Brown					2.6	7.3	62.5	59
12ERS555	600526	5428991	30	10	n/a	WF	Dry	Light Brown		MED	MED		1.1	6.2	25.4	55
12ERS556	600506	5429010	40	10	n/a	WF	Dry	Medium Brown		MED	MED		6.1	6.2	86.1	149
12ERS557	600492	5429023	30	10	n/a	WF	Dry	Medium Brown		MED	MED		3.4	7.5	73.8	166
12ERS558	600464	5429033	30	10	n/a	WF	Dry	Medium Brown		MED	MED		2.3	6.4	61.7	113
12ERS559	600428	5429055	30	10	n/a	WF	Dry	Light Brown		MED	MED		6.7	8.5	116	103
12ERS560	600402	5429074			n/a	WF	Dry	Medium Brown		POOR	MED	ORIGINAL	0.9	6.1	73.7	94
12ERS561	600402	5429074			n/a	WF	Dry	Medium Brown		POOR	MED	DUPLICATE OF 12ERS560	0.9	6.3	72.7	98
12ERS562	600374	5429086	20	10	n/a	WF	Dry			MED	MED		4.5	6.9	83	77
12ERS563	600348	5429083	25	10	n/a	WF	Dry	Light Brown					6.6	3.2	25.2	46
12ERS564	600329	5429096	30	10	n/a	WF	Dry			MED	MED		25.9	4.9	37.2	64
12ERS565	600304	5429091			n/a	WF		Medium Brown		MED	MED		2.8	6.3	52.6	69

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12KPS001	601244	5428416	15	10	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		0.5	4.2	56.9	64
12KPS002	601186	5428456	15	10	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		0.5	10.4	26.6	56
12KPS003	601161	5428522	15	10	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	POOR	POOR	Coordinates approximate. Sample paced from previous sample in along elevation.	0.5	3.1	10	26
12KPS004	601100	5428571	15	15	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED	Coordinates approximate. Sample paced from previous sample in along elevation.	0.5	7.5	60	61
12KPS005	601064	5428605	10	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	POOR	Coordinates approximate. Sample paced from previous sample in along elevation.	0.5	4.8	42.2	56

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12KPS006	601030	5428655	15	20	CON/DEC/MOSS	WF	Moist	Medium Brown	Feldspar	POOR	POOR	Coordinates approximate. Sample paced from previous sample in along elevation.	6.7	14.6	57.6	92
12KPS007	601023	5428678	30	25	CON/DEC/MOSS	WF	Moist	Medium Brown	Feldspar	MED	MED	Coordinates approximate. Sample paced from previous sample in along elevation.	0.9	4.9	39.6	44
12KPS008	600979	5428695	30	10	CON/DEC/MOSS	WF	Moist	Dark Brown	Feldspar	MED	MED	Coordinates approximate. Sample paced from previous sample in along elevation.	1.9	2.5	24.1	80
12KPS009	600961	5428711	20	15	CON/DEC/MOSS	WF	Dry	Medium Brown	Feldspar	MED	MED		1.4	4.6	47.7	32
12KPS010	600921	5428745	10	20	CON/DEC/MOSS	WF	Moist	Medium Brown	Feldspar	MED	MED		0.5	11.3	30.1	72

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12KPS011	600891	5428749	25	1	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		1.1	16.8	39.4	55
12KPS012	600844	5428768	10	20	CON/DEC/MO SS	WF	Moist	Dark Brown	Feldspar	MED	MED		1.7	4.9	54.9	56
12KPS013	600831	5428792	10	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		11.3	5	78.5	59
12KPS014	600812	5428807	30	20	CON/DEC/MO SS	WF	Moist	Dark Brown	Feldspar	MED	MED		57.7	15.7	71.4	89
12KPS015	600794	5428824	25	15	CON/DEC/MO SS	WF	Moist	Dark Brown	Feldspar	MED	MED		8.3	6.7	57.4	82
12KPS016	600778	5428837	15	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		5.3	10.7	33.6	70
12KPS017	600753	5428848	10	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		3.6	9.6	39.1	68
12KPS018	600734	5428870	20	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		6.9	5.7	50.6	62
12KPS019	600714	5428884	15	25	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		2.3	7.3	74.7	69
12KPS020	600701	5428897	15	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED	Original	20.8	5.6	41.5	58
12KPS021	600701	5428897	15	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED	Duplicate of 12KPS020	8.9	5.7	41.5	57
12KPS022	600678	5428915	15	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	WELL	MED		7.9	5.1	24.9	37
12KPS023	600320	5428748	15	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	POOR		0.5	3.2	47.3	54
12KPS024	600351	5428740	15	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		4.4	4.2	119	97
12KPS025	600396	5428716	15	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		8.5	12.3	40.8	208
12KPS026	599924	5428923	10	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	POOR		5.2	29	96.3	166
12KPS027	599938	5428935	10	20	CON/DEC/MO SS	WF	Moist	Dark Brown	Feldspar	MED	MED		4	17.8	37.3	67
12KPS028	599960	5428948	20	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		2.1	17.5	26.4	110

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12KPS029	599987	5428959	5	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		3.4	6	66.8	80
12KPS030	600011	5428972	12	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		8	5.6	50.9	66
12KPS031	600024	5428988	30	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		6.5	6.5	62.2	54
12KPS032	600042	5429007	0	40	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		4.9	6.8	68.6	63
12KPS033	600059	5429024	20	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		4.9	4.6	40.3	67
12KPS034	600082	5429042	10	40	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		4.2	3.9	37.6	57
12KPS035	600104	5429051	30	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		3.3	5.8	33.9	50
12KPS036	600132	5429058	15	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		29.4	3.2	12.7	33
12KPS037	600148	5429063	20	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		1.6	5.5	19.3	43
12KPS038	600176	5429066	10	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		4	6.7	48.3	68
12KPS039	600194	5429078	10	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		6.2	7.5	58.1	82
12KPS040	600194	5429078	30	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED	Original	1.6	4.9	43.7	76
12KPS041	600215	5429093	30	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED	Duplicate of 12KPS040	2.1	4.8	46.1	77
12KPS042	600235	5429105	20	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		1.2	4.8	29.5	41
12KPS043	600260	5429105	15	30	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		2.8	5.7	28.5	54
12KPS044	600269	5429099	20	20	CON/DEC/MO SS	WF	Moist	Medium Brown	Feldspar	MED	MED		0.5	5.4	16.2	35
12KPS045	600197	5428596	5	15	CON/DEC/GRA SS/MOSS	WF	Moist	Medium Brown	Feldspar	MED	POOR		5.1	7.1	143	72

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12KPS046	600174	5428594	10	20	CON/DEC/GRASS/MOSS	WF	Moist	Medium Brown	Feldspar	MED	MED		2.3	5.4	72.5	54
12KPS047	600149	5428592	10	20	CON/DEC/GRASS/MOSS	WF	Moist	Medium Brown	Feldspar	MED	MED		5.3	3.8	156	78
12KPS048	600126	5428544	5	10	CON/DEC/GRASS/MOSS	WF	Moist	Medium Brown	Feldspar	MED	POOR		5.3	2.7	107	72
12KPS049	600127	5428526	5	10	CON/DEC/GRASS/MOSS	WF	Moist	Medium Brown	MIX	WELL	POOR		5.4	5.1	157	71
12KPS050	600108	5428508	10	20	CON/DEC/GRASS/MOSS	WF	Moist	Dark Brown	Feldspar	MED	POOR		1.6	4.2	58.3	32
12KPS051	600092	5428474	10	10	CON/DEC/GRASS/MOSS	WF	Moist	Dark Brown	Feldspar	POOR	POOR		0.5	3.1	41.8	28
12KPS052	600079	5428457	10	20	CON/DEC/GRASS/MOSS	WF	Moist	Medium Brown	Feldspar	MED	POOR		1	3.9	31.3	30
12KPS053	600426	5428587	10	20	CON/DEC/GRASS/MOSS	WF	Moist	Medium Brown	Feldspar	MED	POOR		1.4	6.7	15.9	29
12KPS054	600326	5428640	20	20	CON/DEC/MOSS	WF	Moist	Medium Brown	Feldspar	MED	MED		0.5	2.9	40.2	44
12KPS055	600342	5428632	15	20	CON/DEC/MOSS	WF	Moist	Medium Brown	Feldspar	MED	MED		1.2	3.3	23.8	35
12KPS056	600364	5428619	15	15	CON/DEC/MOSS	WF	Moist	Medium Brown	Feldspar	MED	MED		5.5	11.3	25.7	171
12KPS057	600383	5428578	25	30	CON/DEC/MOSS	WF	Moist	Medium Brown	Feldspar	WELL	WELL		2.3	3.5	30.1	53
12KPS058	600400	5428561	15	20	CON/DEC/MOSS	WF	Moist	Medium Brown	Feldspar	WELL	WELL	ORIGINAL	4.3	5	38.4	80
12KPS059	600400	5428561	15	20	CON/DEC/MOSS	WF	Moist	Medium Brown	Feldspar	WELL	WELL	DUPLICATE OF 12KPS058	2	5	38.8	83

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12MBS001	601256	5428394	30	10	n/a	WF	Moist	Medium Brown		WELL	MED		1.1	4.4	38.3	82
12MBS002	601186	5428490	40	10	n/a	WF	Moist	Medium Brown		MED	MED		3.2	4.2	24	43
12MBS003	601120	5428556	30	10	n/a	WF	Moist	light brown		POOR	MED		3.3	22.3	53.2	120
12MBS004	601080	5428588	35	10	n/a	WF	Moist	light brown		POOR	MED	No GPS signal, 50m from 12MBS003 at same elevation	2	4.7	51.1	61
12MBS005	601050	5428621	35	10	n/a	WF	Moist	Medium Brown		MED	POOR	No GPS signal, 50m from 12MBS004 at same elevation	1.9	14.1	63	121
12MBS006	601115	5428397	30	10	n/a	WF	Moist	Medium Brown		MED	POOR		8.4	5.1	21.2	64
12MBS007	601101	5428414	35	10	n/a	WF	Moist	medium yellow-brown		MED	MED		4.1	4.1	46.7	76
12MBS008	601079	5428437	30	10	n/a	WF	Moist	Medium Brown		POOR	MED		0.7	2.6	30.3	59
12MBS009	601062	5428446	35	10	n/a	WF	Moist	Medium Brown		MED	MED		2.4	3.2	46.9	77
12MBS010	601040	5428462	30	10	n/a	WF	Moist	Medium Brown		MED	MED		1.7	4	47.4	42
12MBS011	601013	5428480	20	10	n/a	WF	Moist	light brown		MED	MED		4.2	3.2	55.1	60
12MBS012	600995	5428497	25	10	n/a	WF	Moist	dark brown		MED	MED		2.3	5.8	44.4	63
12MBS013	600980	5428517	30	10	n/a	WF	Moist	light yellow brown		MED	POOR		1.5	3.5	32.9	39

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12MBS014	600967	5428539	25	10	n/a	WF	Moist	medium yellow-brown		MED	MED		3.1	2.7	45.4	31
12MBS015	600939	5428548	20	10	n/a	WF	Moist	light yellow brown		MED	POOR		4.5	2.4	155	64
12MBS016	600922	5428567	30	10	n/a	WF	Moist	light brown		MED	MED		2.9	7	107	98
12MBS017	600889	5428594	30	20	n/a	WF	Moist	light brown		MED	POOR		5.4	5.2	125	73
12MBS018	600875	5428611	25	10	n/a	WF	Moist	light brown		MED	POOR		4.1	6.7	128	72
12MBS019	600858	5428627	20	15	n/a	WF	Moist	light brown		MED	POOR		4.6	15.5	53.9	71
12MBS020	600838	5428637	20	15	n/a	WF	Moist	light brown		MED	POOR		4.2	3.5	221	83
12MBS021	600838	5428637	20	15	n/a	WF	Moist	light brown		MED	POOR		5.1	3.6	226	86
12MBS022	600818	5428646	35	20	n/a	WF	Dry	light brown		MED	POOR		4.2	4.3	306	71
12MBS023	600800	5428661	15	10	CON		Moist	Medium Brown		POOR	POOR		6.8	3.3	308	63
12MBS024	600772	5428694	15	10	CON		Dry	medium Red-brown		MED	MED		5.3	4.6	171	69
12MBS025	600764	5428711	15	10	CON		Dry	light brown		POOR	MED		18.9	6.2	87	81
12MBS026	600736	5428733	15	10	CON		Dry	Medium Brown		POOR	MED		25.3	14.1	70.1	113
12MBS027	600708	5428742	15	10	CON		Moist	medium yellow-brown		MED	POOR		16.9	9.1	35	119
12MBS028	600696	5428760	15	10	CON		Dry	light brown		MED	POOR		12.8	5.9	90.2	65
12MBS029	600668	5428759	15	10	CON		Dry	Medium Brown		POOR	POOR		4.1	14.7	37.9	41

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12MBS030	600644	5428765	25	10	CON		Dry	medium yellow-brown		MED	MED		3.2	6.4	50.2	78
12MBS031	600617	5428776	25	10	CON		Moist	medium yellow-brown		MED	POOR		5.1	9.5	27.1	64
12MBS032	600592	5428771	20	10	CON		WET	light brown		MED	POOR		1.7	2.9	41.2	91
12MBS033	600570	5428766	10	10	CON		Dry	light yellow-brown		MED	MED		1.4	4.2	42	46
12MBS034	600549	5428775	30	10	CON		Dry	light brown		MED	POOR		7.4	8.3	106	51
12MBS035	600535	5428782	20	10	CON		Moist	light yellow-brown		MED	MED		2.7	5	32.6	60
12MBS036	600516	5428813	10	10	CON		Dry	light yellow-brown		MED	MED		4.7	15.2	45.8	64
12MBS037	600495	5428817	15	10	CON		Dry	light brown		MED	MED		4.5	8.6	72.3	76
12MBS038	600474	5428833	10	15	CON		Dry	light yellow-brown		MED	MED		5.1	8.2	31	51
12MBS039	600454	5428844	10	10	CON		Dry	light yellow-brown		MED	MED		6	7.8	36.9	65
12MBS040	600426	5428857	10	15	CON		Moist	light brown		MED	POOR		6.1	10.3	126	102
12MBS041	600426	5428857	10	15	CON		Moist	light brown		MED	POOR		5	10.4	128	103
12MBS042	600405	5428873	10	10	CON		Moist	light brown		MED	POOR		11.8	8.8	109	74
12MBS043	600371	5428875	10	10	CON		Moist	light brown		MED	MED		4.3	6.5	116	89
12MBS044	600350	5428885	10	10	CON		Dry	light brown		MED	MED		3.8	8.7	41.8	73

## 2012 Slesse Creek Soil Samples

Sample	*Easting	*Northing	Depth	Thickness	**Vegetation	***Veg Intensity	Moisture	Matrix Colour	Lithology	Compaction	Sorting	Remarks	Au ppb	As ppm	Cu ppm	Zn ppm
12MBS045	600332	5428901	10	10	CON		Dry	light brown		MED	POOR		4.1	10.9	99.4	90
12MBS046	600304	5428894	10	15	CON		Dry	light brown		MED	POOR		4.8	10.7	62.9	76
12MBS047	600283	5428905	10	15	CON		Moist	light brown		MED	POOR		11.9	10.2	72	76
12MBS048	600258	5428909	10	10	CON		Moist	light brown		WELL	POOR	Some contamination with C? horizon	6.3	10.2	84.8	82
12MBS049	600234	5428923	10	10	CON		Moist	light brown		MED	POOR		5.1	10.1	87.8	85
12MBS050	600208	5428928	5	10	CON		Dry	light brown		MED	MED		9.1	8.9	67.8	87
12MBS051	600185	5428932	10	10	CON		Moist	light brown		MED	POOR		3.4	14.6	90.7	115
12MBS052	600162	5428926	10	15	CON		Dry	light brown		MED	POOR		4.2	8	49.1	60
12MBS053	600140	5428911	10	10	CON		Moist	light Red-brown		MED	MED		3.7	11.9	56.5	77
12MBS054	600122	5428900	10	8	CON		Dry	light brown		MED	POOR	Some mixing with C? horizon.	8.4	27.8	97.2	79
12MBS055	600097	5428881	10	10	CON		Moist	light brown		MED	MED		17.4	4	53.2	51
12MBS056	600077	5428867	25	10	CON		Dry	light brown		MED	POOR		2.7	6.2	34.1	121
12MBS057	600058	5428851	10	10	CON		Moist	light brown		MED	MED		3.5	4.5	47.2	140
12MBS058	600038	5428843	10	15	CON		Moist	light brown		MED	MED		1.9	2.4	14	40
12MBS059	600019	5428828	10	10	CON		Moist	Medium Brown		MED	MED		3.9	5.7	30.6	58

\*Nad 1983 Zone 10

\*\*CON- Coniferous/DEC-Deciduous/GRS-Grass

\*\*\*MOD - Moderately Forested/ WF- Well Forested

## Appendix 2 – 2012 Rock Sample Descriptions

**2012 Slesse Creek Rock Grab Sample**

Sample	Easting*	Northing*	Lithology	MATERIAL SAMPLED	COMMENTS	Au ppb	As ppm	Cu ppm	Zn ppm
12KPP201	600351	5428456	SILICIFIED METAVOLCANIC W/ QTZ VEIN	Outcrop	3x 1-3cm qtz veins parallel to foliation. Well foliated. Very gossenouts. In drainage.	0.5	2	76	56
12KPP202	600355	5428455	QTZ VEIN	TALUS	QTZ VEIN W/ INCLUSIONS OF CHL-SCHIST.	0.5	3	3	24
12KPP203	600366	5428458	QTZ VEIN	Outcrop		1.4	2	38	39
12KPP204	600399	5428451	SILICIFIED BT-SCHL SCHIST	Outcrop	DISSEMIANTED SULPHIDES. WELL FOLAITED./	7.7	2	105	88
12KPP205	600418	5428431	META-VOLCANIC	Outcrop		1.4	20	18	117
12KPP206	600447	5428412	SILICIFIED METAVOLCANIC	BLDR	IN DRAINAGE; FLOAT SAMPLE	1	21	65	109
12KPP207	600639	5428488	META-VOLCANIC W/ QTZ VEIN	Outcrop		0.9	5	18	16
12KPP208	600359	5428377	METABASITE	Outcrop	IRREGULAR FOLIATION. SULPHIDE ADJACENT TO 2CM VEINS. GOSSONOUS.	0.5	2	116	58
12KPP209	600235	5428410	METABASITE	Outcrop		0.5	2	59	63
12KPP210	600236	5428411	METABASITE	Outcrop		0.5	2	63	85
12KPP211	600219	5428459	DACITE	Outcrop		0.5	4	65	32
12KPP212	600556	5428366	ALTERED DACITE	Outcrop		26.6	34	24	104
12CLP301	600361	5428461	METAVOLCANIC (INT)	Outcrop	LAT METAVOLCANIC-CHL SCHIST; STRONG GREEN COLOUR; SILICIFIED; STRINGER; AGGREGATES OF SULPHIDES (WEAKLY MAGNETIC)	11.9	2	67	86
12CLP302	600361	5428460	INT METAVOLCANIC WITH QTZ VEIN	Outcrop	SAME AS 12CLP301 BUT INLCUDES 1CM QTZ VEIN; 1-2% DISS SULPH IN VEIN (MAINLY PY); VEIN: 130/55 (APPROX)	2	2	85	77
12CLP303	600394	5428452	QTZ VEIN IN INT METASED	Outcrop	QTZ VEIN MATERIAL IN INT METASEDS (CHL MICA SCHIST); EXTENSION SURFACE OXIDATION ON O/C (LIMONITE AND HEMATITE); SILVERY METALLIC MATERIAL (TR-1%) IN VEIN MATERIAL; ORIENTATION OF VEIN UNLCEAR SILICIFICATION OF HOST ROCK OVER PRINTED BY WEATHERING IN FRACTURED AREAS	2.3	2	52	32
12CLP304	600449	5428422	QTZ VEIN IN INT METAVOLCANIC	Outcrop	DEFORMED QTZ VEIN (STOCKWORK?) HOSTED IN METAVOLCANICS AZ/DIP UNCLEAR	0.6	4	12	20
12CLP305	600441	5428363	METAVOLCANIC (INT)	Outcrop	TRACE-1% DISSEMINATED PY IN FOLIATED METAVOLCANIC-FELSIC-INT	0.7	2	24	22

\*NAD83 Zone 10

**Appendix 3 – 2012 Analytical Certificates (Soil & Rock)**



1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

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Client: **APEX Geoscience Ltd.**

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Edmonton AB T6E 5V8 Canada

Submitted By: Kris Raffle  
Receiving Lab: Canada-Vancouver  
Received: November 13, 2012  
Report Date: November 23, 2012  
Page: 1 of 3

## CERTIFICATE OF ANALYSIS

VAN12005363.1

### CLIENT JOB INFORMATION

Project: 99142  
Shipment ID: 99142-3  
P.O. Number  
Number of Samples: 53

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Code					
Dry at 60C	53	Dry at 60C			VAN
SS80	53	Dry at 60C sieve 100g to -80 mesh			VAN
IDX2	53	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT-SOIL Immediate Disposal of Soil Reject

### ADDITIONAL COMMENTS

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: APEX Geoscience Ltd.  
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Edmonton AB T6E 5V8  
Canada

CC:



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\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Acme Analytical Laboratories (Vancouver) Ltd.

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Edmonton AB T6E 5V8 Canada

Project: 99142  
Report Date: November 23, 2012

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Part: 1 of 1

## CERTIFICATE OF ANALYSIS

VAN12005363.1

Analyte	Method	Unit	1DX15																			
			Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
			ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm							
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
12AHS001	Soil		1.1	108.6	7.6	78	<0.1	36.3	25.7	652	4.65	9.6	4.1	1.1	8	0.2	0.4	<0.1	202	0.23	0.066	3
12AHS002	Soil		0.8	117.2	7.9	80	0.1	35.3	32.1	1073	5.72	4.5	2.7	1.1	14	0.3	0.5	0.1	250	0.42	0.051	3
12AHS003	Soil		0.5	99.8	5.7	83	0.1	32.9	28.9	895	5.48	11.1	2.5	0.8	28	0.4	0.8	<0.1	255	1.03	0.054	2
12AHS004	Soil		1.0	76.7	8.5	70	0.2	25.6	19.9	734	4.32	7.6	2.7	1.0	6	0.2	0.3	0.1	197	0.18	0.065	4
12AHS005	Soil		0.7	84.8	6.4	55	<0.1	23.9	17.9	426	4.96	6.2	3.3	0.7	11	0.2	0.2	<0.1	218	0.24	0.046	2
12AHS006	Soil		1.8	31.6	11.2	55	0.2	12.1	9.8	686	3.47	5.5	1.7	0.7	4	0.4	0.3	0.2	110	0.10	0.051	3
12AHS007	Soil		2.2	37.0	13.7	112	0.2	15.7	8.6	460	3.43	6.7	2.3	1.0	5	0.3	0.5	0.2	137	0.08	0.046	3
12AHS008	Soil		<0.1	3.8	6.3	12	0.9	2.0	0.4	8	0.09	1.6	<0.5	<0.1	14	0.4	<0.1	<0.1	20	0.38	0.025	<1
12AHS009	Soil		2.3	11.6	16.5	24	0.5	3.3	2.0	68	3.08	15.0	1.2	1.9	6	0.2	0.7	0.2	122	0.11	0.023	7
12AHS010	Soil		2.9	73.9	37.2	133	0.5	19.4	9.3	262	6.75	28.0	8.1	1.2	7	0.3	1.1	0.2	108	0.16	0.063	3
12AHS011	Soil		1.8	22.2	30.7	89	0.4	12.9	13.3	331	3.62	12.5	1.6	1.0	9	0.6	0.4	0.2	86	0.21	0.035	6
12AHS012	Soil		4.5	66.4	33.3	149	0.4	27.5	27.1	667	6.44	34.8	9.4	1.4	15	1.0	1.2	0.2	102	0.33	0.084	5
12AHS013	Soil		6.5	68.1	66.2	68	1.2	9.8	4.3	245	11.39	56.9	16.0	1.7	3	0.1	2.4	0.2	137	0.04	0.075	3
12AHS014	Soil		2.1	80.6	25.6	57	0.4	16.4	10.3	342	8.07	13.8	14.6	1.2	3	<0.1	0.7	0.2	200	0.07	0.050	2
12AHS015	Soil		1.1	115.3	18.7	76	0.3	33.9	28.9	670	5.44	7.4	4.7	1.0	8	0.3	0.4	0.1	253	0.17	0.049	3
12AHS016	Soil		0.8	45.7	9.3	47	0.2	18.2	12.8	385	4.12	3.3	5.3	1.2	6	0.2	0.2	0.2	191	0.16	0.051	3
12AHS017	Soil		1.0	33.6	5.2	29	0.3	10.5	6.6	127	4.20	3.8	0.6	1.1	6	0.1	0.1	0.2	195	0.10	0.030	2
12CLS501	Soil		0.5	98.6	6.3	62	<0.1	22.9	24.6	874	5.21	3.4	3.5	0.6	17	0.2	0.1	0.1	219	0.42	0.030	2
12CLS502	Soil		0.7	49.2	5.8	69	0.1	12.0	19.0	521	4.25	2.8	1.8	1.0	8	0.1	0.1	0.1	156	0.15	0.031	3
12CLS503	Soil		0.9	64.2	14.0	42	<0.1	18.6	12.0	260	3.91	7.2	5.8	0.7	7	0.2	0.4	0.2	145	0.11	0.041	2
12CLS504	Soil		0.8	46.5	7.1	55	0.2	13.5	14.8	411	5.50	2.7	1.3	0.7	8	0.2	0.2	0.2	247	0.18	0.030	3
12CLS505	Soil		0.6	81.9	8.1	69	0.2	24.8	21.4	522	5.02	4.3	3.1	0.9	8	0.1	0.2	0.1	202	0.16	0.039	3
12CLS506	Soil		0.6	73.8	8.3	57	<0.1	21.2	19.5	585	4.61	3.4	2.9	0.7	12	0.2	0.2	0.1	177	0.24	0.038	2
12CLS507	Soil		0.6	95.3	7.6	74	<0.1	27.2	24.7	937	5.26	5.2	3.5	1.0	14	0.2	0.3	0.1	196	0.34	0.038	3
12CLS508	Soil		0.5	146.4	8.2	82	<0.1	41.4	38.0	1710	7.17	3.7	6.4	0.6	42	0.3	0.2	0.1	229	1.03	0.031	2
12CLS509	Soil		0.6	71.2	7.1	77	0.1	25.3	24.6	1160	5.08	11.3	2.8	0.5	16	0.1	0.3	0.1	216	0.46	0.040	2
12CLS510	Soil		0.6	84.8	7.1	69	0.2	27.5	25.7	907	5.56	7.7	4.6	0.6	19	0.2	2.8	0.1	207	0.53	0.034	2
12CLS511	Soil		<0.1	3.9	4.5	14	0.2	1.5	0.1	15	0.06	1.0	<0.5	<0.1	16	0.2	<0.1	<0.1	6	0.36	0.026	<1
12CLS512	Soil		2.2	61.9	27.7	118	0.3	20.5	15.5	269	4.63	29.8	9.7	1.2	9	0.4	0.6	0.2	116	0.21	0.047	5
12CLS513	Soil		1.8	77.4	16.7	122	0.4	19.0	12.3	268	3.99	16.8	10.6	1.4	9	0.5	0.2	107	0.21	0.043	5	

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Project: 99142  
Report Date: November 23, 2012

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## CERTIFICATE OF ANALYSIS

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Method	Analyte	1DX15															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
12AHS001	Soil	53	2.07	120	0.146	3	5.32	0.036	0.32	0.1	0.07	11.0	0.3	<0.05	11	0.7	<0.2
12AHS002	Soil	59	2.40	164	0.257	2	6.33	0.061	0.49	0.1	0.09	15.9	0.3	0.08	14	0.6	<0.2
12AHS003	Soil	52	2.57	210	0.210	2	4.89	0.116	0.65	0.1	0.03	14.9	0.3	0.14	12	0.7	<0.2
12AHS004	Soil	48	1.80	100	0.167	2	5.53	0.022	0.21	0.1	0.14	10.7	0.2	0.11	12	0.9	<0.2
12AHS005	Soil	47	1.79	103	0.178	2	4.97	0.052	0.09	0.1	0.15	10.5	0.2	0.09	12	0.6	<0.2
12AHS006	Soil	32	0.55	41	0.114	4	2.64	0.009	0.05	0.1	0.17	4.0	0.2	0.06	10	0.6	<0.2
12AHS007	Soil	29	0.83	48	0.135	2	3.34	0.011	0.04	0.2	0.20	5.9	0.2	<0.05	10	1.2	<0.2
12AHS008	Soil	6	0.06	21	0.003	4	0.10	0.006	0.01	<0.1	0.09	0.3	<0.1	0.07	<1	<0.5	<0.2
12AHS009	Soil	23	0.48	18	0.142	3	0.87	0.006	0.02	0.2	0.07	1.7	0.1	0.08	11	<0.5	<0.2
12AHS010	Soil	35	1.58	50	0.106	1	2.87	0.022	0.21	0.2	0.10	7.1	0.2	0.17	8	1.4	<0.2
12AHS011	Soil	19	0.49	31	0.146	1	2.74	0.009	0.03	0.2	0.11	3.8	0.2	<0.05	10	0.9	<0.2
12AHS012	Soil	33	1.10	109	0.079	2	2.88	0.016	0.24	0.2	0.09	5.3	0.3	0.15	7	2.0	<0.2
12AHS013	Soil	42	1.20	48	0.126	<1	2.20	0.011	0.22	0.2	0.08	6.6	0.3	0.39	10	3.8	<0.2
12AHS014	Soil	43	3.03	109	0.162	1	3.31	0.018	0.56	0.1	0.06	13.3	0.4	0.30	11	1.2	<0.2
12AHS015	Soil	57	4.18	173	0.209	2	6.18	0.025	0.61	0.1	0.07	17.1	0.4	0.06	13	0.5	<0.2
12AHS016	Soil	46	1.13	76	0.247	2	5.47	0.020	0.12	0.1	0.22	9.0	0.1	0.15	14	0.8	<0.2
12AHS017	Soil	43	0.39	54	0.309	1	4.04	0.013	0.03	0.2	0.15	4.6	<0.1	0.10	15	0.8	<0.2
12CLS501	Soil	38	1.75	154	0.248	3	4.93	0.071	0.39	0.1	0.09	15.8	0.2	<0.05	11	0.9	<0.2
12CLS502	Soil	23	1.03	91	0.253	3	4.86	0.024	0.08	0.1	0.17	9.5	0.1	<0.05	11	0.7	<0.2
12CLS503	Soil	36	0.95	64	0.161	<1	4.01	0.022	0.08	0.2	0.19	8.9	<0.1	<0.05	9	0.7	<0.2
12CLS504	Soil	28	1.06	86	0.312	<1	4.79	0.034	0.12	0.2	0.15	11.3	<0.1	<0.05	15	1.2	<0.2
12CLS505	Soil	41	1.58	132	0.276	1	5.91	0.028	0.23	0.1	0.11	13.9	0.1	<0.05	13	0.9	<0.2
12CLS506	Soil	44	1.70	118	0.234	1	4.76	0.050	0.30	0.1	0.12	12.2	0.1	<0.05	11	0.9	<0.2
12CLS507	Soil	48	2.03	147	0.247	<1	5.78	0.054	0.36	0.1	0.11	15.0	0.2	<0.05	12	0.6	<0.2
12CLS508	Soil	67	2.68	239	0.252	<1	6.44	0.099	0.97	0.1	0.03	19.5	0.3	<0.05	13	0.7	<0.2
12CLS509	Soil	46	2.08	125	0.218	1	4.99	0.071	0.25	0.1	0.12	13.2	0.2	<0.05	11	0.6	<0.2
12CLS510	Soil	53	2.44	153	0.246	<1	5.12	0.073	0.41	0.1	0.07	14.8	0.3	<0.05	11	<0.5	<0.2
12CLS511	Soil	1	0.04	21	0.001	1	0.08	0.007	0.02	<0.1	0.11	0.3	<0.1	<0.05	<1	0.9	<0.2
12CLS512	Soil	33	1.09	52	0.154	1	5.31	0.016	0.18	0.1	0.09	7.6	0.2	<0.05	10	1.2	<0.2
12CLS513	Soil	35	1.09	44	0.150	2	5.45	0.019	0.10	0.2	0.12	8.1	0.1	<0.05	10	1.1	<0.2

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Project: 99142  
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## CERTIFICATE OF ANALYSIS

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Analyte	Method	1DX15																			
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm							
		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
12CLS514	Soil	1.9	95.8	57.1	60	0.3	14.6	7.2	218	4.40	35.0	8.4	1.4	8	0.3	0.6	0.1	119	0.06	0.052	4
12CLS515	Soil	2.6	98.2	46.4	76	0.6	19.5	11.7	347	7.21	27.8	9.7	1.1	5	0.3	1.3	0.1	149	0.09	0.055	3
12CLS516	Soil	1.6	102.7	38.0	71	0.5	18.2	11.0	387	7.52	18.0	7.4	1.0	4	0.1	0.7	0.1	170	0.05	0.055	2
12CLS517	Soil	1.1	88.6	24.8	62	0.2	19.6	14.4	342	4.32	9.8	10.7	1.1	6	0.2	0.4	0.1	154	0.08	0.052	3
12CLS518	Soil	0.8	50.7	10.2	44	0.2	15.5	9.8	278	3.43	4.7	2.7	1.0	5	0.1	0.2	0.1	131	0.10	0.048	3
12CLS519	Soil	0.9	54.2	7.4	40	0.2	14.6	12.0	199	3.37	3.9	4.7	0.9	7	<0.1	0.3	0.2	169	0.12	0.034	3
12CLS520	Soil	0.8	29.0	6.7	25	0.3	11.4	6.8	126	4.27	3.9	0.8	0.4	11	0.1	0.3	0.2	176	0.22	0.034	2
12CLS521	Soil	0.6	24.9	6.7	23	0.4	10.5	6.3	117	3.81	3.8	1.3	0.4	10	0.2	0.3	0.2	171	0.20	0.036	2
12KPS045	Soil	0.7	142.5	7.3	72	0.1	29.1	33.6	1256	6.49	7.1	5.1	0.7	22	0.3	0.3	0.1	224	0.50	0.048	2
12KPS046	Soil	0.8	72.5	8.3	54	0.2	17.2	19.6	814	4.47	5.4	2.3	0.8	10	0.2	0.3	0.1	156	0.20	0.055	3
12KPS047	Soil	0.6	155.7	8.7	78	<0.1	36.6	34.2	1501	6.54	3.8	5.3	0.6	31	0.3	0.2	0.1	198	0.80	0.035	2
12KPS048	Soil	0.6	106.9	7.7	72	<0.1	22.5	25.8	1415	5.73	2.7	5.3	0.6	28	0.1	0.1	0.1	193	0.74	0.038	2
12KPS049	Soil	0.6	156.6	6.2	71	<0.1	28.4	29.9	1122	5.54	5.1	5.4	1.1	17	0.2	0.3	<0.1	194	0.24	0.032	3
12KPS050	Soil	0.5	58.3	5.6	32	0.1	15.9	9.3	297	4.23	4.2	1.6	0.4	11	<0.1	0.3	<0.1	160	0.23	0.032	1
12KPS051	Soil	0.4	41.8	6.5	28	0.2	8.0	4.6	161	2.54	3.1	<0.5	0.3	9	<0.1	0.2	0.1	102	0.17	0.049	2
12KPS052	Soil	0.6	31.3	8.9	30	0.2	9.0	5.9	280	3.62	3.9	1.0	0.6	9	<0.1	0.3	0.2	129	0.16	0.042	2
12KPS053	Soil	1.6	15.9	17.8	29	0.3	5.7	4.2	97	2.96	6.7	1.4	1.6	3	0.2	0.3	0.2	97	0.04	0.022	4
12KPS054	Soil	0.3	40.2	6.1	44	0.2	13.4	14.7	484	3.73	2.9	<0.5	0.5	12	0.2	0.2	0.1	166	0.25	0.033	2
12KPS055	Soil	0.5	23.8	8.5	35	0.3	11.2	8.1	212	3.62	3.3	1.2	0.6	7	0.2	0.1	0.1	144	0.13	0.057	2
12KPS056	Soil	6.6	25.7	24.7	171	0.4	9.7	8.7	168	6.05	11.3	5.5	0.8	10	1.8	1.0	0.2	162	0.21	0.070	4
12KPS057	Soil	1.4	30.1	15.4	53	0.8	8.6	13.6	195	3.64	3.5	2.3	0.7	11	0.5	0.2	0.1	132	0.18	0.028	3
12KPS058	Soil	0.9	38.4	12.6	80	0.3	18.6	19.9	249	3.91	5.0	4.3	1.3	8	0.5	0.3	0.2	138	0.13	0.025	4
12KPS059	Soil	0.9	38.8	12.9	83	0.3	19.3	20.2	255	4.03	5.0	2.0	1.3	8	0.4	0.3	0.1	136	0.14	0.024	3



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## CERTIFICATE OF ANALYSIS

VAN12005363.1

Method	Analyte	1DX15															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
12CLS514	Soil	34	1.73	84	0.116	1	5.48	0.012	0.12	0.2	0.13	9.6	0.1	<0.05	10	1.4	<0.2
12CLS515	Soil	40	2.23	93	0.142	<1	3.82	0.021	0.38	0.1	0.07	10.8	0.3	0.06	9	1.7	<0.2
12CLS516	Soil	45	3.79	103	0.166	2	4.35	0.013	0.47	0.1	0.07	14.5	0.4	0.15	10	2.0	<0.2
12CLS517	Soil	40	2.47	112	0.161	<1	4.95	0.014	0.37	0.1	0.09	12.2	0.2	<0.05	10	1.1	<0.2
12CLS518	Soil	35	1.23	59	0.186	1	4.67	0.014	0.14	0.1	0.11	9.1	<0.1	<0.05	10	1.7	<0.2
12CLS519	Soil	31	0.70	83	0.273	<1	2.89	0.015	0.15	<0.1	0.11	4.8	0.1	<0.05	10	<0.5	<0.2
12CLS520	Soil	39	0.52	52	0.191	1	1.78	0.011	0.02	0.1	0.13	3.1	<0.1	<0.05	12	<0.5	<0.2
12CLS521	Soil	33	0.42	51	0.192	<1	1.40	0.012	0.02	0.1	0.11	2.5	<0.1	<0.05	12	<0.5	<0.2
12KPS045	Soil	47	2.18	218	0.243	2	5.69	0.091	0.83	0.1	0.08	17.7	0.5	<0.05	12	0.7	<0.2
12KPS046	Soil	33	1.03	104	0.212	<1	4.03	0.037	0.24	0.2	0.11	9.4	0.3	<0.05	10	<0.5	<0.2
12KPS047	Soil	61	2.54	201	0.223	<1	6.19	0.119	1.04	<0.1	0.04	18.1	0.3	<0.05	12	0.6	<0.2
12KPS048	Soil	32	2.21	214	0.231	1	5.79	0.099	0.70	0.1	0.06	17.7	0.3	<0.05	12	<0.5	<0.2
12KPS049	Soil	42	2.16	277	0.238	<1	4.67	0.049	0.67	0.2	0.04	14.8	0.4	<0.05	11	<0.5	<0.2
12KPS050	Soil	43	1.09	83	0.201	2	2.91	0.049	0.08	0.2	0.13	8.3	0.2	<0.05	9	0.8	<0.2
12KPS051	Soil	15	0.54	45	0.143	2	1.40	0.023	0.07	0.2	0.16	2.7	<0.1	<0.05	7	0.8	<0.2
12KPS052	Soil	29	0.56	41	0.202	<1	2.39	0.013	0.03	0.2	0.13	3.8	<0.1	<0.05	9	1.2	<0.2
12KPS053	Soil	19	0.83	24	0.115	<1	2.05	0.006	0.03	0.1	0.11	3.4	<0.1	<0.05	8	0.7	<0.2
12KPS054	Soil	34	0.79	95	0.208	<1	3.44	0.056	0.06	0.1	0.17	6.7	<0.1	<0.05	10	<0.5	<0.2
12KPS055	Soil	27	1.07	66	0.197	1	2.81	0.014	0.06	0.1	0.17	6.5	<0.1	<0.05	11	<0.5	<0.2
12KPS056	Soil	30	0.99	78	0.117	1	3.56	0.006	0.09	0.1	0.15	4.4	0.2	<0.05	10	2.8	<0.2
12KPS057	Soil	20	1.17	58	0.187	<1	3.42	0.013	0.04	0.1	0.11	6.2	0.2	<0.05	10	1.6	<0.2
12KPS058	Soil	34	1.69	57	0.179	2	3.72	0.011	0.04	0.1	0.12	9.0	<0.1	<0.05	10	0.7	<0.2
12KPS059	Soil	34	1.73	59	0.176	<1	4.00	0.012	0.04	0.1	0.14	9.2	<0.1	<0.05	10	1.6	<0.2



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## QUALITY CONTROL REPORT

VAN12005363.1

Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
Pulp Duplicates																					
12CLS504	Soil	0.8	46.5	7.1	55	0.2	13.5	14.8	411	5.50	2.7	1.3	0.7	8	0.2	0.2	0.2	247	0.18	0.030	3
REP 12CLS504	QC	0.7	48.6	7.2	57	0.1	14.6	14.5	399	5.35	3.2	1.9	0.8	8	0.2	0.3	0.1	243	0.16	0.028	3
12KPS055	Soil	0.5	23.8	8.5	35	0.3	11.2	8.1	212	3.62	3.3	1.2	0.6	7	0.2	0.1	0.1	144	0.13	0.057	2
REP 12KPS055	QC	0.4	23.8	8.6	36	0.3	10.9	8.2	215	3.44	3.1	1.6	0.6	7	0.2	<0.1	0.1	138	0.13	0.065	2
Reference Materials																					
STD DS9	Standard	11.7	103.3	128.2	291	1.8	37.9	6.9	540	2.18	24.6	121.6	5.9	70	2.2	5.1	6.1	39	0.67	0.076	12
STD DS9	Standard	14.0	105.8	116.4	302	1.8	42.9	8.2	599	2.43	22.7	117.8	6.2	64	2.4	5.1	5.9	49	0.75	0.080	13
STD DS9 Expected		12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819	13.3
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1



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## QUALITY CONTROL REPORT

VAN12005363.1

Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																	
12CLS504	Soil	28	1.06	86	0.312	<1	4.79	0.034	0.12	0.2	0.15	11.3	<0.1	<0.05	15	1.2	<0.2
REP 12CLS504	QC	28	1.09	86	0.310	2	4.69	0.034	0.12	0.2	0.13	11.5	<0.1	<0.05	15	0.6	<0.2
12KPS055	Soil	27	1.07	66	0.197	1	2.81	0.014	0.06	0.1	0.17	6.5	<0.1	<0.05	11	<0.5	<0.2
REP 12KPS055	QC	29	1.08	67	0.213	<1	2.89	0.013	0.06	0.2	0.16	5.9	<0.1	<0.05	11	1.5	<0.2
Reference Materials																	
STD DS9	Standard	114	0.60	284	0.107	2	0.88	0.087	0.38	2.8	0.20	2.1	5.4	0.12	4	3.9	5.3
STD DS9	Standard	134	0.65	296	0.116	3	0.95	0.085	0.38	2.9	0.22	2.9	5.5	0.21	5	5.7	5.3
STD DS9 Expected		121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	2	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



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Submitted By: Kris Raffle  
Receiving Lab: Canada-Vancouver  
Received: November 13, 2012  
Report Date: November 23, 2012  
Page: 1 of 2

## CERTIFICATE OF ANALYSIS

VAN12005360.1

### CLIENT JOB INFORMATION

Project: 99142  
Shipment ID: 99142-4  
P.O. Number  
Number of Samples: 17

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	17	Crush, split and pulverize 250 g rock to 200 mesh			VAN
3A	17	Ignite samples, acid digest, Au by ICP-MS analysis	30	Completed	VAN
1D01	17	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT Dispose of Reject After 90 days

### ADDITIONAL COMMENTS

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: APEX Geoscience Ltd.  
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Edmonton AB T6E 5V8  
Canada

CC:



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.  
\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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## CERTIFICATE OF ANALYSIS

VAN12005360.1

Method	Analyte	WGHT	3A	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
		Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL		0.01	0.5	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
G1	Prep Blank	<0.01	1.1	<1	<1	<3	46	<0.3	4	4	550	1.88	<2	<2	4	59	<0.5	4	<3	34	0.45
G1	Prep Blank	<0.01	1.0	<1	<1	6	46	<0.3	4	4	553	1.90	<2	<2	4	58	<0.5	<3	<3	34	0.45
12CLP301	Rock	1.59	11.9	<1	67	<3	86	<0.3	72	26	759	4.57	<2	<2	<2	2	0.9	<3	<3	214	0.09
12CLP302	Rock	1.12	2.0	<1	85	4	77	<0.3	66	27	690	4.23	<2	<2	<2	2	0.9	<3	<3	185	0.06
12CLP303	Rock	0.43	2.3	1	52	4	32	<0.3	8	11	387	2.88	<2	<2	<2	4	<0.5	<3	<3	104	0.14
12CLP304	Rock	1.68	0.6	<1	12	<3	20	<0.3	8	7	116	1.21	4	<2	<2	9	<0.5	<3	<3	43	0.33
12CLP305	Rock	1.16	0.7	2	24	<3	22	<0.3	8	3	198	1.63	<2	<2	4	2	<0.5	<3	<3	12	0.08
12KPP201	Rock	2.38	<0.5	2	76	12	56	<0.3	18	17	502	3.59	<2	<2	<2	1	0.6	4	<3	163	0.04
12KPP202	Rock	1.59	<0.5	<1	3	<3	24	<0.3	6	4	252	1.19	3	4	<2	<1	<0.5	<3	<3	18	0.03
12KPP203	Rock	1.43	1.4	1	38	<3	39	<0.3	16	13	261	3.08	<2	<2	<2	<1	<0.5	<3	<3	124	0.04
12KPP204	Rock	1.02	7.7	2	105	41	88	0.3	20	31	432	4.98	<2	<2	<2	2	0.8	3	<3	151	0.05
12KPP205	Rock	1.35	1.4	2	18	5	117	<0.3	12	36	909	9.12	20	<2	<2	9	0.7	6	<3	489	0.60
12KPP206	Rock	2.31	1.0	2	65	18	109	0.6	13	15	840	3.70	21	<2	<2	24	0.8	3	<3	183	0.62
12KPP207	Rock	1.08	0.9	<1	18	<3	16	<0.3	8	17	106	1.99	5	<2	<2	193	0.6	4	<3	126	3.46
12KPP208	Rock	1.37	<0.5	2	116	3	58	<0.3	15	24	447	5.29	<2	<2	<2	2	0.8	6	<3	227	0.07
12KPP209	Rock	2.84	<0.5	<1	59	4	63	<0.3	5	13	371	3.30	<2	<2	<2	18	<0.5	<3	<3	135	0.47
12KPP210	Rock	2.52	<0.5	<1	63	<3	85	<0.3	6	15	326	4.01	<2	<2	<2	12	<0.5	<3	<3	186	0.36
12KPP211	Rock	0.59	<0.5	1	65	4	32	<0.3	5	16	246	2.96	4	<2	<2	14	<0.5	<3	<3	91	1.12
12KPP212	Rock	2.65	26.6	2	24	23	104	0.6	20	16	137	3.32	34	<2	<2	35	1.0	7	<3	35	0.77



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## CERTIFICATE OF ANALYSIS

VAN12005360.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Ga	S	Sc	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	5	1	5	0.05	5	
G1	Prep Blank	0.073	8	6	0.57	223	0.119	<20	0.96	0.07	0.50	<2	<5	<1	<5	<0.05	<5
G1	Prep Blank	0.072	8	7	0.58	223	0.121	<20	0.98	0.08	0.50	<2	<5	<1	<5	<0.05	<5
12CLP301	Rock	0.024	1	141	6.32	332	0.168	<20	5.41	0.02	1.99	<2	<5	<1	10	0.21	31
12CLP302	Rock	0.020	1	121	5.60	277	0.146	<20	4.84	0.02	1.65	<2	<5	<1	10	0.28	26
12CLP303	Rock	0.032	2	8	3.03	225	0.078	<20	2.63	0.04	1.00	<2	<5	<1	6	0.62	11
12CLP304	Rock	0.009	<1	15	0.61	11	0.032	<20	0.95	0.08	0.03	<2	<5	<1	<5	<0.05	<5
12CLP305	Rock	0.037	12	8	0.86	50	0.031	<20	0.89	0.04	0.61	<2	<5	<1	<5	0.79	<5
12KPP201	Rock	0.020	2	32	4.64	110	0.038	<20	3.85	0.02	0.36	<2	<5	<1	9	0.17	23
12KPP202	Rock	0.010	3	5	1.64	26	0.019	<20	1.33	<0.01	0.25	<2	<5	<1	<5	0.14	<5
12KPP203	Rock	0.017	1	33	4.15	208	0.086	<20	3.63	0.01	1.09	<2	<5	<1	6	0.38	16
12KPP204	Rock	0.034	1	10	3.27	170	0.105	<20	2.90	0.03	2.12	<2	<5	<1	7	2.68	14
12KPP205	Rock	0.064	2	15	3.16	26	0.088	<20	4.23	0.04	0.03	<2	<5	<1	14	0.11	34
12KPP206	Rock	0.027	2	19	2.58	202	0.154	<20	3.34	0.22	1.76	<2	<5	2	10	2.11	20
12KPP207	Rock	0.055	<1	10	0.58	97	0.084	<20	5.05	0.49	0.44	<2	<5	1	11	0.41	7
12KPP208	Rock	0.022	1	6	5.99	384	0.270	<20	5.65	0.03	3.10	<2	6	1	6	0.26	25
12KPP209	Rock	0.083	4	4	1.10	231	0.146	<20	2.00	0.14	0.79	<2	<5	<1	8	0.11	8
12KPP210	Rock	0.090	4	4	1.41	353	0.190	<20	2.29	0.13	1.51	<2	<5	<1	10	0.13	13
12KPP211	Rock	0.274	3	3	0.68	153	0.108	<20	1.20	0.13	0.28	<2	<5	<1	<5	0.44	5
12KPP212	Rock	0.018	1	7	1.03	42	0.010	<20	1.17	0.10	0.35	<2	<5	<1	<5	3.06	5



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**Client:**

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200 - 9797 45 Ave

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Project: 99142

Report Date: November 23, 2012

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## QUALITY CONTROL REPORT

VAN12005360.1



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## QUALITY CONTROL REPORT

VAN12005360.1

Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Ga	S	Sc	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	5	1	5	0.05	5	
Pulp Duplicates																	
12KPP208	Rock	0.022	1	6	5.99	384	0.270	<20	5.65	0.03	3.10	<2	6	1	6	0.26	25
REP 12KPP208	QC	0.021	1	7	5.92	374	0.268	<20	5.60	0.03	3.01	<2	7	<1	8	0.26	25
12KPP209	Rock	0.083	4	4	1.10	231	0.146	<20	2.00	0.14	0.79	<2	<5	<1	8	0.11	8
REP 12KPP209	QC																
Reference Materials																	
STD CDN-GS-P2A	Standard																
STD CDN-GS-P2A	Standard																
STD DS9	Standard	0.080	12	122	0.60	316	0.104	<20	0.92	0.08	0.39	2	<5	<1	<5	0.16	<5
STD OREAS45EA	Standard	0.029	7	879	0.09	143	0.088	<20	3.04	0.02	0.05	<2	<5	<1	<5	<0.05	83
STD DS9 Expected		0.0819	13.3	121	0.6165	330	0.1108		0.9577	0.0853	0.395	2.89	5.3	0.2	4.59	0.1615	2.5
STD OREAS45EA Expected		0.029	8.19	849	0.095	148	0.106		3.32	0.027	0.053			0.34	11.7	0.044	78
STD CDN-GS-P2A Expected																	
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<5	<1	<5	<0.05	<5
BLK	Blank																
Prep Wash																	
G1	Prep Blank	0.073	8	6	0.57	223	0.119	<20	0.96	0.07	0.50	<2	<5	<1	<5	<0.05	<5
G1	Prep Blank	0.072	8	7	0.58	223	0.121	<20	0.98	0.08	0.50	<2	<5	<1	<5	<0.05	<5



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Submitted By: Kris Raffle  
Receiving Lab: Canada-Vancouver  
Received: November 05, 2012  
Report Date: November 23, 2012  
Page: 1 of 5

## CERTIFICATE OF ANALYSIS

VAN12005265.1

### CLIENT JOB INFORMATION

Project: 99142  
Shipment ID: 99142-2  
P.O. Number  
Number of Samples: 94

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Code					
Dry at 60C	94	Dry at 60C			VAN
SS80	94	Dry at 60C sieve 100g to -80 mesh			VAN
IDX2	94	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT-SOIL Immediate Disposal of Soil Reject

### ADDITIONAL COMMENTS

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: APEX Geoscience Ltd.  
200 - 9797 45 Ave  
Edmonton AB T6E 5V8  
Canada

CC:



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.  
\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Acme Analytical Laboratories (Vancouver) Ltd.

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Project: 99142

Report Date: November 23, 2012

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Part: 1 of 1

## CERTIFICATE OF ANALYSIS

VAN12005265.1

Method	Analyte	1DX15																			
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		Unit	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm						
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
12ERS531	Soil	1.1	123.3	10.7	78	0.1	32.2	33.1	1088	5.71	6.6	2.4	0.8	19	0.2	0.4	0.2	199	0.40	0.059	2
12ERS532	Soil	0.8	113.9	11.7	66	0.2	29.2	26.4	696	4.82	4.1	1.5	1.0	17	0.2	0.3	0.2	200	0.34	0.045	3
12ERS533	Soil	0.5	135.5	6.3	89	0.2	34.3	34.2	1432	5.20	5.6	3.2	0.9	18	0.2	0.2	0.2	215	0.41	0.054	3
12ERS534	Soil	0.5	107.9	13.2	77	0.2	32.6	32.1	1179	4.90	4.6	1.2	0.5	21	0.3	0.2	0.1	191	0.49	0.074	2
12ERS535	Soil	0.4	130.9	7.5	101	<0.1	48.9	45.9	1378	6.18	3.3	1.9	0.6	18	0.6	0.2	<0.1	226	0.45	0.065	2
12ERS536	Soil	0.4	133.1	11.1	103	0.2	50.5	43.7	979	6.38	4.2	2.4	0.8	22	0.5	0.2	<0.1	239	0.47	0.051	2
12ERS537	Soil	0.9	125.5	19.6	73	0.2	29.1	21.7	437	4.56	7.9	3.4	1.4	8	0.1	0.3	0.2	170	0.11	0.063	4
12ERS538	Soil	1.3	140.9	15.4	72	0.4	23.4	18.1	389	3.73	8.6	9.1	1.0	16	0.4	0.4	0.2	142	0.27	0.058	4
12ERS539	Soil	1.3	23.7	11.9	44	0.2	12.0	8.2	194	4.25	6.1	2.7	1.0	9	0.2	0.3	0.2	146	0.24	0.031	4
12ERS540	Soil	1.6	58.4	20.4	41	0.2	12.1	6.8	167	5.67	9.3	5.3	2.7	4	0.2	0.4	0.3	156	0.07	0.029	4
12ERS541	Soil	2.1	44.9	22.5	35	0.2	9.7	5.7	147	5.99	9.2	3.3	2.5	5	0.2	0.6	0.3	169	0.07	0.028	4
12ERS542	Soil	1.0	127.7	22.2	148	0.3	60.7	28.0	570	4.30	12.3	198.1	2.9	69	0.7	0.5	0.2	110	0.37	0.060	6
12ERS543	Soil	1.2	120.5	26.9	125	0.1	44.0	28.1	507	5.05	14.6	5.3	1.6	10	0.1	0.3	<0.1	200	0.14	0.042	4
12ERS544	Soil	1.5	19.5	15.6	60	0.2	7.8	8.7	604	3.37	9.1	2.0	0.6	21	0.4	0.6	0.2	148	0.51	0.032	3
12ERS545	Soil	1.8	26.5	15.6	36	0.2	5.9	3.5	113	3.63	9.5	4.0	1.8	4	0.2	0.3	0.2	86	0.05	0.039	5
12ERS546	Soil	1.0	232.1	11.4	60	0.1	28.3	14.3	223	3.65	6.1	11.7	2.2	9	0.1	0.2	0.1	127	0.13	0.056	5
12ERS547	Soil	1.8	41.1	8.8	157	0.2	16.2	31.2	238	5.38	13.8	2.6	0.6	18	0.8	0.2	0.1	247	0.29	0.041	4
12ERS548	Soil	4.4	32.3	21.2	102	0.7	14.0	11.6	152	4.56	17.9	4.8	2.1	7	0.5	0.7	0.3	103	0.10	0.038	6
12ERS549	Soil	1.2	56.0	10.9	40	0.5	12.2	6.8	147	3.09	7.3	2.6	2.0	8	0.3	0.2	0.2	103	0.11	0.051	3
12ERS550	Soil	1.9	38.1	23.3	55	0.6	11.1	8.6	252	4.03	10.2	2.9	1.6	6	0.4	0.4	0.2	127	0.08	0.052	3
12ERS551	Soil	1.7	62.8	18.1	56	0.5	14.9	9.5	217	4.02	9.6	11.4	1.5	6	0.3	0.3	0.1	143	0.11	0.048	3
12ERS552	Soil	1.5	60.9	17.8	41	0.3	12.5	6.3	136	3.86	7.8	4.2	3.1	4	0.2	0.3	0.2	134	0.06	0.045	5
12ERS553	Soil	1.9	28.1	12.8	34	0.2	7.6	5.5	146	3.26	7.2	1.1	2.8	4	0.3	0.2	0.2	105	0.05	0.043	6
12ERS554	Soil	1.6	62.5	15.2	59	0.2	14.1	9.7	263	3.20	7.3	2.6	1.6	7	0.4	0.3	0.2	110	0.13	0.068	4
12ERS555	Soil	1.9	25.4	10.0	55	0.2	11.6	8.4	207	3.38	6.2	1.1	2.5	4	0.3	0.3	0.4	110	0.05	0.043	5
12ERS556	Soil	1.0	86.1	12.8	149	0.3	29.0	19.0	474	4.10	6.2	6.1	1.0	17	0.8	0.2	<0.1	182	0.38	0.045	3
12ERS557	Soil	1.1	73.8	14.6	166	0.2	26.4	21.1	592	4.03	7.5	3.4	0.8	16	0.6	0.3	<0.1	177	0.36	0.058	2
12ERS558	Soil	0.9	61.7	15.1	113	0.2	22.5	16.8	564	3.97	6.4	2.3	0.7	13	0.7	0.3	0.1	170	0.36	0.068	2
12ERS559	Soil	0.6	115.8	13.4	103	0.1	38.6	20.9	446	4.08	8.5	6.7	1.4	11	0.4	0.3	<0.1	159	0.26	0.057	3
12ERS560	Soil	0.7	73.7	11.5	94	0.2	25.6	17.6	563	3.67	6.1	0.9	1.0	11	0.5	0.3	<0.1	153	0.26	0.061	3

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Project: 99142  
Report Date: November 23, 2012

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## CERTIFICATE OF ANALYSIS

VAN12005265.1

Method	Analyte	1DX15															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
12ERS531	Soil	55	1.72	208	0.232	2	4.60	0.081	0.46	0.3	0.10	15.1	0.5	0.06	11	<0.5	<0.2
12ERS532	Soil	45	1.46	178	0.248	1	4.76	0.066	0.27	0.2	0.12	14.4	0.2	<0.05	12	<0.5	<0.2
12ERS533	Soil	57	1.84	283	0.291	<1	5.60	0.096	0.60	0.2	0.09	16.7	0.4	<0.05	13	<0.5	<0.2
12ERS534	Soil	52	2.12	277	0.220	2	4.56	0.098	0.58	0.2	0.11	16.4	0.4	<0.05	11	<0.5	<0.2
12ERS535	Soil	74	3.08	477	0.290	<1	5.67	0.109	1.19	0.1	0.03	22.4	0.7	<0.05	14	<0.5	<0.2
12ERS536	Soil	66	4.88	506	0.278	1	7.30	0.068	1.38	0.5	0.05	23.0	0.8	<0.05	16	<0.5	<0.2
12ERS537	Soil	55	3.29	164	0.195	2	5.70	0.017	0.51	0.1	0.10	15.8	0.3	<0.05	13	0.6	<0.2
12ERS538	Soil	39	2.01	126	0.162	2	4.24	0.015	0.30	0.2	0.10	11.3	0.2	<0.05	11	<0.5	<0.2
12ERS539	Soil	35	1.37	58	0.188	4	3.42	0.011	0.07	0.1	0.08	8.1	<0.1	<0.05	12	0.6	<0.2
12ERS540	Soil	44	1.06	34	0.214	1	5.80	0.011	0.05	0.2	0.21	9.6	<0.1	<0.05	15	<0.5	<0.2
12ERS541	Soil	37	0.84	34	0.222	1	4.34	0.011	0.04	0.2	0.15	7.7	<0.1	<0.05	16	<0.5	<0.2
12ERS542	Soil	64	1.78	242	0.205	1	5.31	0.053	0.47	0.2	0.04	10.4	0.4	<0.05	11	0.5	<0.2
12ERS543	Soil	66	3.18	243	0.240	<1	7.60	0.037	0.58	0.2	0.10	22.0	0.3	<0.05	13	0.5	<0.2
12ERS544	Soil	17	1.05	85	0.164	1	1.55	0.031	0.24	0.2	0.08	5.6	0.1	<0.05	11	<0.5	<0.2
12ERS545	Soil	23	0.43	29	0.170	<1	3.77	0.007	0.03	0.2	0.15	5.9	0.1	<0.05	12	1.1	<0.2
12ERS546	Soil	51	1.55	56	0.167	2	7.58	0.021	0.10	0.3	0.13	13.0	<0.1	<0.05	12	<0.5	<0.2
12ERS547	Soil	24	1.52	59	0.196	<1	3.96	0.057	0.10	0.3	0.10	14.7	0.2	<0.05	14	0.8	<0.2
12ERS548	Soil	29	0.96	30	0.193	2	4.26	0.008	0.04	0.3	0.12	6.5	0.2	<0.05	14	1.4	<0.2
12ERS549	Soil	33	0.89	44	0.149	2	5.75	0.016	0.05	0.2	0.26	8.5	<0.1	<0.05	10	<0.5	<0.2
12ERS550	Soil	35	1.12	57	0.182	2	4.03	0.010	0.08	0.2	0.25	9.5	0.1	<0.05	12	0.9	<0.2
12ERS551	Soil	59	1.48	56	0.170	1	5.61	0.014	0.08	0.1	0.18	12.6	0.1	<0.05	12	1.4	<0.2
12ERS552	Soil	36	0.79	41	0.227	2	5.84	0.010	0.04	0.3	0.21	9.7	<0.1	<0.05	15	0.8	<0.2
12ERS553	Soil	24	0.48	39	0.233	1	4.65	0.012	0.04	0.3	0.15	6.8	<0.1	<0.05	13	1.0	<0.2
12ERS554	Soil	31	0.97	63	0.150	1	3.72	0.020	0.16	0.4	0.12	7.6	0.1	<0.05	9	0.7	<0.2
12ERS555	Soil	27	0.42	40	0.203	<1	3.35	0.010	0.04	0.4	0.12	5.2	<0.1	<0.05	12	<0.5	<0.2
12ERS556	Soil	53	2.78	187	0.198	1	4.16	0.059	0.35	0.2	0.08	15.7	0.3	<0.05	10	0.6	<0.2
12ERS557	Soil	50	2.98	186	0.170	2	4.12	0.064	0.46	0.1	0.09	15.2	0.2	<0.05	10	0.8	<0.2
12ERS558	Soil	47	2.17	149	0.183	2	4.33	0.041	0.18	0.1	0.15	12.6	0.3	<0.05	11	0.6	<0.2
12ERS559	Soil	51	2.21	185	0.205	1	5.66	0.035	0.41	0.2	0.07	14.8	0.3	<0.05	12	0.6	<0.2
12ERS560	Soil	44	1.72	160	0.199	2	4.39	0.037	0.20	0.1	0.15	12.2	0.2	<0.05	11	<0.5	<0.2

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Project: 99142

Report Date: November 23, 2012

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## CERTIFICATE OF ANALYSIS

VAN12005265.1

Analyte	Method	Unit	1DX15																			
			Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
			ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm							
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
12ERS561	Soil		0.6	72.7	11.5	98	0.2	25.1	17.4	607	3.77	6.3	0.9	1.0	11	0.6	0.2	0.1	154	0.25	0.060	3
12ERS562	Soil		1.1	83.0	7.6	77	0.1	33.0	29.6	452	3.52	6.9	4.5	1.6	12	0.3	0.3	0.1	137	0.25	0.045	4
12ERS563	Soil		1.2	25.2	9.6	46	0.2	6.6	10.5	409	3.07	3.2	6.6	2.3	4	0.2	0.2	0.3	108	0.06	0.053	6
12ERS564	Soil		1.0	37.2	13.4	64	0.3	13.8	10.9	442	3.28	4.9	25.9	1.5	7	0.2	0.2	0.2	137	0.15	0.072	3
12ERS565	Soil		0.9	52.6	10.5	69	0.2	20.4	13.2	435	3.41	6.3	2.8	1.6	9	0.2	0.2	0.2	136	0.19	0.057	4
12KPS023	Soil		0.3	47.3	14.3	54	0.2	12.4	10.7	728	2.44	3.2	<0.5	0.6	18	0.4	0.3	0.2	98	0.31	0.061	3
12KPS024	Soil		0.2	119.1	7.3	97	0.2	41.4	29.5	562	5.00	4.2	4.4	0.7	19	0.3	0.4	0.2	224	0.33	0.044	2
12KPS025	Soil		2.4	40.8	36.0	208	0.3	16.5	22.7	724	4.42	12.3	8.5	0.3	12	1.8	0.7	0.2	166	0.28	0.061	4
12KPS026	Soil		1.8	96.3	12.6	166	0.2	40.2	28.2	908	5.52	29.0	5.2	1.1	14	1.1	1.3	0.2	160	0.30	0.075	4
12KPS027	Soil		1.9	37.3	13.0	67	0.5	11.0	9.3	597	3.97	17.8	4.0	0.4	7	0.7	0.7	0.2	131	0.13	0.076	2
12KPS028	Soil		1.5	26.4	9.5	110	0.3	13.4	11.9	947	4.17	17.5	2.1	0.3	8	0.8	0.5	0.2	115	0.17	0.083	2
12KPS029	Soil		0.9	66.8	7.7	80	0.3	18.8	15.7	638	3.88	6.0	3.4	0.9	15	0.3	0.3	0.2	139	0.33	0.083	3
12KPS030	Soil		0.8	50.9	7.4	66	0.3	18.5	12.4	618	3.37	5.6	8.0	0.7	9	0.3	0.3	<0.1	132	0.22	0.067	3
12KPS031	Soil		0.9	62.2	8.9	54	0.2	18.8	13.8	389	2.96	6.5	6.5	0.7	9	0.5	0.4	<0.1	114	0.17	0.066	3
12KPS032	Soil		0.8	68.6	8.1	63	0.2	27.0	14.7	418	3.40	6.8	4.9	1.2	11	0.3	0.3	0.1	128	0.21	0.062	3
12KPS033	Soil		0.6	40.3	8.3	67	0.2	20.1	13.8	462	3.06	4.6	4.9	1.4	9	0.2	0.2	0.2	108	0.15	0.056	6
12KPS034	Soil		0.8	37.6	10.1	57	0.2	15.0	12.0	1521	3.01	3.9	4.2	0.9	8	0.3	0.2	0.2	104	0.15	0.061	4
12KPS035	Soil		0.8	33.9	7.7	50	0.1	14.1	10.0	310	4.13	5.8	3.3	1.2	9	0.3	0.2	0.1	153	0.14	0.061	3
12KPS036	Soil		1.9	12.7	12.1	33	0.2	4.9	4.7	213	3.74	3.2	29.4	1.1	4	0.2	0.2	0.3	175	0.04	0.037	3
12KPS037	Soil		0.9	19.3	13.0	43	0.2	7.4	5.2	244	3.21	5.5	1.6	1.2	6	0.3	0.3	0.3	141	0.10	0.044	3
12KPS038	Soil		1.2	48.3	10.8	68	0.2	18.6	14.1	490	3.46	6.7	4.0	1.2	8	0.3	0.2	0.2	142	0.15	0.068	3
12KPS039	Soil		1.1	58.1	9.5	82	0.2	22.9	17.0	638	4.01	7.5	6.2	1.4	9	0.3	0.2	0.2	149	0.19	0.063	4
12KPS040	Soil		0.9	43.7	7.2	76	<0.1	19.4	15.3	553	3.83	4.9	1.6	1.1	10	0.2	0.2	0.2	157	0.25	0.050	3
12KPS041	Soil		0.9	46.1	7.8	77	0.1	20.3	16.1	563	3.93	4.8	2.1	1.2	11	0.2	0.2	0.2	164	0.26	0.057	3
12KPS042	Soil		1.3	29.5	10.3	41	0.2	9.5	7.1	335	3.00	4.8	1.2	1.7	6	0.2	0.2	0.4	106	0.09	0.060	3
12KPS043	Soil		1.6	28.5	9.4	54	0.2	11.9	8.3	194	3.71	5.7	2.8	2.6	5	0.1	0.2	0.4	143	0.07	0.051	4
12KPS044	Soil		1.0	16.2	7.9	35	0.1	8.6	5.7	141	3.15	5.4	<0.5	1.8	5	0.1	0.2	0.3	102	0.05	0.042	3
12MBS023	Soil		0.8	308.0	10.2	63	0.3	18.2	18.5	289	3.57	3.3	6.8	1.1	16	0.2	0.2	0.1	146	0.26	0.061	3
12MBS024	Soil		1.0	171.4	10.1	69	0.3	13.8	16.5	169	5.10	4.6	5.3	0.9	11	0.2	0.3	0.1	165	0.15	0.070	2
12MBS025	Soil		1.0	87.0	41.0	81	0.2	13.9	14.7	297	3.80	6.2	18.9	0.7	11	0.3	0.2	0.2	172	0.14	0.060	3

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Project: 99142  
Report Date: November 23, 2012

Page: 3 of 5

Part: 2 of 1

## CERTIFICATE OF ANALYSIS

VAN12005265.1

Method	Analyte	1DX15															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
12ERS561	Soil	45	1.67	146	0.190	<1	4.25	0.036	0.19	0.1	0.13	11.7	0.2	<0.05	11	<0.5	<0.2
12ERS562	Soil	41	1.86	152	0.180	<1	5.31	0.042	0.41	0.2	0.08	13.2	0.3	<0.05	10	0.6	<0.2
12ERS563	Soil	23	0.40	31	0.252	1	3.95	0.012	0.03	0.2	0.18	6.3	<0.1	<0.05	12	0.9	<0.2
12ERS564	Soil	27	0.96	77	0.212	1	3.81	0.017	0.11	0.1	0.15	8.8	<0.1	<0.05	12	0.6	<0.2
12ERS565	Soil	36	1.28	113	0.193	2	3.99	0.031	0.21	0.2	0.12	9.6	0.2	<0.05	11	0.6	<0.2
12KPS023	Soil	24	0.46	124	0.174	1	2.73	0.027	0.11	0.1	0.14	5.7	<0.1	<0.05	8	<0.5	<0.2
12KPS024	Soil	60	2.03	345	0.233	1	5.49	0.106	0.29	0.1	0.12	16.9	0.3	<0.05	12	<0.5	<0.2
12KPS025	Soil	30	3.21	129	0.143	2	4.02	0.012	0.17	<0.1	0.11	11.9	0.6	<0.05	10	0.8	<0.2
12KPS026	Soil	41	1.69	125	0.170	2	5.27	0.054	0.30	0.1	0.08	12.2	0.3	<0.05	10	<0.5	<0.2
12KPS027	Soil	30	0.59	48	0.119	2	3.88	0.017	0.06	<0.1	0.28	6.0	0.2	<0.05	11	1.3	<0.2
12KPS028	Soil	27	0.57	43	0.116	2	3.28	0.021	0.04	<0.1	0.26	5.6	0.2	<0.05	11	0.8	<0.2
12KPS029	Soil	31	1.11	85	0.161	2	5.11	0.025	0.10	0.1	0.18	8.4	0.2	<0.05	12	0.9	<0.2
12KPS030	Soil	33	1.23	83	0.143	2	4.84	0.024	0.09	0.1	0.19	8.5	0.2	<0.05	10	<0.5	<0.2
12KPS031	Soil	33	1.06	83	0.118	2	3.72	0.025	0.12	0.2	0.17	7.5	0.2	<0.05	8	0.8	<0.2
12KPS032	Soil	44	1.44	122	0.143	1	4.33	0.032	0.17	0.1	0.11	9.4	0.2	<0.05	10	<0.5	<0.2
12KPS033	Soil	35	0.92	75	0.160	2	4.82	0.019	0.06	0.2	0.14	6.8	0.1	<0.05	10	<0.5	<0.2
12KPS034	Soil	30	0.69	73	0.146	2	3.71	0.018	0.05	0.2	0.18	5.4	0.2	<0.05	11	<0.5	<0.2
12KPS035	Soil	38	0.90	70	0.194	2	4.41	0.014	0.06	0.2	0.24	9.2	<0.1	<0.05	12	0.9	<0.2
12KPS036	Soil	20	0.45	42	0.301	1	1.67	0.009	0.03	0.1	0.12	4.9	<0.1	<0.05	13	<0.5	<0.2
12KPS037	Soil	22	0.31	45	0.223	1	2.43	0.010	0.03	0.1	0.24	4.5	<0.1	<0.05	12	0.7	<0.2
12KPS038	Soil	36	1.03	89	0.201	2	4.47	0.021	0.15	0.2	0.13	9.2	0.2	<0.05	11	<0.5	<0.2
12KPS039	Soil	40	1.25	111	0.200	1	4.77	0.024	0.20	0.1	0.13	10.3	0.2	<0.05	12	0.6	<0.2
12KPS040	Soil	46	1.10	87	0.202	2	4.40	0.034	0.09	0.2	0.14	10.5	<0.1	<0.05	12	<0.5	<0.2
12KPS041	Soil	52	1.18	100	0.215	3	4.81	0.037	0.12	0.2	0.15	11.2	0.1	<0.05	12	<0.5	<0.2
12KPS042	Soil	23	0.41	49	0.173	1	3.18	0.015	0.05	0.4	0.19	6.0	<0.1	<0.05	10	<0.5	<0.2
12KPS043	Soil	31	0.59	55	0.194	<1	4.22	0.010	0.05	0.4	0.18	8.1	<0.1	<0.05	12	<0.5	<0.2
12KPS044	Soil	28	0.32	31	0.185	2	3.82	0.009	0.02	0.3	0.18	4.8	<0.1	<0.05	10	0.8	<0.2
12MBS023	Soil	39	1.42	138	0.192	2	4.49	0.030	0.26	0.3	0.14	10.8	0.1	<0.05	11	0.6	<0.2
12MBS024	Soil	37	1.38	79	0.181	2	5.15	0.020	0.14	0.3	0.21	11.1	0.1	<0.05	12	0.8	<0.2
12MBS025	Soil	28	1.32	91	0.188	2	4.43	0.019	0.05	0.3	0.19	10.4	0.1	<0.05	13	<0.5	<0.2

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**APEX Geoscience Ltd.**

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Project: 99142

Report Date: November 23, 2012

## CERTIFICATE OF ANALYSIS

VAN12005265.1

Method Analyte Unit MDL	1DX15																				
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm								
	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
12MBS026	Soil	1.2	70.1	22.4	113	0.8	18.5	19.0	951	4.25	14.1	25.3	0.8	19	0.3	0.4	0.1	173	0.42	0.075	3
12MBS027	Soil	1.9	35.0	12.8	119	0.4	22.5	24.4	456	4.18	9.1	16.9	1.7	7	0.4	0.2	0.2	106	0.08	0.055	5
12MBS028	Soil	1.1	90.2	11.5	65	<0.1	25.1	14.0	204	3.56	5.9	12.8	2.0	7	0.2	0.3	0.2	118	0.11	0.055	5
12MBS029	Soil	2.1	37.9	29.1	41	0.3	9.6	5.1	203	3.09	14.7	4.1	1.1	10	0.2	0.4	0.2	100	0.15	0.047	3
12MBS030	Soil	1.2	50.2	10.3	78	0.3	15.7	18.9	389	4.51	6.4	3.2	1.3	7	0.3	0.2	0.2	162	0.12	0.051	3
12MBS031	Soil	2.3	27.1	15.8	64	0.5	9.9	9.4	459	4.01	9.5	5.1	1.5	5	0.3	0.2	0.2	144	0.09	0.050	4
12MBS032	Soil	1.0	41.2	9.8	91	0.2	20.3	21.5	399	4.19	2.9	1.7	1.2	8	0.4	0.1	0.1	174	0.11	0.033	3
12MBS033	Soil	1.3	42.0	9.8	46	0.3	13.2	9.1	228	5.13	4.2	1.4	2.0	4	0.1	0.3	0.2	219	0.05	0.053	4
12MBS034	Soil	1.1	106.1	28.0	51	0.1	22.2	15.5	292	3.07	8.3	7.4	1.3	11	0.2	0.3	<0.1	102	0.16	0.063	3
12MBS035	Soil	0.9	32.6	13.7	60	0.3	12.4	9.6	226	3.90	5.0	2.7	1.7	5	0.3	0.2	0.2	139	0.06	0.036	2
12MBS036	Soil	1.4	45.8	12.8	64	0.3	17.9	9.9	315	4.29	15.2	4.7	1.5	5	0.2	0.3	0.2	161	0.08	0.039	3
12MBS037	Soil	2.1	72.3	20.6	76	0.2	19.3	10.9	286	4.13	8.6	4.5	1.7	5	0.2	0.3	0.1	153	0.08	0.052	4
12MBS038	Soil	1.1	31.0	12.1	51	0.3	9.6	6.2	182	4.16	8.2	5.1	1.9	4	0.3	0.2	0.3	130	0.04	0.038	4
12MBS039	Soil	1.2	36.9	17.7	65	0.3	13.4	7.8	316	4.17	7.8	6.0	0.9	9	0.6	0.5	0.3	166	0.17	0.048	2
12MBS040	Soil	1.5	126.3	16.2	102	0.1	32.4	24.5	509	4.47	10.3	6.1	1.2	10	0.4	0.3	0.1	156	0.24	0.065	2
12MBS041	Soil	1.3	128.3	16.8	103	0.1	29.4	23.8	476	4.34	10.4	5.0	1.2	10	0.5	0.4	<0.1	155	0.22	0.065	3
12MBS042	Soil	1.2	109.3	19.1	74	0.1	26.4	21.4	500	3.95	8.8	11.8	1.2	9	0.3	0.3	<0.1	147	0.22	0.063	3
12MBS043	Soil	0.5	115.7	9.1	89	0.1	42.4	24.9	554	4.46	6.5	4.3	1.5	12	0.3	0.2	0.1	190	0.29	0.057	4
12MBS044	Soil	0.6	41.8	10.2	73	0.1	21.8	14.9	511	4.31	8.7	3.8	1.3	9	0.4	0.2	0.2	168	0.19	0.064	3
12MBS045	Soil	0.8	99.4	12.1	90	0.2	33.9	21.9	551	4.15	10.9	4.1	1.3	13	0.3	0.3	<0.1	160	0.26	0.064	3
12MBS046	Soil	0.8	62.9	11.2	76	0.2	23.2	17.9	643	3.65	10.7	4.8	0.9	11	0.2	0.3	0.1	146	0.27	0.061	3
12MBS047	Soil	0.9	72.0	9.5	76	0.2	26.8	19.3	660	3.98	10.2	11.9	1.3	14	0.3	0.3	0.1	162	0.34	0.057	3
12MBS048	Soil	0.8	84.8	10.0	82	0.2	28.5	21.6	637	4.40	10.2	6.3	1.3	15	0.3	0.3	0.1	176	0.36	0.065	4
12MBS049	Soil	0.8	87.8	8.9	85	0.1	33.8	22.4	635	4.21	10.1	5.1	1.6	13	0.3	0.3	<0.1	162	0.30	0.066	4
12MBS050	Soil	1.2	67.8	10.5	87	0.2	26.9	17.3	577	3.78	8.9	9.1	1.5	11	0.4	0.3	0.2	133	0.22	0.064	4
12MBS051	Soil	1.1	90.7	9.9	115	0.3	24.8	16.1	400	4.06	14.6	3.4	1.7	7	0.3	0.3	0.1	156	0.18	0.112	7
12MBS052	Soil	0.7	49.1	8.3	60	0.1	17.7	13.8	315	3.53	8.0	4.2	1.8	7	0.2	0.2	0.2	123	0.12	0.054	4
12MBS053	Soil	0.9	56.5	9.3	77	0.2	19.3	14.7	339	4.47	11.9	3.7	1.9	7	0.2	0.2	0.2	162	0.13	0.073	6
12MBS054	Soil	0.5	97.2	7.7	79	<0.1	27.4	20.7	521	3.62	27.8	8.4	1.1	12	0.3	0.4	<0.1	143	0.23	0.047	3
12MBS055	Soil	1.2	53.2	7.8	51	0.2	18.0	17.1	269	4.12	4.0	17.4	1.4	7	0.2	0.2	0.2	140	0.12	0.043	3

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Page: 4 of 5

Part: 2 of 1

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Method	Analyte	1DX15															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
12MBS026	Soil	31	1.92	126	0.173	3	5.18	0.059	0.14	0.1	0.17	12.0	0.4	<0.05	13	<0.5	<0.2
12MBS027	Soil	29	1.01	106	0.172	2	4.09	0.010	0.07	0.2	0.16	7.0	0.3	<0.05	11	<0.5	<0.2
12MBS028	Soil	40	1.22	59	0.162	2	5.19	0.017	0.05	0.4	0.17	9.5	<0.1	<0.05	11	0.6	<0.2
12MBS029	Soil	22	0.75	60	0.127	3	2.32	0.011	0.06	0.2	0.19	5.2	<0.1	<0.05	9	<0.5	<0.2
12MBS030	Soil	40	1.37	96	0.187	2	5.15	0.013	0.13	0.1	0.13	13.7	0.2	<0.05	11	0.5	<0.2
12MBS031	Soil	41	1.18	65	0.199	1	2.62	0.007	0.08	0.1	0.13	7.9	0.2	<0.05	11	<0.5	<0.2
12MBS032	Soil	44	2.06	115	0.212	1	3.76	0.014	0.21	0.1	0.13	14.2	0.3	<0.05	12	<0.5	<0.2
12MBS033	Soil	43	1.46	76	0.245	2	4.32	0.008	0.08	0.1	0.16	16.1	0.1	<0.05	15	0.9	<0.2
12MBS034	Soil	41	1.36	118	0.115	1	3.98	0.035	0.29	0.3	0.14	10.1	0.2	<0.05	8	<0.5	<0.2
12MBS035	Soil	38	1.49	57	0.206	2	4.27	0.008	0.06	0.2	0.17	11.1	0.1	<0.05	11	0.7	<0.2
12MBS036	Soil	61	2.01	66	0.206	1	4.10	0.007	0.05	0.2	0.16	13.3	0.1	<0.05	11	<0.5	<0.2
12MBS037	Soil	48	1.85	101	0.175	1	4.78	0.011	0.19	0.2	0.12	13.4	0.1	<0.05	11	0.9	<0.2
12MBS038	Soil	34	1.04	50	0.189	1	5.30	0.007	0.04	0.2	0.26	10.6	<0.1	<0.05	12	1.5	<0.2
12MBS039	Soil	33	1.39	84	0.207	<1	3.44	0.013	0.05	0.2	0.25	8.2	0.1	<0.05	12	0.7	<0.2
12MBS040	Soil	52	2.85	212	0.155	<1	3.97	0.036	0.69	0.2	0.03	15.1	0.3	<0.05	9	<0.5	<0.2
12MBS041	Soil	49	2.94	213	0.153	<1	4.08	0.035	0.67	0.2	0.04	15.6	0.3	<0.05	9	0.5	<0.2
12MBS042	Soil	45	2.38	176	0.153	<1	4.05	0.035	0.50	0.1	0.06	14.3	0.3	<0.05	9	1.2	<0.2
12MBS043	Soil	59	2.19	206	0.241	2	6.24	0.044	0.43	0.2	0.12	16.3	0.3	<0.05	13	<0.5	<0.2
12MBS044	Soil	44	1.53	155	0.233	<1	4.48	0.017	0.08	0.2	0.13	11.5	0.1	<0.05	12	0.6	<0.2
12MBS045	Soil	48	2.11	240	0.201	<1	4.80	0.042	0.45	0.2	0.07	13.3	0.3	<0.05	11	<0.5	<0.2
12MBS046	Soil	37	1.48	123	0.189	2	4.27	0.036	0.24	0.1	0.10	10.4	0.2	<0.05	11	0.7	<0.2
12MBS047	Soil	41	1.56	156	0.205	1	4.64	0.040	0.30	0.2	0.10	11.5	0.2	<0.05	12	<0.5	<0.2
12MBS048	Soil	44	1.90	141	0.208	<1	5.49	0.065	0.34	0.1	0.12	14.1	0.2	<0.05	12	0.7	<0.2
12MBS049	Soil	46	1.95	193	0.196	<1	5.23	0.050	0.50	0.2	0.07	13.5	0.3	<0.05	12	<0.5	<0.2
12MBS050	Soil	38	1.44	133	0.185	<1	4.84	0.030	0.30	0.2	0.11	10.7	0.2	<0.05	12	0.5	<0.2
12MBS051	Soil	46	2.05	108	0.170	1	7.65	0.016	0.23	0.2	0.20	14.5	0.2	<0.05	12	1.0	<0.2
12MBS052	Soil	32	0.95	84	0.227	<1	5.26	0.017	0.09	0.2	0.12	8.8	0.1	<0.05	11	<0.5	<0.2
12MBS053	Soil	42	1.32	91	0.235	<1	6.56	0.017	0.11	0.2	0.22	12.8	0.1	<0.05	14	1.0	<0.2
12MBS054	Soil	40	1.78	126	0.159	<1	3.63	0.050	0.38	0.1	0.09	11.2	0.2	<0.05	9	0.7	<0.2
12MBS055	Soil	29	0.97	57	0.195	1	4.48	0.021	0.05	0.2	0.18	8.9	0.1	<0.05	12	1.3	<0.2

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



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Project: 99142

Report Date: November 23, 2012

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## CERTIFICATE OF ANALYSIS

VAN12005265.1

Analyte	Method	1DX15																				
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La		
	Unit	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm										
	MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	2	0.01	0.001	1	
12MBS056	Soil	2.7	34.1	10.5	121	0.2	18.0	12.4	281	4.62	6.2	2.7	0.8	13	0.7	0.5	0.1	195	0.27	0.037	2	
12MBS057	Soil	1.1	47.2	8.2	140	0.1	28.3	16.9	245	4.54	4.5	3.5	1.8	8	0.4	0.2	0.2	155	0.14	0.027	4	
12MBS058	Soil	1.2	14.0	8.9	40	<0.1	7.7	6.6	122	3.17	2.4	1.9	1.4	6	0.2	0.2	0.3	123	0.10	0.021	3	
12MBS059	Soil	1.6	30.6	10.2	58	0.1	12.0	8.0	188	3.38	5.7	3.9	1.2	5	0.3	0.5	0.2	130	0.08	0.039	3	



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Report Date: November 23, 2012

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## CERTIFICATE OF ANALYSIS

VAN12005265.1

Method	1DX15																
Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
12MBS056	Soil	42	1.05	78	0.160	1	3.79	0.058	0.06	0.1	0.18	8.6	0.1	<0.05	13	1.5	<0.2
12MBS057	Soil	48	0.92	84	0.193	1	5.40	0.021	0.04	0.2	0.20	10.6	0.1	<0.05	13	1.0	<0.2
12MBS058	Soil	25	0.41	51	0.226	<1	2.44	0.016	0.03	0.2	0.09	5.2	<0.1	<0.05	12	<0.5	<0.2
12MBS059	Soil	26	0.67	48	0.153	<1	3.07	0.015	0.04	0.1	0.17	6.5	0.1	<0.05	10	0.9	<0.2



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## QUALITY CONTROL REPORT

VAN12005265.1

Method	Analyte	1DX15	1DX15																		
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm							
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
Pulp Duplicates																					
12ERS546	Soil	1.0	232.1	11.4	60	0.1	28.3	14.3	223	3.65	6.1	11.7	2.2	9	0.1	0.2	0.1	127	0.13	0.056	5
REP 12ERS546	QC	1.0	217.7	11.4	59	0.1	26.4	13.1	216	3.45	6.1	6.6	2.1	9	<0.1	0.2	0.1	124	0.13	0.057	5
12ERS556	Soil	1.0	86.1	12.8	149	0.3	29.0	19.0	474	4.10	6.2	6.1	1.0	17	0.8	0.2	<0.1	182	0.38	0.045	3
REP 12ERS556	QC	0.9	81.1	12.7	149	0.2	28.6	18.4	476	4.07	6.2	7.6	1.0	16	0.8	0.2	<0.1	180	0.39	0.046	2
12KPS039	Soil	1.1	58.1	9.5	82	0.2	22.9	17.0	638	4.01	7.5	6.2	1.4	9	0.3	0.2	0.2	149	0.19	0.063	4
REP 12KPS039	QC	1.0	56.8	9.6	81	0.2	21.1	16.7	616	3.94	7.4	3.3	1.4	9	0.3	0.2	0.2	146	0.19	0.067	4
12MBS027	Soil	1.9	35.0	12.8	119	0.4	22.5	24.4	456	4.18	9.1	16.9	1.7	7	0.4	0.2	0.2	106	0.08	0.055	5
REP 12MBS027	QC	1.9	35.4	12.7	125	0.4	22.0	25.3	450	4.27	9.2	14.2	1.8	8	0.4	0.3	0.2	105	0.08	0.058	6
12MBS053	Soil	0.9	56.5	9.3	77	0.2	19.3	14.7	339	4.47	11.9	3.7	1.9	7	0.2	0.2	0.2	162	0.13	0.073	6
REP 12MBS053	QC	0.8	55.0	9.1	75	0.2	19.1	14.3	340	4.45	11.8	4.8	1.9	7	0.2	0.2	0.2	161	0.11	0.071	6
12MBS059	Soil	1.6	30.6	10.2	58	0.1	12.0	8.0	188	3.38	5.7	3.9	1.2	5	0.3	0.5	0.2	130	0.08	0.039	3
REP 12MBS059	QC	1.7	31.5	10.1	62	0.1	13.3	8.1	185	3.46	5.8	3.9	1.1	5	0.4	0.3	0.2	136	0.08	0.040	3
Reference Materials																					
STD DS9	Standard	13.8	109.1	133.2	330	1.8	40.9	8.0	601	2.42	27.8	112.2	6.8	79	2.3	6.3	7.4	42	0.71	0.086	13
STD DS9	Standard	13.3	106.5	136.6	314	1.9	38.7	7.6	611	2.39	27.1	127.3	7.1	80	2.4	6.5	7.4	42	0.77	0.087	14
STD DS9	Standard	13.2	110.6	141.2	304	2.0	41.8	7.3	560	2.27	25.2	123.4	7.3	75	2.3	6.2	7.5	40	0.69	0.085	13
STD DS9 Expected		12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819	13.3
BLK	Blank	<0.1	0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	0.4	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<2	<0.01	<0.001	<1	



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Project: 99142  
Report Date: November 23, 2012

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## QUALITY CONTROL REPORT

VAN12005265.1

Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																	
12ERS546	Soil	51	1.55	56	0.167	2	7.58	0.021	0.10	0.3	0.13	13.0	<0.1	<0.05	12	<0.5	<0.2
REP 12ERS546	QC	50	1.54	57	0.165	2	7.33	0.020	0.10	0.3	0.11	12.6	<0.1	<0.05	12	0.7	<0.2
12ERS556	Soil	53	2.78	187	0.198	1	4.16	0.059	0.35	0.2	0.08	15.7	0.3	<0.05	10	0.6	<0.2
REP 12ERS556	QC	53	2.88	185	0.190	<1	4.31	0.059	0.35	0.1	0.06	15.4	0.3	<0.05	11	<0.5	<0.2
12KPS039	Soil	40	1.25	111	0.200	1	4.77	0.024	0.20	0.1	0.13	10.3	0.2	<0.05	12	0.6	<0.2
REP 12KPS039	QC	39	1.22	114	0.202	2	4.71	0.023	0.20	0.2	0.12	10.2	0.2	<0.05	12	<0.5	<0.2
12MBS027	Soil	29	1.01	106	0.172	2	4.09	0.010	0.07	0.2	0.16	7.0	0.3	<0.05	11	<0.5	<0.2
REP 12MBS027	QC	28	0.98	105	0.173	1	3.78	0.010	0.07	0.2	0.14	7.1	0.3	<0.05	11	0.7	<0.2
12MBS053	Soil	42	1.32	91	0.235	<1	6.56	0.017	0.11	0.2	0.22	12.8	0.1	<0.05	14	1.0	<0.2
REP 12MBS053	QC	43	1.31	92	0.224	<1	6.34	0.017	0.11	0.2	0.19	12.0	0.1	<0.05	14	1.0	<0.2
12MBS059	Soil	26	0.67	48	0.153	<1	3.07	0.015	0.04	0.1	0.17	6.5	0.1	<0.05	10	0.9	<0.2
REP 12MBS059	QC	26	0.71	50	0.161	<1	3.19	0.016	0.04	0.1	0.19	6.5	0.1	<0.05	11	0.7	<0.2
Reference Materials																	
STD DS9	Standard	125	0.63	302	0.111	2	0.95	0.089	0.43	3.0	0.22	3.1	5.7	0.15	5	5.0	5.3
STD DS9	Standard	124	0.63	308	0.113	3	0.96	0.092	0.42	2.9	0.22	2.9	5.9	0.11	5	5.6	5.0
STD DS9	Standard	118	0.66	312	0.115	1	0.97	0.089	0.40	3.1	0.23	2.8	5.6	0.14	5	5.5	5.7
STD DS9 Expected		121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



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Submitted By: Kris Raffle  
Receiving Lab: Canada-Vancouver  
Received: October 29, 2012  
Report Date: November 23, 2012  
Page: 1 of 4

## CERTIFICATE OF ANALYSIS

VAN12005141.1

### CLIENT JOB INFORMATION

Project: 99142  
Shipment ID: 99142-1  
P.O. Number  
Number of Samples: 75

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Code					
Dry at 60C	75	Dry at 60C			VAN
SS80	75	Dry at 60C sieve 100g to -80 mesh			VAN
IDX2	75	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT-SOIL Immediate Disposal of Soil Reject

### ADDITIONAL COMMENTS

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: APEX Geoscience Ltd.  
200 - 9797 45 Ave  
Edmonton AB T6E 5V8  
Canada

CC:



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.  
\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Project: 99142  
Report Date: November 23, 2012

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Part: 1 of 1

## CERTIFICATE OF ANALYSIS

VAN12005141.1

Analyte	Method	1DX15																			
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm							
		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
12ERS500	Soil	0.5	89.2	4.6	37	0.1	21.8	12.9	175	2.76	3.2	4.5	0.9	7	<0.1	0.1	0.3	111	0.13	0.049	2
12ERS501	Soil	0.6	86.1	5.1	37	0.1	17.6	8.5	194	3.03	5.2	3.0	0.9	8	0.2	0.2	0.2	101	0.12	0.085	3
12ERS502	Soil	0.8	128.4	7.2	41	0.3	13.2	18.7	391	3.45	2.8	1.0	0.4	12	<0.1	0.2	0.2	160	0.23	0.049	2
12ERS503	Soil	0.5	65.9	9.1	49	0.2	10.2	11.9	177	2.75	2.6	1.8	0.9	10	<0.1	0.1	0.2	115	0.17	0.053	2
12ERS504	Soil	0.8	63.2	6.9	55	0.2	8.1	13.1	256	3.40	2.5	1.0	1.3	6	<0.1	0.1	0.2	130	0.10	0.088	3
12ERS505	Soil	1.0	81.2	7.0	57	0.2	11.0	13.3	469	3.15	3.7	<0.5	1.0	10	0.1	0.2	0.2	131	0.17	0.059	2
12ERS506	Soil	0.6	393.4	9.2	86	0.2	42.4	23.2	289	3.93	4.1	3.5	0.7	11	0.1	0.2	0.1	160	0.22	0.063	2
12ERS507	Soil	0.6	179.5	7.0	62	0.2	25.6	16.6	170	3.37	3.8	<0.5	0.9	9	<0.1	0.1	0.1	122	0.12	0.054	2
12ERS508	Soil	0.6	421.5	6.4	59	0.2	22.6	16.0	172	3.32	4.1	3.0	1.2	10	0.1	0.1	0.3	122	0.15	0.049	3
12ERS509	Soil	1.3	97.9	31.6	157	0.3	28.6	40.7	881	3.50	12.8	3.1	0.2	34	1.3	0.6	0.2	113	0.94	0.075	3
12ERS510	Soil	1.0	107.5	11.0	72	0.4	22.1	16.8	311	3.69	6.0	8.4	0.9	11	0.3	0.3	0.1	132	0.19	0.046	4
12ERS511	Soil	0.7	37.4	7.5	40	0.5	5.4	11.1	300	5.67	3.9	<0.5	0.8	6	0.2	0.2	0.2	263	0.07	0.043	2
12ERS512	Soil	0.4	26.3	11.4	51	0.1	6.0	5.9	222	3.93	3.0	<0.5	0.5	6	<0.1	0.3	<0.1	237	0.12	0.024	1
12ERS513	Soil	0.9	31.9	9.6	76	0.2	13.0	13.3	284	4.16	3.2	<0.5	1.1	6	<0.1	0.2	0.1	197	0.09	0.026	2
12ERS514	Soil	0.3	191.1	4.3	53	<0.1	19.7	34.3	352	4.85	2.9	3.7	1.2	12	<0.1	<0.1	<0.1	254	0.29	0.042	2
12ERS515	Soil	0.6	250.9	5.0	74	0.2	25.3	26.7	213	4.08	4.7	7.1	0.9	14	<0.1	0.2	<0.1	149	0.22	0.050	3
12ERS516	Soil	0.6	152.5	9.0	74	0.3	14.0	16.0	222	3.52	2.0	<0.5	0.6	12	0.1	<0.1	<0.1	174	0.21	0.065	2
12ERS517	Soil	0.8	328.1	5.5	67	0.2	30.6	21.1	221	3.79	3.0	1.1	1.1	11	<0.1	0.1	<0.1	155	0.18	0.070	2
12ERS518	Soil	1.1	137.1	6.6	31	0.4	6.4	7.5	105	3.42	2.2	6.1	0.4	10	0.2	<0.1	0.2	117	0.13	0.047	2
12ERS519	Soil	0.8	160.2	7.6	50	0.2	19.9	15.3	139	3.32	3.6	0.7	1.4	10	0.1	0.1	0.2	109	0.11	0.059	3
12ERS520	Soil	0.8	149.7	10.9	70	<0.1	35.9	21.4	324	3.35	6.9	20.8	1.4	18	<0.1	0.2	<0.1	107	0.29	0.047	4
12ERS521	Soil	0.6	151.5	10.3	71	<0.1	36.7	24.1	349	3.40	6.9	9.9	1.5	17	<0.1	0.2	<0.1	115	0.28	0.042	4
12ERS522	Soil	1.3	82.7	20.2	69	0.2	19.7	14.7	233	3.39	9.4	6.1	1.2	14	0.3	0.3	0.2	121	0.25	0.036	3
12ERS523	Soil	1.3	52.9	15.3	31	0.1	11.3	7.5	140	3.12	6.5	3.3	0.7	9	0.3	0.3	0.2	104	0.19	0.038	3
12ERS524	Soil	1.3	29.3	18.4	90	0.2	14.7	12.0	334	6.25	3.9	<0.5	1.1	12	0.1	0.1	<0.1	247	0.32	0.028	2
12ERS525	Soil	1.8	78.4	15.2	46	0.1	11.6	7.3	157	4.75	9.1	3.1	2.3	6	0.1	0.2	0.2	102	0.08	0.048	5
12ERS526	Soil	1.4	46.4	11.0	59	0.2	12.1	8.6	174	3.92	13.7	4.6	1.5	5	0.2	0.3	0.1	111	0.06	0.039	4
12ERS527	Soil	3.5	62.2	78.4	47	0.5	10.0	5.6	189	8.01	14.7	5.5	1.4	5	<0.1	1.4	0.2	101	0.06	0.068	3
12ERS528	Soil	3.6	62.6	88.8	57	0.4	9.4	4.5	221	6.23	25.9	8.1	1.7	4	<0.1	1.6	0.2	102	0.04	0.041	3
12ERS529	Soil	2.7	66.0	57.0	76	0.2	9.9	6.1	379	7.08	15.3	2.8	1.2	5	<0.1	0.8	0.1	150	0.09	0.039	2

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Edmonton AB T6E 5V8 Canada

Project: 99142  
Report Date: November 23, 2012

Page: 2 of 4

Part: 2 of 1

## CERTIFICATE OF ANALYSIS

VAN12005141.1

Analyte	Method	1DX15															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
12ERS500	Soil	35	0.88	66	0.141	3	3.06	0.022	0.07	0.2	0.08	5.2	<0.1	<0.05	8	<0.5	<0.2
12ERS501	Soil	40	0.72	85	0.145	3	2.34	0.014	0.12	0.3	0.07	4.4	<0.1	<0.05	10	0.7	<0.2
12ERS502	Soil	22	1.21	87	0.130	4	4.15	0.029	0.08	0.3	0.15	7.4	<0.1	<0.05	10	<0.5	<0.2
12ERS503	Soil	28	0.82	74	0.177	<1	3.36	0.031	0.03	0.1	0.11	6.1	<0.1	<0.05	11	<0.5	<0.2
12ERS504	Soil	17	0.83	72	0.215	1	3.73	0.015	0.04	0.2	0.08	7.5	<0.1	<0.05	13	<0.5	<0.2
12ERS505	Soil	26	0.98	111	0.172	1	3.11	0.021	0.07	0.3	0.14	6.6	<0.1	<0.05	12	<0.5	<0.2
12ERS506	Soil	132	2.02	121	0.176	1	4.73	0.041	0.40	0.5	0.04	12.1	0.2	<0.05	11	<0.5	<0.2
12ERS507	Soil	68	1.04	61	0.154	1	4.57	0.020	0.04	0.3	0.13	7.1	<0.1	<0.05	11	<0.5	<0.2
12ERS508	Soil	48	1.07	69	0.177	1	4.50	0.024	0.10	0.3	0.10	7.9	0.1	<0.05	11	<0.5	<0.2
12ERS509	Soil	24	1.33	102	0.082	3	2.85	0.036	0.10	0.2	0.10	7.3	0.3	<0.05	7	1.0	<0.2
12ERS510	Soil	33	1.23	94	0.142	<1	3.55	0.018	0.11	0.2	0.12	9.6	0.1	<0.05	10	<0.5	<0.2
12ERS511	Soil	16	0.82	120	0.263	<1	2.41	0.008	0.04	0.2	0.13	7.5	<0.1	<0.05	14	0.7	<0.2
12ERS512	Soil	40	2.01	137	0.195	<1	2.54	0.011	0.16	<0.1	0.08	17.0	<0.1	0.09	9	<0.5	<0.2
12ERS513	Soil	34	1.81	76	0.217	<1	3.55	0.008	0.04	0.1	0.12	13.2	<0.1	<0.05	11	<0.5	<0.2
12ERS514	Soil	24	2.28	243	0.172	<1	4.76	0.190	0.66	0.2	0.04	10.8	0.2	<0.05	11	<0.5	<0.2
12ERS515	Soil	54	1.79	87	0.179	1	5.61	0.043	0.09	0.3	0.09	11.0	<0.1	<0.05	12	0.6	<0.2
12ERS516	Soil	35	1.56	75	0.169	<1	4.93	0.052	0.04	0.2	0.12	9.4	<0.1	<0.05	13	<0.5	<0.2
12ERS517	Soil	76	1.49	91	0.178	<1	4.14	0.028	0.14	0.3	0.09	9.8	<0.1	<0.05	11	<0.5	<0.2
12ERS518	Soil	18	0.22	42	0.166	<1	3.86	0.009	0.01	0.3	0.13	3.4	<0.1	<0.05	12	0.5	<0.2
12ERS519	Soil	33	0.81	50	0.176	<1	4.52	0.016	0.04	0.4	0.12	5.5	<0.1	<0.05	10	0.5	<0.2
12ERS520	Soil	40	1.49	134	0.139	<1	3.85	0.041	0.32	0.2	0.03	6.7	0.2	<0.05	8	<0.5	<0.2
12ERS521	Soil	42	1.56	136	0.147	1	4.12	0.044	0.36	0.2	0.03	7.3	0.2	<0.05	9	0.8	<0.2
12ERS522	Soil	34	1.18	83	0.159	1	4.22	0.024	0.13	0.3	0.10	7.5	<0.1	<0.05	11	1.0	<0.2
12ERS523	Soil	26	0.70	43	0.120	<1	2.53	0.011	0.04	0.2	0.18	4.0	<0.1	<0.05	9	<0.5	<0.2
12ERS524	Soil	37	2.30	88	0.283	<1	4.24	0.016	0.23	<0.1	0.07	14.0	<0.1	<0.05	14	0.5	<0.2
12ERS525	Soil	34	1.03	45	0.141	<1	6.26	0.012	0.07	0.2	0.17	9.1	<0.1	<0.05	11	1.2	<0.2
12ERS526	Soil	25	0.92	53	0.170	<1	3.71	0.010	0.07	0.2	0.10	7.1	<0.1	<0.05	11	<0.5	<0.2
12ERS527	Soil	26	1.23	48	0.119	<1	1.81	0.014	0.25	0.5	0.08	6.2	0.3	0.21	8	1.3	<0.2
12ERS528	Soil	23	1.83	44	0.126	<1	3.15	0.012	0.31	0.2	0.08	6.6	0.3	0.08	9	1.2	<0.2
12ERS529	Soil	27	3.82	83	0.162	<1	4.12	0.021	0.60	0.3	0.04	11.8	0.4	0.08	11	1.0	<0.2

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Project: 99142

Report Date: November 23, 2012

## CERTIFICATE OF ANALYSIS

VAN12005141.1

Method Analyte Unit MDL	1DX15																				
	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm									
	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
12ERS530	Soil	0.6	229.7	12.5	84	0.1	39.1	29.7	419	4.89	2.8	<0.5	0.7	13	0.1	0.1	<0.1	235	0.33	0.056	2
12KPS001	Soil	2.5	56.9	4.2	64	0.2	8.4	10.3	324	4.34	4.2	<0.5	0.6	12	0.4	0.2	<0.1	132	0.16	0.065	3
12KPS002	Soil	1.9	26.6	5.5	56	0.2	13.4	10.8	289	3.46	10.4	<0.5	0.8	9	0.3	0.2	<0.1	110	0.17	0.054	3
12KPS003	Soil	0.2	10.0	22.8	26	<0.1	3.0	0.9	22	0.29	3.1	<0.5	<0.1	20	0.3	0.6	0.1	7	0.47	0.059	9
12KPS004	Soil	1.0	60.0	5.5	61	0.2	26.1	21.5	421	2.94	7.5	<0.5	0.6	27	0.4	0.3	<0.1	89	0.58	0.074	4
12KPS005	Soil	1.6	42.2	8.0	56	0.3	16.1	11.3	373	3.47	4.8	<0.5	0.8	7	0.2	0.3	<0.1	131	0.12	0.046	3
12KPS006	Soil	3.4	57.6	10.1	92	0.6	18.2	16.0	746	5.24	14.6	6.7	1.4	8	0.5	2.8	0.1	107	0.16	0.060	7
12KPS007	Soil	1.6	39.6	6.6	44	0.1	13.3	7.8	125	3.31	4.9	0.9	1.9	6	<0.1	0.2	0.1	114	0.09	0.028	4
12KPS008	Soil	0.8	24.1	6.1	80	0.2	10.7	11.1	471	2.03	2.5	1.9	0.2	17	0.2	0.1	0.1	85	0.41	0.066	3
12KPS009	Soil	0.9	47.7	6.7	32	0.2	7.5	3.7	99	2.45	4.6	1.4	1.5	5	0.2	0.1	0.1	77	0.10	0.031	3
12KPS010	Soil	1.0	30.1	6.2	72	<0.1	18.5	17.5	325	3.72	11.3	<0.5	0.8	37	0.2	0.2	0.1	177	0.91	0.034	2
12KPS011	Soil	0.7	39.4	9.3	55	0.2	8.8	12.8	239	3.04	16.8	1.1	0.9	10	0.4	0.3	0.2	120	0.26	0.051	4
12KPS012	Soil	0.9	54.9	14.7	56	0.4	8.3	9.2	267	3.20	4.9	1.7	0.9	5	0.3	0.2	0.2	121	0.07	0.057	3
12KPS013	Soil	1.1	78.5	15.7	59	0.2	12.5	9.4	122	2.90	5.0	11.3	1.7	5	0.1	0.1	0.1	108	0.09	0.066	4
12KPS014	Soil	1.5	71.4	34.2	89	0.9	14.6	11.3	294	4.28	15.7	57.7	0.5	7	0.5	0.9	0.1	143	0.17	0.092	2
12KPS015	Soil	0.9	57.4	15.9	82	0.4	14.1	13.3	570	3.30	6.7	8.3	0.6	8	0.7	0.2	0.1	119	0.14	0.068	3
12KPS016	Soil	1.7	33.6	10.4	70	0.8	13.5	7.8	267	3.66	10.7	5.3	0.9	5	0.4	0.3	0.2	117	0.07	0.062	4
12KPS017	Soil	1.4	39.1	9.6	68	0.4	16.5	8.9	402	3.75	9.6	3.6	1.3	6	0.3	0.2	0.2	114	0.09	0.055	3
12KPS018	Soil	1.5	50.6	8.7	62	0.3	21.4	11.8	254	2.96	5.7	6.9	1.4	7	0.3	0.2	0.1	95	0.12	0.049	4
12KPS019	Soil	1.3	74.7	12.2	69	0.2	17.3	14.3	430	3.27	7.3	2.3	1.4	11	0.2	0.2	0.1	118	0.22	0.076	4
12KPS020	Soil	1.2	41.5	7.8	58	0.6	12.4	10.9	272	3.89	5.6	20.8	1.3	5	0.1	0.2	0.1	148	0.09	0.043	3
12KPS021	Soil	1.3	41.5	8.2	57	0.5	12.0	10.7	284	3.93	5.7	8.9	1.3	5	0.1	0.2	0.1	154	0.09	0.044	3
12KPS022	Soil	1.2	24.9	10.6	37	0.4	7.7	5.4	124	3.47	5.1	7.9	2.0	4	0.2	0.2	0.2	114	0.06	0.029	5
12MBS001	Soil	1.7	38.3	5.7	82	0.2	12.3	12.6	1496	3.92	4.4	1.1	0.5	11	0.3	0.2	0.1	122	0.17	0.083	5
12MBS002	Soil	2.0	24.0	5.8	43	0.3	8.1	9.5	182	3.27	4.2	3.2	0.6	7	0.4	0.2	0.2	96	0.11	0.057	4
12MBS003	Soil	2.2	53.2	7.4	120	0.2	26.3	23.3	390	4.93	22.3	3.3	1.2	13	0.4	0.7	0.1	146	0.24	0.052	4
12MBS004	Soil	1.4	51.1	7.6	61	0.2	16.4	11.9	186	3.56	4.7	2.0	1.8	6	0.2	0.2	0.1	111	0.12	0.045	4
12MBS005	Soil	1.8	63.0	10.0	121	0.2	32.7	20.2	1377	5.16	14.1	1.9	0.6	40	0.7	1.4	0.1	121	0.90	0.085	9
12MBS006	Soil	2.5	21.2	6.8	64	0.2	8.6	7.8	412	4.41	5.1	8.4	0.7	14	0.4	0.3	0.2	125	0.31	0.052	3
12MBS007	Soil	1.5	46.7	5.7	76	0.1	18.7	18.6	534	3.72	4.1	4.1	1.4	15	0.3	0.2	0.1	122	0.40	0.052	4

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Project: 99142  
Report Date: November 23, 2012

Page: 3 of 4

Part: 2 of 1

## CERTIFICATE OF ANALYSIS

VAN12005141.1

Analyte	Method	1DX15															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
12ERS530	Soil	83	3.65	216	0.182	<1	5.68	0.044	0.75	0.3	0.02	20.6	0.1	<0.05	12	<0.5	<0.2
12KPS001	Soil	26	0.45	142	0.154	<1	4.35	0.033	0.11	0.2	0.19	10.3	0.2	<0.05	9	1.7	<0.2
12KPS002	Soil	31	0.36	65	0.154	<1	4.34	0.014	0.04	0.2	0.27	7.1	0.1	<0.05	9	1.1	<0.2
12KPS003	Soil	4	0.06	172	0.011	2	0.19	0.012	0.04	<0.1	0.29	0.5	<0.1	<0.05	<1	<0.5	<0.2
12KPS004	Soil	42	0.84	93	0.123	<1	4.68	0.031	0.11	0.3	0.14	5.7	0.1	<0.05	8	0.8	<0.2
12KPS005	Soil	34	0.65	61	0.150	<1	2.94	0.022	0.04	0.3	0.16	6.1	0.1	<0.05	10	1.0	<0.2
12KPS006	Soil	31	0.46	65	0.090	4	4.70	0.025	0.05	0.2	0.25	11.8	0.2	<0.05	8	1.8	<0.2
12KPS007	Soil	30	0.50	42	0.179	<1	4.08	0.015	0.04	0.4	0.12	7.8	<0.1	<0.05	11	<0.5	<0.2
12KPS008	Soil	24	0.59	70	0.086	1	2.59	0.046	0.06	0.4	0.13	4.2	0.1	<0.05	8	1.1	<0.2
12KPS009	Soil	23	0.30	29	0.115	1	4.28	0.011	0.02	0.2	0.23	4.5	<0.1	<0.05	8	0.6	<0.2
12KPS010	Soil	62	1.38	90	0.221	<1	4.17	0.198	0.18	0.4	0.10	15.8	0.2	<0.05	11	0.7	<0.2
12KPS011	Soil	33	0.60	34	0.167	<1	3.63	0.020	0.04	0.6	0.12	5.1	<0.1	<0.05	10	1.1	<0.2
12KPS012	Soil	21	0.64	45	0.164	1	3.78	0.016	0.05	0.2	0.20	6.2	<0.1	<0.05	12	<0.5	<0.2
12KPS013	Soil	29	0.70	48	0.157	1	6.04	0.018	0.05	0.3	0.13	9.3	<0.1	<0.05	11	<0.5	<0.2
12KPS014	Soil	47	1.20	131	0.145	2	3.85	0.023	0.30	0.2	0.23	9.7	0.3	<0.05	11	0.7	<0.2
12KPS015	Soil	25	1.09	84	0.144	2	3.71	0.022	0.11	0.2	0.16	7.5	0.2	<0.05	10	<0.5	<0.2
12KPS016	Soil	29	0.74	49	0.146	1	3.14	0.012	0.04	0.3	0.19	6.3	0.1	<0.05	11	1.0	<0.2
12KPS017	Soil	40	0.91	50	0.151	1	3.71	0.016	0.05	0.4	0.18	7.8	0.2	<0.05	10	0.7	<0.2
12KPS018	Soil	27	0.74	73	0.140	1	3.65	0.016	0.07	0.4	0.16	7.2	0.2	<0.05	9	0.6	<0.2
12KPS019	Soil	29	1.19	119	0.138	1	3.76	0.039	0.25	0.3	0.09	9.5	0.2	<0.05	9	<0.5	<0.2
12KPS020	Soil	27	1.47	72	0.152	1	3.82	0.013	0.04	0.2	0.13	13.2	0.1	<0.05	10	<0.5	<0.2
12KPS021	Soil	27	1.51	73	0.155	1	3.86	0.015	0.05	0.2	0.13	13.4	0.1	<0.05	10	<0.5	<0.2
12KPS022	Soil	24	0.43	32	0.188	<1	3.84	0.011	0.02	0.2	0.14	5.0	<0.1	<0.05	12	<0.5	<0.2
12MBS001	Soil	27	0.40	93	0.123	2	3.84	0.030	0.08	0.1	0.14	7.8	0.3	<0.05	11	1.0	<0.2
12MBS002	Soil	21	0.27	90	0.151	2	2.24	0.020	0.07	0.2	0.17	5.4	0.1	<0.05	8	1.4	<0.2
12MBS003	Soil	42	0.96	96	0.155	3	4.92	0.051	0.06	0.2	0.17	13.7	0.2	<0.05	10	1.5	<0.2
12MBS004	Soil	36	0.69	66	0.182	2	5.60	0.025	0.06	0.3	0.13	9.6	<0.1	<0.05	11	0.7	<0.2
12MBS005	Soil	37	0.76	150	0.069	6	2.88	0.067	0.15	0.3	0.13	11.6	0.3	<0.05	6	1.6	<0.2
12MBS006	Soil	25	0.40	74	0.177	2	2.68	0.039	0.09	0.2	0.18	7.8	0.2	<0.05	11	0.8	<0.2
12MBS007	Soil	46	0.83	80	0.200	2	4.17	0.054	0.07	0.3	0.13	9.0	0.2	<0.05	11	1.0	<0.2

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



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Project: 99142  
Report Date: November 23, 2012

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## CERTIFICATE OF ANALYSIS

VAN12005141.1

Analyte	Method	1DX15																				
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
		Unit	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm							
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
12MBS008	Soil		1.1	30.3	6.6	59	0.1	11.2	14.5	327	4.40	2.6	0.7	1.5	11	0.2	0.1	0.1	112	0.26	0.040	4
12MBS009	Soil		0.7	46.9	5.4	77	0.1	15.2	16.8	695	3.30	3.2	2.4	0.4	38	0.3	0.2	0.1	114	0.81	0.049	4
12MBS010	Soil		1.0	47.4	7.5	42	<0.1	15.6	11.1	140	3.55	4.0	1.7	1.3	9	0.2	0.2	0.2	114	0.18	0.033	4
12MBS011	Soil		1.1	55.1	7.8	60	0.2	19.0	19.4	206	3.72	3.2	4.2	1.5	9	0.2	0.3	0.2	109	0.17	0.036	7
12MBS012	Soil		0.7	44.4	5.7	63	0.2	17.1	15.2	623	2.98	5.8	2.3	0.7	29	0.3	0.2	0.1	90	0.60	0.067	4
12MBS013	Soil		1.1	32.9	5.8	39	0.2	9.6	6.5	108	3.25	3.5	1.5	2.1	5	0.1	0.1	0.2	97	0.08	0.036	5
12MBS014	Soil		1.1	45.4	5.4	31	0.2	8.0	6.5	95	2.98	2.7	3.1	1.0	6	0.3	0.1	0.2	123	0.09	0.040	3
12MBS015	Soil		0.6	155.0	6.0	64	0.1	18.3	21.0	461	3.77	2.4	4.5	0.8	15	0.1	0.1	0.1	140	0.35	0.066	3
12MBS016	Soil		0.4	106.7	5.5	98	0.4	20.3	18.0	861	3.33	7.0	2.9	0.5	42	0.4	0.2	0.1	139	1.15	0.090	3
12MBS017	Soil		0.7	124.6	6.0	73	0.1	24.6	18.3	361	3.38	5.2	5.4	1.4	17	0.2	0.2	0.1	127	0.43	0.078	4
12MBS018	Soil		0.8	127.7	6.2	72	0.1	24.4	17.3	335	3.46	6.7	4.1	1.4	13	0.2	0.2	0.1	123	0.30	0.086	4
12MBS019	Soil		1.2	53.9	5.0	71	0.3	24.4	13.3	306	3.06	15.5	4.6	1.3	11	0.4	0.2	<0.1	103	0.26	0.099	5
12MBS020	Soil		0.8	221.1	6.8	83	0.2	26.1	20.0	226	4.19	3.5	4.2	1.3	10	0.2	0.2	0.2	178	0.19	0.079	3
12MBS021	Soil		0.8	225.8	6.7	86	0.2	28.1	21.5	250	4.53	3.6	5.1	1.3	10	0.2	0.1	0.2	190	0.21	0.080	4
12MBS022	Soil		0.9	306.2	12.9	71	0.3	22.4	19.3	246	4.07	4.3	4.2	1.3	13	0.2	0.2	0.2	164	0.22	0.070	4



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## CERTIFICATE OF ANALYSIS

VAN12005141.1

Analyte	Method	1DX15															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
12MBS008	Soil	28	0.92	130	0.261	2	3.83	0.045	0.20	0.2	0.12	9.4	0.2	<0.05	12	0.9	<0.2
12MBS009	Soil	37	1.11	125	0.159	1	3.08	0.095	0.13	0.2	0.10	8.0	0.2	<0.05	8	0.9	<0.2
12MBS010	Soil	33	0.83	46	0.203	2	3.51	0.028	0.05	0.4	0.13	5.7	<0.1	<0.05	13	1.2	<0.2
12MBS011	Soil	36	0.85	49	0.237	2	4.19	0.029	0.04	0.5	0.14	6.0	0.1	<0.05	12	1.2	<0.2
12MBS012	Soil	30	0.72	81	0.142	3	3.07	0.035	0.07	0.5	0.17	5.2	0.1	<0.05	9	0.8	<0.2
12MBS013	Soil	29	0.38	35	0.197	1	5.00	0.016	0.03	0.2	0.13	7.3	<0.1	<0.05	11	1.1	<0.2
12MBS014	Soil	17	0.49	42	0.174	2	3.17	0.017	0.03	0.2	0.17	5.0	<0.1	<0.05	13	<0.5	<0.2
12MBS015	Soil	38	1.74	91	0.159	2	5.34	0.077	0.17	0.2	0.11	11.8	0.1	<0.05	12	1.0	<0.2
12MBS016	Soil	35	1.63	133	0.132	3	4.22	0.129	0.20	0.2	0.09	9.5	0.2	<0.05	10	1.6	<0.2
12MBS017	Soil	38	1.50	134	0.163	1	4.23	0.073	0.37	0.3	0.06	10.0	0.2	<0.05	10	<0.5	<0.2
12MBS018	Soil	41	1.30	127	0.163	2	4.81	0.057	0.32	0.3	0.11	9.6	0.2	<0.05	11	0.6	<0.2
12MBS019	Soil	40	0.92	110	0.130	2	6.20	0.033	0.24	0.3	0.11	11.1	0.3	<0.05	10	1.0	<0.2
12MBS020	Soil	62	1.91	149	0.210	2	6.79	0.038	0.29	0.3	0.13	13.5	0.2	0.06	15	<0.5	<0.2
12MBS021	Soil	67	1.96	155	0.231	2	6.91	0.041	0.29	0.3	0.12	14.4	0.2	0.06	15	0.6	<0.2
12MBS022	Soil	46	1.47	93	0.203	2	5.65	0.035	0.12	0.3	0.16	10.9	0.1	0.08	13	<0.5	<0.2



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## QUALITY CONTROL REPORT

VAN12005141.1

Method	Analyte	1DX15	1DX15																		
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm							
		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
Pulp Duplicates																					
12ERS525	Soil	1.8	78.4	15.2	46	0.1	11.6	7.3	157	4.75	9.1	3.1	2.3	6	0.1	0.2	0.2	102	0.08	0.048	5
REP 12ERS525	QC	1.8	83.4	15.0	49	<0.1	12.2	7.6	160	4.69	9.4	0.5	2.2	6	<0.1	0.3	0.2	99	0.08	0.049	5
12KPS005	Soil	1.6	42.2	8.0	56	0.3	16.1	11.3	373	3.47	4.8	<0.5	0.8	7	0.2	0.3	<0.1	131	0.12	0.046	3
REP 12KPS005	QC	1.8	40.7	8.5	53	0.2	14.9	11.2	367	3.42	5.0	2.7	0.7	8	0.2	0.2	<0.1	131	0.12	0.046	3
12MBS009	Soil	0.7	46.9	5.4	77	0.1	15.2	16.8	695	3.30	3.2	2.4	0.4	38	0.3	0.2	0.1	114	0.81	0.049	4
REP 12MBS009	QC	0.7	48.0	5.3	78	0.2	15.2	16.8	683	3.31	3.0	3.4	0.4	37	0.2	0.2	0.1	115	0.82	0.049	4
12MBS019	Soil	1.2	53.9	5.0	71	0.3	24.4	13.3	306	3.06	15.5	4.6	1.3	11	0.4	0.2	<0.1	103	0.26	0.099	5
REP 12MBS019	QC	1.2	53.2	5.0	71	0.3	23.7	13.4	303	3.09	15.2	5.5	1.2	11	0.3	0.2	<0.1	103	0.24	0.093	5
Reference Materials																					
STD DS9	Standard	12.6	104.9	117.9	298	1.8	37.2	7.1	564	2.22	25.1	106.2	6.4	68	2.0	5.1	5.6	42	0.71	0.085	13
STD DS9	Standard	13.0	117.7	129.6	329	1.9	42.0	8.2	605	2.46	24.4	112.2	6.4	68	2.2	5.1	6.5	49	0.74	0.089	13
STD DS9	Standard	10.9	109.3	117.9	285	1.8	36.9	7.2	538	2.15	24.6	131.8	5.9	61	2.4	5.2	6.0	41	0.63	0.078	12
STD DS9 Expected		12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819	13.3
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	9	<0.01	<0.001	<1
BLK	Blank	<0.1	0.3	<0.1	<1	<0.1	<0.1	<0.1	<1	0.05	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1



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## QUALITY CONTROL REPORT

VAN12005141.1

Method Analyte Unit MDL	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																	
12ERS525	Soil	34	1.03	45	0.141	<1	6.26	0.012	0.07	0.2	0.17	9.1	<0.1	<0.05	11	1.2	<0.2
REP 12ERS525	QC	35	1.04	48	0.137	<1	6.04	0.012	0.07	0.2	0.18	8.8	<0.1	<0.05	12	1.0	<0.2
12KPS005	Soil	34	0.65	61	0.150	<1	2.94	0.022	0.04	0.3	0.16	6.1	0.1	<0.05	10	1.0	<0.2
REP 12KPS005	QC	34	0.65	64	0.148	<1	3.06	0.021	0.04	0.3	0.18	6.1	0.1	<0.05	10	0.7	<0.2
12MBS009	Soil	37	1.11	125	0.159	1	3.08	0.095	0.13	0.2	0.10	8.0	0.2	<0.05	8	0.9	<0.2
REP 12MBS009	QC	36	1.06	125	0.158	2	2.96	0.095	0.13	0.2	0.10	8.0	0.2	<0.05	8	1.2	<0.2
12MBS019	Soil	40	0.92	110	0.130	2	6.20	0.033	0.24	0.3	0.11	11.1	0.3	<0.05	10	1.0	<0.2
REP 12MBS019	QC	39	0.91	109	0.125	1	6.12	0.032	0.25	0.3	0.11	11.1	0.3	<0.05	10	0.9	<0.2
Reference Materials																	
STD DS9	Standard	114	0.61	292	0.109	3	0.93	0.091	0.40	2.9	0.19	2.7	5.3	0.11	5	5.2	5.1
STD DS9	Standard	127	0.66	302	0.113	3	0.99	0.091	0.40	2.9	0.21	2.9	5.6	0.20	5	5.4	4.7
STD DS9	Standard	116	0.56	278	0.102	2	0.83	0.070	0.36	3.0	0.19	2.2	5.3	0.07	4	4.7	4.3
STD DS9 Expected		121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	0.07	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2

## Appendix 4 – 2012 Expenditures

## 2012 Exploration Expenditure for Slesse Creek

	Date	Number	Description	Amount
<b>Geological Field work</b>				
30/11/12	2012-643	Geological Services Performed Field - Kevin Pinkerton (Oct 22-Nov 21/12)	4,675.00	
30/11/12	2012-643	Geological Services Performed Field - Eemeli Rantala (Oct 22-Nov 21/12)	4,125.00	
30/11/12	2012-643	Geological Services Performed Field - Marko Bogdanovic (Oct 22-Nov 21/12)	2,975.00	
30/11/12	2012-643	Geological Services Performed Field - Chris Livingstone (Oct 22-Nov 21/12)	1,900.00	
30/11/12	2012-643	Geological Services Performed Field - Aaron Halushka (Oct 22-Nov 21/12)	1,700.00	
Total Geological Field work				15,375.00
<b>Geological office work</b>				
<b>Project Planning</b>				
31/10/12	2012-596	Geological Services Performed Office - Kris Raffle (July 22-Aug 21/12)	410.75	
31/10/12	2012-596	Geological Services Performed Office - Sarah Mah (July 22-Aug 21/12)	300.00	
31/10/12	2012-596	Geological Services Performed Office - Kris Raffle (Aug 22-Sept 22/12)	356.50	
31/10/12	2012-596	Geological Services Performed Office - Perry Hohn (Sept 22-Oct 21/12)	542.75	
31/10/12	2012-596	Geological Services Performed Office - Kris Raffle (Sept 22-Oct 21/12)	155.00	
31/10/12	2012-643	Geological Services Performed Office - Perry Hohn (Oct 22-Nov 21/12)	282.75	
30/11/12	2012-643	Geological Services Performed Office - Kris Raffle (Oct 22-Nov 21/12)	1,340.75	
Total Project Planning				3,388.50
<b>Post-field Data Compilation</b>				
30/11/12	2012-643	Geological Services Performed Office - Eemeli Rantala (Oct 22-Nov 21/12)	852.00	
30/11/12	2012-643	Geological Services Performed Office - Kevin Pinkerton (Oct 22-Nov 21/12)	681.00	
30/11/12	2012-643	Geological Services Performed Office - Marko Bogdanovic (Oct 22-Nov 21/12)	87.75	
30/11/12	2012-643	Geological Services Performed Office - Sean Stevenson (Oct 22-Nov 21/12)	239.25	
30/11/12	2012-643	Geological Services Performed Office - Chris Livingstone (Oct 22-Nov 21/12)	650.00	
30/11/12	2012-643	Geological Services Performed Office - Aaron Halushka (Oct 22-Nov 21/12)	159.00	
Total Post-field Data Compilation				2,669.00
<b>Assessment Report</b>				
30/11/12	2012-643	Geological Services Performed Office - Sarah Mah (Oct 22-Nov 21/12)	219.00	
31/12/12	2012	Geological Services Performed Office - Bahram Bahrami (Nov 22-Dec 21/12)	1,548.00	
31/12/12	2012	Geological Services Performed Office - Brett Hannigan (Nov 22-Dec 21/12)	1,386.67	
31/12/12	2012	Geological Services Performed Office - Sarah Mah (Nov 22-Dec 21/12)	1,800.00	
Total Assessment Report				4,953.67
<b>HR &amp; Safety</b>				
31/10/12	2012-596	Human Resource and Safety Services Office - Sean Hawkes (Sept 22-Oct 21/12)	560.00	
30/11/12	2012-643	Human Resource and Safety Services Office - Sean Hawkes (Oct 22-Nov 21/12)	469.00	
Total HR & Safety				1,029.00
<b>Rentals &amp; Overhead Fee</b>				
31/10/12	2012-596	Operator's overhead and management fee (10%)	815.28	
31/11/12	2012-643	Truck rental	1,200.00	
31/11/12	2012-643	laptop, gps, sat phone, ArcGIS software, survival bag, misc field gear	600.00	
30/11/12	2012-596	Operator's overhead and management fee (10%)	1,114.70	
Total Rentals & Overhead Fee				3,729.98
<b>Third Party</b>				
<b>Assays &amp; related costs</b>				
5/11/12	VANI150370	Acme Labs: assay analysis, Nov 5/12, inv VANI150370	1,512.75	
16/11/12	VANI151729	Acme Labs: assay analysis, Nov 16/12, inv VANI151729	1,933.58	
21/11/12	VANI152291	Acme Labs: assay analysis, Nov 21/12, inv VANI152291	1,090.21	
27/11/12	VANI152934	Acme Labs: assay analysis, Nov 27/12, inv VANI152934	509.25	
Total Assays & related costs				5,045.79
<b>Field supplies</b>				
19/10/12	03B-27209	Deakin Equipment: supplies, Oct 19/12, inv 03B-27209	32.94	
19/10/12	03B-27207	Deakin Equipment: supplies, Oct 19/12, inv 03B-27207	394.29	
29/10/12		Eemeli Rantala: supplies, Oct 23/12	87.73	
11/11/12		Kevin Pinkerton: supplies, Oct 22-Nov 6/12	186.62	
Total Field supplies				701.58
<b>Maps, data &amp; reproduction costs</b>				
26/10/12		Kris Raffle: maps, Oct 22/12	200.00	
Total Maps, data & reproduction costs				200.00
<b>Rental - equipment</b>				
22/11/12	U52855	Glentel: radio rental, Oct 22-Nov 21/12, inv U52855	405.00	
Total Rental - equipment				405.00
<b>Travel - accommodations</b>				
29/10/12		Eemeli Rantala: hotel, Chilliwack, Oct 22-26/12	775.12	

**2012 Exploration Expenditure for Slesse Creek**

	Date	Number	Description	Amount
	5/11/12		Eemeli Rantala: hotel, Chilliwack, Oct 31-Nov 2/12	387.56
	11/11/12		Kevin Pinkerton: hotel, Chilliwack, Nov 7-10/12	656.82
Total Travel - accommodations				1,819.50
 Travel - airfare/bus fare				
	5/11/12	3000809	Far West Helicopters: airfare, Oct 24-Nov 2/12, inv 3000809	4,730.00
	13/11/12	3000811	Far West Helicopters: airfare, Nov 8-Nov 10/12, inv 3000811	3,520.00
Total Travel - airfare/bus fare				8,250.00
 Travel - food				
	29/10/12		Eemeli Rantala: food, Oct 22-25/12	481.88
	5/11/12		Eemeli Rantala: food, Oct 31-Nov 2/12	201.33
	11/11/12		Kevin Pinkerton: food, Nov 7-10/12	487.96
Total Travel - food				1,171.17
 Travel - fuel				
	29/10/12		Eemeli Rantala: fuel, Oct 23/12	95.24
	5/11/12	3000809	Far West Helicopters: fuel, Oct 24-Nov 2/12, inv 3000809	756.80
	13/11/12	3000811	Far West Helicopters: airfare, Nov 8-Nov 10/12, inv 3000811	563.20
	8/11/12		Sean Hawkes: fuel, Oct 22/12	47.75
	11/11/12		Kevin Pinkerton: fuel, Nov 7/12	93.99
Total Travel - fuel				1,556.98
 Travel - taxi, parking & other				
	8/11/12		Sean Hawkes: ferry, Oct 19 & 22/12	146.00
	14/11/12		Perry Hohn: taxi, Oct 22/12	3.75
Total Travel - taxi, parking & other				149.75
 Total Third Party				19,299.77

**Total Expenditures for the 2012 Exploration Program: \$50,444.92**