GEOCHEMICAL and GEOPHYSICAL REPORT ON THE GOLD SUMMIT PROJECT 2011

LILLOOET MINING DIVISION
BRITISH COLUMBIA

NTS 092J
Latitude 50° 53' North -- Longitude 122°31' West

UTM Zone 10, NAD 83
533600N 353700E

Prepared for:

Havilah Mines Ltd. & St. Elias Mines Ltd.

BY

James Thom, M.Sc.

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1.0 SUMMARY

This report describes a program of exploration undertaken during July 2011 on the Gold Summit Property.

The Gold Summit property is located in southwest British Columbia, Canada; approximately 185 kilometres north of Vancouver. The property consists of a single contiguous claim block of three mineral claims, covering 1,203.27 hectares or 2,973.24 acres. It is best accessed by a combination of paved and gravel roads from either Bralorne or Lillooet, about 25 km east or 50 km west of the claims, respectively. The property lies within the Bridge River Mining District, which hosts the prolific Bralorne-Pioneer gold-silver mines. Reported historical production of the Bralorne-Pioneer camp is about 4.15 million ounces of gold and 0.95 million ounces of silver.

The property has been explored intermittently since 1907. Early 20th century exploration efforts were dominated by physical work; including property access roads, two short adits and some surface trenching. During the early 1980s and early 1990s, two junior exploration companies carried out two separate but detailed exploration campaigns. Collectively, these campaigns included airborne geophysics, property-wide prospecting and grid based soil sampling, geological mapping, ground geophysics, mechanized trenching and, perhaps, up to nine drill holes.

The Gold Summit property hosts a number of roughly east trending, shear hosted, mesothermal gold-silver ± polymetallic quartz vein occurrences. Historical exploration efforts have identified a lengthy quartz vein/shear (Adit Zone) and several other less extensive quartz veins/shears. In many cases, the veins are masked by overburden or are structurally offset. The Adit Zone hosts the property's main occurrences of quartz-sulphide vein mineralization. This gold-enriched structure has been traced on surface for a distance of approximately 400 metres, varying in width from 0.25 metres to about 2.0 metres; with dip orientations ranging from 30° to vertical. Historical reports indicate that select high-grade Adit Zone quartz vein samples can yield gold assays of greater than 1.0 opt. However, the gold-enriched vein-shear material typically reports gold values on the order of 0.1 to 0.3 opt gold.

This report summarizes all known information pertaining to the early stage Gold Summit mineral exploration venture. More specifically, the report describes the underlying geology of the project area, summarizes the property's exploration history and describes the exploration program carried out in July of 2011. The report was prepared at the request of Havilah Mines Ltd. and was written under the guidelines of Mineral Tenure Act.

During the months of July to August 2011, Havilah completed a detailed exploration program on the central part of the property. The dominant focus of this program was to test the effectiveness of three types of ground geophysical surveys for mapping rock types and defining potential shear bound mineralization. A total of twenty line kilometres of cut control grid line (10 lines) was established and was entirely surveyed with both

magnetics and horizontal loop EM. A 3D inversion induced polarization test survey covered the north half of the survey area (five lines for 10 km). A total of 188 soil samples were collected on along a dirt access road just south the grid area, following the contours of the south slope of Marshall Ridge. The exploration program was completed at a total cost of $136,418.

3.0 INTRODUCTION

This report has been written in order to satisfy assessment requirements. The report describes the underlying geology of the project area, summarizes the property's exploration history and describes the exploration program carried out between July and August of 2011 on the Gold Summit Claim group.

The 2011 exploration work was carried out by the author of this report with the aid of Gerard Gallissant, Ronald Buroski and SJV field personnel.

All UTM locations given are from the NAD83 ZONE11 projection.

3.1 Property Description and Location

Havilah's Gold Summit Project consists of a single contiguous claim block of eleven mineral cell title claims, covering 3,201.29 hectares (Figure 1). The Gold Summit property is located in southwest British Columbia, Canada; approximately 185 kilometres north of Vancouver along Carpenter Lake road. The centre of the property is at approximately 50.88° North and 122.52° West or UTM Zone 10 (NAD 83) at approximately 5636400 North and 533500 East. The claim statistics and the various anniversary dates are summarized in Table 1.

Table 1. Gold Summit Claim

OWNER	OPERATOR	TENURE #	SIZE (Ha)	EXPIRY DATE M/D/Yr
St. Elias Mines	Havilah Mines	550299	285.533	2016/jun/15
St. Elias Mines	Havilah Mines	550300	856.573	2016/jun/15
St. Elias Mines	Havilah Mines	550301	61.164	2016/jun/15
St. Elias Mines	Havilah Mines	604792	81.56	2016/jun/15
St. Elias Mines	Havilah Mines	606195	122.41	2016/jun/15
St. Elias Mines	Havilah Mines	735122	203.84	2016/jun/15
St. Elias Mines	Havilah Mines	735142	203.82	2016/jun/15
St. Elias Mines	Havilah Mines	735783	101.89	2016/jun/15
St. Elias Mines	Havilah Mines	735803	285.25	2016/jun/15
St. Elias Mines	Havilah Mines	740362	489.44	2016/jun/15
St. Elias Mines	Havilah Mines	748682	509.82	2016/jun/15

2.2 Access, Climate, Local Resources and Physiography

The Gold Summit property is located in south coastal British Columbia, Canada, approximately 185 km north of Vancouver. The property is best accessed by a combination of paved and gravel roads from either Bralorne or Lillooet, about 25 km east or 50 km west of the claims, respectively. Paved highway 40 follows the north

shore of Carpenter Lake passing through the south end of the property. Access to the north and central portions of the property is first by the Marshall Lake forestry access gravel road and then by a 'new' dirt-logging road, which runs south through the claims. All roads are two-wheel drive accessible, but only in ideal weather conditions. A few ancient four-wheel drive access roads criss-cross the property but are now over grown by young vegetation and are infrequently eroded. These roads can be easily rehabilitated with minimal heavy equipment efforts.

The closest full service community, providing extensive infrastructure and skilled manpower is Lillooet, although Bralorne can provide acceptable exploration program necessities. Accommodations available include two hotels in Gold Bridge and Tyax Lodge (north of Gold Bridge). There are many campsites located on lakes and rivers in the vicinity as well. A major electrical power line cuts through the south end of the property, but no exploration related infrastructure is present on or near the claims. The elevated central region of the property has no immediately accessible water to facilitate exploration efforts. Most water will have to be trucked or pumped from either Carpenter Lake or Marshall Creek to accommodate drilling programs in this region.

The claims cover the eastern extent of Marshall Ridge, which is bound to the north by Marshall Creek and to the south by Carpenter Lake. The glacially derived ridge rises from about 654 m (2145 feet) at Carpenter Lake to a high point of 1628 m (5340 feet), on the top of Marshall Ridge. The ridge is moderately steep and is generally accessible by heavy earth moving equipment. The ridge top is largely flat.

The property is covered by thick stands of fir and pine trees. Vegetation can be dense at lower elevations, making walking difficult. Deadfall trees and ground level debris are also abundant. Overburden cover is extensive and commonly shallow at less then one metre, but can be locally greater than five metres. Soils contain a well-developed red-brown coloured B-horizon (Sampson 1988).

The property climate is typical of the south central Coast Mountain region of British Columbia, being generally free of snow from early May through October. The closest community for which the Government of Canada weather website (weatheroffice.ec.gc.ca) reports weather statistics is Whistler. (Note: while the Gold Summit property is only 90 km north of Whistler, but it is at slightly higher elevation; therefore property temperature ranges and total of precipitation may tend to be more extreme). Whistler's average yearly rainfall is about 850 mm; the months from October to February experience the most precipitation. Average annual snowfall in the area is about 411cm. An extensive snow pack on the Gold Summit claims will prohibit most winter work, particularly on those portions of the property at higher elevations. Summers are temperate, with average daytime temperatures from 6C to 16C (extreme summer high: ~38C). During the winter, the average daytime temperatures range from 0C to -4C (extreme winter low: -30C).

3.0 HISTORY

Where no specific reference is listed, information has been taken from the British Columbia Minister of Mines Annual reports, Ministry of Energy and Mines Assessment Report Index System or from the BC Geological Survey Branch Mineral Inventory File (MINFILE).

3.1 Regional Exploration History

The Gold Summit project is located within the northern part of the Bridge River mining camp, which is British Columbia's foremost historical gold producer from low sulphide mesothermal quartz veins. The Bridge River mining camp covers approximately 1500 square kilometres of mountainous terrain and is bounded by the Coast Range on the west and southwest and by the Shulaps Range on the northeast. The camp encompasses more than 60 gold bearing quartz vein mineral occurrences five of which were mines. Bralorne and Pioneer were the two larger producers. Together these two mines produced over 4 million ounces of gold, making them the foremost gold producers in British Columbia's history.

A total of 1,223,655 tonnes were mined intermittently between 1901 and 1991 from the Beaverdell mining camp. Recovery totalled 1,226,623,031 grams of silver, 544,452 grams of gold, 11,657 kilograms of copper, 12,965,868 kilograms of lead, 15,405,037 kilograms of zinc and 58,171 kilograms of cadmium. Grades calculated from reported mined and recovered values range between 13 to 263 oz/tonne Ag, 0.004 to 1.64 oz/tonne Au, 1 to 12% Zn, 1 to 11% Pb. The weighted average grades are 35 oz/tonne Ag, 0.016 oz/tonne Au, 1.22% Zn, 1.04% Pb.

There was only one past producer, the Rosemont, of the second style of mineralization in the Beaverdell mining area. The Rosemont mined 107 tonnes which yielded 1,928 grams Ag and 1,462 grams Au.

3.2 History of Exploration, Gold Summit Claim Group

(Adapted from White & Pezzot (1981), White (1981), Landsburg (1981), Sampson (1988), Brewer (1988), Miller-Tait (1990a-c), Miller-Tait & Church (1994) and Moor (2007))

The following is a brief summary of the historical exploration efforts carried out on the Gold Summit property. Figure 3 is a schematic historical exploration compilation reference maps and Table 2 summarizes all public documents recording exploration on the property.

There are 11 assessment reports on the ARIS database recording exploration work on the property and two 43-101 technical reviews carried out in the Gold Summit area. This current report will make the 12th modern exploration program carried out in this area.

Table 2. Summary of Gold Summit Exploration History

Owner/Area	Geochemistry	Geophysics	Trenching	Drilling	Reference
Quinto Mining Property		Air: Mag and EM			White & Pezzot (1981) ARIS: 9608
Quinto Mining Q1, Q2, Q3, Q4	956 soils	Ground: Mag and EM			White (1981) ARIS: 10453
Quinto Mining Ridge & Creek Adits	66 rocks				Landsberg (1981) ARIS: 10695
Quinto Mining Q2, Q4		Ground: IP			White (1982) ARIS: 11224
Gold Summit Mines North & South Grids	988 soils				Sampson (1988) ARIS: 17958
Gold Summit Mines Property		Air: 166.7 km Mag and EM			Brewer (1988) ARIS: 18440
Gold Summit Mines	319 rock		44 trenches		Miller-Tait (1990a) ARIS: 19936
Gold Summit Mines	36 soils				Miller-Tait (1990b) ARIS: 20432
Gold Summit Mines	611 soils 27 rocks		18 trenches		Miller-Tait (1990c) ARIS: 21159
Gold Summit Mines	178 soils		10 trenches	6 Holes: 984m	Miller-Tait and Church (1994) ARIS: 23627
Madman Mining / Chai Cha Na	10 rocks				Moore (2007) SEDAR
Madman Mining / Chai Cha Na	500 soils				Thom (2008) ARIS: 30975
Madman Mining / Chai Cha Na	248 soils 3 rocks				Thom (2010) ARIS: 32301
St. Elias Mines / Havilah MInes	188 soil 8 rock	Mag, Max-Min, 3D IP			Current Report

1907 to 1912

The earliest report of an original mineral enriched vein discovery comes from the 1907 British Columbia Department of Mines Annual Report. This report indicates that the Gold Summit property was first known as both the Summit and Paymuck. The report states that a galena, gold and silver enriched vein could be traced for 1000 feet (304 metres) on surface. A seventy-foot (21 metres) long adit (Upper Adit?) was driven into the hillside falling short of the vein. In addition, a large north-south trending basic dyke was discovered and was reported to be related to several quartz veins carrying iron,

zinc and lead sulphides with appreciable gold and silver values (Lower Adit?). Over next few years, a number of attempts to intercept the quartz vein were made by extending the Upper Adit from an original easterly trend to north and then northeast. The main vein was finally achieved and a hand sorted mineralized vein sample was collected and assayed; reported results are "$8 gold, 2.2 opt silver and 10% lead". The 1912 British Columbia Department of Mines Annual Report mentions limited work was carried out on the previously identified quartz-sulphide veins related to the basic dike and on another surface quartz-sulphide vein occurrence. Work was halted after it was concluded that identified mineralization was irregular and of limited size.

1944 Bridge River Exploration

The property lied dormant until 1944, when L. J. Russell prospected the property and discovered additional mineralized outcrops on the ridge near the old Summit workings (Upper and Lower adits). At this time, the claims were held by Bridge River Exploration Ltd. who carried out an additional limited program of road construction, adit extension and surface trenching on several quartz vein showings. The claims were later allowed to lapse.

1980 to 1982 Quinto Mining Corporation

The first modern 'Marshall Ridge Area' exploration program was initiated by Quinto Mining Corporation (Vancouver BC) in 1980, when the company carried out the physical work of building and upgrading numerous property access roads. In June of 1981, Western Geophysical Aerodata Ltd. completed a 92-kilometre airborne magnetometer and VLF-EM survey over the general area of the Gold Summit property. The survey successfully outlined (a) the major Marshall Creek fault zone and (b) located four areas of coincident VLF-EM and magnetic anomalies. During the years of 1981 and 1982, Quinto Mining focussed on four grid areas (Q1 to Q4) covering the four airborne anomalies. The company carried out programs of ground geophysical programs (VLF-EM, magnetometer, IP) geochemical soil sampling, geological mapping and sampling of old workings. Sampson (1988) reports that, Quinto Mining may have drilled at least three holes in the Adit Zone area, for which there are no known reports. The results of drilling are unknown, however work carried out by Sampson has located two old drill pad sites.

Q1 Grid

The Q1 grid was located on the northeast side of Marshall Creek over the confluence of Hog Creek. This grid is located on the far northeast corner of the Gold Summit property (claim 5503001). The grid covered an airborne EM-magnetic anomaly, where the northwest nose of a magnetic high intersected a broad EM conductor. These same features were defined by the ground geophysical surveys. The combined EM data apparently suggested that a northerly trending fault intersects a zone of a magnetite bearing lithologies, perhaps an ultramafic (White 1980)? Geochemical soil sample results identified no copper, silver or zinc anomalies, but did show a two-line gold anomaly down slope from some ancient workings; the B.C.T. 1 to 4 adits. These adits were driven on narrow, vertically dipping, weak fractures that trend about 160°. The dominant host rock is a siliceous schistose argillite, with weakly disseminated pyrite. All rock samples collected from these adits are reported to be sub-anomalous in base and

precious metals. Quinto concluded that the source of the gold in-soil values came from an outcropping quartz vein in the north trending lineament.

Q2 Grid

The centre of the Q2 grid was located approximately 700 metres north of the Upper and Lower adits, covering a weak airborne EM response and a magnetic high anomaly. The ground VLF-EM geophysical survey did not detect any definitive responses. The magnetometer results were erratic, identifying small isolated magnetic highs. Soil sample results showed several isolated single sample gold anomalies and no copper or silver anomalies. An open ended and strong zinc anomaly (high to 505 ppm) trends northward off the northern extent of the grid.

Q3 Grid

The Q3 grid was located on the far southeast end of Marshall Ridge, within the southeast corner of the present day Gold Summit property. The grid covered a weak NNE to SSW trending VLF anomaly. The magnetic response of the Q3 grid area is generally subdued. Soil sampling identified no precious metal anomalies, but did identify a weak zinc pattern, that correlated to the VLF anomaly. Quinto concluded that the co-incident VLF-zinc anomaly is related to a zinc rich phyllite lithology. The company also collected rock samples from the P.S. II and M.C.P. adits located on the north and south parts of the Q3 grid, respectively. The P.S. II adit was driven 30.5 metres on a vertical dipping northwest trending fracture, which cut a pyrite-rich rhyolite unit. All rock samples collected from this showing report sub-anomalous values except for a single grab sample collected from a 6.0 metre wide shear, that cross cut the adit in a easterly direction. This sample yielded 6.5 gpt silver and 4.8 gpt gold. The forty metre long M.C.P. adit was driven on a vertical fracture (trend?) cutting volcanics. Samples collected from this mineral occurrence yielded only trace values of gold, silver, copper, zinc and lead.

Q4 Grid

In 1981, the Q4 grid was located southwest of the peak of Marshall Ridge, approximately 400m south of the main area of historical workings. Later, in 1982, the grid was extended northeast, to cover the main workings of the Adit Zone. Soil samples were collected on the initial 1981 portion of the grid Q4, omitting the main Adit Zone area. Soil sample results for this area defined a generally NE-SW trending, strong and roughly co-incident zinc-copper soil sample anomaly. Zinc values ranged from 75 to 900 ppm, while copper high values were on the order of 60 to 100 ppm. This zinc-copper anomaly is co-incident with a cluster of gold highs (high value of 280 ppb) and erratic silver values. A 200m x 300m sized silver soil anomaly was discovered on the southwest limit of the Q4 grid (a local high value of 15 ppm).

In August 1982, Quinto Mining completed an induced polarization geophysical survey over the Q4 and parts of the Q2 grids. Results of this survey indicated areas of strong chargeability, some eight times background, extending laterally some 800 metres southwesterly from the adits (Q4 Grid). An apparent resistivity-low anomaly trends southwesterly from the adit workings for approximately one kilometre. This resistivity

anomaly is attributed to a sheared graphitic argillite horizon. An approximately 250m x 500m 'satellite' chargeability anomaly, which trends roughly east-west, was detected about 600-700 metres south of the adits (Q4 grid). This chargeability anomaly is nearly co-incident with a number of apparent resistivity-low anomalies, which dominantly trend east to west. This area is reportedly underlain by silicified and jasperoidal lithologies (White 1982). A strong chargeability anomaly appears to extend northward towards on to grid Q2, but survey coverage is sparse.

1987 to 1995 Gold Summit Mines Ltd.
1) During the months of December 1987 and January 1988, Columbia Airborne Geophysical conducted a helicopter based airborne magnetometer and VLF-EM survey over Marshall Ridge, for Gold Summit Mines (Vancouver BC). Columbia flew 166.7 kilometres of line following the contours of Marshall Ridge, with an average line spacing of approximately 100 to 200 metres (Brewer 1988). The airborne survey identified:

(1) The major northwest trending Marshall River fault structure.

(2) A pair of northeast trending lineaments at the centre of the present day claims.

(3) A group of four sub-parallel north trending lineations on the south slope of Marshall Ridge.

(4) A single weak north-northwest trending VLF-EM conductive zone on the north slope of Marshall Ridge.

(5) A bulls eye magnetic high over the peak of Marshall Ridge, interpreted to be representative of a buried intrusive plug of basic composition.

2) In July 1987 and August 1988, Gold Summit Mines carried out a comprehensive exploration program including 30.5 kilometres of grid line establishment, collection of 988 geochemical soil samples, geological mapping and prospecting and re-sampling of known showings (adits and trenches) over the southwestern and northeastern slopes of Marshall Ridge - called the South and North grids respectively (Sampson 1988). The geology of the grids was mapped and soil samples were collected on 100 metre spaced lines at 25 metre intervals. The samples were analysed by ICP for silver, arsenic, copper, lead, antimony, zinc and Atomic Absorption for gold. Sampson reports the results of the soil sample survey of the two grids as follows.

South Grid
The South grid was located on the southwest slope of Marshall Ridge, covering the northeast extent of the Q4 Quinto grid. A number of northeast trending soil anomalies were identified flanking the Upper and Lower adit area. A co-incident gold-arsenic-silver-lead-zinc ± copper anomaly was delineated south of the main workings. This anomaly extends for approximately 700 metres down the south-facing slope of Marshall Ridge. Gold values range from 20 ppb to 1,850 ppb. A series of shorter (300-400m long) sub-parallel gold-arsenic-silver-lead-zinc ± copper anomalies are located north of

the mains workings area. Two small (<300 m long) roughly northeast trending anomalies were identified on the southwest part of the grid (Lines 14N to 16N). These soil anomalies report subdued, but co-incident gold-arsenic-silver-lead-zinc ± copper values.

North Grid
The North grid was located on the northeast slope of Marshall Ridge, covering ground between the Q2 and Q1 Quinto grids. Overall, the geochemical soil sample results were sub-anomalous. Only a single narrow (~25m wide) and weak arsenic-gold anomaly was delineated; extending for approximately 400 metres in an easterly direction through the west-centre part of the grid. Numerous rock samples were collected from the pre-existing adits and trenches. Three grab samples of sulphide rich quartz vein material, collected from the Lower adit, reported gold values of 0.239, 1.187 and 0.316 opt. Grab samples collected from the Upper adit were collected from an irregular quartz vein with varying amounts of pyrite, arsenopyrite, galena and sphalerite. Gold values of the five samples collected ranged from 0.07 opt to 0.316 opt gold. The samples were analysed for gold exclusively. Sampson recommended a follow-up program of mechanized trenching and diamond drilling of the more significant soil anomalies.

3) During the period from August to October 1989, Gold Summit Mines followed up the anomalous geochemical soil survey results of the previous year by carrying out a mechanical trenching program. The company excavated forty-four trenches (+1000 metres total) and collected 319 rock samples, which were analysed by fire assay for gold only. Principal trenching efforts focused on two areas within the South Grid: (1) 'Area 1' the largest and more significant multi-element soil anomaly east of the Upper-Lower adit workings and (2) 'Area 2' the smaller and somewhat subdued multi-element anomaly, on the southwest corner of the grid. Several overburden-masked veins were discovered in both areas. Chip sampling of veins, in Area 1, report values of up to 0.816 opt gold. These veins are interpreted to be an extension of the quartz vein/shear mineralization identified in the Upper adit. Trenches in Area 2 uncovered many short lensiodal veins, which are either faulted off or pinched out. Samples collected from the veins report gold values up to 0.75 opt. Trenching efforts in the region between Area 1 and Area 2 failed to achieve bedrock due to extensive overburden. The 1990 Miller-Tait report mentions some trenching was carried out on the North grid, over the narrow and weak arsenic-gold soil anomaly. Trenching efforts uncovered a large feldspar porphyry dike, with pervasive disseminated pyrite, from which rock samples reported low gold values (high value of 1.0 ppm over 1.4 metres). Miller-Tait collected additional rock samples from vein material in the Upper and Lower adits. Vein samples collected from the Upper adit proved more enriched in base and precious metals. The most significant assay result includes 0.32 opt gold, 1.2 opt silver, 0.35% lead and 3.4% zinc over 1.7 metres. Miller-Tait recommended a follow-up program of additional soil sampling, mechanized trenching and diamond drilling, focusing on the regions to the northeast and southwest of the South Grid.

4) In 1990, Gold Summit Mines carried out two exploration programs: 1) a very limited reconnaissance style soil survey (36 soil samples) and prospecting-mapping program

on the east side of the Marshall Creek fault, approximately 300 metres off northeastern border of the Gold Summit property & 2) an extensive soil survey (611 soil samples), follow up trenching (18 trenches) and grid based mapping over the soil survey area. In the very limited soil survey samples were collected at 25 metre intervals on a single north-south running line. These samples reported weak gold and pathfinder elements. Additional prospecting and soil sampling was recommended. In the larger exploration program the soil survey covered an area of 1.0km x 1.5km in between the soil grids established by Sampson (1988). The station spacing was every 25m and the line spacing was 100m. The trenching focused on two areas: 1) extending the vein system starting from the upper adit on the property and striking east across the top of Marshal Ridge, and 2) an area on the northeast side of the ridge identified by three distinct soil anomalies. The highest assay being 0.455 oz/ton gold over a width of 1m in trench 90T-23. Road construction was completed on the northeast side of the ridge so that follow up trenching could be carried out on three distinct soil anomalies. The highest assay from these trenches was 0.779 oz/ton gold from the area of 90T-2.

5) In September 1994, Gold Summit Mines carried out a soil survey, trenching and diamond drill program on the property. The soil survey was situated southeast of the trenches dug in the 1990 exploration program and covered an area of 500m x 200m. Station spacing was 25m with some areas at 12.5m, line spacing was 50m. Previous geochemical surveys had already outlined the area as anomalous so the purpose of the present survey was to narrow down the anomalies. Two subparrallel linear Au-As anomalies occure on this grid running roughly northeast-southwest. Trenches were dug in the areas of anomalous soil geochemistry and extended the strike length of veins exposed by the 1990 trench program. The trench program was successful in extending the strike of the vein system as identified by shearing, however, the gold assays for these extensions were all below 0.1 oz/ton. Five of the six drill holes intersected the vein, with the first hole being shut down before intersection due to technical problems. Visible gold was identified in hole S94-3 and returned an assay of 2.573 oz/ton over 2.5 feet. Principal gold values intersected in the drill holes can be found in Table 3.

Table 3. Gold Summit Mines Drill Intersections

	HOLE INTERVAL(FT)	Length (ft)	GOLD OZ/T	ZINC %
S94-2	486.5-488.5	2.0	0.153	5.27%
	488.5-490.0	1.5	0.290	1.81%
	490.0-491.0	1.0	0.113	
	491.0-492.0	1.0	0.043	
s94-3	485.0-487.5	2.5	2.573	0.80%
s94-4	485.0-486.0	1.0	0.070	
	486.0-488.0	2.0	0.099	
	488.0-490.0	2.0	0.053	
	490.0-491.0	1.0	0.230	2.36%
s94-5	200.5-202.0	1.5	0.565	2.50%
S94-6	260.0-265.0	5.0	0.065	

2008 Madman Mining Co. Ltd & Chai Cha Na Mining

In 2008, Chai Cha Na Mining Inc optioned the three claims 550299, 550300 and 550301 of the property from the property owner Madman Mining Co. Ltd and carried out a verification soil survey. The soil grid was established over the area between the historic North and South Grids overlapping the west half of the 1990 Central grid (or Area F). A total of 500 soil samples were collected over an estimated area of 700m x 800m centered on 533686mE and 5636300mN. Line and station spacing was 100m and 25m, respectively. Samples were taken from the B/C horizon and were taken from depths between 10 and 40 cm with an auger. All samples collected were put into kraft bags and submitted to Assayers Canada (Vancouver BC) for analysis. The -80 mesh sieved fraction of the soil samples was analyzed for gold by fire assay and multi-element ICP-AES.

Thom (2008) reports that the survey identified 26 strong gold and 26 weak anomalies, irregularly distributed through the centre of the grid. The strong Au anomaly values ranged from 29 ppb to 392 ppb. The 2008 soil anomalies appear to extend the gold anomalies identified by Sampson (1988) and Miller-Tait (1990c). Three linear anomalies

striking from east-west to northeast-southwest have been suggested by Thom. Varying depths of the overburden and also down slope dispersion have likely affected the sampling results.

Chi Cha Na relinquished its three claim option in 2010, but had earned a 15% retained interest.

2010 Madman Mining Co. Ltd & Chai Cha Na Mining

From September 28 to October 2, 2010, Chai Cha Na completed a small soil sampling and prospecting survey in two property areas as a follow up to the 2008 soil sampling surveys. A total of 284 soil samples and 3 rock samples were collected on six 100m spaced lines (25m sample interval) extending northwestward from the 2008 soil grid and also a small detailed grid about 500m north of the Adit Zone (five 25m spaced lines with a 10m sample interval). The company also completed a digital compilation of all historical soil and rock sampling data.

Samples collected from the six 100m spaced lines yielded a few isolated single point gold highs with no obvious pathfinder element anomalies. Samples collected from the detailed mini grid appeared to define a narrow northeast trending gold anomaly.
All samples were submitted to SGS (formerly Assayers Canada) of Vancouver for analysis. Rock samples were crushed, split, and ring pulverized (250g, > 95% -150 mesh). A sub-sample of 30 grams of the -150 mesh (<106 µm) sieved fraction of the rock sample was fire assayed with an atomic absorption finish for gold and 0.5 grams of the sample was digested with 5 mL 3:1 HCl/HNO3 at 950C for 2 hours and diluted to 25 mL with a 50-element ICP-MS finish. Soil samples were dried and sieved to -80 mesh. A split of 15 grams of the -80 mesh (<180 µm) sieved fraction of the till sample was fire assayed with an atomic absorption finish for gold. The soils were not analyzed by an ICP element package.

In late 2010, Chi Cha Na cancelled its option agreement with Madman Mining, who then sold all of its interest in the property to St. Elias Mines. Note that Chi Cha Na has a retained 15% interest in the property‟s central three claims.

4.0 GEOLOGY

4.1 Regional Geology

(Modified after Miller-Tait 1990 & Gaba et al 1989) (see Figure 4)
The Gold Summit property is located in the Bridge River district (Permian (?) to Jurassic age), which includes variably metamorphosed and structurally imbricated chert, mafic extrusive and intrusive rocks, limestone, serpentinite and clastic rocks. This district is at the western margin of the Intermontaine Belt (volcanic and sedimentary rocks), where it abuts against the Coastal Plutonic Complex (plutonic and metamorphic rocks). In the region, Mississippian to Triassic arc volcanics and backarc sediments (Cadwallader Group and Bridge River Complex) are intruded by synvolcanic, intermediate plutons (Bralorne Intrusions) and faulted against Permian aged ophiolitic, ultramafic intrusions (Shuslaps Ultramafic Complex). Jurassic and Cretaceous basin sediments and rift volcanics are sequentially intruded by late Cretaceous to early Tertiary plutons of felsic composition. Relatively flat-lying Eocene intermediate and mafic volcanics unconformably overlie the older lithological sequences. The Bridge River Complex lithologies are structurally interweaved with units of the Cadwallader Group and Shuslaps Ultramafic complex.

Regional structure is dominated by a system of northwest to north trending faults that reflect a complex history of mid-Cretaceous to Tertiary compressional, sinistral strike-slip and extensional deformation. The Marshall Creek fault structure, just north of the Gold Summit claims, defines a steep dipping, dextral strike-slip fault, which is at least in part, Tertiary in age. The Marshall Creek Fault is a prominent northwest trending structural that separates Bridge River schists to the northeast from lower grade Bridge River rocks to the southwest. The fault is regionally persistent, extending from the Fraser fault system (located about 35 kilometres south of Lillooet) about 90 kilometres northwestward to Marshall Lake. The mid-Cretaceous to Tertiary structures, which dominate the region, are superimposed on older structures, which are not well understood. Triassic subduction-related deformation and metamorphism is reflected in a penetrative blueschist-facies deformation of the Bridge River Group.

4.2 Local Geology

(Modified after Miller-Tait 1990, Gaba et al 1989 & Sampson 1988)
The Gold Summit property is dominantly underlain by NW-SE striking Permian (?) to Jurassic aged Bridge River Complex rocks. In the Marshall Ridge areas, rocks of the Bridge River Complex are likely part of a southeast trending axial zone, belonging to a broad complex antiformal structure that plunges to the northwest. Locally, these rocks mainly include prehnite-pumpellyite metamorphic grade chert and greenstone volcanics (andesites and basalts), with interbedded argillite, limestone, tuff, volcaniclastics, pebble conglomerate, diabase and gabbro. The Bridge River Group has been intruded by Eocene light grey feldspar porphyry dacites and breccias. These breccias commonly

include fragments of conglomerate, sandstone, shale and lignite. The Eocene intrusives outcrop at higher elevations on the property.

On the Gold Summit claims the most abundant rocks are dark coloured argillites, with lesser dark to light grey weathered cherts and dark cherty argillites. The chert commonly forms lenzoid and nodular layers up to 10 centimetres thick, separated by thin films of dark argillite. Consequently, the rock has been referred to as ribbon chert. Close spaced joints in the argillite and chert induce in a characteristic chunky rubble texture.

Grey to chocolate brown coloured greenstone rocks give the impression of being more abundant than they actually are, because of their high resistance to weathering. Reportedly, most greenstone outcrops are andesite to basalt flows or flow-breccias, which are intensely shattered. Locally these volcanics are amygdaloidal and exhibit pillow structures.

The Marshall Creek regional fault cuts from northwest to southeast through the northeast corner of the property. The 1988 airborne geophysical survey has identified at least three sub-parallel northeast trending fault structures cutting through the centre of the claims. These structures appear to be splays off the major regional Marshall Creek structure. Other structures identified by the 1988 geophysical survey, include (1) a group of four sub-parallel north trending lineations on the south slope of Marshall Ridge and (2) a single weak north-northwest trending VLF-EM conductive zone on the north slope of Marshall Ridge.

An eastward trending shear/fault structure hosts the property's main quartz-sulphide vein mineralization, often defining a sheared contact between andesites and argillites. The orientation of this shear/vein structure is variable, with trends ranging from 060° to 110° and dips ranging from 30° north to vertical.

A north trending basic dike of unknown age has been identified in the Lower Adit zone. This 2.4 metre wide dyke cuts across a series of argillites, quartzites and greenstones. Cutting across the dyke and argillites are a series of short parallel quartz-sulphide stringers. A large feldspar porphyry dike has been uncovered by historical trenching efforts in the northeastern corner of the property. The dyke contains weakly disseminated pyrite and somewhat anomalous gold values.

5.0 2011 EXPLORATION PROGRAM

5.1 Grid Establishment and Soil/Rock Sampling

In early July 2011, Havilah created a control cut-line grid over the west centre part of the property, covering much of the 1988 Sampson North Grid, plus ground to the west (see Figure 6.0). The geophysics grid includes ten-two kilometre long lines spaced at 100m intervals. A total of 188 soil samples were collected on along a dirt road just south the grid area, which follows the contours of the south slope of Marshall Ridge. Twelve rock samples were collected at various locations throughout the grid and soil sampling areas from outcrops or float material. The soils and rocks were analyzed by fire assay for gold and 52 elements via ICP. Figure 7.2b, a compilation map of all property gold in soil values, shows that the centre of the property hosts a broad and open-ended northeast –southwest trending gold anomaly measuring up to 750 metres wide by more than 2,000 metres long. Results of the 2011 road-based soil survey form part of this extensive gold anomaly, as sampling has extended the southwestern trend by at least 250 metres.

Grid Emplacement

A total of 10 - two kilometre long lines where placed at 100m intervals; oriented at 135-315 degrees, covering an estimated 18 square kilometres (9.0 x 2.0 km). Twenty five metres stations were located and flagged on each line by the use of a hand held Garmin GPS (model Garmin Map60CS; accuracy ±6m). The lines were cleared of debris and restrictive vegetation to facilitate easy access for the geophysical surveys via chain saw and axe.

Soil & Rock Sampling

A total of 188 soil samples were collected at roughly 25 metre-spaced intervals from the up slope bank of an old road which is located to the southwest of the grid area, following the contour of Marshall Ridge. Location of the soil sample stations were determined by GPS and are shown in Figures LF1 and listed in the Appendix 2. Eight rock samples were collected at various locations throughout the grid and soil sampling areas from outcrops or float material. All rock samples were secured in plastic sample bags, sealed and labelled with a unique sample number. The location of each sample was noted, in UTM coordinates (NAD83 datum), with the aid of a hand-held GPS (Garmin Map60CS; accuracy ±6m) and are shown in LF1 and listed in the Appendix 3. Soil Samples were collected by digging with a shovel through a layer of volcanic ash and collecting a ~100 gram sample of well-developed red-brown B-horizon soil. Samples were placed in standard paper Kraft bags and sent to SGS Mineral Services in Vancouver BC. Soil and rock samples are representative and unbiased.

The -80 mesh sieved fraction of the soil and rocks samples were ground and analyzed for gold by fire assay and a series of elements by ICP-AES, after being digested in an aqua-regia solution. (Analytical certificates – Appendix 4)

5.2 SJ Geophysics Ltd. Ground Geophysical Surveys

In mid-July 2011, SJ Geophysics Ltd of Delta BC completed three geophysical surveys including magnetics, horizontal loop EM (Max-Min) and 3D induced polarization. Both magnetics and horizontal loop was carried out on the entire grid and the 3D induced polarization test survey covered five lines in northern half of the survey area. The 3D inversion calculations have modelled the both resistivity and chargeability signatures to an estimated depth of 300metres. The graphical results for the surveys are in Appendix 5.

The 2011 survey area is dominantly underlain by northwest-southeast trending, northeast dipping Bridge River Complex mixed marine sediments and volcanics. Locally, these rocks mainly include prehnite-pumpellyite metamorphic grade greenstone pillow basalts and interbedded brown argillite and „ribbon-chert. Historical drill logs indicate that the highly fractured volcanic units contain intervals of weakly disseminated pyrite (± arsenopyrite) and the sediments often contain graphite enriched layers and cross-cutting shears.

Magnetics Survey

In the centre of the magnetics survey are two loosely defined east-west trends of elevated magnetic intensity, which trend off the eastern extent of the survey area. The southern mag-high anomaly „Zone A‟ is a collection of small discrete magnetic highs and lows, while the mag-high anomaly located about 800 metres to the north is more linear. Zone A is bisected by a weak east-west trending horizontal loop EM conductor and roughly co-incident with a prominent IP chargeability high anomaly. These two mag-high zones are separated by a moderately strong east-west trending linear low zone which runs off the west and east limits of the survey area. The Adit Zone area is underlain by a non-descript a gradual change from moderate low to high zone; south of magnetic high „Zone A‟.

A strong northeast trending high anomaly is observed on the east limit of the grid and a strong lobate high on the west limit of the grid. Both of these anomalies trend outside the survey area are postulated to be reflective of small shallow intrusive units.

Horizontal Loop EM (Max-Min) survey

The author suspects that the results this horizontal loop EM geophysical survey have been adversely affected by both topographic and varying transmitter-receiver cable separation distances and therefore there is some uncertainty as to the overall quality of the survey's data. Careful study and ground truthing of these anomalies is required. Nonetheless, the survey has identified a weak east-west trending conductor which trends outside the limits of the survey area. This anomaly is best defined by higher frequencies of the out-of-phase (quadrature) component of the geophysical survey as the in-phase component is particularly noisy and difficult to interpret. This weak conductor (located about 300m north of the Adit Zone) measures at least 1,250m long and shows an estimated 75m northward offset on the western side. The EM conductor bisects magnetic Zone A, is underlain by a narrow and very weak east-west trending magnetic low zone and is paralleled on the north and south sides by moderately resistive linear features; especially defined by the out-of-phase components.

Interestingly, this weak EM conductor is loosely co-incident with the general eastward trend of the main body of the 3D IP chargeability anomaly; particular where it is modelled to depths greater than 75 metres.

Two shorter and less defined northeast trending EM conductors are found in the southeast portion of the survey area, flanking the estimated surface trace of the Adit Shear Zone. The Adit Zone and DDH 1-4 area are located on the north side of a small and weak resistive anomaly which trends northeast off the grid area towards the trench area of DDH S94-5 & 6.

3D Inversion Induced Polarization Survey (3DIP)

The resistivity component of the 3D induced polarization survey shows the survey area is blanketed by discrete east-west trending alternating highs and lows, which are modelled from surface to depths of about 100 metres. These near „rhythmic" anomalies are likely mapping variations in the northwest trending pillow basalts and the intercalations of more resistive argillite-ribbon chert lithologies. The resistivity signature in the immediate area of the Adit Zone and DDH S94-1 to 4 is marked by a moderately strong semi-circular feature which is modelled to depths of more than 150m. There is no apparent relationship between the weak east-west trending horizontal loop EM conductor and the resistivity model.

The 3DIP survey has identified a strong chargeability anomaly which trends off the central northeast portion of the survey area. This anomaly is loosely co-incident with portions of the 1992 IP survey chargeability anomaly, magnetic Zone A and also the property"s large gold in soil anomaly. 3D modelling of this anomaly shows it to have a northeast to east-northeast trend and of increasing strength, particularly past 100m depth. The anomaly measures more than 400m long being open to the northeast and apparently narrowing to the southwest. The width of the anomaly near surface is narrow at less than 100 metres but is modelled at depth (>300m) to increase to about 275 metres. A second and less defined chargeability anomaly is located about 350 metres northwest of the main chargeability anomaly. The anomaly also has a northeastward orientation and trends off the north of the grid area.

The 3D model cross sections indicate that these two chargeability anomalies may merge at depth along its northeastward trend, forming a broad and moderate in-scope chargeability anomaly, measuring up to an estimated 800 metres wide. The stronger main portion of the anomaly is smaller at about 200- 300 metres width. The cross sections also suggest that the chargeability signature may have a northwest rake or plunge.

6.0 CONCLUSIONS & RECOMENDATIONS

The findings of the Gold Summit property evaluation are as follows.

The Gold Summit property is an early stage gold exploration venture, located in a prolific Bridge River gold-silver mining camp (Bralorne-Pioneer). It is situated in the politically stable and mineral exploration affable province of British Columbia, Canada. The property is located in the southwest region of the province, where access and logistics are relatively simple and inexpensive. Property terrain is typical of the Coastal Mountain range, where topography is moderate to locally steep and covered by varying thicknesses of Quaternary overburden. Overall, property overburden depths will not greatly hamper most future exploration efforts. Extensive winter snow will restrict exploration efforts to the summer and fall months, particularly at the property‟s higher elevations.

Since 1907, intermittent historical exploration efforts have identified a number of roughly east trending, shear hosted, mesothermal gold-silver polymetallic quartz vein occurrences. The most prominent of these occurrences is the Adit Zone. In many cases, vein-shear occurrences pinch and swell or are structurally offset. Precious and base metal enrichment has been shown to be highly variable along the strike of the vein-hosting structures; likely concentrating in structurally controlled shoots or zones of dilation. Samples collected from mineralized quartz veins can yield high-grade gold assay values to greater than 1.0 opt, but are more commonly are on the order of 0.1 to 0.3 opt. The local variability of precious metal analyses has drawn attention to the probability of a coarse grain gold or nugget effect on assay results.

Property gold mineralization is not limited to shear-zone bound sulphide enriched quartz veins. In two separate property locations, past physical work has exposed modestly gold enriched feldspar porphyry/mafic dykes, with related quartz veining. Future exploration efforts should incorporate, as a minimum, an examination of these intriguing low-grade targets.

Soil sample surveys have proven to be a cost effective method of isolating both broad and locally prospective areas of overburden masked mineralization. Potential areas are often defined by a limited cluster or single sample site anomalies, particularly in the case of gold. Slope dispersion, areas profound soil depth and the presence of a thin volcanic ash layer in the soil profile can have adverse-affects and thus hinder effective interpretation. Follow-up mechanized trenching of soil anomalies has been an inexpensive method for exposing and providing access to potential soil covered mineralized structures.

The 2011 geophysical surveys have defined a large, open ended, northeast to east trending geophysically anomalous zone which is loosely coincident with the property‟s main gold in soil anomaly. These geophysical surveys did not definitively identify or

assist in the extension of the property‟s historical shear hosted gold mineralization. Defining these narrow gold enriched structures continues to be a challenge.
The newly identified composite geophysical zone presents a new and intriguing exploration target and is an appealing addition to the property‟s established shear-hosted high grade gold quartz vein targets.

The author is not aware of any significant risks or uncertainties or any reasonably foreseeable impacts thereof that could reasonably be expected to affect the reliability or confidence of this report's exploration information and/or the Gold Summit project future potential.

None of the property priority showings and anomalies has been fully tested by modern systematic physical, geochemical, geophysical or drilling methods. Based upon the property examination and review of past exploration results, it is the authors opinion that this is a property of merit and worthy of further exploration.

The newly identified composite geophysical zone, which is loosely coincident with the property's main gold in soil anomaly, presents a new and intriguing exploration target and compliments the property's established shear-hosted high grade gold quartz vein targets. The recommended Phase One program focuses on (a) extending and refining the composite geophysical anomaly and associated soil anomaly and (b) locating and sampling additional shear-hosted high grade gold structures. The program gives a secondary focus to the gold enriched feldspar porphyry lithologies as intriguing lowgrade bulk mining targets. Havilah's Phase One Program should include expanding the 2011 cut line grid both to the northeast and southwest. The SW expansion should include an additional eight – 100m spaced lines, while the NE expansion an additional ten – 100m spaced lines; totalling an estimated 36 km of grid line. Experienced geologists should detail geological map and prospect the entire grid with particular emphasis on potential mineralizing structural features. Soil samples should be collected from those areas which have no existing coverage. The newly established grid should be geophysically survey by (i) magnetics and dual station VLF-EM and (ii) 3D inversion induced polarization. The 2011 grid should be surveyed by the dual station VLF-EM and a perhaps test re-survey by horizontal loop EM. All of the geophysical surveys must be supervised and interpreted by an independent and experienced geophysicist. The non-grid areas of the property should be detailed prospected and sampled (rocks & silts) with the goal of identifying new gold targets, either structurally bound or porphyry related.

The author recommends that Havilah initiate preliminary consultations with local First Nations representatives and also contact the appropriate government agency for permits and bonding as they will be required for the Phase One Program. Priority exploration targets indentified via the Phase One Program would then be the focus of the recommended Phase Two program.

The size and scope of the Phase Two program, consisting of trenching and diamond drilling of priority targets, would be contingent on the results of Phase One explorations.

A preliminary budget of $1.2 million is suggested.

7.0 STATEMENT OF QUALIFICATIONS

I James G.M. Thom certify that:

1. I am an independent consulting geologist residing at 105 -1290 west 11th ave, Vancouver BC, V6H 1K5 and can be contacted at thomjgm@gmail.com

2. I obtained a B.Sc. in Earth and Ocean Sciences at the University of Victoria [2002] and graduated with a M.Sc. in Geology from the University of Toronto [2003].

3. I have worked in the mineral exploration industry since 1999

4. I supervised the exploration work completed during the 2011 exploration season on the Gold Summit Property

.

17/10/2012

X James Thom

James Thom

Signed by: James Thom

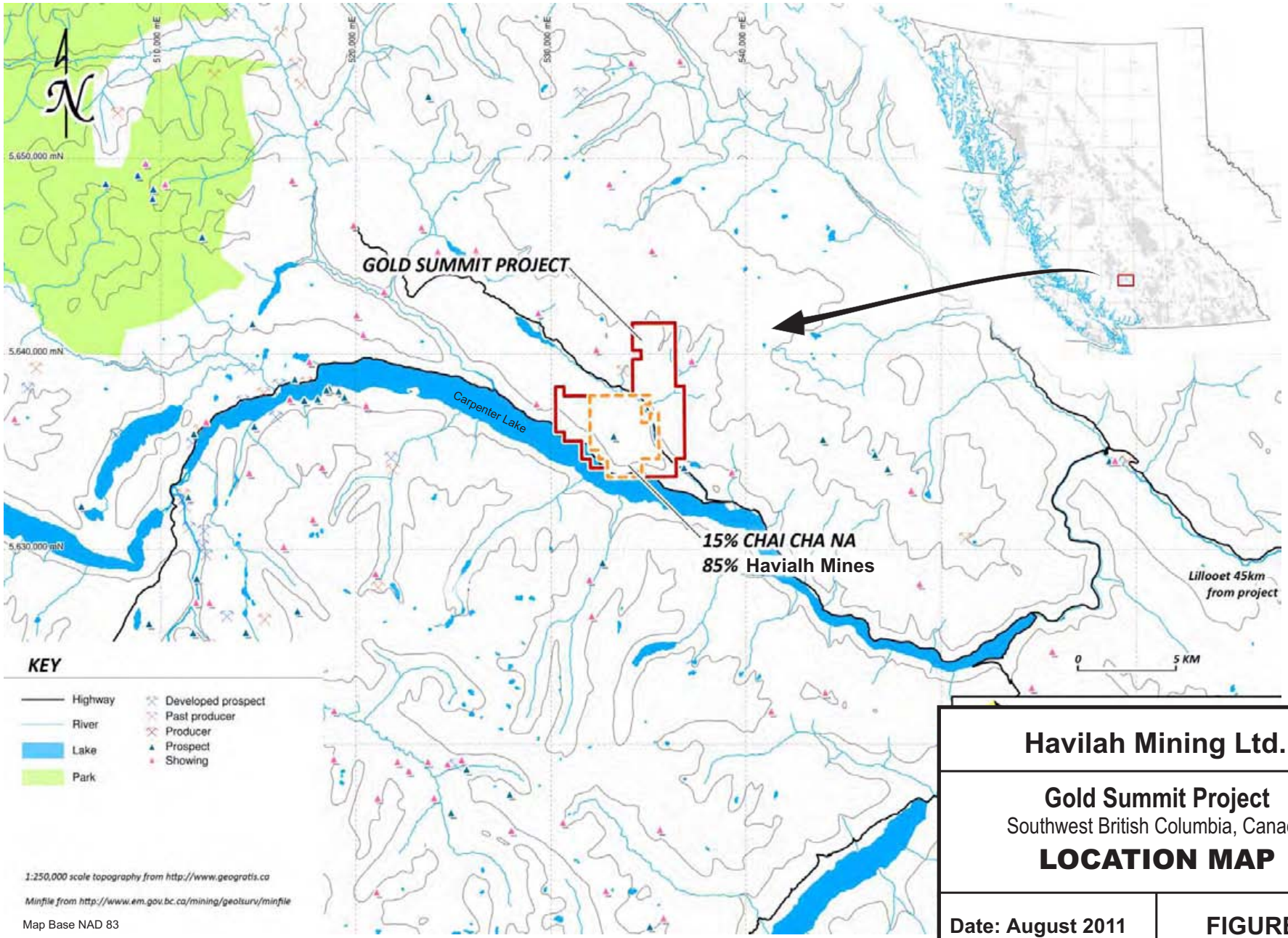
8.0 STATEMENT OF COSTS

Breakdown of Costs for 2011 Exploration work

Personnel:		
Project Geologist James Thom, M.Sc.	20 days @ $600.00	12,000.00
Prospector / Field Assistant x2	20 days @ $300.00 x 2	12,000.00
Cook	20 days @ $250.00	5,000.00
Field Costs:		
Field Camp and Supplies	180 man/days @ $40.00/m/d (including camp, GPS, field computer, prospecting and sampling equipment, first aid, generators and chain saws)	7300.00
Field Communications	Long Distance charges + Motorola 2 way field radios	400.00
	Sat phone 2.5wks x $150/wk	375.00
Camp Consumables	Food, fuels, wood, rope	3563.00
Survey Consumables	Rock and soil sample bags, rice bags, survey flagging, pickets, topofil thread etc.	582.00
Geophysics:		
SJ Geophysics	3D IP, Mag, Max-Min	60,446
Transportation:		
Truck Rental JT	20 days @ $ 100.00	2000.00
Truck Rental GG	20 days @ $100.00	2000.00
ATV (Quads)	20 days @ $50.00/day each (x 2)	2000.00
Mob/de-mob	2 trips - Vancouver - Property return (fuel/meals) & 1 trip Penticton – Property Return	860.00
Analytical:		
Soil Samples	188 samples	7,980.00
Office & Engineering:		
Assessment Report Writing	based on results of initial portion of Phase I program	1,8 00.00
GIS/Drafting/Cartography/ Satellite Imagery/ Maps	(including field base map and all final maps detailing geological mapping, sample locations and results, location of old workings and compilation of results from previous work on property)	6,700.00
Project Management and Overhead	$123,603 @ 10.00%	12,360
Total cost of the Phase IA exploration program		**$135,566**

APPENDIX 1

-FIGURES-



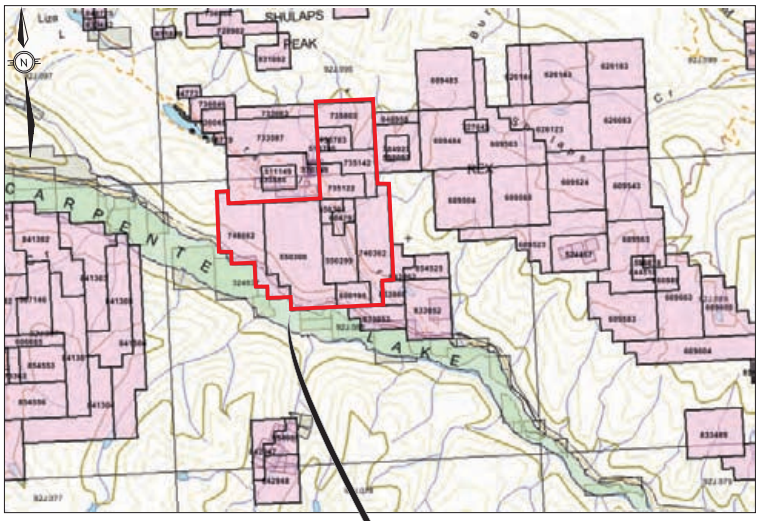
Havilah Mining Ltd.

Gold Summit Project

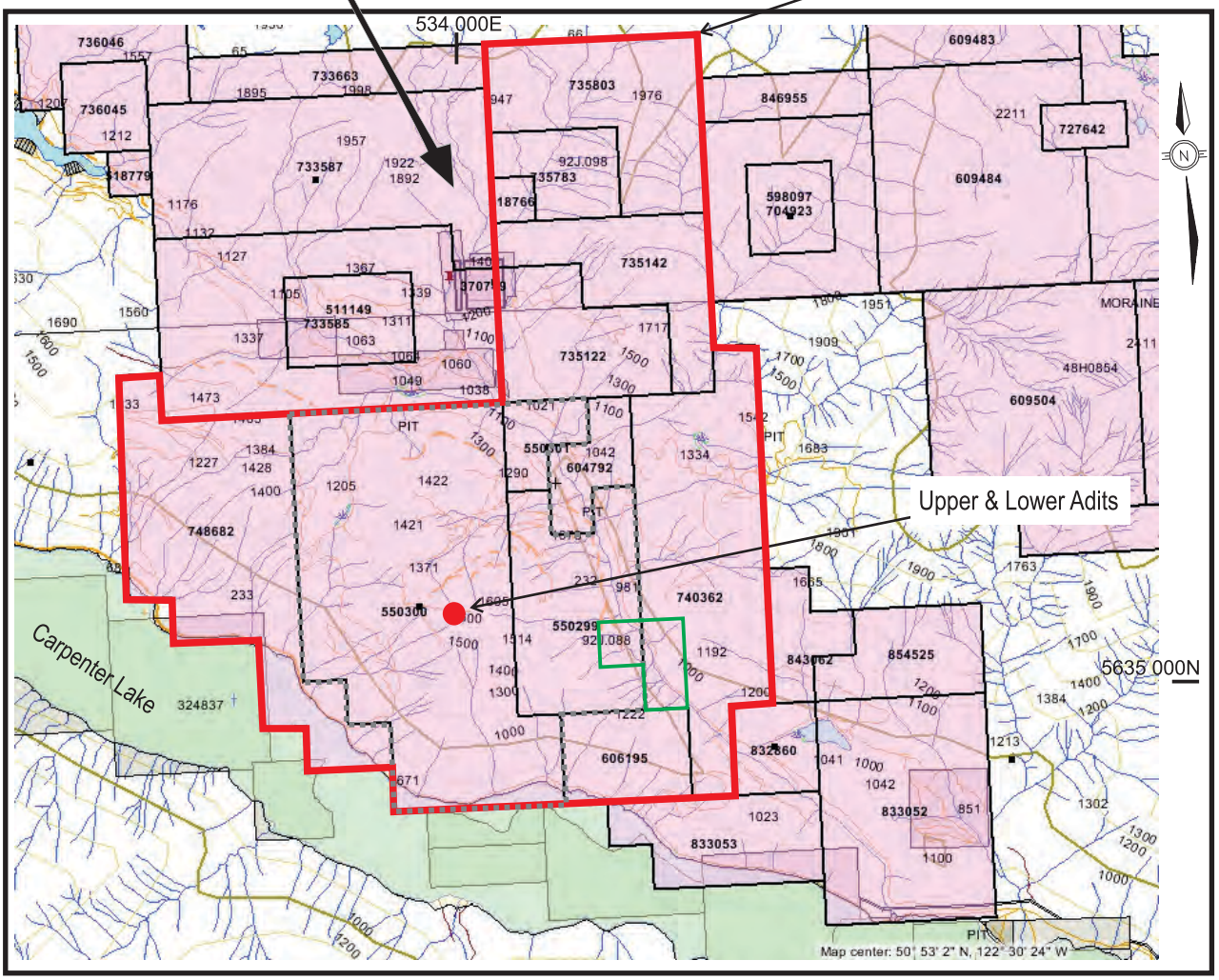
Southwest British Columbia, Canada

LOCATION MAP

Date: August 2011	FIGURE 4.1



Outline of property



85% Havilah, 15% Chi Cha Na

Havilah Placer Claim 740382

0 1.0 2.0 3.0
kilometres

Contour interval 200 metres

Map Source BC Minfile Website (http://webmaps.gov.bc.ca) July 28, 2011
Location: BCGS Map Sheet 092J/088, 098

Havilah Mining Ltd.

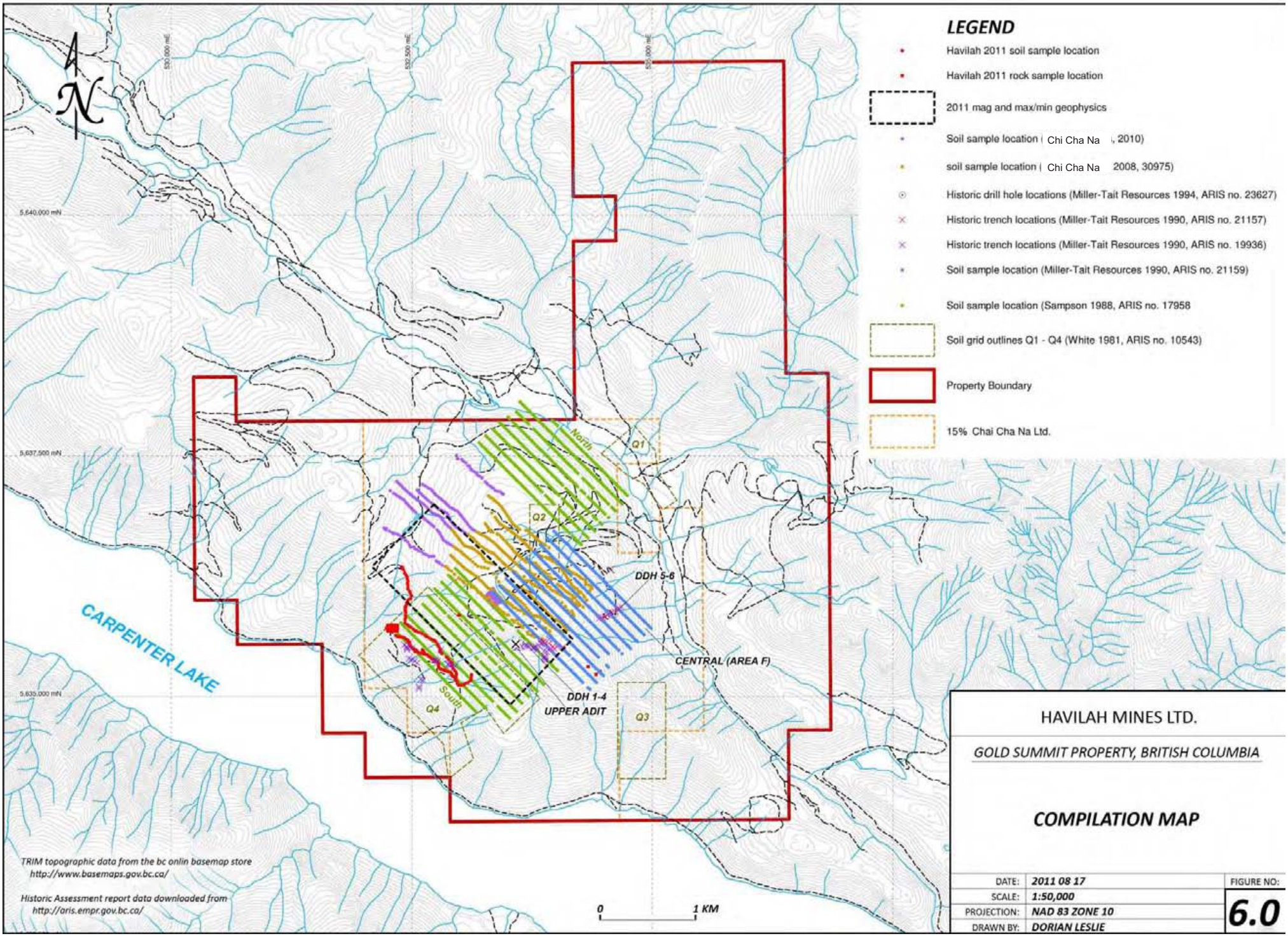
Gold Summit Project

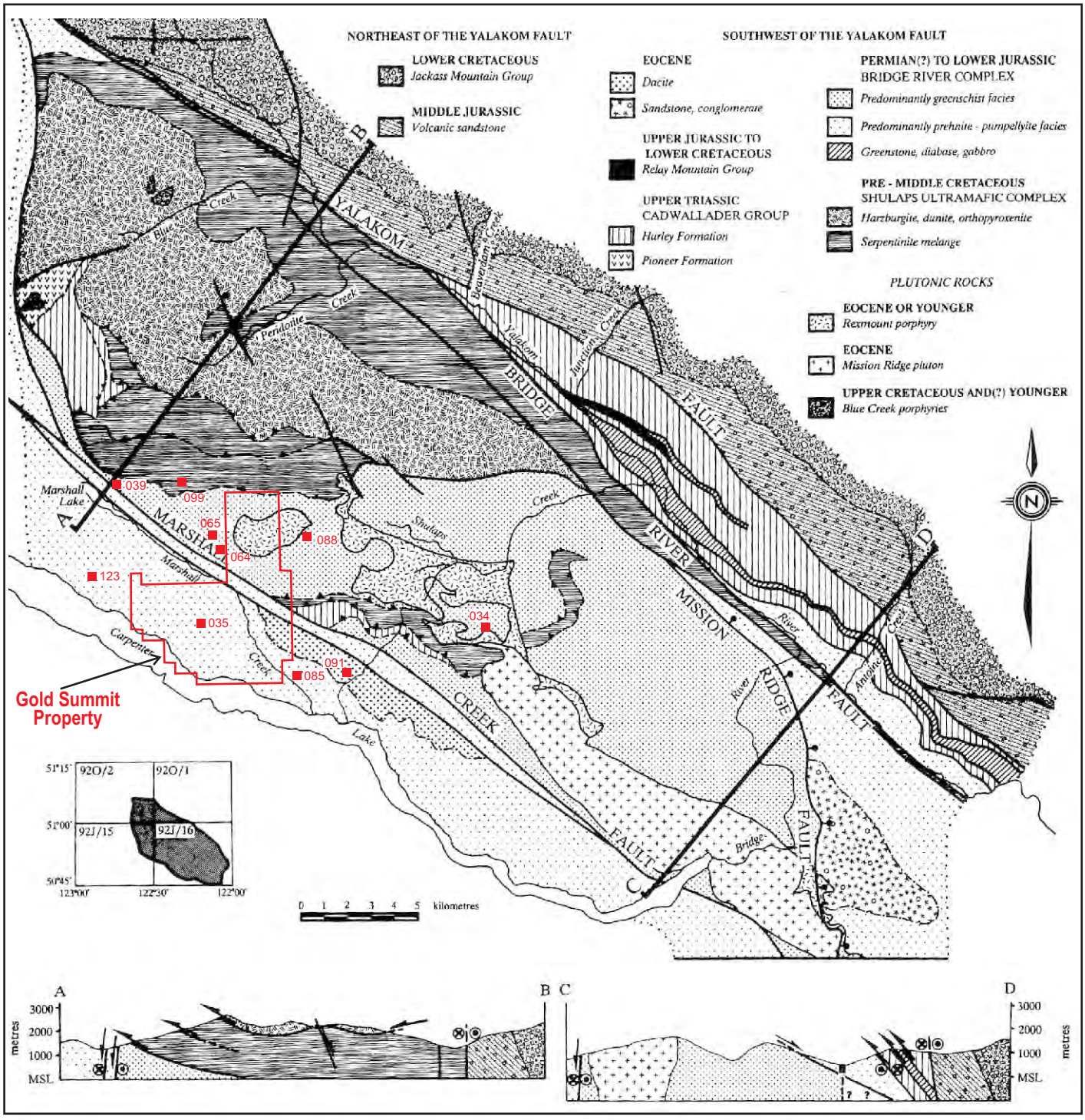
Southwest British Columbia, Canada

CLAIM MAP

Date: August 2011

FIGURE 4.2


LEGEND
Havilah 2011 soil sample location
Havilah 2011 rock sample location
2011 mag and max/min geophysics
Soil sample location (Chi Cha Na , 2010)
soil sample location (Chi Cha Na 2008, 30975)
Historic drill hole locations (Miller-Tait Resources 1994, ARIS no. 23627)
Historic trench locations (Miller-Tait Resources 1990, ARIS no. 21157)
Historic trench locations (Miller-Tait Resources 1990, ARIS no. 19936)
Soil sample location (Miller-Tait Resources 1990, ARIS no. 21159)
Soil sample location (Sampson 1988, ARIS no. 17958
Soil grid outlines Q1 - Q4 (White 1981, ARIS no. 10543)
Property Boundary
15% Chai Cha Na Ltd.
N
530,000 mE
532,500 mE
535,000 mE
5,640,000 mN
5,637,500 mN
5,635,000 mN
North
Q1
Q2
Q3
Q4
South
DDH 5-6
DDH 1-4
UPPER ADIT
CENTRAL (AREA F)
CARPENTER LAKE
0
1 KM
TRIM topographic data from the bc onlin basemap store
http://www.basemaps.gov.bc.ca/
Historic Assessment report data downloaded from
http://aris.empr.gov.bc.ca/
HAVILAH MINES LTD.
GOLD SUMMIT PROPERTY, BRITISH COLUMBIA
COMPILATION MAP
DATE: 2011 08 17
SCALE: 1:50,000
PROJECTION: NAD 83 ZONE 10
DRAWN BY: DORIAN LESLIE
FIGURE NO:
6.0



(Map from Gaba et al 1989; BCGSB Geological Fieldwork 1989, Paper 1990-1)

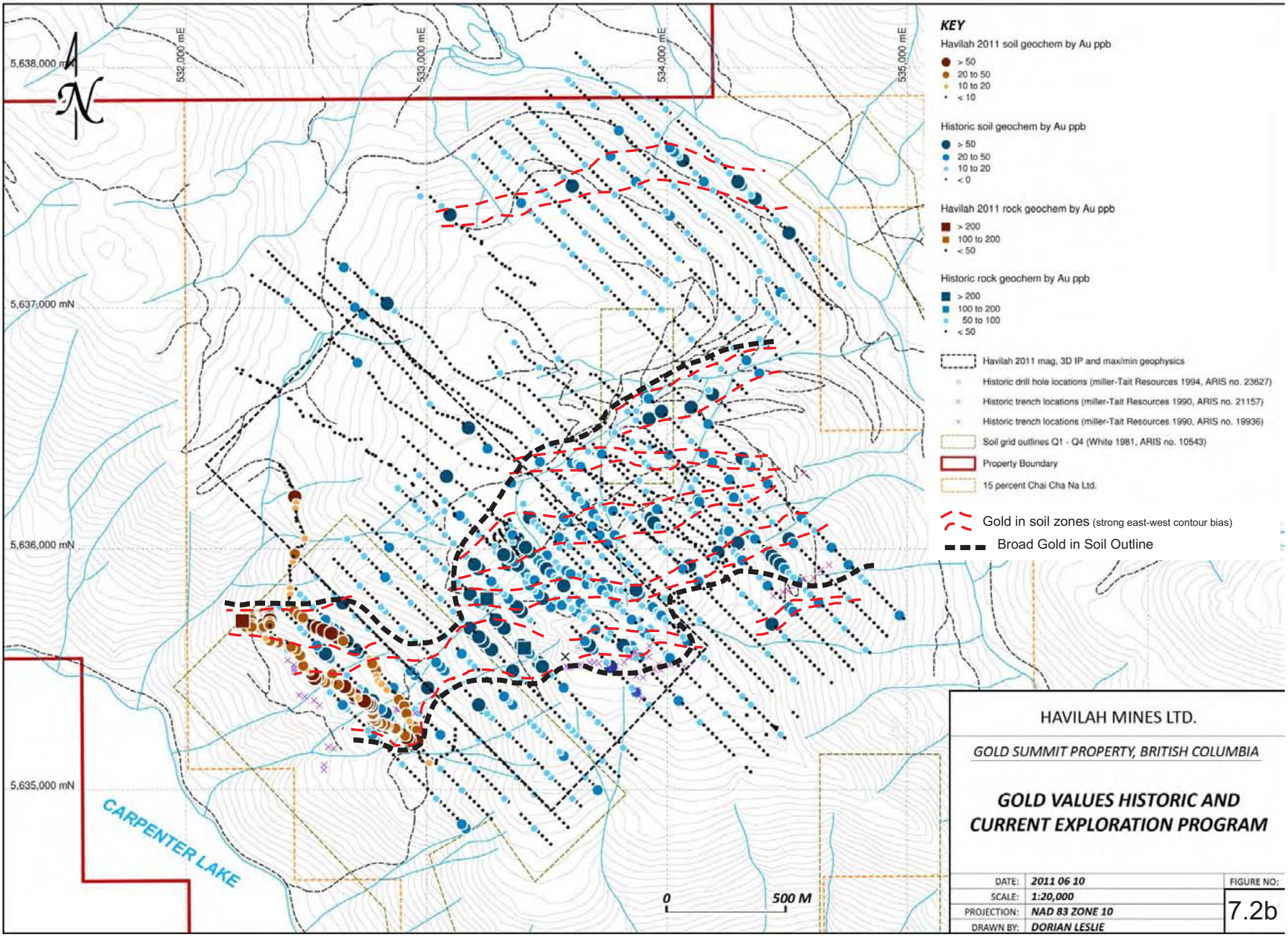
■ 035 **BC Minfile Occurrences** (immediate property area only)

Minfile #	Name	Commodities	Mineralization Type
092JNE034	Rex Mountain	Gold, Silver, Copper, Bismuth, Tungsten	Intrusion-related Au pyrrhotite veins
092JNE035	Summit	Gold, Silver, Zinc, Lead, Copper , Antimony	Polymetallic veins Ag-Pb-Zn ± Au
092JNE039	Primrose	Gold, Silver, Copper	Au-quartz veins
092JNE064	4-Ton	Jade/Nephrite Gemstones	Jade
092JNE065	Greenbay	Jade/Nephrite Gemstones	Jade
092JNE085	Marshall Creek	Gold, Silver, Zinc, Lead, Copper , Antimony	Polymetallic veins Ag-Pb-Zn ± Au
092JNE088	Shulaps	Gold, Silver, Copper	Au-quartz veins
092JNE091	Jones	Coal	Lignite
092JNE099	Shulaps Range	Chromium	Podiform chromite
092JNE123	Marshall Ridge	Limestone	Limestone

Havilah Mining Ltd.

Gold Summit Property
British Columbia Canada
REGIONAL GEOLOGY

August 2011 | Figure 7.1


KEY
Havilah 2011 soil geochem by Au ppb
> 50
20 to 50
10 to 20
< 10
Historic soil geochem by Au ppb
> 50
20 to 50
10 to 20
< 0
Havilah 2011 rock geochem by Au ppb
> 200
100 to 200
< 50
Historic rock geochem by Au ppb
> 200
100 to 200
50 to 100
< 50
Havilah 2011 mag, 3D IP and max/min geophysics
Historic drill hole locations (miller-Tait Resources 1994, ARIS no. 23627)
Historic trench locations (miller-Tait Resources 1990, ARIS no. 21157)
Historic trench locations (miller-Tait Resources 1990, ARIS no. 19936)
Soil grid outlines Q1 - Q4 (White 1981, ARIS no. 10543)
Property Boundary
15 percent Chai Cha Na Ltd.
Gold in soil zones (strong east-west contour bias)
Broad Gold in Soil Outline
5,638,000 mN
5,637,000 mN
5,636,000 mN
5,635,000 mN
532,000 mE
533,000 mE
534,000 mE
535,000 mE
CARPENTER LAKE
0
500 M
HAVILAH MINES LTD.
GOLD SUMMIT PROPERTY, BRITISH COLUMBIA
GOLD VALUES HISTORIC AND CURRENT EXPLORATION PROGRAM
DATE: 2011 06 10
SCALE: 1:20,000
PROJECTION: NAD 83 ZONE 10
DRAWN BY: DORIAN LESLIE
FIGURE NO:
7.2b

5,636,500 mN

5,636,000 mN

5,635,500 mN

5,635,000 mN

532,000 mE

532,500 mE

533,000 mE

533,500 mE

534,000 mE

CARPENTER LAKE

KEY

Havilah 2011 soil geochem by Au ppb

- > 50
- 20 to 50
- 10 to 20
- < 10

Historic soil geochem by Au ppb

- > 50
- 20 to 50
- 10 to 20
- < 0

Havilah 2011 rock geochem by Au ppb

- > 200
- 100 to 200
- < 50

Historic rock geochem by Au ppb

- > 200
- 100 to 200
- 50 to 100
- < 50

- Havilah 2011 mag, 3D IP and max/min geophysics
- Historic drill hole locations (miller-Tait Resources 1994, ARIS no. 23627)
- Historic trench locations (miller-Tait Resources 1990, ARIS no. 21157)
- Historic trench locations (miller-Tait Resources 1990, ARIS no. 19936)
- Soil grid outlines Q1 - Q4 (White 1981, ARIS no. 10543)
- Property Boundary
- 15 percent Chai Cha Na Ltd.

0 100 M

HAVILAH MINES LTD.

GOLD SUMMIT PROPERTY, BRITISH COLUMBIA

GOLD VALUES HISTORIC AND CURRENT EXPLORATION PROGRAM SHOWING CURRENT SAMPLES BY ID

DATE:	*2011 06 10*	FIGURE NO:
SCALE:	*1:2,000*	*LF1*
PROJECTION:	*NAD 83 ZONE 10*	
DRAWN BY:	*DORIAN LESLIE*	

5,636,500 mN

5,636,000 mN

5,635,500 mN

5,635,000 mN

532,000 mE

532,500 mE

533,000 mE

533,500 mE

534,000 mE

CARPENTER LAKE

KEY

Havilah 2011 soil geochem by Au ppb

- > 50
- 20 to 50
- 10 to 20
- < 10

Historic soil geochem by Au ppb

- > 50
- 20 to 50
- 10 to 20
- < 0

Havilah 2011 rock geochem by Au ppb

- > 200
- 100 to 200
- < 50

Historic rock geochem by Au ppb

- > 200
- 100 to 200
- 50 to 100
- < 50

- Havilah 2011 mag, 3D IP and max/min geophysics
- Historic drill hole locations (miller-Tait Resources 1994, ARIS no. 23627)
- Historic trench locations (miller-Tait Resources 1990, ARIS no. 21157)
- Historic trench locations (miller-Tait Resources 1990, ARIS no. 19936)
- Soil grid outlines Q1 - Q4 (White 1981, ARIS no. 10543)
- Property Boundary
- 15 percent Chai Cha Na Ltd.

0 100 M

HAVILAH MINES LTD.

GOLD SUMMIT PROPERTY, BRITISH COLUMBIA

GOLD VALUES HISTORIC AND CURRENT EXPLORATION PROGRAM SHOWING CURRENT SAMPLES BY GOLD

DATE:	***2011 06 10***	FIGURE NO:
SCALE:	***1:2,000***	***LF2***
PROJECTION:	***NAD 83 ZONE 10***	
DRAWN BY:	***DORIAN LESLIE***	

APPENDIX 2

-SOIL STATION LOCATIONS-

Sample_ID	East_NAD83_Z10	North_NAD83_Z10	wt_kg	Au_ppb	Ag_ppm
Mic 01	532275	5635740	0.45	17	<2
Mic 02	532250	5635680	0.34	13	<2
Mic 03	532250	5635710	0.295	9	<2
Mic 04	532250	5635720	0.285	16	3
Mic 05	532325	5635720	0.29	66	9
Mic 06	532325	5635730	0.34	38	<2
Mic 07	532250	5635730	0.23	31	<2
Mic 08	532250	5635740	0.38	13	<2
Mic 09	532275	5635730	0.41	27	<2
Mic 10	532275	5635720	0.385	23	<2
Mic 11	532275	5635710	0.335	20	<2
Mic 12	532275	5635700	0.37	13	<2
Mic 13	532275	5635690	0.335	21	<2
Mic 14	532275	5635680	0.345	30	<2
Mic 15	532300	5635740	0.325	<5	<2
Mic 16	532300	5635730	0.275	17	<2
Mic 17	532300	5635720	0.345	5	<2
Mic 18	532300	5635710	0.37	12	<2
Mic 19	532300	5635700	0.255	24	<2
Mic 20	532300	5635690	0.22	7	<2
Mic 21	532300	5635680	0.195	<5	<2
Mic 22	532325	5635740	0.21	32	<2
Mic 23	532250	5635690	0.23	25	<2
Mic 24	532250	5635700	0.285	21	<2
Mic 25	532325	5635710	0.275	34	<2
Mic 26	532325	5635700	0.335	25	<2
Mic 27	532325	5635690	0.33	84	<2
Mic 28	532325	5635680	0.335	39	<2
Mic 29	532350	5635740	0.265	68	9
Mic 30	532350	5635730	0.18	54	3
Mic 31	532350	5635720	0.26	100	12.8
Mic 32	532350	5635710	0.31	56	7
Mic 33	532350	5635700	0.44	31	<2
Mic 34	532350	5635690	0.22	43	<2
Mic 35	532350	5635680	0.315	<5	<2
GG 01	532392	5636346	0.35	<5	<2
GG 02	532403	5636337	0.325	<5	<2
GG 03	532412	5636317	0.32	<5	<2
GG 04	532419	5636300	0.285	9	<2
GG 05	532427	5636283	0.31	6	<2
GG 06	532434	5636268	0.245	8	<2
GG 07	532442	5636258	0.395	<5	<2
GG 08	532452	5636241	0.425	<5	<2
GG 09	532453	5636221	0.455	63	<2
GG 10	532459	5636197	0.38	13	<2
GG 11	532455	5636174	0.37	14	<2

Sample_ID	East_NAD83_Z10	North_NAD83_Z10	wt_kg	Au_ppb	Ag_ppm
GG 12	532459	5636155	0.335	<5	<2
GG 13	532459	5636129	0.33	<5	<2
GG 14	532461	5636115	0.395	5	<2
GG 15	532478	5636091	0.38	I.S.	<2
GG 16	532485	5636071	0.37	I.S.	<2
GG 17	532495	5636048	0.36	15	<2
GG 18	532484	5636012	0.38	<5	<2
GG 19	532465	5636005	0.33	5	<2
GG 20	532454	5635983	0.37	22	<2
GG 21	532448	5635969	0.31	<5	<2
GG 22	532445	5635953	0.39	11	<2
GG 23	532433	5635930	0.39	9	<2
GG 24	532431	5635911	0.305	<5	<2
GG 25	532435	5635891	0.35	<5	<2
GG 26	532436	5635869	0.465	<5	<2
GG 27	532434	5635839	0.365	19	<2
GG 28	532434	5635816	0.29	14	<2
GG 29	532431	5635796	0.315	<5	<2
GG 30	532430	5635762	0.375	18	<2
GG 31	532451	5635747	0.345	44	<2
GG 32	532469	5635730	0.46	35	<2
GG 33	532488	5635719	0.385	22	<2
GG 34	532515	5635701	0.325	I.S.	<2
GG 35	532532	5635684	0.405	61	<2
GG 36	532549	5635677	0.365	370	10
GG 37	532573	5635666	0.34	254	<2
GG 38	532606	5635653	0.325	88	<2
GG 39	532636	5635635	0.405	129	<2
GG 40	532655	5635622	0.325	22	<2
GG 41	532682	5635606	0.41	6	<2
GG 42	532704	5635596	0.53	I.S.	<2
GG 43	532729	5635583	0.345	I.S.	<2
GG 44	532747	5635569	0.35	<5	<2
GG 45	532762	5635548	0.36	17	<2
GG 46	532775	5635527	0.32	38	<2
GG 47	532791	5635501	0.39	28	<2
GG 48	532793	5635477	0.33	13	<2
GG 49	532799	5635456	0.405	10	<2
GG 50	532813	5635444	0.315	10	<2
GG 51	532835	5635420	0.405	13	<2
GG 52	532860	5635407	0.32	5	<2
GG 53	532871	5635400	0.345	9	<2
GG 54	532886	5635378	0.235	28	<2
GG 55	532909	5635353	0.32	37	<2
GG 56	532918	5635321	0.335	22	<2
GG 57	532929	5635289	0.285	17	<2

Sample_ID	East_NAD83_Z10	North_NAD83_Z10	wt_kg	Au_ppb	Ag_ppm
GG 58	532947	5635268	0.395	21	<2
GG 59	532961	5635250	0.315	47	<2
GG 60	532964	5635230	0.255	118	<2
GG 61	532960	5635206	0.35	111	<2
GG 62	532960	5635190	0.225	<5	<2
GG 63	532955	5635169	0.265	8	<2
GG 64	532969	5635156	0.195	<5	<2
GG 65	532974	5635132	0.29	<5	<2
GG 66	532984	5635119	0.245	<5	<2
GG 67	533012	5635116	0.29	13	<2
GG 68	533043	5635122	0.35	<5	<2
GG 69	533062	5635137	0.32	8	<2
GG 70	533086	5635146	0.34	<5	<2
GG 71	533111	5635165	0.305	<5	<2
GG 72	533116	5635178	0.295	<5	<2
GG 73	533119	5635205	0.33	<5	<2
GG 74	533120	5635224	0.265	<5	<2
GG 75	533121	5635250	0.195	8	<2
JT01	532927	5635207	0.19	96	<2
JT02	532917	5635220	0.26	127	<2
JT03	532911	5635229	0.19	37	<2
JT04	532908	5635248	0.145	<5	<2
JT05	532891	5635252	0.215	<5	<2
JT06	532879	5635256	0.25	23	<2
JT07	532872	5635259	0.195	20	<2
JT08	532852	5635268	0.285	17	<2
JT09	532839	5635271	0.295	39	<2
JT10	532830	5635274	0.19	42	<2
JT11	532814	5635279	0.3	38	<2
JT12	532799	5635282	0.345	15	<2
JT13	532790	5635289	0.26	31	<2
JT14	532780	5635300	0.245	42	<2
JT15	532779	5635313	0.275	47	<2
JT16A	532776	5635319	0.205	42	<2
JT16B	532775	5635339	0.285	43	<2
JT17	532770	5635351	0.315	320	<2
JT18	532762	5635360	0.305	110	<2
JT19	532752	5635364	0.3	260	<2
JT20	532741	5635371	0.445	262	<2
JT21	532728	5635376	0.22	<5	<2
JT22	532715	5635387	0.325	16	<2
JT23	532703	5635396	0.25	59	<2
JT24	532690	5635405	0.295	19	<2
JT25	532682	5635414	0.31	23	<2
JT26	532668	5635427	0.23	22	<2
JT27	532660	5635432	0.365	57	<2

Sample_ID	East_NAD83_Z10	North_NAD83_Z10	wt_kg	Au_ppb	Ag_ppm
JT28	532644	5635435	0.17	<5	<2
JT29	532633	5635450	0.375	10	<2
JT30	532626	5635462	0.37	15	<2
JT31	532620	5635470	0.39	13	<2
JT32	532610	5635484	0.245	41	<2
JT34A	532632	5635441	0.31	26	<2
JT34B	532619	5635442	0.22	I.S.	<2
JT35	532599	5635450	0.285	10	<2
JT36	532579	5635449	0.395	29	<2
JT37	532563	5635460	0.275	29	<2
JT38	532555	5635470	0.38	22	<2
JT39	532542	5635483	0.465	27	2
JT40	532536	5635466	0.385	101	4
JT41	532528	5635486	0.315	56	<2
JT42	532517	5635496	0.42	19	<2
JT43	532503	5635505	0.44	10	<2
JT44	532489	5635519	0.44	30	<2
JT45	532481	5635533	0.335	<5	<2
JT46	532475	5635547	0.26	<5	<2
JT47	532476	5635562	0.445	38	<2
JT48	532463	5635571	0.38	I.S.	<2
JT49	532458	5635586	0.34	49	<2
JT50	532439	5635597	0.37	44	<2
JT51	532423	5635609	0.405	I.S.	<2
JT52	532403	5635615	0.395	I.S.	<2
JT53	532385	5635617	0.325	22	<2
JT54	532367	5635619	0.37	16	<2
JT55	532350	5635624	0.275	47	<2
JT56	532333	5635633	0.385	12	<2
6500N 7000E	534080	5635261	0.245	35	<2
6500N 7100E	534151	5635191	0.28	16	<2
6500N 7200E	534222	5635121	0.185	13	<2
6500N 7300E	534294	5635051	0.265	14	<2
6500N 7400E	534365	5634980	0.23	<5	<2
6500N 7500E	534437	5634910	0.315	17	<2
6500N 7600E	534508	5634840	0.15	13	<2
6500N 7700E	534579	5634770	0.265	11	<2
6500N 7800E	534651	5634699	0.335	7	<2
6500N 7900E	534722	5634629	0.38	<5	<2
6500N 8000E	534794	5634559	0.36	19	<2
6500N 8300E	535008	5634348	0.32	6	<2
6500N 8400E	535079	5634278	0.215	21	<2
6600N 7050E	534186	5635297	0.25	271	<2
6600N 7150E	534257	5635227	0.38	<5	<2
6600N 7250E	534329	5635157	0.34	10	<2
6600N 7350E	534400	5635087	0.39	<5	<2

Sample_ID	East_NAD83_Z10	North_NAD83_Z10	wt_kg	Au_ppb	Ag_ppm
6600N 7450E	534471	5635016	0.345	<5	<2
6600N 7550E	534543	5634946	0.51	8	<2
6600N 7750E	534686	5634806	0.31	<5	<2

APPENDIX 3

-Rock Location and Descriptions-

Sample_ID	East_NAD83_Z10	North_NAD_83_Z10	wt_kg	Description
GSR-1-A	532236	5635706	6.115	Panel Sample 2m x 1m // road-cut showing weak silicification and FeOx staining
GSR-1-B	532236	5635706	6.125	Panel Sample 2m x 1m // road-cut showing weak silicification and FeOx staining
GSR-1-C	532236	5635706	4.935	Panel Sample 2m x 1m // road-cut showing weak silicification and FeOx staining
GSR-1-D	532236	5635706	5.59	Panel Sample 2m x 1m // road-cut showing weak silicification and FeOx staining
GSR-1-E	532236	5635706	6.735	Panel Sample 2m x 1m // road-cut showing weak silicification and FeOx staining
GSR-1-F	532236	5635706	4.105	Panel Sample 2m x 1m // road-cut showing weak silicification and FeOx staining
GSR 2	533252	5635796	0.985	1 m chip weakly silicified argillite shear zone
GS 3	533408	5635592	4.455	1 m chip weakly silicified argillite shear zone
GS 4	535240	5634663	2.32	2m chip sample of silicified argilite no apparent mineralization
GS 5	535240	5634663	4.35	2m chip sample of silicified argilite no apparent mineralization
GS 6	535240	5634663	3.625	2m chip sample of silicified argilite no apparent mineralization
GSR 8	532992	5635843	3.885	outcrop roadcut: 0.52m chip sampl; black gray argillite with a 0.25 to 1 meter wi

ide shear

APPENDIX 4

-Analytical Certificates-

Certificate of Analysis

Work Order: VC111058

To: ACCOUNTS PAYABLE
SGS VANCOUVER INC
8282 SHERBROOKE ST.
VANCOUVER BC V5X 4R6

Date: Sep 02, 2011

P.O. No.	:	GOLD SUMMIT-James Thom (ROCK)
Project No.	:	-
No. Of Samples	:	12
Date Submitted	:	Aug 02, 2011
Report Comprises	:	Pages 1 to 7 (Inclusive of Cover Sheet)

Certified By : _____

Albert Hung
Senior Chemist & Coordinator

SGS Minerals Services Geochemistry, Vancouver, BC is ISO 9001:2008 certified.

Report Footer:

L.N.R. = Listed not received
n.a. = Not applicable
I.S. = Insufficient Sample
-- = No result

*INF = Composition of this sample makes detection impossible by this method

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Methods marked with an asterisk (e.g. *NAA08V) were subcontracted
Methods marked with the @ symbol (e.g. @AAS21E) denote accredited tests

Element	WtKg	Au	Al	B	Ba	Ca	Cr	Cu	Fe	K
Method	WGH79	FAA313	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B
Det.Lim.	0.001	5	0.01	10	5	0.01	1	0.5	0.01	0.01
Units	kg	ppb	%	ppm	ppm	%	ppm	ppm	%	%
GSR-1-A	6.115	350	0.72	60	231	3.88	49	60.2	5.68	0.32
GSR-1-B	6.125	209	0.48	60	153	3.88	75	45.4	4.50	0.27
GSR-1-C	4.935	44	0.70	70	201	2.31	19	44.6	5.10	0.32
GSR-1-D	5.590	191	0.45	60	162	0.59	15	63.6	3.55	0.31
GSR-1-E	6.735	18	1.36	70	158	3.91	113	42.7	4.64	0.31
GSR-1-F	4.105	395	1.32	70	209	3.85	53	54.1	5.62	0.30
GSR 2	0.985	<5	3.83	130	47	12.0	128	30.9	3.52	0.02
GS 3	4.455	14	0.11	60	104	0.87	15	25.8	1.15	0.08
GS 4	2.320	<5	0.16	60	131	0.71	123	28.8	0.96	0.08
GS 5	4.350	<5	0.12	60	95	1.40	15	39.0	1.27	0.07
GS 6	3.625	<5	0.20	60	209	1.59	184	32.4	1.05	0.07
GSR 8	3.885	8	2.10	70	203	1.34	68	73.4	7.36	0.39

Element	Li	Mg	Mn	Na	Ni	P	S	Sr	Ti	V
Method	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B
Det.Lim.	1	0.01	2	0.01	0.5	50	0.01	0.5	0.01	1
Units	ppm	%	ppm	%	ppm	ppm	%	ppm	%	ppm
GSR-1-A	5	1.16	8380	0.02	124	1430	0.06	160	<0.01	43
GSR-1-B	1	1.23	6560	0.02	61.8	990	0.26	126	<0.01	32
GSR-1-C	4	0.49	1990	0.02	50.6	900	0.12	71.8	<0.01	53
GSR-1-D	1	0.18	2260	0.02	31.7	580	0.11	44.5	<0.01	23
GSR-1-E	16	1.38	1420	0.03	103	1770	0.04	133	<0.01	49
GSR-1-F	13	1.36	6450	0.03	103	1800	0.07	129	<0.01	56
GSR 2	7	1.15	778	0.04	73.3	820	<0.01	84.3	0.42	100
GS 3	<1	0.18	740	0.01	14.3	190	<0.01	16.9	<0.01	5
GS 4	2	0.15	642	0.01	14.9	60	<0.01	15.4	<0.01	6
GS 5	1	0.36	1430	0.01	22.6	90	<0.01	27.5	<0.01	6
GS 6	3	0.52	921	0.01	17.9	250	<0.01	56.9	<0.01	5
GSR 8	19	0.80	599	0.04	47.8	6870	0.46	38.3	0.04	77

Element	Zn	Zr	Ag	As	Be	Bi	Cd	Ce	Co	Cs
Method	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B
Det.Lim.	1	0.5	0.01	1	0.1	0.02	0.01	0.05	0.1	0.05
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
GSR-1-A	327	4.4	>10	2410	0.7	0.07	0.79	33.6	26.3	0.75
GSR-1-B	193	3.4	>10	992	0.4	0.05	0.66	25.8	18.2	0.51
GSR-1-C	129	3.2	5.20	236	0.7	0.07	0.35	21.2	18.1	0.59
GSR-1-D	392	2.2	>10	1220	0.4	0.10	1.13	12.4	9.5	0.49
GSR-1-E	100	4.8	2.70	224	0.8	0.07	0.26	35.7	20.7	0.83
GSR-1-F	328	4.8	>10	1590	0.7	0.04	0.95	40.7	26.3	0.88
GSR 2	37	46.1	0.20	8	0.7	<0.02	0.33	16.7	21.0	0.12
GS 3	27	1.4	0.66	12	0.1	0.07	0.06	3.34	4.5	0.21
GS 4	23	1.6	0.07	2	0.2	0.06	0.03	2.28	2.6	0.23
GS 5	35	1.2	0.50	17	0.2	0.06	0.12	2.53	9.4	0.14
GS 6	30	1.7	0.04	<1	0.2	0.07	0.33	4.67	6.6	0.24
GSR 8	146	12.1	0.10	2	0.8	0.04	0.17	121	13.7	1.02

Element	Ga	Ge	Hf	Hg	In	La	Lu	Mo	Nb	Pb
Method	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B
Det.Lim.	0.1	0.1	0.05	0.01	0.02	0.1	0.01	0.05	0.05	0.2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
GSR-1-A	2.6	0.1	0.07	0.40	0.07	14.5	0.12	3.42	0.11	74.6
GSR-1-B	1.7	<0.1	<0.05	0.47	0.05	11.5	0.09	1.53	0.08	160
GSR-1-C	2.5	<0.1	0.06	0.14	0.06	8.7	0.12	1.85	0.06	25.3
GSR-1-D	1.5	<0.1	<0.05	0.39	0.07	5.5	0.06	2.05	0.06	367
GSR-1-E	5.7	0.1	0.08	0.08	0.05	15.9	0.12	2.05	0.09	11.6
GSR-1-F	5.8	0.2	0.07	0.55	0.06	17.0	0.14	2.22	0.07	232
GSR 2	16.0	0.4	0.99	0.01	0.02	8.2	0.15	0.38	1.25	1.6
GS 3	0.5	<0.1	<0.05	0.16	<0.02	1.4	0.02	1.50	0.21	6.4
GS 4	0.7	<0.1	<0.05	0.18	<0.02	1.1	0.02	1.84	0.18	4.2
GS 5	0.6	<0.1	<0.05	0.23	<0.02	1.2	0.02	1.62	0.07	5.4
GS 6	0.9	<0.1	<0.05	0.37	<0.02	2.1	0.03	1.26	0.11	3.3
GSR 8	7.6	0.3	0.26	0.03	0.06	65.4	0.15	4.65	0.32	12.1

Element	Rb	Sb	Sc	Se	Sn	Ta	Tb	Te	Th	Tl
Method	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B	ICM14B
Det.Lim.	0.2	0.05	0.1	1	0.3	0.05	0.02	0.05	0.1	0.02
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
GSR-1-A	6.9	41.3	9.7	<1	0.8	<0.05	0.79	<0.05	1.1	0.16
GSR-1-B	6.0	31.3	6.9	<1	0.6	<0.05	0.63	<0.05	0.9	0.13
GSR-1-C	8.4	10.7	9.7	<1	0.8	<0.05	0.65	<0.05	0.7	0.14
GSR-1-D	7.5	43.9	5.7	2	0.9	<0.05	0.40	0.07	0.6	0.12
GSR-1-E	8.2	8.07	8.7	<1	0.4	<0.05	0.66	<0.05	1.1	0.11
GSR-1-F	7.4	36.7	8.8	<1	0.8	<0.05	0.86	<0.05	1.1	0.15
GSR 2	0.4	0.11	5.5	<1	0.6	<0.05	0.37	<0.05	0.7	<0.02
GS 3	2.4	0.47	1.4	<1	<0.3	<0.05	0.13	<0.05	0.3	<0.02
GS 4	2.5	0.09	1.7	<1	<0.3	<0.05	0.13	0.07	0.2	0.03
GS 5	2.0	0.43	2.0	<1	<0.3	<0.05	0.14	0.10	0.2	0.03
GS 6	2.1	0.06	1.7	<1	<0.3	<0.05	0.15	0.16	0.4	<0.02
GSR 8	11.3	2.35	6.3	2	1.1	<0.05	1.42	0.10	2.3	0.22

Element	U	W	Y	Yb	Ag
Method	ICM14B	ICM14B	ICM14B	ICM14B	AAS42E
Det.Lim.	0.05	0.1	0.05	0.1	0.3
Units	ppm	ppm	ppm	ppm	g/t
GSR-1-A	0.16	0.2	17.7	1.1	24.5
GSR-1-B	0.09	0.2	13.8	0.8	39.6
GSR-1-C	0.11	0.1	16.0	1.1	N.A.
GSR-1-D	0.12	0.1	8.85	0.6	70.7
GSR-1-E	0.19	0.1	16.0	1.1	N.A.
GSR-1-F	0.17	0.2	19.4	1.2	50.1
GSR 2	0.22	<0.1	12.1	1.2	N.A.
GS 3	0.16	<0.1	3.35	0.2	N.A.
GS 4	0.09	<0.1	3.16	0.2	N.A.
GS 5	0.07	<0.1	3.44	0.2	N.A.
GS 6	0.13	<0.1	3.78	0.2	N.A.
GSR 8	0.25	0.3	34.8	1.5	N.A.

Certificate of Analysis

Work Order: VC111061

To: ACCOUNTS PAYABLE
SGS VANCOUVER INC
8282 SHERBROOKE ST.
VANCOUVER BC V5X 4R6

Date: Sep 02, 2011

P.O. No.	:	GOLD SUMMIT-James Thom (SOIL)
Project No.	:	-
No. Of Samples	:	188
Date Submitted	:	Aug 02, 2011
Report Comprises	:	Pages 1 to 21 (Inclusive of Cover Sheet)

Certified By : _____

Albert Hung
Senior Chemist & Coordinator

SGS Minerals Services Geochemistry, Vancouver, BC is ISO 9001:2008 certified.

Report Footer:

L.N.R. = Listed not received
n.a. = Not applicable
I.S. = Insufficient Sample
-- = No result

*INF = Composition of this sample makes detection impossible by this method

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Methods marked with an asterisk (e.g. *NAA08V) were subcontracted
Methods marked with the @ symbol (e.g. @AAS21E) denote accredited tests

Element	WtKg	Au	Ag	Al	As	Be	Ca	Ba	Bi	Cd
Method	WGH79	FAA313	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	0.001	5	2	0.01	3	0.5	0.01	5	5	1
Units	kg	ppb	ppm	%	ppm	ppm	%	ppm	ppm	ppm
Mic 01	0.450	17	<2	4.18	28	1.2	0.60	195	<5	1
Mic 02	0.340	13	<2	2.78	35	0.8	0.69	268	<5	1
Mic 03	0.295	9	<2	2.77	35	0.7	0.87	589	<5	1
Mic 04	0.285	16	3	1.76	85	0.8	0.51	301	<5	<1
Mic 05	0.290	66	9	0.87	219	1.0	0.31	182	<5	1
Mic 06	0.340	38	<2	2.59	102	1.0	0.66	521	<5	1
Mic 07	0.230	31	<2	0.93	11	<0.5	0.54	374	<5	<1
Mic 08	0.380	13	<2	1.65	60	0.8	0.55	334	<5	1
Mic 09	0.410	27	<2	3.05	42	1.0	0.90	572	<5	1
Mic 10	0.385	23	<2	1.75	59	1.0	1.13	230	<5	1
Mic 11	0.335	20	<2	1.44	73	0.9	0.68	315	<5	1
Mic 12	0.370	13	<2	1.87	74	0.9	0.51	283	<5	1
Mic 13	0.335	21	<2	2.06	100	0.7	0.62	250	<5	<1
Mic 14	0.345	30	<2	2.39	64	0.7	0.68	337	<5	<1
Mic 15	0.325	<5	<2	2.88	59	0.7	0.78	466	<5	1
Mic 16	0.275	17	<2	2.52	83	0.7	0.58	380	<5	<1
Mic 17	0.345	5	<2	1.46	48	0.8	0.51	293	<5	1
Mic 18	0.370	12	<2	2.22	46	0.9	0.60	401	<5	1
Mic 19	0.255	24	<2	1.77	47	0.6	0.61	333	<5	<1
Mic 20	0.220	7	<2	1.86	30	0.5	0.47	310	<5	<1
Mic 21	0.195	<5	<2	2.10	37	0.6	1.09	466	<5	<1
Mic 22	0.210	32	<2	1.31	41	<0.5	0.39	289	<5	<1
Mic 23	0.230	25	<2	1.30	77	<0.5	0.35	290	<5	<1
Mic 24	0.285	21	<2	1.18	54	<0.5	0.34	185	<5	<1
Mic 25	0.275	34	<2	1.88	48	1.0	0.49	200	<5	1
Mic 26	0.335	25	<2	2.15	78	0.9	0.48	260	<5	<1
Mic 27	0.330	84	<2	2.50	72	0.8	0.75	361	<5	1
Mic 28	0.335	39	<2	3.52	32	0.9	1.03	452	<5	1
Mic 29	0.265	68	9	2.60	296	0.9	0.50	302	<5	1
Mic 30	0.180	54	3	1.16	180	<0.5	0.51	342	<5	<1
Mic 31	0.260	100	>10	3.05	368	1.1	0.59	254	<5	1
Mic 32	0.310	56	7	1.62	196	1.1	1.02	359	<5	1
Mic 33	0.440	31	<2	3.97	40	1.2	0.85	300	<5	1
Mic 34	0.220	43	<2	3.09	55	0.8	0.86	435	<5	1
Mic 35	0.315	<5	<2	3.10	31	0.7	0.80	421	<5	<1
GG 01	0.350	<5	<2	2.69	18	0.7	0.89	243	<5	<1
GG 02	0.325	<5	<2	2.42	15	<0.5	4.13	186	<5	<1
GG 03	0.320	<5	<2	2.30	12	<0.5	0.91	171	<5	<1
GG 04	0.285	9	<2	1.87	13	<0.5	0.64	205	<5	<1
GG 05	0.310	6	<2	2.15	12	<0.5	0.68	297	<5	<1
GG 06	0.245	8	<2	2.47	10	<0.5	0.92	177	<5	<1
GG 07	0.395	<5	<2	1.95	8	<0.5	0.46	132	<5	<1
GG 08	0.425	<5	<2	1.71	6	<0.5	0.38	175	<5	<1

Element	WtKg	Au	Ag	Al	As	Be	Ca	Ba	Bi	Cd
Method	WGH79	FAA313	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	0.001	5	2	0.01	3	0.5	0.01	5	5	1
Units	kg	ppb	ppm	%	ppm	ppm	%	ppm	ppm	ppm
GG 09	0.455	63	<2	2.09	10	<0.5	0.44	114	<5	<1
GG 10	0.380	13	<2	2.09	8	<0.5	0.56	124	<5	<1
GG 11	0.370	14	<2	2.32	11	<0.5	0.64	172	<5	<1
GG 12	0.335	<5	<2	2.39	9	<0.5	1.25	251	<5	<1
GG 13	0.330	<5	<2	1.77	7	0.9	0.56	161	<5	2
GG 14	0.395	5	<2	3.05	22	0.8	1.03	176	<5	1
GG 15	0.380	I.S.	<2	3.57	10	0.5	1.73	173	<5	1
GG 16	0.370	I.S.	<2	3.95	9	0.5	1.55	155	<5	1
GG 17	0.360	15	<2	1.37	17	0.8	4.25	220	<5	<1
GG 18	0.380	<5	<2	2.09	28	0.7	0.63	218	<5	<1
GG 19	0.330	5	<2	2.16	10	<0.5	0.71	229	<5	<1
GG 20	0.370	22	<2	2.28	11	<0.5	0.85	189	<5	<1
GG 21	0.310	<5	<2	0.77	42	0.8	0.25	217	<5	1
GG 22	0.390	11	<2	0.88	9	1.0	0.49	331	<5	1
GG 23	0.390	9	<2	1.30	18	0.9	0.46	607	<5	2
GG 24	0.305	<5	<2	2.30	26	0.6	0.52	389	<5	<1
GG 25	0.350	<5	<2	2.95	12	0.6	0.90	394	<5	<1
GG 26	0.465	<5	<2	3.15	15	<0.5	1.03	219	<5	<1
GG 27	0.365	19	<2	2.84	17	<0.5	0.98	299	<5	<1
GG 28	0.290	14	<2	3.19	14	0.8	1.14	310	<5	1
GG 29	0.315	<5	<2	2.49	16	0.7	1.02	279	<5	<1
GG 30	0.375	18	<2	3.98	17	0.8	3.16	297	<5	1
GG 31	0.345	44	<2	2.53	71	0.8	0.65	272	<5	2
GG 32	0.460	35	<2	4.06	147	<0.5	3.71	774	<5	2
GG 33	0.385	22	<2	3.87	41	<0.5	3.97	383	<5	1
GG 34	0.325	I.S.	<2	1.84	36	<0.5	1.76	373	<5	<1
GG 35	0.405	61	<2	2.72	43	0.6	0.57	327	<5	1
GG 36	0.365	370	10	0.86	174	0.7	0.69	259	<5	3
GG 37	0.340	254	<2	2.27	265	0.9	3.06	357	<5	1
GG 38	0.325	88	<2	1.47	106	0.7	0.53	308	<5	1
GG 39	0.405	129	<2	1.93	166	0.7	0.51	367	<5	2
GG 40	0.325	22	<2	2.83	47	0.7	0.66	481	<5	1
GG 41	0.410	6	<2	2.29	16	0.5	0.85	405	<5	<1
GG 42	0.530	I.S.	<2	3.00	20	0.6	1.49	376	<5	<1
GG 43	0.345	I.S.	<2	2.92	9	0.6	2.13	372	<5	1
GG 44	0.350	<5	<2	1.25	6	<0.5	0.86	285	<5	<1
GG 45	0.360	17	<2	2.93	16	0.8	0.83	471	<5	4
GG 46	0.320	38	<2	1.68	99	1.0	0.33	386	<5	2
GG 47	0.390	28	<2	1.56	76	1.0	0.49	370	<5	2
GG 48	0.330	13	<2	3.42	35	1.5	0.98	652	<5	<1
GG 49	0.405	10	<2	4.26	13	1.0	3.36	720	<5	<1
GG 50	0.315	10	<2	3.08	21	1.2	0.87	474	<5	<1
GG 51	0.405	13	<2	4.91	18	1.3	1.69	495	<5	<1

Element	WtKg	Au	Ag	Al	As	Be	Ca	Ba	Bi	Cd
Method	WGH79	FAA313	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	0.001	5	2	0.01	3	0.5	0.01	5	5	1
Units	kg	ppb	ppm	%	ppm	ppm	%	ppm	ppm	ppm
GG 52	0.320	5	<2	1.96	48	0.9	0.58	443	<5	1
GG 53	0.345	9	<2	1.50	44	0.6	0.70	460	<5	2
GG 54	0.235	28	<2	1.80	110	0.9	0.56	388	<5	2
GG 55	0.320	37	<2	3.29	140	1.2	0.82	202	<5	2
GG 56	0.335	22	<2	2.51	61	0.9	1.02	231	<5	1
GG 57	0.285	17	<2	2.32	82	0.8	0.77	188	<5	2
GG 58	0.395	21	<2	2.33	136	0.9	0.84	195	<5	2
GG 59	0.315	47	<2	2.24	144	0.7	1.21	241	<5	3
GG 60	0.255	118	<2	1.27	171	0.5	0.45	269	<5	2
GG 61	0.350	111	<2	1.32	408	0.7	0.30	399	<5	2
GG 62	0.225	<5	<2	1.25	30	<0.5	0.58	536	<5	3
GG 63	0.265	8	<2	1.55	31	0.5	0.70	210	<5	<1
GG 64	0.195	<5	<2	1.73	9	0.6	0.87	202	<5	<1
GG 65	0.290	<5	<2	1.38	5	<0.5	0.67	182	<5	<1
GG 66	0.245	<5	<2	2.14	15	0.8	1.11	231	<5	<1
GG 67	0.290	13	<2	2.92	72	0.9	0.70	216	<5	<1
GG 68	0.350	<5	<2	1.00	5	<0.5	0.44	161	<5	<1
GG 69	0.320	8	<2	2.19	10	0.7	1.24	212	<5	<1
GG 70	0.340	<5	<2	2.43	13	0.8	1.33	251	<5	<1
GG 71	0.305	<5	<2	1.79	11	0.6	1.06	255	<5	<1
GG 72	0.295	<5	<2	1.49	8	<0.5	1.06	241	<5	<1
GG 73	0.330	<5	<2	1.71	15	0.7	0.96	450	<5	<1
GG 74	0.265	<5	<2	1.39	14	0.6	0.67	537	<5	<1
GG 75	0.195	8	<2	0.86	7	<0.5	0.59	263	<5	<1
6500N 7000E	0.245	35	<2	2.23	27	0.7	0.77	241	<5	<1
6500N 7100E	0.280	16	<2	2.89	41	0.9	1.01	286	<5	<1
6500N 7200E	0.185	13	<2	0.84	5	<0.5	0.36	248	<5	<1
6500N 7300E	0.265	14	<2	1.67	35	0.7	0.55	294	<5	<1
6500N 7400E	0.230	<5	<2	1.36	7	0.6	0.37	230	<5	<1
6500N 7500E	0.315	17	<2	4.23	18	0.8	2.20	267	<5	<1
6500N 7600E	0.150	13	<2	1.25	5	<0.5	0.33	616	<5	<1
6500N 7700E	0.265	11	<2	1.38	8	0.8	0.36	572	<5	<1
6500N 7800E	0.335	7	<2	1.01	10	1.0	0.37	231	<5	<1
6500N 7900E	0.380	<5	<2	2.84	8	0.7	2.65	886	<5	<1
6500N 8000E	0.360	19	<2	3.69	4	1.1	2.23	414	<5	<1
6500N 8300E	0.320	6	<2	3.82	10	0.9	1.39	249	<5	<1
6500N 8400E	0.215	21	<2	0.45	19	0.5	1.30	158	<5	2
6600N 7050E	0.250	271	<2	2.69	101	1.0	1.21	261	<5	<1
6600N 7150E	0.380	<5	<2	1.58	10	0.7	0.57	819	<5	<1
6600N 7250E	0.340	10	<2	3.43	11	0.5	0.79	2460	<5	<1
6600N 7350E	0.390	<5	<2	3.86	10	0.5	1.58	239	<5	<1
6600N 7450E	0.345	<5	<2	1.87	6	0.6	0.47	584	<5	<1
6600N 7550E	0.510	8	<2	1.18	10	1.0	0.30	687	<5	<1

Element	WtKg	Au	Ag	Al	As	Be	Ca	Ba	Bi	Cd
Method	WGH79	FAA313	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	0.001	5	2	0.01	3	0.5	0.01	5	5	1
Units	kg	ppb	ppm	%	ppm	ppm	%	ppm	ppm	ppm
6600N 7750E	0.310	<5	<2	1.15	5	<0.5	0.58	546	<5	<1
JT01	0.190	96	<2	1.45	341	0.7	0.46	458	<5	3
JT02	0.260	127	<2	1.58	360	0.7	0.48	332	<5	2
JT03	0.190	37	<2	2.79	252	1.1	0.54	646	<5	3
JT04	0.145	<5	<2	0.58	4	<0.5	0.39	172	<5	<1
JT05	0.215	<5	<2	2.07	57	0.7	0.58	262	<5	1
JT06	0.250	23	<2	2.95	90	1.0	0.58	250	<5	2
JT07	0.195	20	<2	2.19	50	0.8	0.60	247	<5	2
JT08	0.285	17	<2	1.87	66	0.8	0.51	384	<5	2
JT09	0.295	39	<2	2.02	63	0.9	0.46	427	<5	2
JT10	0.190	42	<2	2.70	49	1.2	0.48	713	<5	2
JT11	0.300	38	<2	2.07	113	1.2	0.33	358	<5	2
JT12	0.345	15	<2	3.19	40	1.3	0.54	634	<5	4
JT13	0.260	31	<2	1.65	97	0.9	1.57	337	<5	2
JT14	0.245	42	<2	1.91	104	1.0	0.70	337	<5	2
JT15	0.275	47	<2	2.14	132	1.1	0.39	375	<5	2
JT16A	0.205	42	<2	1.74	117	1.0	1.18	430	<5	2
JT16B	0.285	43	<2	2.20	119	1.1	3.32	369	<5	2
JT17	0.315	320	<2	2.60	624	1.0	1.43	401	<5	8
JT18	0.305	110	<2	2.08	95	1.0	0.72	373	<5	2
JT19	0.300	260	<2	1.77	698	0.7	0.59	355	<5	13
JT20	0.445	262	<2	2.03	350	0.8	0.61	475	<5	6
JT21	0.220	<5	<2	1.45	61	0.8	0.45	373	<5	2
JT22	0.325	16	<2	1.41	50	0.9	0.29	362	<5	2
JT23	0.250	59	<2	1.34	130	1.0	2.64	391	<5	4
JT24	0.295	19	<2	2.55	80	1.3	0.27	581	<5	2
JT25	0.310	23	<2	1.50	81	1.0	0.35	391	<5	2
JT26	0.230	22	<2	1.81	48	1.0	0.35	403	<5	3
JT27	0.365	57	<2	1.52	51	1.0	0.36	351	<5	2
JT28	0.170	<5	<2	2.02	28	1.1	0.55	626	<5	3
JT29	0.375	10	<2	1.50	17	1.0	0.45	463	<5	1
JT30	0.370	15	<2	1.27	37	1.1	0.79	547	<5	4
JT31	0.390	13	<2	1.89	29	1.3	0.48	338	<5	10
JT32	0.245	41	<2	1.33	47	0.8	0.73	493	<5	3
JT33	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
JT34A	0.310	26	<2	1.84	28	1.1	1.12	1280	<5	2
JT34B	0.220	I.S.	<2	1.75	16	1.0	1.05	962	<5	3
JT35	0.285	10	<2	1.93	30	1.1	0.58	489	<5	3
JT36	0.395	29	<2	1.15	54	1.0	0.34	398	<5	5
JT37	0.275	29	<2	1.62	62	0.9	0.48	410	<5	2
JT38	0.380	22	<2	2.02	14	1.1	0.64	447	<5	1
JT39	0.465	27	2	1.63	30	1.1	0.45	244	<5	1
JT40	0.385	101	4	0.82	195	1.0	0.78	206	<5	3

Element	WtKg	Au	Ag	Al	As	Be	Ca	Ba	Bi	Cd
Method	WGH79	FAA313	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	0.001	5	2	0.01	3	0.5	0.01	5	5	1
Units	kg	ppb	ppm	%	ppm	ppm	%	ppm	ppm	ppm
JT41	0.315	56	<2	1.79	61	0.8	0.45	283	<5	2
JT42	0.420	19	<2	2.53	83	1.0	0.67	309	<5	<1
JT43	0.440	10	<2	2.02	23	0.7	0.50	342	<5	<1
JT44	0.440	30	<2	2.12	24	0.7	0.71	418	<5	1
JT45	0.335	<5	<2	1.44	17	0.9	0.45	388	<5	1
JT46	0.260	<5	<2	2.20	30	1.0	0.60	452	<5	<1
JT47	0.445	38	<2	2.22	92	0.8	0.55	319	<5	<1
JT48	0.380	I.S.	<2	1.56	14	<0.5	1.97	585	<5	<1
JT49	0.340	49	<2	2.84	38	0.6	1.58	580	<5	<1
JT50	0.370	44	<2	3.26	132	0.7	2.25	554	<5	<1
JT51	0.405	I.S.	<2	3.74	47	0.7	1.86	451	<5	<1
JT52	0.395	I.S.	<2	2.22	23	0.6	0.80	332	<5	<1
JT53	0.325	22	<2	1.76	52	0.6	0.58	357	<5	<1
JT54	0.370	16	<2	1.46	31	0.7	1.45	564	<5	<1
JT55	0.275	47	<2	1.76	53	0.7	0.38	382	<5	<1
JT56	0.385	12	<2	3.53	60	1.1	0.88	499	<5	<1

Final : VC111061 Order: GOLD SUMMIT-James Thom (SOIL)

Element	Co	Cr	Cu	Fe	Hg	K	La	Li	Mg	Mn
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	1	1	0.5	0.01	1	0.01	0.5	1	0.01	2
Units	ppm	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm
Mic 01	40	328	119	6.61	<1	0.19	31.5	57	3.62	1050
Mic 02	28	108	93.2	5.25	<1	0.28	26.5	28	1.38	1430
Mic 03	28	61	67.7	5.83	<1	0.35	16.8	31	1.20	1280
Mic 04	22	61	66.8	5.21	<1	0.32	19.7	15	0.57	1120
Mic 05	26	42	123	5.81	<1	0.26	23.7	5	0.27	1420
Mic 06	23	96	97.8	5.61	<1	0.44	28.2	22	0.97	1310
Mic 07	8	23	19.8	1.84	<1	0.11	7.4	6	0.33	1090
Mic 08	24	86	83.4	5.48	<1	0.32	19.4	12	0.54	1190
Mic 09	37	72	91.9	7.32	<1	0.28	22.1	27	1.26	2150
Mic 10	38	94	89.5	6.66	<1	0.26	21.0	17	0.70	1320
Mic 11	27	61	89.8	5.50	<1	0.32	23.1	13	0.56	1650
Mic 12	27	89	92.1	5.86	<1	0.32	24.9	16	0.84	1310
Mic 13	24	98	93.9	5.28	<1	0.22	19.7	18	1.08	1200
Mic 14	23	123	83.4	4.54	<1	0.22	17.2	21	1.26	985
Mic 15	28	129	73.5	4.62	<1	0.26	17.8	29	1.38	1370
Mic 16	25	95	67.9	4.70	<1	0.30	18.6	23	0.98	1130
Mic 17	27	63	87.7	6.40	<1	0.25	21.3	10	0.51	1000
Mic 18	26	83	82.2	5.62	<1	0.38	24.6	18	0.98	1370
Mic 19	20	62	57.1	3.88	<1	0.33	19.0	15	0.75	1330
Mic 20	16	68	50.5	3.81	<1	0.19	15.6	15	0.83	709
Mic 21	21	102	75.3	3.92	<1	0.40	16.1	19	1.11	1500
Mic 22	13	44	28.1	2.80	<1	0.24	10.7	10	0.47	1200
Mic 23	13	42	34.5	2.69	<1	0.14	10.5	8	0.47	718
Mic 24	10	31	27.0	2.25	<1	0.11	9.5	7	0.43	543
Mic 25	27	90	121	4.92	<1	0.29	31.6	16	0.85	966
Mic 26	26	83	101	5.85	<1	0.30	22.8	19	0.91	1420
Mic 27	26	141	114	5.44	<1	0.38	21.3	23	1.36	1210
Mic 28	42	315	106	5.59	<1	0.25	18.5	45	3.15	1530
Mic 29	28	177	100.0	5.52	<1	0.32	20.7	29	1.50	1110
Mic 30	12	43	31.5	2.79	<1	0.23	10.2	8	0.37	926
Mic 31	31	165	109	6.57	<1	0.34	29.6	33	1.75	1180
Mic 32	30	66	131	5.95	<1	0.37	27.2	14	0.57	2420
Mic 33	44	374	115	6.28	<1	0.18	29.2	49	3.51	1310
Mic 34	37	200	92.3	5.70	<1	0.38	19.1	35	2.31	1480
Mic 35	27	182	92.3	5.28	<1	0.34	18.4	33	2.08	1180
GG 01	29	127	68.0	5.54	<1	0.17	16.8	23	1.79	1110
GG 02	26	121	54.9	4.89	<1	0.13	13.3	23	2.08	910
GG 03	23	107	50.8	4.71	<1	0.16	14.4	19	1.54	802
GG 04	24	150	47.0	4.14	<1	0.16	11.3	15	1.53	754
GG 05	21	118	46.1	4.29	<1	0.16	9.2	16	1.27	542
GG 06	26	128	50.8	5.23	<1	0.13	12.9	20	1.85	861
GG 07	34	350	46.1	4.64	<1	0.14	9.6	17	3.25	697
GG 08	27	263	32.0	3.77	<1	0.12	7.6	14	2.22	599

Element	Co	Cr	Cu	Fe	Hg	K	La	Li	Mg	Mn
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	1	1	0.5	0.01	1	0.01	0.5	1	0.01	2
Units	ppm	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm
GG 09	40	414	50.0	4.91	<1	0.13	8.9	18	4.44	885
GG 10	33	386	51.4	4.92	<1	0.15	9.3	18	3.10	582
GG 11	37	320	59.6	5.03	<1	0.18	12.9	21	3.24	964
GG 12	25	74	56.7	4.80	<1	0.14	12.4	20	1.25	1270
GG 13	54	28	151	4.22	<1	0.18	37.9	19	0.61	2000
GG 14	37	100	80.7	6.24	<1	0.23	19.3	27	1.57	1410
GG 15	42	151	85.0	6.88	<1	0.14	12.7	39	2.66	1440
GG 16	49	256	78.9	7.33	<1	0.12	13.4	42	3.08	1390
GG 17	36	64	74.0	4.69	<1	0.19	9.9	10	0.58	1000
GG 18	26	96	88.6	5.41	<1	0.15	15.0	22	1.27	1050
GG 19	21	88	42.9	3.97	<1	0.18	11.6	17	1.14	739
GG 20	21	96	49.8	4.36	<1	0.16	13.4	18	1.37	756
GG 21	35	30	270	4.58	<1	0.17	20.4	5	0.25	789
GG 22	30	25	90.5	7.31	<1	0.20	41.0	6	0.38	2170
GG 23	23	73	133	5.12	<1	0.18	22.1	11	0.69	930
GG 24	26	98	64.1	4.25	<1	0.16	25.0	22	1.30	1260
GG 25	35	181	57.9	4.90	<1	0.17	16.5	34	2.22	1540
GG 26	31	80	68.1	5.19	<1	0.15	10.2	34	1.56	951
GG 27	28	134	76.3	5.05	<1	0.15	13.0	27	1.87	804
GG 28	38	159	103	5.55	<1	0.17	19.8	35	2.22	1380
GG 29	31	124	80.7	4.85	<1	0.18	18.0	25	1.56	1310
GG 30	52	269	119	7.44	<1	0.14	19.2	54	3.35	1970
GG 31	28	124	90.4	4.93	<1	0.32	20.4	26	1.43	1600
GG 32	73	227	179	8.32	<1	0.16	8.9	36	3.49	2970
GG 33	48	135	191	7.41	<1	0.16	5.0	28	2.46	1260
GG 34	19	61	74.6	3.62	<1	0.18	8.6	13	0.94	836
GG 35	33	107	96.3	5.25	<1	0.16	13.3	30	1.55	1380
GG 36	19	26	87.8	5.16	<1	0.23	12.4	7	0.34	2930
GG 37	36	82	88.4	6.57	<1	0.21	15.5	21	1.40	1970
GG 38	24	53	92.0	4.40	<1	0.30	17.9	14	0.70	1230
GG 39	24	83	80.7	4.82	<1	0.27	17.9	22	1.10	1320
GG 40	32	159	83.5	5.03	<1	0.29	17.3	35	2.20	1430
GG 41	21	89	70.6	4.22	<1	0.27	15.1	23	1.33	986
GG 42	28	71	89.9	5.65	<1	0.17	12.2	28	1.80	1280
GG 43	29	72	75.1	6.08	<1	0.19	12.2	29	2.16	1160
GG 44	11	27	41.5	2.43	<1	0.11	10.6	11	0.53	612
GG 45	32	75	141	6.46	<1	0.24	32.9	34	1.30	1970
GG 46	20	47	142	5.51	<1	0.25	33.8	15	0.85	762
GG 47	23	44	159	5.40	<1	0.31	31.0	15	0.84	1040
GG 48	43	78	296	7.82	<1	0.49	38.9	34	1.80	1980
GG 49	51	57	250	10.5	<1	0.27	22.3	29	2.03	2800
GG 50	34	73	169	7.06	<1	0.43	23.5	23	1.50	1970
GG 51	41	128	103	8.34	<1	1.52	27.6	44	4.27	2460

Element	Co	Cr	Cu	Fe	Hg	K	La	Li	Mg	Mn
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	1	1	0.5	0.01	1	0.01	0.5	1	0.01	2
Units	ppm	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm
GG 52	20	52	99.9	4.79	<1	0.35	26.6	19	1.01	1850
GG 53	14	34	67.8	3.55	<1	0.23	17.8	13	0.61	2070
GG 54	20	45	97.8	4.85	<1	0.25	28.1	17	1.04	1350
GG 55	33	135	124	6.50	<1	0.32	28.1	32	2.34	1370
GG 56	26	88	87.0	5.25	<1	0.24	21.2	23	1.60	1400
GG 57	23	70	74.8	5.08	<1	0.17	19.8	19	1.36	1050
GG 58	25	61	93.1	6.32	<1	0.23	19.5	17	1.03	1040
GG 59	23	67	93.4	4.99	<1	0.25	14.0	18	1.24	1220
GG 60	13	32	67.1	3.50	<1	0.21	14.3	11	0.55	718
GG 61	17	38	108	4.58	<1	0.21	20.9	12	0.54	906
GG 62	10	27	29.6	2.50	<1	0.17	9.5	9	0.41	1450
GG 63	18	69	35.7	3.66	<1	0.14	10.3	14	1.11	845
GG 64	17	69	31.0	3.72	<1	0.15	9.9	14	1.17	895
GG 65	14	61	23.5	3.27	<1	0.10	8.0	12	0.99	605
GG 66	19	48	39.1	4.56	<1	0.15	13.2	16	1.14	1130
GG 67	22	51	58.5	5.88	<1	0.16	18.1	21	1.24	962
GG 68	9	19	16.7	2.02	<1	0.12	6.7	6	0.37	606
GG 69	22	60	61.7	4.76	<1	0.19	14.8	17	1.19	1350
GG 70	25	70	83.6	5.37	<1	0.21	17.6	20	1.33	1550
GG 71	17	44	55.9	3.91	<1	0.21	14.5	13	0.78	1170
GG 72	14	32	48.6	2.87	<1	0.16	11.5	9	0.61	1120
GG 73	17	43	79.1	3.81	<1	0.18	16.6	15	0.75	1200
GG 74	13	35	57.9	3.37	<1	0.19	13.9	12	0.62	1040
GG 75	8	15	17.1	2.06	<1	0.08	8.5	5	0.31	675
6500N 7000E	22	62	48.6	4.88	<1	0.25	16.1	20	0.83	1080
6500N 7100E	21	79	48.3	5.16	<1	0.15	16.4	19	1.17	906
6500N 7200E	6	19	9.6	1.75	<1	0.11	4.7	5	0.26	1140
6500N 7300E	16	54	55.6	4.35	<1	0.26	14.6	13	0.75	910
6500N 7400E	15	40	33.3	4.13	<1	0.15	13.1	13	0.52	679
6500N 7500E	39	143	91.4	8.15	<1	0.31	11.6	35	2.67	1640
6500N 7600E	11	27	30.9	2.96	<1	0.16	9.6	9	0.36	2040
6500N 7700E	19	62	74.8	5.15	<1	0.22	14.7	14	0.32	700
6500N 7800E	12	23	100.0	4.27	<1	0.29	13.4	9	0.26	2050
6500N 7900E	41	81	217	6.94	<1	0.36	12.8	36	1.93	2730
6500N 8000E	46	71	171	9.07	<1	0.25	14.9	42	2.31	1860
6500N 8300E	36	89	102	8.15	<1	0.35	18.0	44	2.64	1780
6500N 8400E	12	11	109	3.13	<1	0.24	5.3	3	0.21	738
6600N 7050E	25	82	63.4	5.40	<1	0.18	17.9	20	1.43	1070
6600N 7150E	19	109	56.8	5.10	1	0.19	12.7	16	0.71	1330
6600N 7250E	37	166	151	7.38	<1	0.33	9.5	30	1.48	1320
6600N 7350E	40	93	104	6.89	<1	0.17	9.9	33	2.77	1740
6600N 7450E	18	48	39.3	4.32	<1	0.23	14.4	20	0.75	1140
6600N 7550E	16	33	103	4.50	<1	0.28	11.8	10	0.25	1120

Element	Co	Cr	Cu	Fe	Hg	K	La	Li	Mg	Mn
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	1	1	0.5	0.01	1	0.01	0.5	1	0.01	2
Units	ppm	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm
6600N 7750E	9	22	30.1	2.77	<1	0.19	11.2	9	0.37	1050
JT01	18	41	94.3	4.73	<1	0.25	19.9	13	0.62	1180
JT02	20	45	101	5.13	<1	0.22	19.6	14	0.81	1060
JT03	24	72	100	5.62	<1	0.33	23.4	23	0.95	1210
JT04	5	8	11.7	1.52	<1	0.06	5.2	3	0.19	341
JT05	17	101	58.1	4.03	<1	0.20	15.7	19	1.35	1340
JT06	27	146	91.2	5.51	<1	0.24	21.0	28	2.04	1350
JT07	18	76	59.1	4.31	<1	0.23	18.0	19	1.20	1280
JT08	18	49	87.1	4.67	<1	0.27	25.0	16	0.92	1320
JT09	18	55	87.4	5.01	<1	0.26	26.3	17	0.87	1240
JT10	22	64	85.8	5.46	<1	0.36	30.4	24	1.16	1040
JT11	19	55	141	6.11	<1	0.28	35.8	18	1.07	1180
JT12	26	79	87.2	5.58	<1	0.39	26.2	28	1.26	1330
JT13	19	45	107	5.18	<1	0.24	29.3	17	0.99	1040
JT14	22	51	124	5.75	<1	0.27	33.5	18	1.07	1200
JT15	21	52	107	5.31	<1	0.27	29.2	18	1.00	1380
JT16A	20	48	119	5.04	<1	0.30	27.8	17	1.11	1050
JT16B	26	56	121	5.74	<1	0.30	30.8	22	1.36	1120
JT17	32	80	141	6.87	<1	0.31	21.0	22	1.58	2270
JT18	20	51	101	5.18	<1	0.28	29.5	18	1.06	1350
JT19	18	44	103	4.79	<1	0.18	15.9	12	0.68	2260
JT20	26	68	140	6.35	<1	0.27	19.5	15	0.97	2190
JT21	15	33	97.1	4.33	<1	0.22	23.7	11	0.61	1090
JT22	16	38	115	5.17	<1	0.23	27.8	13	0.65	764
JT23	24	38	141	5.32	<1	0.25	28.4	13	0.78	1110
JT24	20	46	129	5.98	<1	0.26	31.7	19	0.87	728
JT25	18	44	139	5.68	<1	0.25	29.5	12	0.72	1230
JT26	19	46	114	5.24	<1	0.27	29.9	15	0.79	1060
JT27	17	44	127	5.06	<1	0.28	28.4	13	0.61	870
JT28	22	54	112	5.32	<1	0.34	26.6	16	0.76	1920
JT29	17	36	113	5.09	<1	0.31	20.1	13	0.48	1050
JT30	23	50	112	5.48	<1	0.24	29.8	13	0.54	1570
JT31	23	73	124	6.49	<1	0.35	37.3	17	1.04	1060
JT32	17	33	102	4.54	<1	0.22	23.9	11	0.65	2140
JT33	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
JT34A	17	60	168	5.09	<1	0.36	27.1	25	0.65	1200
JT34B	16	47	197	4.36	<1	0.28	21.1	16	0.58	1350
JT35	23	59	92.3	4.88	<1	0.28	23.6	21	0.93	1450
JT36	18	42	146	5.06	<1	0.21	22.7	10	0.48	1110
JT37	20	48	109	4.82	<1	0.24	25.7	14	0.80	1300
JT38	21	52	111	5.15	<1	0.34	23.2	21	0.86	1790
JT39	23	54	159	6.03	<1	0.28	29.2	13	0.72	1110
JT40	39	40	146	6.35	<1	0.26	33.4	6	0.34	2280

Element	Co	Cr	Cu	Fe	Hg	K	La	Li	Mg	Mn
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	1	1	0.5	0.01	1	0.01	0.5	1	0.01	2
Units	ppm	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm
JT41	33	47	115	6.08	<1	0.25	22.2	14	0.62	2360
JT42	24	81	103	5.87	<1	0.27	26.0	27	1.28	2800
JT43	21	68	77.1	4.50	<1	0.23	19.9	22	0.96	1670
JT44	20	65	76.8	4.68	<1	0.29	16.8	19	0.84	1440
JT45	17	35	94.1	4.73	<1	0.29	17.3	13	0.48	1070
JT46	26	68	97.7	5.39	<1	0.31	24.8	21	0.94	2140
JT47	23	97	96.7	5.13	<1	0.28	20.5	24	1.36	1380
JT48	13	55	59.6	2.79	<1	0.20	9.6	12	0.66	1350
JT49	21	108	105	5.11	<1	0.33	12.3	23	1.31	900
JT50	34	153	146	6.43	<1	0.31	14.4	30	1.98	1520
JT51	30	214	136	6.12	<1	0.29	12.0	35	2.44	1080
JT52	18	113	71.2	3.94	<1	0.25	16.4	22	1.30	1060
JT53	17	93	68.2	4.46	<1	0.28	14.8	16	0.84	951
JT54	18	26	74.0	4.49	<1	0.21	15.2	14	0.54	1630
JT55	15	51	78.0	4.28	<1	0.26	15.4	17	0.64	903
JT56	34	278	110	5.86	<1	0.29	21.0	43	2.76	1420

Element	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sn	Sr
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	1	0.01	1	0.01	2	0.01	5	0.5	10	0.5
Units	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm
Mic 01	5	0.02	326	0.06	9	<0.01	6	18.3	<10	23.7
Mic 02	3	0.02	115	0.08	9	<0.01	<5	12.5	<10	37.3
Mic 03	2	0.02	74	0.10	7	<0.01	<5	14.4	<10	33.5
Mic 04	2	0.02	89	0.09	18	<0.01	5	11.5	<10	36.0
Mic 05	4	0.02	123	0.08	35	0.01	20	11.1	<10	25.6
Mic 06	3	0.02	109	0.07	25	<0.01	5	14.6	<10	46.7
Mic 07	<1	0.03	26	0.20	12	<0.01	<5	2.5	<10	52.7
Mic 08	3	0.02	138	0.13	12	<0.01	7	12.3	<10	33.9
Mic 09	2	0.02	87	0.08	9	<0.01	<5	20.5	<10	33.8
Mic 10	3	0.02	165	0.07	11	<0.01	6	18.5	<10	103
Mic 11	4	0.02	109	0.10	16	<0.01	8	11.6	<10	47.2
Mic 12	3	0.02	113	0.06	20	<0.01	6	12.4	<10	34.9
Mic 13	3	0.02	99	0.06	20	<0.01	<5	12.6	<10	35.6
Mic 14	3	0.02	119	0.06	19	<0.01	<5	10.5	<10	37.1
Mic 15	3	0.03	148	0.09	12	<0.01	<5	12.1	<10	35.9
Mic 16	3	0.03	119	0.09	17	<0.01	<5	10.8	<10	33.8
Mic 17	7	0.02	104	0.08	13	<0.01	6	13.6	<10	29.8
Mic 18	3	0.02	107	0.14	14	<0.01	5	12.6	<10	40.5
Mic 19	2	0.03	77	0.09	15	<0.01	<5	8.5	<10	39.5
Mic 20	2	0.03	68	0.06	10	<0.01	<5	8.3	<10	31.2
Mic 21	3	0.02	109	0.11	13	0.01	<5	9.0	<10	50.5
Mic 22	1	0.03	58	0.13	13	<0.01	<5	4.6	<10	27.1
Mic 23	1	0.03	50	0.09	15	<0.01	<5	4.5	<10	24.1
Mic 24	1	0.03	37	0.10	10	<0.01	<5	3.6	<10	21.9
Mic 25	6	0.02	119	0.04	15	<0.01	6	11.1	<10	28.3
Mic 26	3	0.02	90	0.06	11	<0.01	<5	14.8	<10	32.6
Mic 27	4	0.02	137	0.11	19	<0.01	<5	12.8	<10	32.4
Mic 28	5	0.02	320	0.07	12	<0.01	<5	16.0	<10	29.1
Mic 29	3	0.02	216	0.08	55	<0.01	8	13.9	<10	28.3
Mic 30	1	0.03	47	0.15	17	<0.01	<5	5.4	<10	36.9
Mic 31	6	0.02	161	0.10	25	<0.01	11	15.6	<10	32.0
Mic 32	2	0.02	92	0.13	19	0.01	7	15.4	<10	51.2
Mic 33	4	0.02	349	0.10	8	<0.01	<5	16.9	<10	35.6
Mic 34	3	0.02	208	0.11	10	<0.01	<5	14.6	<10	33.8
Mic 35	2	0.02	166	0.09	8	<0.01	<5	12.7	<10	31.4
GG 01	2	0.02	143	0.12	7	<0.01	<5	16.1	<10	22.5
GG 02	1	0.02	128	0.10	5	<0.01	<5	12.6	<10	63.8
GG 03	1	0.02	111	0.07	5	<0.01	<5	12.2	<10	20.3
GG 04	2	0.02	178	0.07	6	<0.01	<5	9.4	<10	19.6
GG 05	2	0.02	130	0.09	5	<0.01	<5	9.5	<10	22.1
GG 06	1	0.02	144	0.10	4	<0.01	<5	12.4	<10	21.9
GG 07	1	0.02	394	0.05	4	<0.01	<5	8.8	<10	14.9
GG 08	<1	0.02	288	0.07	4	<0.01	<5	6.7	<10	15.7

Element	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sn	Sr
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	1	0.01	1	0.01	2	0.01	5	0.5	10	0.5
Units	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm
GG 09	1	0.02	505	0.07	3	<0.01	<5	9.5	<10	14.0
GG 10	2	0.02	397	0.06	4	<0.01	<5	9.5	<10	15.4
GG 11	2	0.02	375	0.08	5	<0.01	<5	10.7	<10	21.7
GG 12	1	0.02	79	0.10	6	<0.01	<5	9.3	<10	27.8
GG 13	7	0.01	172	0.10	16	<0.01	<5	4.7	<10	14.5
GG 14	2	0.02	104	0.07	9	<0.01	<5	14.0	<10	30.0
GG 15	1	0.02	141	0.08	5	<0.01	<5	18.1	<10	39.8
GG 16	1	0.02	226	0.09	5	<0.01	<5	18.1	<10	33.5
GG 17	2	0.02	140	0.12	5	0.01	<5	15.9	<10	71.7
GG 18	3	0.02	111	0.08	10	<0.01	7	10.8	<10	24.7
GG 19	2	0.02	95	0.10	6	<0.01	<5	9.3	<10	19.2
GG 20	1	0.02	97	0.08	6	<0.01	<5	11.1	<10	20.6
GG 21	8	0.01	114	0.09	21	<0.01	8	7.0	<10	17.8
GG 22	4	0.01	58	0.14	12	<0.01	<5	10.4	<10	18.9
GG 23	8	0.02	98	0.07	14	<0.01	<5	10.2	<10	27.9
GG 24	3	0.02	113	0.07	11	<0.01	<5	8.6	<10	20.8
GG 25	2	0.02	180	0.09	6	<0.01	<5	10.9	<10	32.4
GG 26	2	0.02	85	0.06	6	<0.01	<5	12.0	<10	29.0
GG 27	2	0.02	144	0.06	6	<0.01	<5	13.0	<10	27.2
GG 28	4	0.02	182	0.09	9	<0.01	<5	14.9	<10	27.0
GG 29	2	0.03	118	0.07	8	<0.01	<5	11.0	<10	37.0
GG 30	4	0.02	279	0.09	10	<0.01	<5	19.8	<10	34.3
GG 31	5	0.02	143	0.06	19	<0.01	<5	10.5	<10	26.2
GG 32	3	0.02	206	0.08	13	<0.01	<5	28.7	<10	46.3
GG 33	<1	0.02	81	0.06	7	<0.01	<5	22.1	<10	54.7
GG 34	2	0.03	43	0.05	8	<0.01	<5	10.4	<10	26.0
GG 35	4	0.02	178	0.04	16	<0.01	<5	13.5	<10	20.3
GG 36	5	0.01	65	0.06	170	0.04	9	9.4	<10	31.8
GG 37	3	0.02	94	0.10	78	<0.01	<5	18.0	<10	51.8
GG 38	5	0.02	85	0.06	39	0.01	<5	8.4	<10	27.8
GG 39	3	0.02	103	0.07	46	<0.01	<5	9.4	<10	27.9
GG 40	4	0.02	184	0.08	19	<0.01	<5	11.8	<10	31.3
GG 41	2	0.02	94	0.08	8	<0.01	<5	10.4	<10	33.7
GG 42	2	0.02	82	0.08	7	<0.01	<5	16.7	<10	37.4
GG 43	2	0.02	79	0.11	6	<0.01	<5	13.6	<10	44.2
GG 44	<1	0.03	28	0.13	7	<0.01	<5	5.0	<10	34.1
GG 45	2	0.02	94	0.37	12	<0.01	<5	18.2	<10	39.8
GG 46	8	0.02	73	0.10	24	0.02	<5	9.1	<10	34.4
GG 47	9	0.02	78	0.10	39	0.03	<5	8.8	<10	51.1
GG 48	5	0.02	88	0.08	8	<0.01	<5	18.3	<10	32.8
GG 49	<1	0.04	66	0.09	3	<0.01	<5	30.1	<10	104
GG 50	5	0.03	80	0.09	8	0.02	<5	14.8	<10	40.6
GG 51	<1	0.02	119	0.12	5	<0.01	<5	20.1	<10	40.7

Element	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sn	Sr
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	1	0.01	1	0.01	2	0.01	5	0.5	10	0.5
Units	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm
GG 52	4	0.02	69	0.15	20	<0.01	<5	7.8	<10	38.6
GG 53	3	0.03	46	0.13	14	0.01	<5	5.2	<10	44.5
GG 54	5	0.02	59	0.15	26	<0.01	<5	7.7	<10	35.9
GG 55	5	0.02	132	0.09	26	<0.01	<5	12.0	<10	57.3
GG 56	3	0.03	92	0.11	15	<0.01	<5	11.6	<10	32.1
GG 57	3	0.03	74	0.10	32	<0.01	<5	9.9	<10	31.9
GG 58	2	0.02	76	0.09	53	<0.01	<5	12.3	<10	37.6
GG 59	2	0.03	70	0.12	82	0.01	<5	10.7	<10	49.4
GG 60	2	0.03	48	0.13	47	<0.01	<5	5.8	<10	37.1
GG 61	5	0.02	67	0.10	75	<0.01	<5	7.7	<10	29.7
GG 62	<1	0.03	34	0.21	15	<0.01	<5	3.5	<10	40.5
GG 63	2	0.03	57	0.10	8	<0.01	<5	6.6	<10	30.6
GG 64	<1	0.03	55	0.09	4	<0.01	<5	7.7	<10	37.1
GG 65	<1	0.03	46	0.08	4	<0.01	<5	6.3	<10	29.9
GG 66	1	0.03	45	0.10	6	<0.01	<5	10.4	<10	48.5
GG 67	2	0.02	51	0.05	8	<0.01	<5	15.3	<10	37.6
GG 68	<1	0.03	22	0.14	5	<0.01	<5	2.6	<10	28.6
GG 69	1	0.03	65	0.16	5	<0.01	<5	9.9	<10	42.3
GG 70	1	0.03	69	0.18	6	<0.01	<5	11.8	<10	46.2
GG 71	<1	0.03	49	0.23	7	<0.01	<5	7.7	<10	51.6
GG 72	<1	0.03	36	0.20	7	<0.01	<5	5.0	<10	51.3
GG 73	2	0.03	51	0.12	10	<0.01	<5	6.9	<10	46.1
GG 74	2	0.03	44	0.18	12	<0.01	<5	5.6	<10	43.9
GG 75	<1	0.03	18	0.17	8	<0.01	<5	2.0	<10	42.2
6500N 7000E	2	0.03	69	0.18	11	<0.01	<5	7.7	<10	35.6
6500N 7100E	2	0.03	71	0.07	16	<0.01	<5	9.9	<10	34.9
6500N 7200E	<1	0.03	18	0.06	5	<0.01	<5	1.7	<10	22.2
6500N 7300E	3	0.02	59	0.05	14	<0.01	<5	7.6	<10	27.3
6500N 7400E	2	0.02	44	0.11	5	<0.01	<5	8.9	<10	20.5
6500N 7500E	2	0.02	124	0.09	6	<0.01	<5	20.9	<10	51.6
6500N 7600E	2	0.03	38	0.04	8	<0.01	<5	3.9	<10	31.8
6500N 7700E	2	0.02	78	0.09	7	<0.01	<5	13.2	<10	52.2
6500N 7800E	5	0.02	43	0.08	13	<0.01	<5	6.6	<10	45.1
6500N 7900E	<1	0.02	101	0.16	3	0.02	<5	21.6	<10	110
6500N 8000E	<1	0.05	82	0.06	3	<0.01	<5	26.8	<10	74.8
6500N 8300E	1	0.02	92	0.08	3	<0.01	<5	27.3	<10	55.9
6500N 8400E	6	0.01	39	0.11	9	0.07	<5	5.2	<10	84.2
6600N 7050E	2	0.03	77	0.07	26	<0.01	<5	13.7	<10	34.4
6600N 7150E	1	0.03	90	0.10	6	<0.01	<5	12.6	<10	48.6
6600N 7250E	3	0.03	128	0.04	4	<0.01	<5	24.5	<10	41.9
6600N 7350E	<1	0.03	108	0.10	2	<0.01	<5	20.8	<10	41.6
6600N 7450E	1	0.03	47	0.08	6	<0.01	<5	8.5	<10	27.8
6600N 7550E	2	0.02	53	0.06	11	<0.01	<5	9.3	<10	63.5

Element	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sn	Sr
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	1	0.01	1	0.01	2	0.01	5	0.5	10	0.5
Units	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm
6600N 7750E	2	0.03	28	0.10	7	0.01	<5	3.3	<10	50.4
JT01	4	0.02	69	0.11	83	<0.01	<5	7.5	<10	38.3
JT02	4	0.02	69	0.09	131	<0.01	<5	8.2	<10	35.4
JT03	4	0.02	92	0.13	64	<0.01	<5	10.4	<10	42.0
JT04	<1	0.04	9	0.14	5	<0.01	<5	1.4	<10	34.8
JT05	3	0.03	96	0.10	13	<0.01	<5	6.6	<10	39.6
JT06	4	0.03	143	0.09	24	<0.01	<5	10.6	<10	40.3
JT07	3	0.03	82	0.11	16	<0.01	<5	6.8	<10	36.0
JT08	4	0.02	62	0.11	22	<0.01	<5	7.3	<10	39.3
JT09	4	0.03	68	0.11	19	<0.01	<5	8.1	<10	37.3
JT10	4	0.02	85	0.20	21	<0.01	<5	9.5	<10	41.1
JT11	8	0.02	70	0.08	23	<0.01	<5	10.0	<10	28.7
JT12	3	0.02	99	0.24	19	<0.01	<5	10.6	<10	44.7
JT13	6	0.02	64	0.12	24	0.01	<5	7.5	<10	45.7
JT14	7	0.02	68	0.12	25	0.01	<5	8.9	<10	37.3
JT15	6	0.02	70	0.14	22	<0.01	<5	8.7	<10	33.2
JT16A	5	0.02	62	0.15	21	0.02	<5	8.4	<10	58.4
JT16B	7	0.02	70	0.15	25	0.03	<5	9.3	<10	79.5
JT17	4	0.02	83	0.10	95	<0.01	<5	13.1	<10	68.5
JT18	6	0.02	64	0.10	22	<0.01	<5	8.6	<10	35.4
JT19	2	0.03	56	0.10	96	0.01	<5	8.1	<10	41.7
JT20	4	0.02	83	0.11	27	0.02	<5	11.2	<10	40.3
JT21	5	0.02	58	0.15	25	0.01	<5	6.4	<10	38.4
JT22	8	0.01	66	0.15	21	0.02	<5	7.1	<10	33.8
JT23	8	0.01	68	0.15	30	0.04	<5	7.6	<10	70.3
JT24	7	0.02	90	0.12	31	0.02	<5	9.9	<10	37.3
JT25	8	0.02	70	0.17	28	0.02	<5	8.6	<10	36.9
JT26	6	0.02	67	0.17	28	0.01	<5	8.1	<10	40.2
JT27	7	0.02	69	0.10	16	<0.01	<5	7.5	<10	37.0
JT28	4	0.02	68	0.25	25	<0.01	<5	9.3	<10	53.4
JT29	6	0.02	58	0.09	11	0.02	<5	8.4	<10	42.8
JT30	5	0.01	70	0.09	8	<0.01	<5	11.2	<10	60.7
JT31	5	0.02	83	0.14	10	<0.01	<5	10.0	<10	44.1
JT32	7	0.02	56	0.25	17	0.01	<5	6.5	<10	47.5
JT33	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
JT34A	3	0.02	66	0.20	8	0.02	<5	9.9	<10	77.6
JT34B	4	0.02	60	0.16	11	0.01	<5	8.4	<10	73.9
JT35	4	0.02	74	0.15	8	<0.01	<5	8.7	<10	46.8
JT36	8	0.02	75	0.09	12	<0.01	<5	9.0	<10	40.1
JT37	5	0.02	70	0.13	21	0.02	<5	8.9	<10	39.5
JT38	5	0.02	74	0.16	11	0.02	<5	9.6	<10	44.4
JT39	9	0.02	91	0.07	19	0.06	6	11.2	<10	42.4
JT40	6	0.01	164	0.09	172	0.02	<5	10.7	<10	42.9

Element	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sn	Sr
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B
Det.Lim.	1	0.01	1	0.01	2	0.01	5	0.5	10	0.5
Units	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm
JT41	3	0.02	83	0.11	69	0.02	<5	9.3	<10	35.5
JT42	3	0.02	95	0.11	31	<0.01	<5	12.1	<10	36.3
JT43	3	0.02	79	0.08	15	<0.01	<5	9.9	<10	35.8
JT44	3	0.02	70	0.09	19	0.01	<5	9.9	<10	53.8
JT45	6	0.02	58	0.07	13	0.02	<5	8.1	<10	38.5
JT46	3	0.02	86	0.10	17	<0.01	<5	11.3	<10	36.3
JT47	4	0.02	114	0.07	30	<0.01	<5	11.1	<10	31.9
JT48	1	0.03	42	0.13	7	0.03	<5	6.5	<10	57.3
JT49	2	0.03	72	0.08	12	<0.01	<5	16.5	<10	37.7
JT50	3	0.02	116	0.05	20	<0.01	<5	21.8	<10	42.6
JT51	2	0.02	140	0.05	12	<0.01	<5	23.5	<10	41.9
JT52	3	0.02	103	0.07	8	<0.01	<5	10.3	<10	30.4
JT53	2	0.02	80	0.06	15	<0.01	<5	10.1	<10	30.1
JT54	3	0.02	40	0.06	15	0.02	<5	8.6	<10	37.3
JT55	3	0.02	67	0.05	27	<0.01	<5	9.5	<10	26.1
JT56	3	0.02	262	0.08	15	<0.01	<5	17.6	<10	32.2

Element	Ti	V	W	Y	Zn	Zr	Ag
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	AAS42E
Det.Lim.	0.01	1	10	0.5	1	0.5	0.3
Units	%	ppm	ppm	ppm	ppm	ppm	g/t
Mic 01	0.04	137	<10	24.4	148	8.4	N.A.
Mic 02	0.08	100	<10	20.3	145	10.8	N.A.
Mic 03	0.24	125	<10	16.6	124	23.1	N.A.
Mic 04	0.05	86	<10	17.3	142	10.2	N.A.
Mic 05	<0.01	41	<10	20.5	169	4.4	N.A.
Mic 06	0.10	86	<10	23.7	202	14.2	N.A.
Mic 07	0.09	44	<10	4.9	92	3.5	N.A.
Mic 08	0.04	75	<10	19.5	139	6.5	N.A.
Mic 09	0.25	115	<10	22.5	130	25.8	N.A.
Mic 10	0.02	90	<10	24.2	137	6.0	N.A.
Mic 11	0.03	66	<10	19.8	155	6.3	N.A.
Mic 12	0.06	77	<10	19.2	158	11.4	N.A.
Mic 13	0.11	89	<10	17.5	144	13.1	N.A.
Mic 14	0.13	89	<10	13.8	150	14.5	N.A.
Mic 15	0.16	91	<10	14.6	188	16.7	N.A.
Mic 16	0.13	81	<10	14.7	183	13.1	N.A.
Mic 17	0.04	80	<10	22.0	127	8.4	N.A.
Mic 18	0.07	87	<10	19.2	156	10.4	N.A.
Mic 19	0.08	67	<10	14.7	126	8.2	N.A.
Mic 20	0.11	82	<10	10.3	102	11.0	N.A.
Mic 21	0.12	73	<10	13.0	128	9.8	N.A.
Mic 22	0.09	56	<10	7.2	124	4.3	N.A.
Mic 23	0.09	54	<10	7.1	113	8.4	N.A.
Mic 24	0.10	53	<10	7.1	82	7.1	N.A.
Mic 25	0.01	58	<10	26.9	159	8.0	N.A.
Mic 26	0.06	98	<10	20.4	123	12.0	N.A.
Mic 27	0.16	93	<10	17.7	151	15.8	N.A.
Mic 28	0.34	120	<10	18.3	146	22.9	N.A.
Mic 29	0.04	82	<10	21.6	211	9.8	N.A.
Mic 30	0.07	54	<10	8.4	107	5.8	N.A.
Mic 31	0.05	116	<10	24.4	187	9.9	12.8
Mic 32	0.02	77	<10	25.2	138	7.1	N.A.
Mic 33	0.10	123	<10	20.6	132	10.0	N.A.
Mic 34	0.18	102	<10	17.2	145	14.3	N.A.
Mic 35	0.18	102	<10	15.1	110	16.3	N.A.
GG 01	0.29	111	<10	18.9	92	24.5	N.A.
GG 02	0.29	103	<10	14.0	97	23.5	N.A.
GG 03	0.34	102	<10	15.9	76	23.9	N.A.
GG 04	0.27	84	<10	10.8	88	20.9	N.A.
GG 05	0.29	88	<10	7.5	114	23.1	N.A.
GG 06	0.30	104	<10	14.9	83	24.9	N.A.
GG 07	0.23	77	<10	10.8	72	15.6	N.A.
GG 08	0.20	66	<10	6.7	70	12.7	N.A.

Final : VC111061 Order: GOLD SUMMIT-James Thom (SOIL)

Element	Ti	V	W	Y	Zr	Zr	Ag
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	AAS42E
Det.Lim.	0.01	1	10	0.5	1	0.5	0.3
Units	%	ppm	ppm	ppm	ppm	ppm	g/t
GG 09	0.19	78	<10	10.4	71	13.3	N.A.
GG 10	0.23	79	<10	9.4	77	17.6	N.A.
GG 11	0.26	88	<10	14.8	85	16.3	N.A.
GG 12	0.26	90	<10	10.6	109	15.6	N.A.
GG 13	<0.01	59	<10	21.3	498	7.9	N.A.
GG 14	0.45	112	<10	16.0	136	34.1	N.A.
GG 15	0.60	152	<10	18.7	103	47.9	N.A.
GG 16	0.65	156	<10	16.3	117	51.3	N.A.
GG 17	<0.01	61	<10	15.1	99	4.1	N.A.
GG 18	0.13	88	<10	14.1	137	12.5	N.A.
GG 19	0.33	88	<10	9.7	139	27.4	N.A.
GG 20	0.37	100	<10	13.6	96	27.9	N.A.
GG 21	0.04	47	<10	8.2	214	4.6	N.A.
GG 22	<0.01	53	<10	22.3	126	5.2	N.A.
GG 23	0.07	64	<10	16.4	185	10.7	N.A.
GG 24	0.14	75	<10	14.3	140	13.2	N.A.
GG 25	0.15	100	<10	15.5	107	10.9	N.A.
GG 26	0.25	93	<10	15.3	114	21.0	N.A.
GG 27	0.30	107	<10	12.4	111	28.2	N.A.
GG 28	0.39	112	<10	15.6	135	24.4	N.A.
GG 29	0.18	93	<10	13.5	115	11.9	N.A.
GG 30	0.63	144	<10	17.3	159	39.1	N.A.
GG 31	0.06	76	<10	19.0	173	8.7	N.A.
GG 32	0.33	197	<10	18.7	129	28.9	N.A.
GG 33	0.31	162	<10	16.7	102	29.1	N.A.
GG 34	0.14	85	<10	12.2	87	10.5	N.A.
GG 35	0.03	82	<10	15.8	143	8.2	N.A.
GG 36	<0.01	31	<10	18.1	317	4.3	N.A.
GG 37	0.08	127	<10	17.7	157	9.6	N.A.
GG 38	0.03	58	<10	12.0	142	6.0	N.A.
GG 39	0.06	75	<10	15.0	180	8.1	N.A.
GG 40	0.10	102	<10	13.2	136	10.5	N.A.
GG 41	0.20	90	<10	13.0	113	12.4	N.A.
GG 42	0.32	126	<10	14.1	119	20.6	N.A.
GG 43	0.34	131	<10	11.6	106	19.5	N.A.
GG 44	0.12	55	<10	8.6	82	5.2	N.A.
GG 45	0.12	106	<10	27.4	537	10.4	N.A.
GG 46	0.03	77	<10	17.3	322	8.8	N.A.
GG 47	0.02	78	<10	17.0	267	5.8	N.A.
GG 48	0.07	141	<10	27.9	177	8.2	N.A.
GG 49	0.23	197	<10	25.3	150	18.3	N.A.
GG 50	0.28	144	<10	19.7	163	20.6	N.A.
GG 51	0.21	185	<10	19.7	119	5.3	N.A.

Element	Ti	V	W	Y	Zn	Zr	Ag
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	AAS42E
Det.Lim.	0.01	1	10	0.5	1	0.5	0.3
Units	%	ppm	ppm	ppm	ppm	ppm	g/t
GG 52	0.07	85	<10	14.2	206	6.9	N.A.
GG 53	0.08	67	<10	10.4	230	4.5	N.A.
GG 54	0.05	79	<10	14.3	296	4.3	N.A.
GG 55	0.24	120	<10	15.9	291	23.4	N.A.
GG 56	0.21	105	<10	15.4	200	17.6	N.A.
GG 57	0.13	103	<10	12.9	250	10.5	N.A.
GG 58	0.17	119	<10	16.8	288	17.0	N.A.
GG 59	0.18	103	<10	13.8	347	12.5	N.A.
GG 60	0.09	62	<10	7.9	335	7.1	N.A.
GG 61	0.06	65	<10	10.4	337	8.3	N.A.
GG 62	0.11	57	<10	4.9	223	4.4	N.A.
GG 63	0.22	94	<10	7.2	98	10.8	N.A.
GG 64	0.24	97	<10	8.5	84	14.9	N.A.
GG 65	0.22	90	<10	6.8	62	14.9	N.A.
GG 66	0.20	109	<10	12.2	100	15.1	N.A.
GG 67	0.09	122	<10	20.3	92	15.5	N.A.
GG 68	0.11	53	<10	3.9	94	7.7	N.A.
GG 69	0.26	104	<10	12.0	122	22.8	N.A.
GG 70	0.28	113	<10	14.5	135	22.5	N.A.
GG 71	0.18	85	<10	10.8	125	14.1	N.A.
GG 72	0.17	62	<10	8.8	102	9.4	N.A.
GG 73	0.17	82	<10	11.8	127	11.0	N.A.
GG 74	0.12	68	<10	8.5	174	8.6	N.A.
GG 75	0.14	64	<10	5.0	81	5.3	N.A.
6500N 7000E	0.20	95	<10	7.6	147	14.2	N.A.
6500N 7100E	0.40	132	<10	9.0	112	25.4	N.A.
6500N 7200E	0.11	48	<10	2.3	90	1.9	N.A.
6500N 7300E	0.22	86	<10	7.1	114	17.5	N.A.
6500N 7400E	0.07	82	<10	9.0	89	6.6	N.A.
6500N 7500E	0.48	157	<10	13.8	116	50.4	N.A.
6500N 7600E	0.10	63	<10	4.7	103	6.9	N.A.
6500N 7700E	0.05	115	<10	14.5	119	8.2	N.A.
6500N 7800E	0.05	56	<10	12.2	122	6.2	N.A.
6500N 7900E	0.60	145	<10	18.1	171	45.7	N.A.
6500N 8000E	0.73	200	<10	18.4	138	75.3	N.A.
6500N 8300E	0.27	187	<10	17.6	119	25.4	N.A.
6500N 8400E	<0.01	33	<10	14.4	201	2.8	N.A.
6600N 7050E	0.50	145	<10	12.1	122	47.3	N.A.
6600N 7150E	0.08	122	<10	10.3	84	10.3	N.A.
6600N 7250E	0.05	138	<10	19.2	113	13.6	N.A.
6600N 7350E	0.38	148	<10	15.5	116	34.7	N.A.
6600N 7450E	0.13	97	<10	11.9	104	9.9	N.A.
6600N 7550E	0.03	65	<10	10.5	124	8.6	N.A.

Element	Ti	V	W	Y	Zn	Zr	Ag
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	AAS42E
Det.Lim.	0.01	1	10	0.5	1	0.5	0.3
Units	%	ppm	ppm	ppm	ppm	ppm	g/t
6600N 7750E	0.11	64	<10	5.9	83	6.6	N.A.
JT01	0.08	69	<10	10.1	352	7.6	N.A.
JT02	0.13	75	<10	11.1	378	11.8	N.A.
JT03	0.14	96	<10	12.9	560	27.7	N.A.
JT04	0.09	43	<10	3.0	49	3.7	N.A.
JT05	0.12	78	<10	8.3	223	8.1	N.A.
JT06	0.17	107	<10	12.7	313	19.2	N.A.
JT07	0.14	81	<10	9.5	266	10.9	N.A.
JT08	0.07	78	<10	13.2	271	6.7	N.A.
JT09	0.08	82	<10	13.5	337	8.0	N.A.
JT10	0.09	89	<10	14.8	359	16.1	N.A.
JT11	0.03	87	<10	20.5	325	6.4	N.A.
JT12	0.12	93	<10	13.3	763	25.9	N.A.
JT13	0.03	72	<10	15.0	293	5.5	N.A.
JT14	0.03	81	<10	18.1	327	6.4	N.A.
JT15	0.05	84	<10	15.6	408	8.6	N.A.
JT16A	0.02	75	<10	15.6	302	4.9	N.A.
JT16B	0.02	90	<10	17.4	306	5.3	N.A.
JT17	0.08	122	<10	21.8	1010	6.2	N.A.
JT18	0.04	89	<10	16.8	314	6.1	N.A.
JT19	0.10	84	<10	15.1	1300	5.1	N.A.
JT20	0.08	107	<10	20.5	771	5.4	N.A.
JT21	0.04	63	<10	13.2	328	5.8	N.A.
JT22	0.03	67	<10	11.0	397	4.1	N.A.
JT23	<0.01	66	<10	15.4	380	4.3	N.A.
JT24	0.04	76	<10	19.6	491	27.9	N.A.
JT25	0.01	72	<10	16.6	329	4.0	N.A.
JT26	0.04	77	<10	13.3	445	6.2	N.A.
JT27	0.05	66	<10	16.9	438	10.2	N.A.
JT28	0.06	89	<10	13.9	567	8.5	N.A.
JT29	0.04	66	<10	20.2	245	6.7	N.A.
JT30	0.01	87	<10	25.1	525	4.2	N.A.
JT31	0.07	86	<10	22.8	1360	9.6	N.A.
JT32	0.03	60	<10	14.1	398	4.2	N.A.
JT33	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	N.A.
JT34A	0.06	77	<10	20.0	581	6.9	N.A.
JT34B	0.08	68	<10	18.7	672	9.2	N.A.
JT35	0.06	89	<10	20.0	396	8.6	N.A.
JT36	0.03	71	<10	23.7	542	7.8	N.A.
JT37	0.04	76	<10	15.3	260	6.8	N.A.
JT38	0.07	87	<10	12.8	215	7.5	N.A.
JT39	0.05	68	<10	16.4	249	6.8	N.A.
JT40	<0.01	54	<10	18.7	538	3.5	N.A.

Final : VC111061 Order: GOLD SUMMIT-James Thom (SOIL)

Element	Ti	V	W	Y	Zn	Zr	Ag
Method	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	ICP14B	AAS42E
Det.Lim.	0.01	1	10	0.5	1	0.5	0.3
Units	%	ppm	ppm	ppm	ppm	ppm	g/t
JT41	0.06	76	<10	16.1	354	7.5	N.A.
JT42	0.10	97	<10	17.5	186	12.5	N.A.
JT43	0.07	84	<10	14.5	134	6.2	N.A.
JT44	0.10	68	<10	16.7	205	9.8	N.A.
JT45	0.03	59	<10	17.6	209	5.9	N.A.
JT46	0.08	89	<10	17.5	148	5.8	N.A.
JT47	0.09	91	<10	14.4	146	8.4	N.A.
JT48	0.11	64	<10	10.2	106	3.1	N.A.
JT49	0.20	115	<10	14.4	117	21.5	N.A.
JT50	0.19	139	<10	16.5	133	21.7	N.A.
JT51	0.27	152	<10	17.6	127	29.9	N.A.
JT52	0.17	81	<10	15.1	120	12.5	N.A.
JT53	0.09	83	<10	14.0	130	10.0	N.A.
JT54	<0.01	40	<10	15.2	137	3.0	N.A.
JT55	0.04	62	<10	16.1	150	8.8	N.A.
JT56	0.27	129	<10	17.8	146	23.2	N.A.

APPENDIX 5

-SJ Geophysics Report-

LOGISTICS REPORT PREPARED

FOR

ST. ELIAS MINES LTD.

THREE DIMENSIONAL INDUCED POLARIZATION, MAXMIN HORIZONTAL LOOP ELECTROMAGNETIC AND MAGNETOMETER SURVEY

ON THE

GOLD SUMMIT PROJECT

LILLOOET, BC, CANADA

LATITUDE: 50^0 52' 35" N LONGITUDE: 122^0 31' 40" W

BCGS SHEET: 092J088

NTS SHEET: 092J015 & 092J016

MINING DIVISION: LILLOOET

SURVEY CONDUCTED BY SJ GEOPHYSICS LTD.

JULY 2011

REPORT WRITTEN BY

MATVEI KOOTCHIN

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1. SURVEY SUMMARY

SJ Geophysics Ltd. was contracted by St. Elias Mines Ltd. to acquire various geophysical measurements on their Gold Summit Property. The following table provides a brief summary of the project.

Client	St. Elias Mines Ltd.
Project Name	Gold Summit Project
Location (approx. centre of grid)	Latitude: 50^0 52' 35" N Longitude: 122^0 31' 40" W NAD 83 UTM Zone 10 5636216N 533223E
Survey Type(s)	3D Induced Polarization (3DIP) MaxMin - Horizontal Loop Electromagnetic (HLEM) Magnetometer (Mag)
Number of Survey Lines	3DIP: 5; HLEM: 10; Mag: 11
Total Line Kilometres	3DIP: 10km; HLEM: 20km; Mag: 20.9km
Dates on Property	July 10 – July 27, 2011
Objective	SJ Geophysics was contracted to carry out 3DIP, HLEM and Magnetometer surveys with the purpose of providing 3D inverted models of resistivity and chargeability properties and a plan map of magnetic and conductive field anomalies.

This logistical report summarizes the operational aspects of the survey and the survey methodologies used. This report does not discuss any interpretation of the results of the geophysical survey.

2. LOCATION AND ACCESS

The Gold Summit geophysical project is located on the north shore of Carpenter Lake, situated approximately 50km northwest of Lillooet, in the southwestern portion of British Columbia (Figure 1). The Gold Summit Property lies within the Lillooet Mining Division and is situated on NTS Mapsheet 092J015 and 092J016. The geophysical grid is approximately centred at NAD83 UTM Zone 10 5636216N, 533223E (Latitude: 50^0 52' 35" N Longitude: 122^0 31' 40" W).

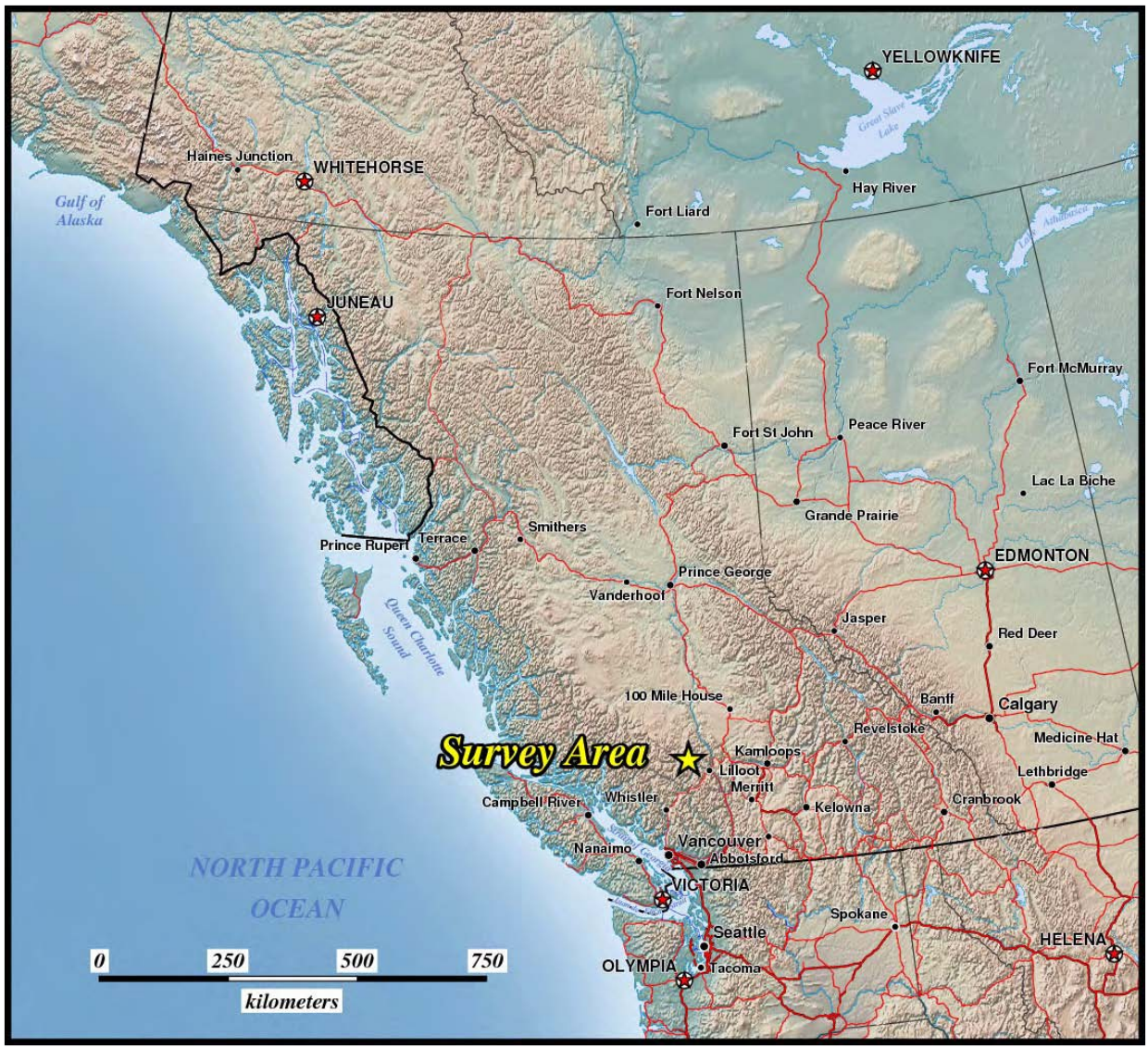


Figure 1: Location Map

The grid area can be accessed from Lillooet by vehicle with a driving time of approximately 1 hour 30 minutes (Figure 2) and a total driving distance of approximately 76km. Detailed driving directions are listed below:

- Travel north through Lillooet (6km), making a left turn on Moha Road, heading for Goldbridge. Continue along Moha Road for 24km.
- Turn onto Carpenter Lake Road and follow for 37.5km.
- Turn right at Marshall Creek Road and drive for another 8km.
- A left turn onto a forestry service road will pass through the edge of the survey grid.

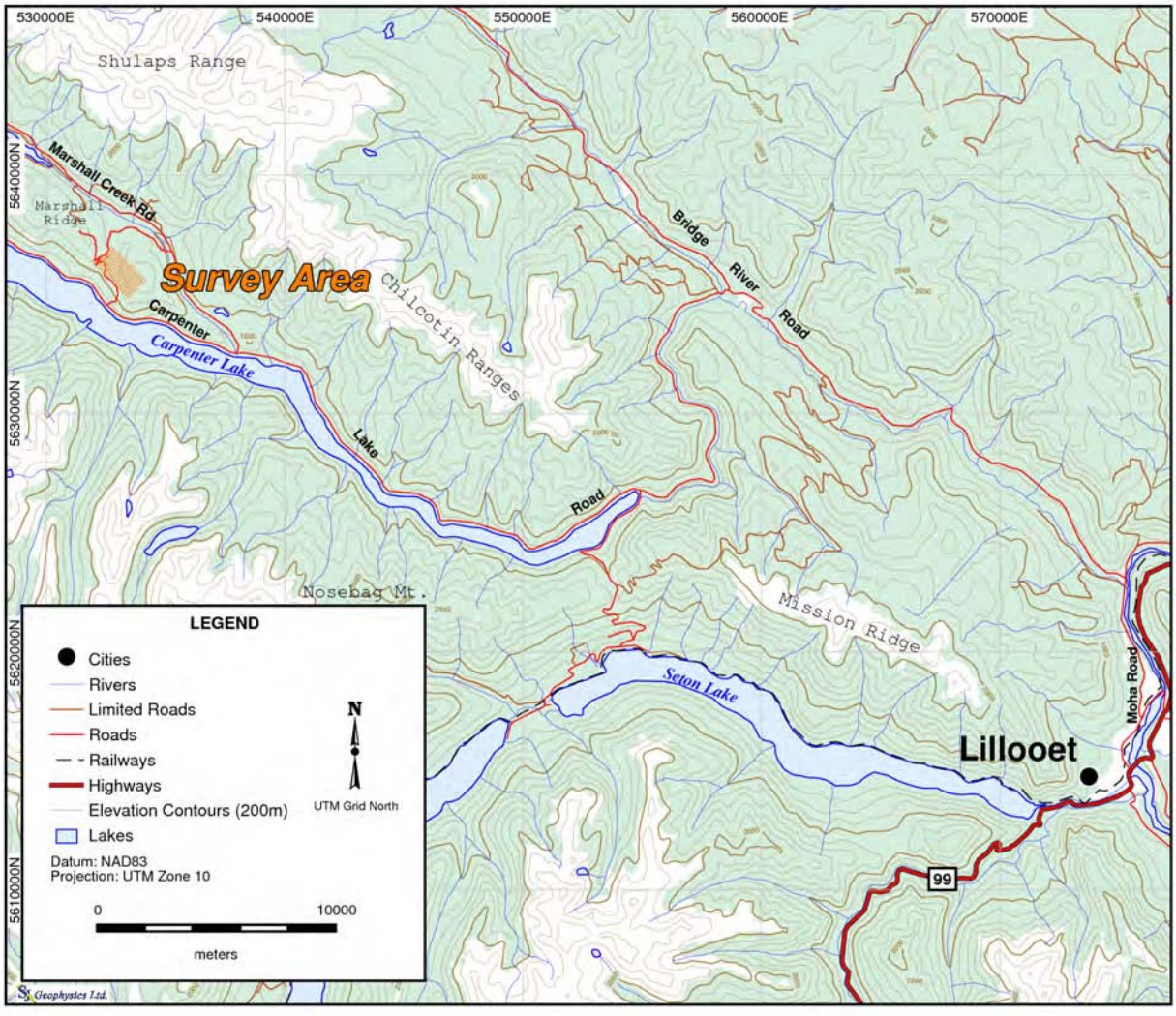


Figure 2: Access Map

The region was mainly forested with fir and pine with some mixed deciduous trees. Groundcover consisted mainly of grasses and wildflowers with occasional raspberry and blackberry thickets. The grid was generally under thick forest cover, with some open grassland on the southern slope of the grid.

3. GRID INFORMATION

The Gold Summit grid consisted of 10 cross lines and 1 base line (Figure 3). Line and station labels for the grid were based on a local coordinate system. The lines were spaced at 100m and were labelled from 5800N to 6700N, each 2km long. Stations were flagged and marked every 25m and were labelled from 5000E to 7000E. The base line was located along 5000E, extended 900m. It was also flagged every 25m. Grid details are summarized in the table below.

Grid Name	Gold Summit Project
Number Of Lines	10 Cross lines (5800N – 6700N) ; 1 Base Line (5000E)
Cross Line Azimuth	135º
Line Spacing	100m
Station Spacing	25m
Elevation range	1100 – 1600 m

Locational information was recorded by the SJ Geophysics crew, which included GPS control points and slope data. Control points were acquired with a Garmin GPSMap 62s GPS in the UTM projection and NAD83 datum. Slope data was recorded with a Suunto clinometer.

The topography of the Gold Summit grid was moderate to steep with an elevation range of approximately 1100m to 1600m. Two significant cliffs blocked access to some lines on the grid, with a large cliff blocking parts of lines 6300N and 6200N and a smaller cliff blocking a part of line 6000N. Hiking on the southeast slope between 5800N and 6100N could be treacherous as the ground was generally composed of very dry loose soil with small rocks topped with a layer of dead leaves.

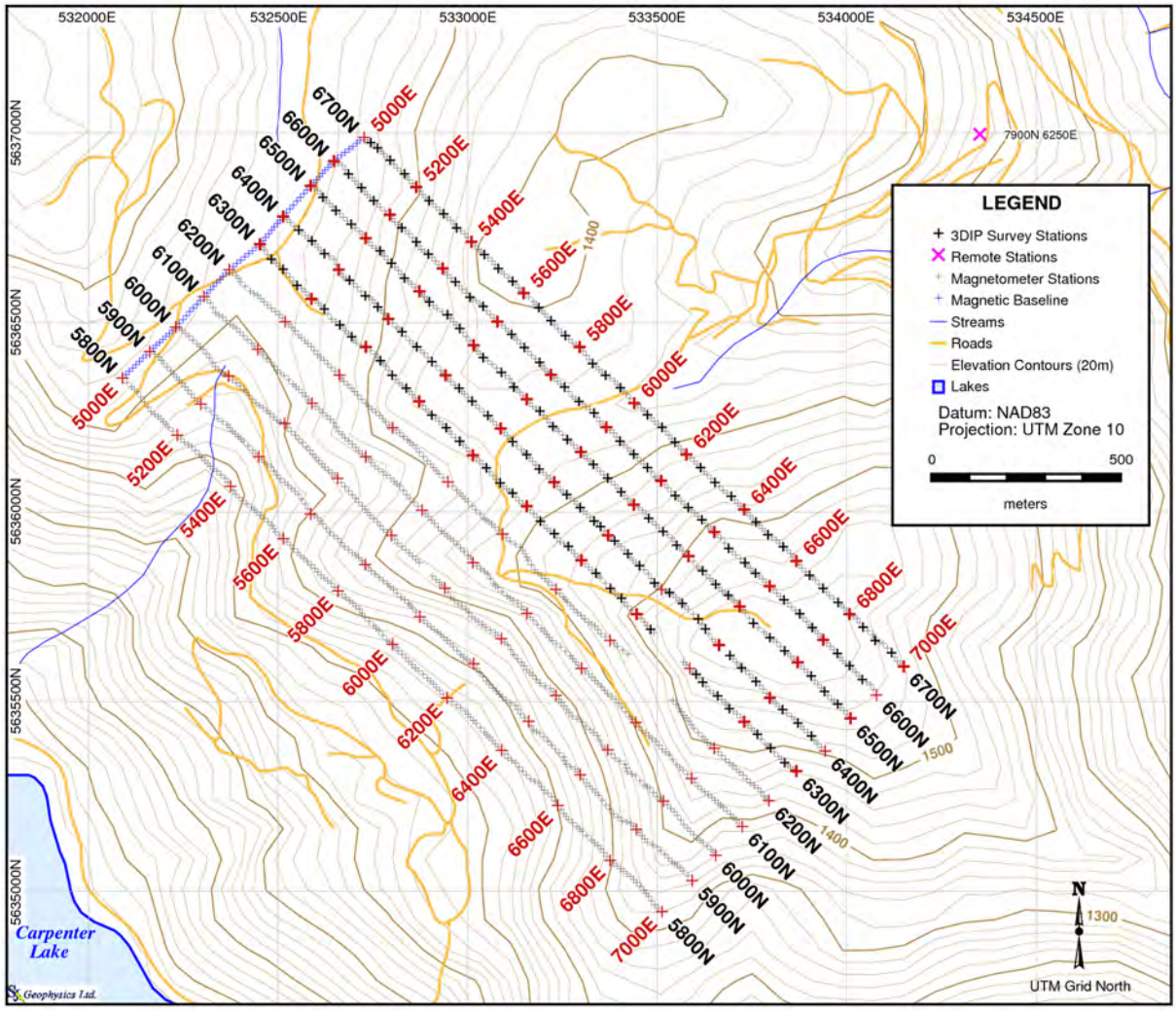


Figure 3: Grid Map

4. FIELD WORK AND INSTRUMENTATION

4.1. Field Logistics

SJ Geophysics was contracted by St. Elias Mines Ltd. to acquire multiple various geophysical measurements on their Gold Summit Property. Three techniques were utilized, MaxMin Horizontal Loop Electromagnetic (HLEM), Magnetics and Three Dimensional Induced Polarization (3DIP). A single geophysical crew, varying in personnel depending on survey type, conducted the survey between July 10, 2011 and July 27, 2011. The lead field geophysicist oversees all operational aspects including field logistics, data acquisition and initial field data quality control. The table below summarizes the crew personnel and the days they were on the project site.

Crew Member Name	*Role*	*Dates on site*
Matvei Kootchin	Field Geophysicist	July 10 – July 27
Doug Maclean	Field Geophysicist	July 10 – July 12
Alex Visser	Field Technician	July 23 – July 27
Ashley Bezembinder	Field Technician	July 23 – July 27
Scott Noseworthy	Geophysical Helper	July 10 – July 27
Colin Bateman	Geophysical Helper	July 23 – July 27

The geophysical project began on July 10, 2011 with the acquisition of the MaxMin and Magnetics. Doug Maclean, assisted with the start-up of the project and subsequently demobilized after a couple days. For the 3DIP acquisition phase, three crew members joined the group to complete the IP portion of the project. The project concluded on July 27, with the crew demobilizing the following day.

The SJ Geophysics crew was accommodated by the client in a tent with cots located at Carol Lake. A gas generator was provided for power to charge instrumentation in the evening. A satellite phone was available; however, its' usage for Internet was not capable. Therefore, the crew had to travel to Goldbridge or Lillooet to deliver data. Meals were cooked and eaten at the campground. Since there was no cellular phone coverage at the camp all communication with the office was done by Internet or satellite phone.

MaxMin (HLEM) production started July 10, 2011 and continued until July 22. All 10 cross-lines were acquired at 25m station interval. There was difficulty in getting stable readings for 440Hz (possibly due to a nearby transmission line) so readings for 880Hz were added to the frequencies being acquired on July 15.

The magnetic data was recorded during the same period as the MaxMin data. The same 10 cross-lines were acquired as well as the base line that ran across the northern edge of the survey grid (5000E). Magnetic readings were acquired at 12.5m intervals.

3DIP production began on July 23 and continued until July 27. Only five lines (6300N – 6700N) were acquired with the IP methodology. During the 3DIP survey two digital receiver systems were used as often as possible to increase production, while increasing the amount of acquired dipoles. The extra dipoles measured leads to a deeper depth of investigation.

Temperatures during the acquisition phase at the Gold Summit project ranged from around 5ºC at night up to 20ºC during the heat of the day. Precipitation was unusually high for July, but caused no significant issues. Wildlife on the grid consisted of deer, black bears, small rodents and snakes. No significant issues were caused by wildlife.

4.2. Survey Parameters and Instrumentation

The geophysical instrumentation used to acquire the 3DIP data consisted of a SJ-24 full waveform receiver and a GDD Tx II transmitter. To acquire the Magnetic survey data GEM GSM-19 magnetometers were used. HLEM measurements were taken with a MaxMin 10 system in maximum coupling (horizontal loop) mode. The specifications of these instruments are listed in Appendix B and a summary of the parameters used are summarized in the below.

3D Induced Polarization	
Array Type	3DIP – Modified Offset Pole-Dipole
Number of Dipoles	16 to 32
Dipole Size	50m
Array Length	800 to 1600m
Current Interval	50m
IP Transmitter	GDD TxII (Serial #247, 246)
Duty Cycle	50.00%
Waveform	Square
Cycle and Period	2 sec on / 2 sec off; 8 second
IP Receiver	SJ-24 Full Waveform Digital Receiver
Reading Length	Minimum 60s
Vp Delay, Vp Integration	1200ms, 600ms
Mx Delay, # of Windows Width (Mx Intergration)	200ms, 20 36, 39, 42, 45, 48, 52, 56, 60, 65, 70, 75, 81, 87, 94, 101, 109,118, 128, 140, 154 (200ms - 1800ms)
Properties Calculated	Vp, Mx, Sp, Apparent Res

Horizontal Loop Electromagnetics	
Instrument	Maxmin I-10 Electromagnetic System
Cable length	100m
Station Spacing	25m
Frequencies Measured (Hz)	440, 880*, 1760, 7040, 28160 880Hz was acquired only for a portion of the survey
Measured Property	In Phase Component - % of Primary Field Quadrature Component - % of Primary Field
Magnetics	
Instrument	GEM GSM-19 Overhauser Magnetometer
Station Spacing	12.5m
Base Unit Reading Interval	5s
Measured Property	Total magnetic field

The 3DIP potential array was connected using special 8-conductor cables with 50m takeouts for the potential electrodes. For the potential line, the electrodes consisted of stainless steel pins, 50cm long and 10mm in diameter, which were hammered into the ground. At each current station (50m intervals), current was injected using two long (75 cm) stainless steel electrodes hammered into the ground. The remote current locations consisted of four 1m stainless steel rods, 15mm in diameter. A single remote was utilized for the duration of the survey and was located at the following location.

Type	Database Name	UTM Northing	UTM Easting
North Remote 1	7900N 6250	5636997	534352

The Magnetic survey utilized a stationary base unit to record the magnetic field to allow for the removal of the diurnal variation in the measured data. The base station recorded data at 5 second intervals. The mobile units, known as rovers, recorded the total magnetic field every

12.5m along the grid line traverses. Calibration measurements were taken by the rover units at the start and end of each day to account for level shifts between the different instruments and to get a sense of the error in the data. The physical location of the base station and the calibration station are listed below.

Type	UTM Northing	UTM Easting
Magnetic Base Station	5637091	532617
Magnetic Calibration Point	5637087	532606

Horizontal Loop Electromagnetic measurements were taken with a MaxMin 10 system in maximum coupling (horizontal loop) mode. For this mode, the transmitter and receiver coils are tilted to a coplanar orientation. Electromagnetic fields were generated and measured at 5 frequencies (all in Hz): 440, 880, 1760, 7040 and 28160. At each station, the in-phase and quadrature components of the HLEM fields are measured. The transmitter and receiver are connected by a cable of 100m in length.

5. GEOPHYSICAL TECHNIQUES

5.1 IP Method

The time domain IP technique energizes the ground with an alternating square wave pulse via a pair of current electrodes. During current injection, the apparent (bulk) resistivity of the ground is calculated from the measured primary voltage and the input current. Following current injection, a time decaying voltage is also measured at the receiver electrodes. This IP effect measures the amount of polarizable (or "chargeable") materials in the subsurface rock.

Under ideal circumstances, high chargeability corresponds to disseminated metallic sulfides. Unfortunately, IP responses are rarely uniquely interpretable as other rock materials are also chargeable, including some graphitic rocks, clays and some metamorphic rocks (e.g., serpentinite). Therefore, it is prudent from a geological perspective to incorporate other data sets to assist in interpretation.

IP and resistivity measurements are generally considered repeatable to within about five percent. However, changing field conditions, such as variable water content or electrode contact, reduce the overall repeatability. These measurements are influenced to a large degree by the rock materials near the surface or, more precisely, near the measuring electrodes. In the past, interpretation of a traditional IP pseudosection was often uncertain because strong responses located near the surface could mask a weaker one at depth.

5.2 3DIP Method

Three dimensional IP surveys were designed to take advantage of the interpretative functionality offered by 3D inversion techniques. Unlike conventional 2DIP, the electrode arrays are no longer restricted to an in-line geometry. In the standard 3DIP configuration, a receiver array is established along a survey line while current electrodes are located on two adjacent lines. Current electrodes are advanced along the adjacent lines at fixed increments (25, 50, 100 or 200 m). A typical receiver array consists of 12 to 16 dipoles separated by the same interval as the current lines or by some multiple of that interval. These spacings are sometimes modified to compensate for local conditions, such as inaccessible sites and streams, or the overall conductivity of ground. Receiver arrays are typically established on every second line. By

injecting multiple current locations to a single receiver electrode array, data acquisition rates are significantly improved over conventional surveys.

5.3 Magnetic Survey Method

Magnetic intensity measurements are taken along survey traverses (normally on a regular grid) and are used to identify metallic mineralization related to magnetic materials in the ground (e.g., magnetite and/or pyrrhotite). Magnetic data are also used as a mapping tool to distinguish rock types and to identify faults, bedding, structure and alteration zones. Line and station intervals are usually determined by the size and depth of the exploration targets.

The magnetic field has both an amplitude and a direction and our instrumentation measures both components. The most common technique used in mineral exploration is to measure just the amplitude component using an overhauser magnetometer. The instrument digitally records the survey line, station, total magnetic field and time of day at each station. After each day of surveying, data are downloaded to a computer for archiving and further processing.

The earth's magnetic field is continually changing (diurnal variations) so field measurements are calibrated to these variations. The most accurate technique is to establish a stationary base station magnetometer to continually monitor and record the magnetic field over the course of a day. The base station and field magnetometers are synchronized on the basis of time and computer software is used to correct the field data for the diurnal variations.

5.4 Maxmin - Horizontal Loop EM Method

A wide variety of electromagnetic techniques are used to map conductivity variations within the earth. Electromagnetic techniques operate in either the frequency or time domains. In either instance, a time varying magnetic field is established by passing an electrical current through a coil or very long wire. This primary field will generate eddy currents in a conductive medium. These eddy currents will in turn generate a secondary EM field which is diagnostic of the electrical characteristics of the conductive medium excited by the primary field. A wide range of frequencies and coil configurations are available, each with advantages and disadvantages with respect to the geometry and attitude of the conductors.

The MaxMin is a frequency domain EM system where the primary field is established by sending an alternating current through a coil of wire. The receiver measures both the inphase and

quadrature (out-of-phase) components of the resultant field. A cable connecting the transmitter and receiver provides the phase and amplitude of the primary field The primary field for a specific cable length is then used as a normalization and reduction factor for the measured field to thus yield a amplitude of the secondary field, expressed as a percentage of the primary field. The in-phase component of the primary field is thus very sensitive to coil separation and slope. In the horizontal loop mode, the transmitter and receiver coils are kept horizontal (in the plane of the slope) at a fixed distance (again in the slope) apart. Corrections can be made after collecting the data if proper distances and slopes are collected. If there is no response on the lowest in-phase frequency a correction can be made by subtracted the results of the lowest frequency form the higher in-phase frequencies.

Characteristics of the MaxMin profiles are determined by two main factors: the geometry and attitude of the conductive source and the geometry of the receiver and transmitter coils. In the horizontal coplanar configuration, a conductive response to a vertically oriented plate-like body typically appears as a negative peak, flanked by two lower amplitude positive shoulders ~ 1.3 x the coil separation apart.

6. DATA PROCESSING

6.1. Acquisition and Quality Assurance Measures

On each day of surveying, geophysical and location information was dumped to external computers for archiving and data processing. Initial quality control of the data was completed by the survey crew at the camp and then sent to S.J.V. Consultants Ltd. in Delta, BC, for final quality control, processing, mapping and interpretation.

Location information measured in the field (ground distances, slopes, azimuths, and GPS control points) are imported into a database. Within the database, automatic calculations are performed to generate UTM coordinates for every survey station. A visual review can then be performed to verify the locational information.

The MaxMin data was dumped to a commercial program called *MaxMin Utilities*, where topographic corrections are applied to the data. The corrected data was exported to a spreadsheet, where suspect or poor quality points are flagged and removed. The lowest in-phase frequency can be then subtracted from the higher in-phase frequencies as a method of correcting for topographic error as long as there is no conductive response at the lowest in-phase frequency it. The in-phase and quadrature components are mapped as stacked profiles in plan view for each frequency.

The Magnetic data is corrected for diurnal variation using the following formula:

$$Data_{cor} = Data_{raw} - Data_{base} + Datum$$

where $Data_{cor}$ is the corrected data, $Data_{raw}$ is the raw data from the mobile magnetometer, $Data_{base}$ is the base station reading for the same time period, and Datum = 56000nT. In the final spreadsheet, suspect or poor quality points are flagged and removed. Calibration readings are verified to ensure the morning and afternoon readings are within set tolerances to determine instrumentation repeatability and noise of operator. In addition, any static shifts (differences) between multiple the instruments or even between the different days can be corrected for.

Finally, the IP geophysical data go through a series of quality assurance processes. Prior to acquisition, it is SJ Geophysics' best practice to acquire a noise reading to determine the background noise levels and to detect possible bad channels (ie. poor ground contacts). This allows the operator to troubleshoot problem areas in the array prior to acquisition, then once the

operator is satisfied surveying can begin. Immediately after each full waveform reading is completed the data is analyzed in the field to provide the operator a set of Vp's, Sp's and a chart of the decay curves for each dipole in the array. This gives the operator valuable information to verify the quality of data in real time. Also available to the operator are further tools such as the entire full waveform signal and a Fast Fourier Transform (FFT) to assist in troubleshooting possible bad stations and unwanted signal noise.

Each evening, the analyzed data are imported into JavIP: a proprietary IP database management system developed by S.J.V. Consultants Ltd. This package integrates the locational information with each reading, thus allowing the calculation of the apparent resistivity and apparent chargeability. The package's interactive quality control tools, plot of decay curves, table of calculated parameters and a dot plot (graphical display of data of the various parameters), provide the field geophysicist a method to verify each data point. After the field geophysicist removes known bad points from field observations and other obvious outliers, the database is delivered to S.J.V. Consultants Ltd. (SJV) for a second review.

The second review is more stringent; the data is scrutinized to ensure erroneous data points are not passed along to the next stage of processing: the inversion. SJV predominately uses the UBC-GIF algorithms to invert their geophysical data.

The data collected on the Gold Summit project was of good quality. The Vp's, for the most part, were strong and the signals and resulting decay curves were mostly clean. Whenever possible, two receivers were used to speed up production and increase depth penetration. In most cases, one receiver recorded a full 16 dipole array while the second receiver recorded between 8 to 16 dipoles. On the Gold Summit project most of the data attrition was caused by non-coupling (where the dipoles adjacent to the injection point have opposite polarities and generally experience a significant decrease in signal strength); however, some of the data attrition was also caused by poor signals. Figure 6 shows data from the center of the grid where data was generally very clean.

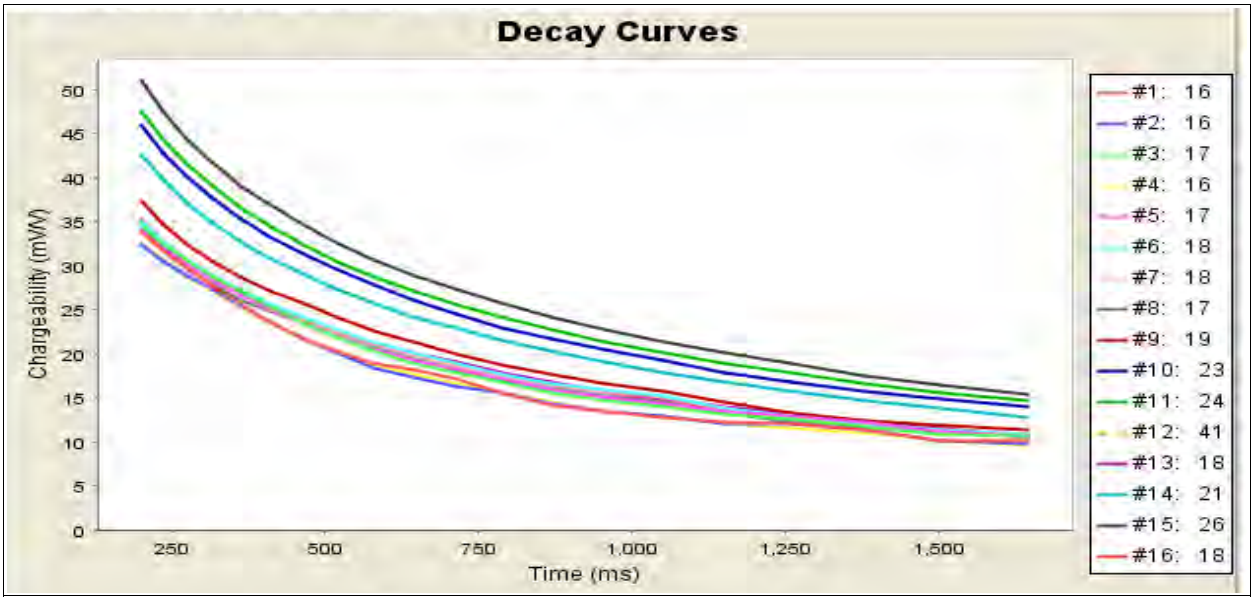


Figure 6: Decay curves from L6700N injection station 6000E.

6.2. Inversion Program

The purpose of the inversion process is to convert surface IP/Resistivity measurements into a realistic "Interpreted Depth Section." However, note that the term is left in quotation marks. The use of the inversion routine is a subjective one because the input into the inversion routine calls for a number of user selectable variables whose adjustment can greatly influence the output. The output from the inversion routines do assist in providing a more reliable interpretation of IP/Resistivity data, however, they are relatively new to the exploration industry and are, to some degree, still in the experimental stage.

The inversion programs are generally applied iteratively to evaluate the output with regard to what is geologically known, estimate the depth of detection, and determine the viability of specific measurements.

The Inversion Program (DCINV3D) used by the SJ Geophysical Group was developed by a consortium of major mining companies under the auspices of the UBC-Geophysical Inversion Facility. It solves two inverse problems. The DC potentials are first inverted to recover the spatial distribution of electrical resistivities, and, secondly, the chargeability data (IP) are inverted to recover the spatial distribution of IP polarizable particles in the rocks.

The Interpreted Depth Section maps represent the cross sectional distribution of polarizable materials, in the case of IP effect, and the cross sectional distribution of the apparent resistivities, in the case of the resistivity parameter.

Respectfully submitted,
per SJ Geophysics Ltd.

Matvei Kootchin

APPENDIX A : GOLD SUMMIT SURVEY SUMMARY TABLE

Magnetics

Line	Series	Survey Type	Start Station	End Station	Line Length (m)
5800	N	Magnetics	5000	7000	2000
5900	N	Magnetics	5000	7000	2000
6000	N	Magnetics	5000	7000	2000
6100	N	Magnetics	5000	7000	2000
6200	N	Magnetics	5000	7000	2000
6300	N	Magnetics	5000	7000	2000
6400	N	Magnetics	5000	7000	2000
6500	N	Magnetics	5000	7000	2000
6600	N	Magnetics	5000	7000	2000
6700	N	Magnetics	5000	7000	2000
5000	E	Magnetics	5800	6700	900

Total Magnetic linear kilometres = 20.9km

3D Induced Polarization

Line	Series	Survey Type	Start Station	End Station	Line Length (m)
6300	N	3DIP	5000	7000	2000
6400	N	3DIP	5000	7000	2000
6500	N	3DIP	5000	7000	2000
6600	N	3DIP	5000	7000	2000
6700	N	3DIP	5000	7000	2000

Total Magnetic linear kilometres = 10.0 m

MaxMin – Horizontal Loop Electromagnetics

Line	Series	Survey Type	Start Station	End Station	Line Length (m)
5800	N	MaxMin	5000	7000	2000
5900	N	MaxMin	5000	7000	2000
6000	N	MaxMin	5000	7000	2000
6100	N	MaxMin	5000	7000	2000
6200	N	MaxMin	5000	7000	2000
6300	N	MaxMin	5000	7000	2000
6400	N	MaxMin	5000	7000	2000
6500	N	MaxMin	5000	7000	2000
6600	N	MaxMin	5000	7000	2000
6700	N	MaxMin	5000	7000	2000

Total MAG linear kilometres = 20.0km

APPENDIX B : INSTRUMENT SPECIFICATIONS

SJ-24 Full Waveform Digital IP Receiver

Technical:

Input impedance:	10Ω
Input overvoltage protection:	up to 1000V
External memory:	Unlimited readings
Number of dipoles:	4 to 16 +, expandable
Synchronization:	Software signal post-processing user selectable
Common mode rejection:	More than 100 dB (for Rs=0)
Self potential (Sp):	Range: -5V to +5V Resolution: 0.1mV Proprietary intelligent stacking process rejecting strong non-linear SP drifts
Primary voltage:	Range: 1μV – 10V (24bit) Resolution: 1μV Accuracy: typ. <1.0%
Chargeability:	Resolution: 1μV/V Accuracy: typ. <1.0%

General (4 dipole unit):

Dimensions:	18x16x9cm
Weight:	1.1kg
Battery:	12V external
Operating temperature range:	-20°C to 40°C

GDD Tx II IP Transmitter

Input voltage:	120V / 60 Hz or 240V / 50Hz (optional)
Output power:	3.6 kW maximum
Output voltage:	150 to 2200 V
Output current:	5 mA to 10 A
Time domain:	1, 2, 4, 8 second on/off cycle
Operating temp. range:	-40° to +65° C
Display:	Digital LCD read to 0.001 A
Dimensions (h w d):	34 x 21 x 39 cm
Weight:	20 kg

GSM-19 Overhauser Magnetometer

Resolution:	0.01 nT, magnetic field and gradient
Accuracy:	0.2 nT over operating range
Range:	20,000 t0 120,000nT
Gradient Tolerance:	Over 10000 nT/metre
Operating Interval:	3 seconds minimum, faster optional
Reading:	Initiated by keyboard depression, external trigger or carriage return via RS-232C
Input/Output:	6 Pin weatherproof connector, RS-232C, and optional analog output
Power Requirements:	12v 200 mA peak(during polarization), 30 mA standby, 300 mA peak in gradiometer
Power Source:	Internal 12V, 1.9Ah sealed lead-acid battery standard, other optional External 12V power source can be used
Battery Charger:	Input: 110/220VAC, 50/60 Hz and/or 12VDC Output: 12V dual level charging
Operating Temperature Ranges:	-40ºC to +60ºC
Battery Voltage:	10V min. to 15V max

Dimensions:

Console:	223 x 69 x 240 mm
Sensor staff:	4 x 450 mm sections
Sensor:	170 x 71 mm diameter

Weights:

Console:	2.1 kg
Staff:	0.9 kg
Sensor:	1.1 kg each

Apex MaxMin I-10 Electromagnetic System

Frequencies:	110, 220, 440, 880, 1760, 3520, 7040, 14080, 28160 and 56320 Hz
Coil Separations:	SET NO.1: 12.5. 25, 50, 75, 100, 125, 150, 200, 250, 300 and 400 metres (the standard set) SET NO. 2: 10, 20, 40, 60, 80. 100, 120, 160. 200. 240 and 320 metres (selected with grid switch in receiver) SET NO.3: 50, 100, 200, 300, 400, 500, 600, 800, 1000, 1200 and 1600 feet (selected with grid switch in receiver)
Transmitter dipole moments:	110 Hz: 200 Atm^2 14080 Hz: 20 Atm^2 3520 Hz: 80 Atm^2 880 Hz: 140 Atm^2 20 Hz: 190 Atm^2 28160 Hz: 10 Atm^2 7040 Hz: 40 Atm^2 1760Hz: 110 Atm^2 440 Hz: 170 Atm^2 56320 Hz: 5 Atm^2
Modes of operation:	MAX 1: Horizontal loop or slingram - transmitter and receiver coil planes horizontal and coplanar. MAX 2: Vertical coplanar loop mode - transmitter and receiver coil planes vertical and coplanar. MIN 1: Perpendicular mode 1 - transmitter coil plane horizontal and receiver coil plane vertical. MIN 2: Perpendicular mode 2 - transmitter coil plane vertical and receiver coil plane horizontal
Parameters measured:	In-phase and quadrature components of the secondary magnetic field, in % of primary field.
Readouts:	Analog direct edgewise meter readouts for in-phase, quadrature and tilt. Additional digital LCD readouts provided in the optional MMC computer. Interfacing and controls are provided for ready plug-in of the MMC
Range of readouts:	Switch activated analog in-phase and quadrature scales: 0±4%,0±20% and 0±100%, and digital 0±99.9 % auto range with optional MMC. Analog tilt 0±75% and 0±99% grade with MMC.
Resolution:	Analog in-phase and quadrature 0.1 to 1% of primary field, depending on scale used, digital 0.01% with auto ranging MMC; tilt 1% of grade.
Repeatability:	0.01 to 1 % of primary field, typical, depending on frequency, coil separation and conditions.
Signal filtering:	Power line comb filter, continuous spheric noise clipping, auto-adjusting time constant, and more.
Warning lights:	Receiver signal and reference warning lights to indicate potential error conditions.
Survey depth penetration:	From surface down to 1.5 times coil separation for large horizontal target and 0./5 times coil separation for large vertical target, values typical.
Reference cables:	Lightweight unshielded 4/2 conductor teflon cable for maximum

	operating temperature range and for minimum pulling friction
Intercom:	Voice communication link provided for operators via the reference cable.
Temperature range:	Minus 30 to plus 60 degrees Celsius, operating.
Receiver batteries:	Four standard 9 V - 0.6 Ah alkaline batteries. Life 25 hours continuous duty, less in cold weather. Optional 1.2 Ah extended life lithium batteries available (recommended for very cold weather).
Transmitter batteries:	Standard rechargeable gel-type lead-acid 6 V -28 Ah batteries (4 x 6 V - 7.2 Ah) in nylon belt pack. Optionally rechargeable long life 6 V - 28 Ah nickel-cadmium batteries (20 x 1.2 V - 7 Ah) with Ni-Cad chargers - best choice for cold climates.
Transmitter battery chargers:	Lead acid battery charger: 7.3 V @ 2.8 A, Ni-cad battery charger: 2.8 A @ 8 V nominal output. Operation from 110-120 and 220-240 VAC, 50-60 Hz, and 12.15 VDC supplies.
Receiver weight:	8 Kg carrying weight (including the two ferrite cored antenna coils), 9 Kg with MMC computer.
Transmitter weight:	16 Kg carrying weight.
Shipping weight:	60 Kg plus weight of reference cables at 3 Kg per 100 metre, plus optional items if any. Shipped in two aluminum lined field / shipping cases.
Standard spares:	Spare transmitter battery pack, spare transmitter battery charger, two spare transmitter retractile connecting cords, spare set of receiver batteries
Options and accessories:	MMC, MaxMin Computer option Data interpretation and presentation programs Reference cables, lengths as required Reference cable extension adaptor Hand held inclinometer for rough terrain Receiver extended life lithium batteries Transmitter Ni-Cad battery & charger option Minimal, regular or extended spare parts kit

532000E
532500E
533000E
533500E
534000E
5637000N
5636500N
5636000N
5635500N
5635000N

6700N 5000E
6600N
6500N
6400N
6300N
6200N
6100N
6000N
5900N
5800N
5000E
5200E
5400E
5600E
5800E
6000E
6200E
6400E
6600E
6800E
7000E

1400
1500
1200
1300

LEGEND

- Magnetometer Stations
- Magnetic Baseline
- Lakes
- Roads
- Rivers
- Elevation Contours (20m)

N

UTM Grid North

SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
Processing by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Magnetometer: GEM−Systems GSM−19 Overhauser Magnetometer

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 10−Aug−2011

Ground Magnetic Survey

Grid Map

0 100 200 300 400 500

meters

St. Elias Mines

Gold Summit Property

Lillooet, B.C.

Plate: Mag−1

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604)582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E

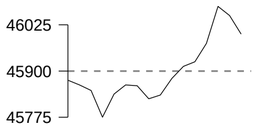
5637000N 5636500N 5636000N 5635500N 5635000N

1400 1500 1200 1300

6700N 5000E 6600N 5200E 6500N 5400E 6400N 5600E 6300N 5800E 6200N 6000E 6100N 6200E 6000N 6400E 5900N 6600E 5800N 6800E 5000E 7000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E 6700N 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N

LEGEND

- Magnetometer Stations
- Magnetic Baseline
- Lakes
- Roads
- Rivers
- Elevation Contours (20m)
- Stacked Magnetic Profiles



1 cm = 125 nT @ 1:5000 Scale

N

UTM Grid North

SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
Processing by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Magnetometer: GEM−Systems GSM−19 Overhauser Magnetometer

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 10−Aug−2011

Ground Magnetic Survey

Stacked Total Magnetic Intensity Profiles Map

0 100 200 300 400 500

meters

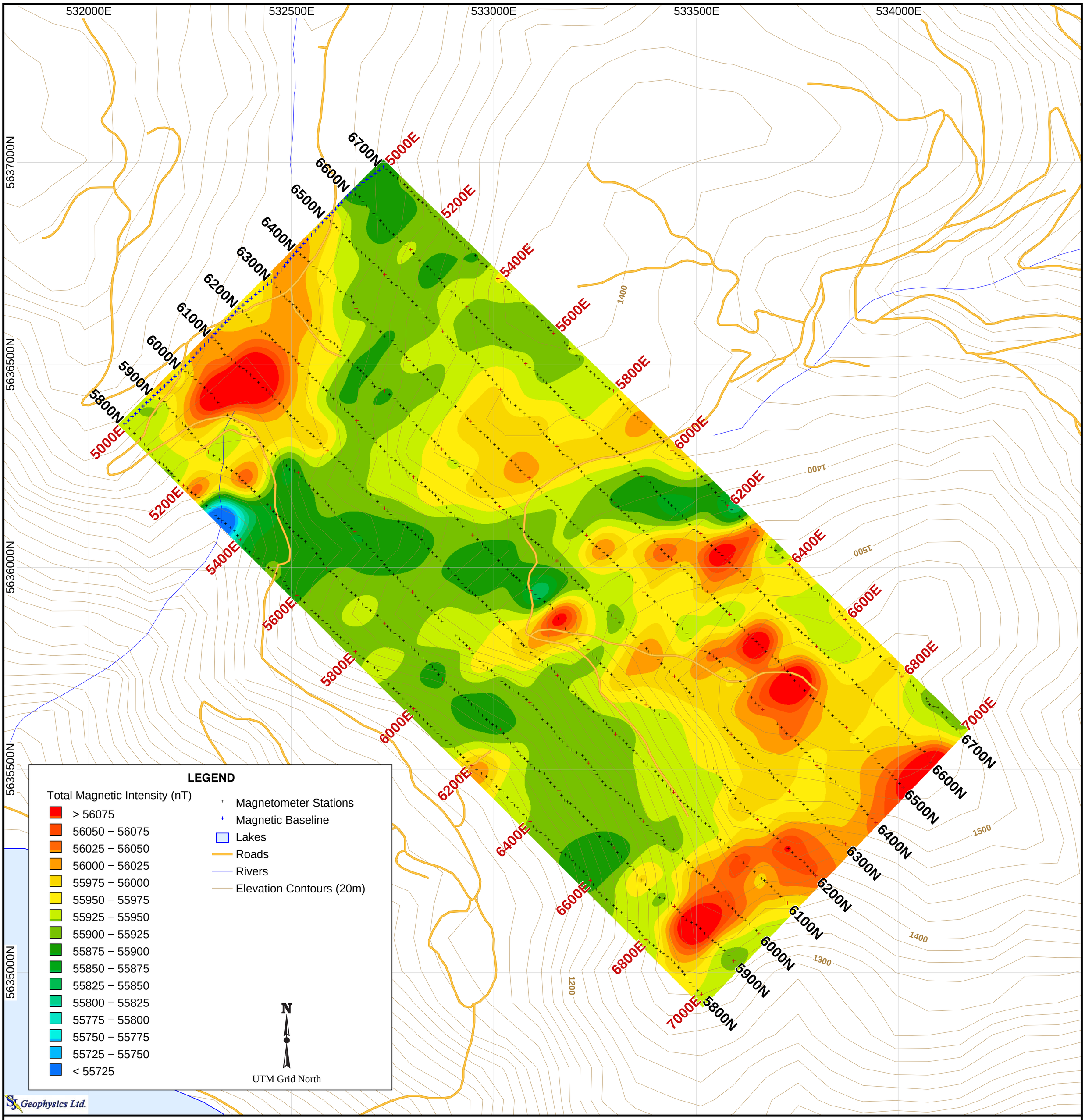
St. Elias Mines

Gold Summit Property

Lillooet, B.C.

Plate: Mag−2

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
Processing by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Magnetometer: GEM−Systems GSM−19 Overhauser Magnetometer

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 10−Aug−2011

Ground Magnetic Survey

Total Magnetic Intensity Map

0 100 200 300 400 500
meters

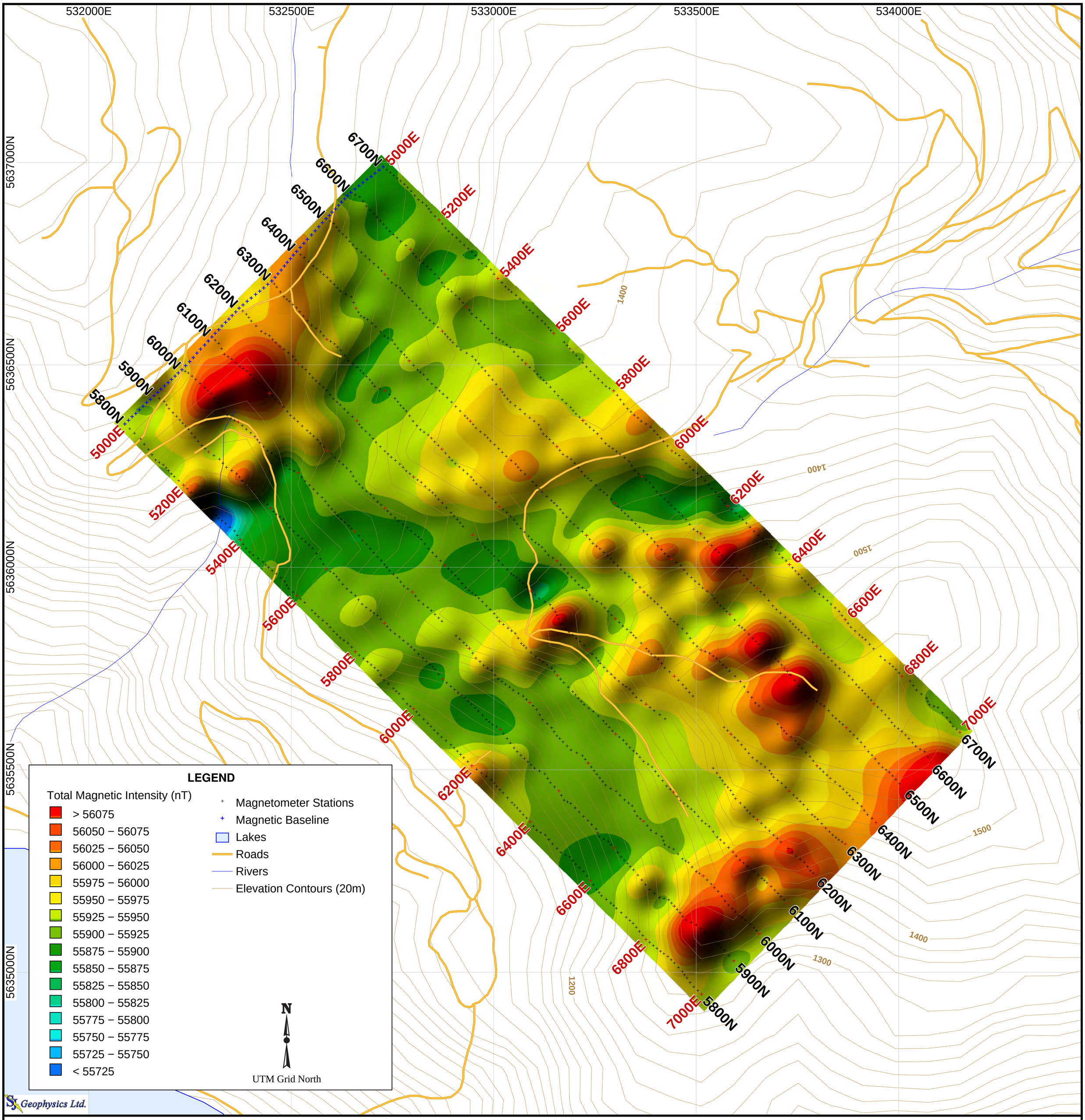
St. Elias Mines

Gold Summit Property

Lillooet, B.C.

Plate: Mag−3

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604)582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
Processing by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Magnetometer: GEM−Systems GSM−19 Overhauser Magnetometer

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 10−Aug−2011

Ground Magnetic Survey

Total Magnetic Intensity Map: Shadow Enhanced

0 100 200 300 400 500
meters

St. Elias Mines

Gold Summit Property

Lillooet, B.C.

Plate: Mag−4

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604)582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E

5637000N 5636500N 5636000N 5635500N 5635000N

6700N 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N

5000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E

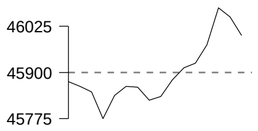
1400 1500 1300 1200

LEGEND

Total Magnetic Intensity (nT)

- > 56075
- 56050 − 56075
- 56025 − 56050
- 56000 − 56025
- 55975 − 56000
- 55950 − 55975
- 55925 − 55950
- 55900 − 55925
- 55875 − 55900
- 55850 − 55875
- 55825 − 55850
- 55800 − 55825
- 55775 − 55800
- 55750 − 55775
- 55725 − 55750
- < 55725

- Magnetometer Stations
- Magnetic Baseline
- Lakes
- Roads
- Rivers
- Elevation Contours (20m)
- Stacked Magnetic Profiles



1 cm = 125 nT @ 1:5000 Scale

N

UTM Grid North

SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
Processing by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Magnetometer: GEM−Systems GSM−19 Overhauser Magnetometer

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 10−Aug−2011

Ground Magnetic Survey

Total Magnetic Intensity Map with Stacked Profiles

0 100 200 300 400 500

meters

St. Elias Mines

Gold Summit Property

Lillooet, B.C.

Plate: Mag−5

532000E 532500E 533000E 533500E 534000E

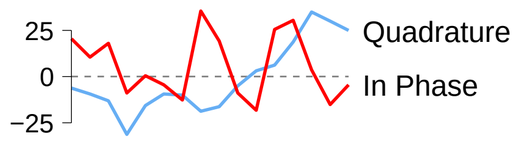
5637000N 5636500N 5636000N 5635500N 5635000N

1400 1500 1200 1300

LEGEND

- HLEM Plotting Point
- Survey Stations
- Roads
- Streams
- Elevation Contours (20m)
- Lakes

Stacked MaxMin Profiles (%)



1 cm = 25% of Primary @ 1:5000 Scale

N

UTM Grid North

SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Maxmin I−10 Electromagnetic System
Separation: 100m

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 12−Aug−2011

Stacked Profile Map

Horizontal Loop EM Field (% of Primary)

Frequency: 440 Hz

0 100 200 300 400 500

meters

St. Elias Mines Ltd.

Ground HLEM Survey

Gold Summit Property

Lillooet, B.C.

Plate MM−1

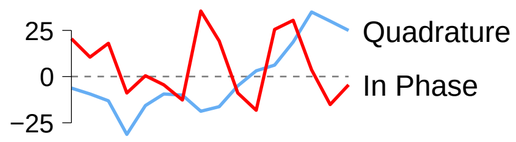
532000E 532500E 533000E 533500E 534000E

5637000N 5636500N 5636000N 5635500N 5635000N

LEGEND

- HLEM Plotting Point
- Survey Stations
- Roads
- Streams
- Elevation Contours (20m)
- Lakes

Stacked MaxMin Profiles (%)



1 cm = 25% of Primary @ 1:5000 Scale

N

UTM Grid North

SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Maxmin I−10 Electromagnetic System
Separation: 100m

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 12−Aug−2011

Stacked Profile Map

Horizontal Loop EM Field (% of Primary)

Frequency: 880 Hz

0 100 200 300 400 500

meters

St. Elias Mines Ltd.

Ground HLEM Survey

Gold Summit Property

Lillooet, B.C.

Plate MM−1

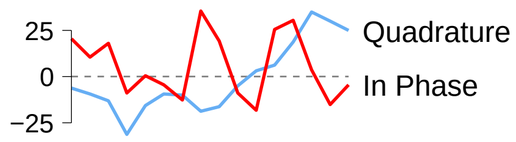
532000E 532500E 533000E 533500E 534000E

5637000N 5636500N 5636000N 5635500N 5635000N

LEGEND

- HLEM Plotting Point
- Survey Stations
- Roads
- Streams
- Elevation Contours (20m)
- Lakes

Stacked MaxMin Profiles (%)



1 cm = 25% of Primary @ 1:5000 Scale

N

UTM Grid North

SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Maxmin I−10 Electromagnetic System
Separation: 100m

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 12−Aug−2011

Stacked Profile Map

Horizontal Loop EM Field (% of Primary)

Frequency: 1760 Hz

0 100 200 300 400 500

meters

St. Elias Mines Ltd.

Ground HLEM Survey

Gold Summit Property

Lillooet, B.C.

Plate MM−1

532000E 532500E 533000E 533500E 534000E

5637000N 5636500N 5636000N 5635500N 5635000N

6700N 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N

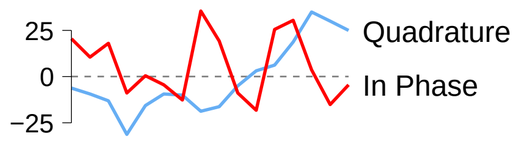
5000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E

1400 1500 1300 1200

LEGEND

- HLEM Plotting Point
- Survey Stations
- Roads
- Streams
- Elevation Contours (20m)
- Lakes

Stacked MaxMin Profiles (%)



1 cm = 25% of Primary @ 1:5000 Scale

N

UTM Grid North

SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Maxmin I−10 Electromagnetic System
Separation: 100m

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 12−Aug−2011

Stacked Profile Map

Horizontal Loop EM Field (% of Primary)

Frequency: 7040 Hz

0 100 200 300 400 500

meters

St. Elias Mines Ltd.

Ground HLEM Survey

Gold Summit Property

Lillooet, B.C.

Plate MM−1

532000E 532500E 533000E 533500E 534000E

5637000N 5636500N 5636000N 5635500N 5635000N

6700N 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N

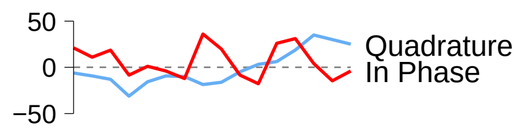
5000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E

1400 1500 1200 1300

LEGEND

- HLEM Plotting Point
- Survey Stations
- Roads
- Streams
- Elevation Contours (20m)
- Lakes

Stacked MaxMin Profiles (%)



1 cm = 50% of Primary @ 1:5000 Scale

N

UTM Grid North

SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Maxmin I−10 Electromagnetic System
Separation: 100m

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 12−Aug−2011

Stacked Profile Map

Horizontal Loop EM Field (% of Primary)

Frequency: 28160 Hz

0 100 200 300 400 500

meters

St. Elias Mines Ltd.

Ground HLEM Survey

Gold Summit Property

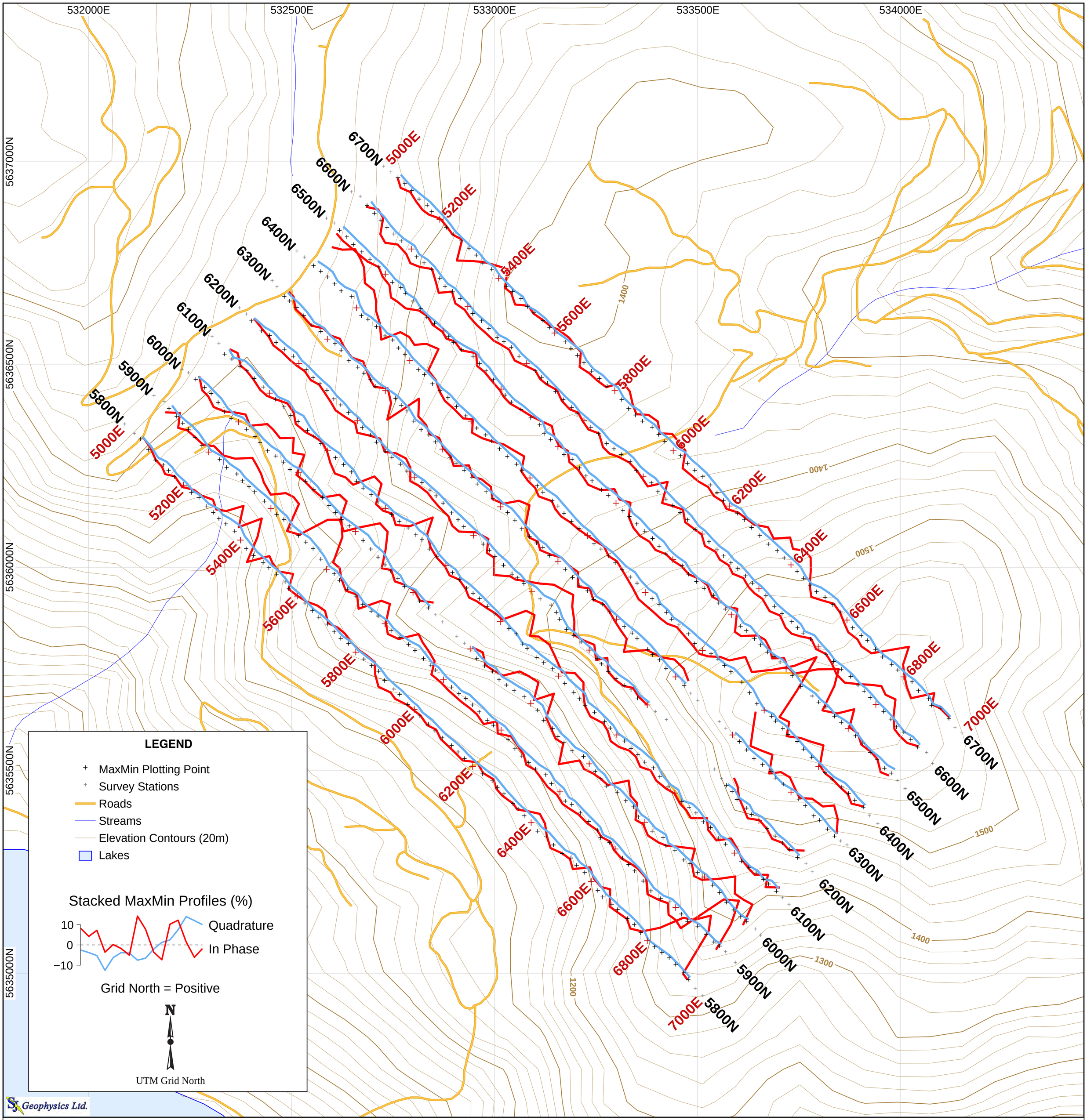
Lillooet, B.C.

Plate MM−1

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E

5637000N 5636500N 5636000N 5635500N 5635000N



LEGEND

- MaxMin Plotting Point
- Survey Stations
- Roads
- Streams
- Elevation Contours (20m)
- Lakes

Stacked MaxMin Profiles (%)

10 / 0 / −10 — Quadrature, In Phase

Grid North = Positive

N

UTM Grid North

SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Maxmin I−10 Electromagnetic System
Separation: 100m

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 12−Aug−2011

Stacked Profile Map

Horizontal Loop EM Field (% of Primary)

In Phase Frequency: 440 Hz

Out of Phase Frequency: 440 Hz

0 100 200 300 400 500

meters

St. Elias Mines Ltd.

Ground HLEM Survey

Gold Summit Property

Lillooet, B.C.

Plate MM−1

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

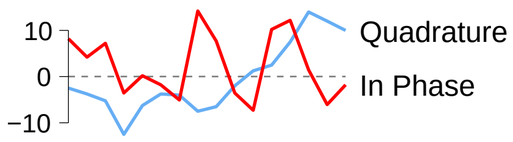
532000E 532500E 533000E 533500E 534000E

5637000N 5636500N 5636000N 5635500N 5635000N

LEGEND

- MaxMin Plotting Point
- Survey Stations
- Roads
- Streams
- Elevation Contours (20m)
- Lakes

Stacked MaxMin Profiles (%)



Grid North = Positive

UTM Grid North

SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Maxmin I−10 Electromagnetic System
Separation: 100m

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 12−Aug−2011

Stacked Profile Map
Horizontal Loop EM Field (% of Primary)
In Phase Frequency: 880 − 440 Hz
Out of Phase Frequency: 880 Hz

0 100 200 300 400 500
meters

St. Elias Mines Ltd.
Ground HLEM Survey
Gold Summit Property
Lillooet, B.C.

Plate MM−1

532000E 532500E 533000E 533500E 534000E

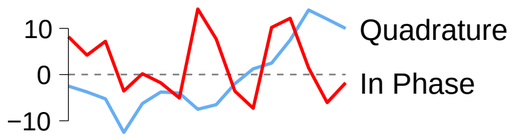
5637000N 5636500N 5636000N 5635500N 5635000N

1400 1500 1200 1300

LEGEND

- MaxMin Plotting Point
- Survey Stations
- Roads
- Streams
- Elevation Contours (20m)
- Lakes

Stacked MaxMin Profiles (%)



Grid North = Positive

UTM Grid North

SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Maxmin I−10 Electromagnetic System
Separation: 100m

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 12−Aug−2011

Stacked Profile Map

Horizontal Loop EM Field (% of Primary)

In Phase Frequency: 1760 − 440 Hz

Out of Phase Frequency: 1760 Hz

0 100 200 300 400 500

meters

St. Elias Mines Ltd.

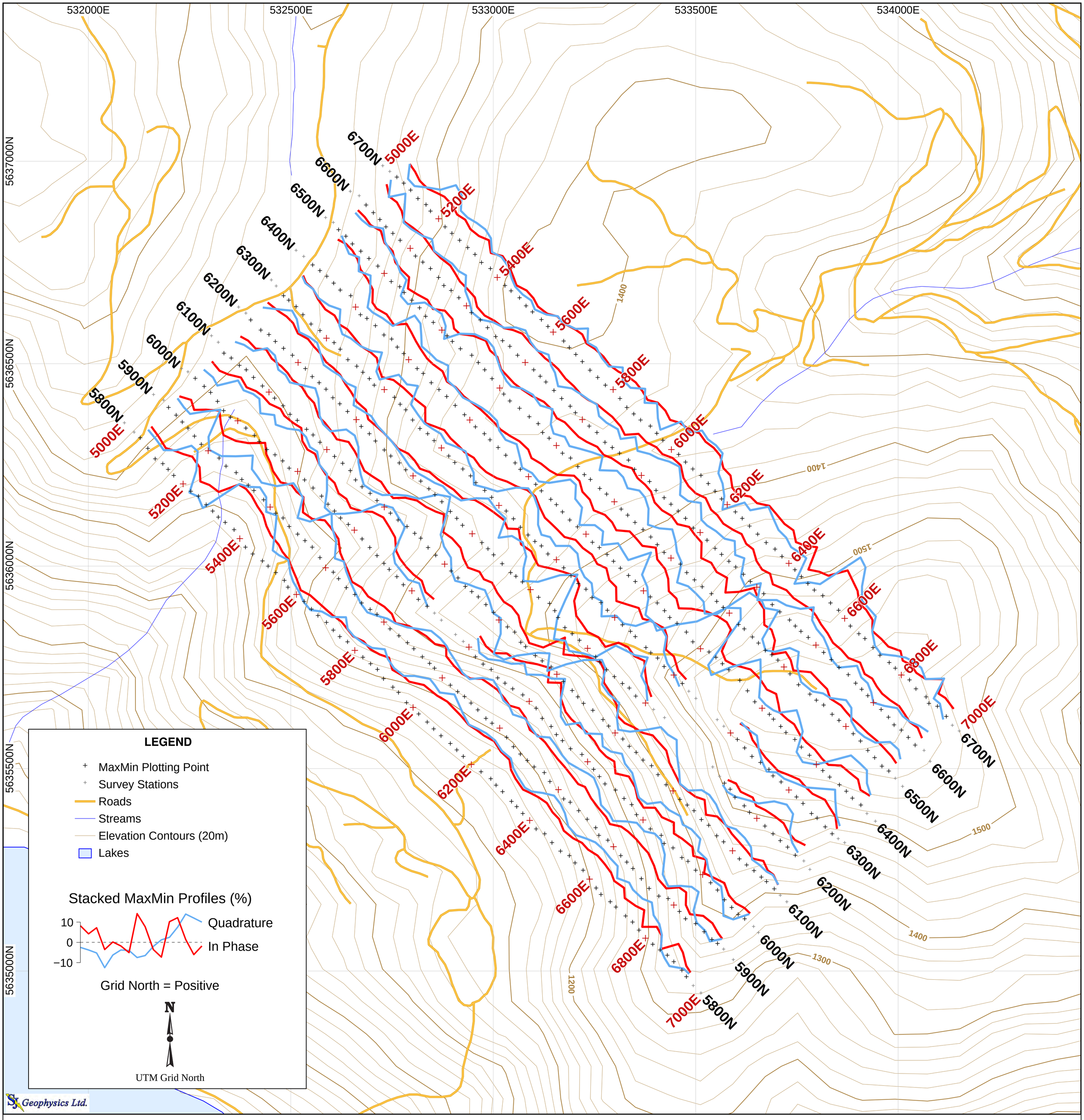
Ground HLEM Survey

Gold Summit Property

Lillooet, B.C.

Plate MM−1

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com



Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Maxmin I−10 Electromagnetic System
Separation: 100m

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 12−Aug−2011

Stacked Profile Map
Horizontal Loop EM Field (% of Primary)

In Phase Frequency: 7040 − 440 Hz
Out of Phase Frequency: 7040 Hz

0 100 200 300 400 500
meters

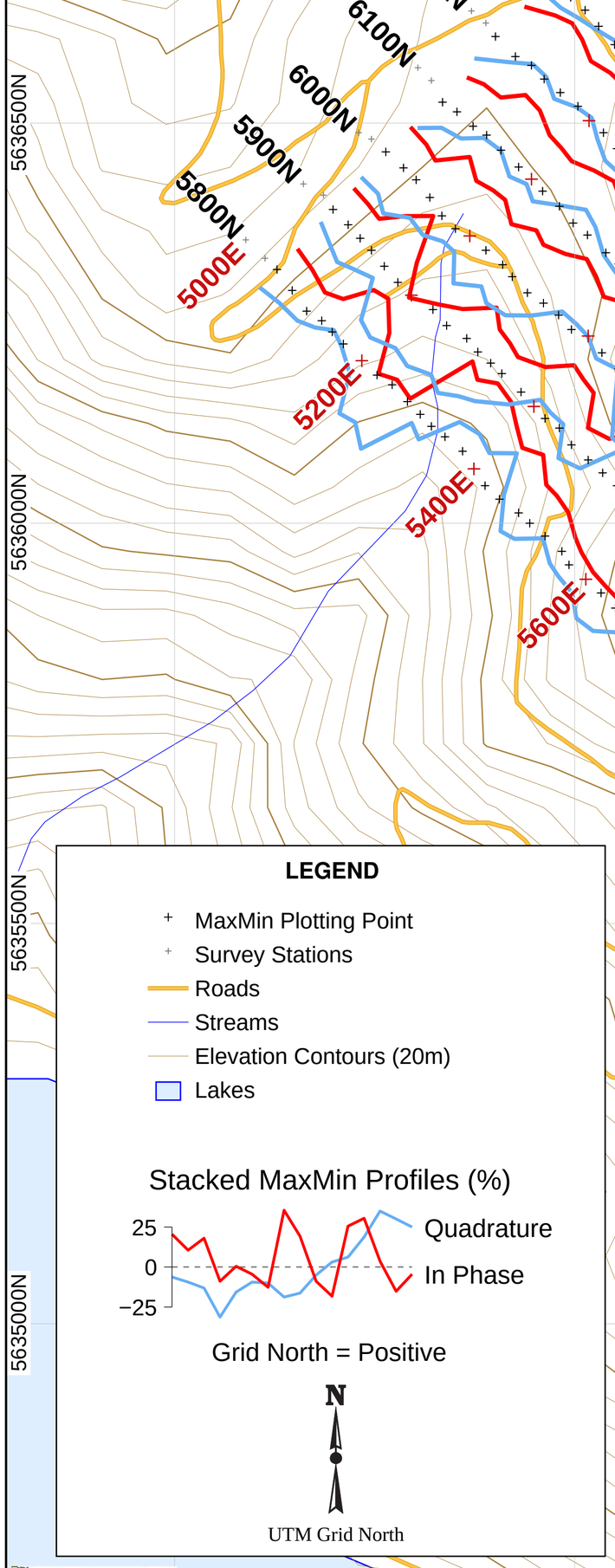
St. Elias Mines Ltd.
Ground HLEM Survey
Gold Summit Property
Lillooet, B.C.

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E

5637000N 5636500N 5636000N 5635500N 5635000N

6700N 5000E 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N 5000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E 1400 1500 1200 1300



SJ Geophysics Ltd.

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Maxmin I−10 Electromagnetic System
Separation: 100m

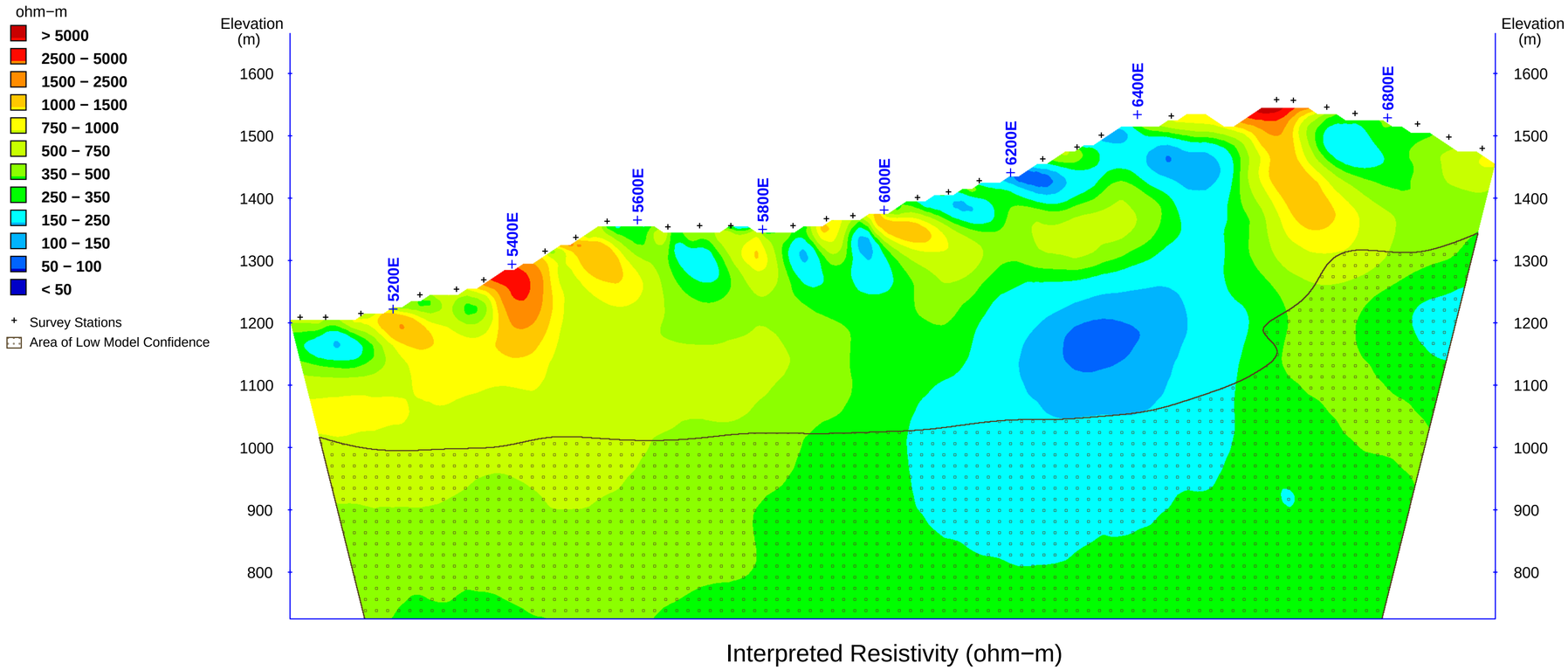
Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 12−Aug−2011

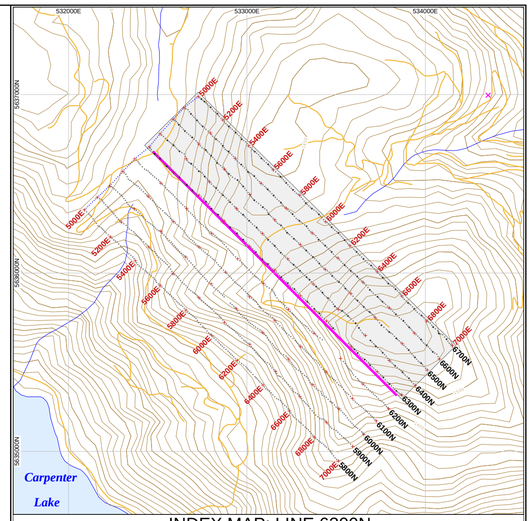
Stacked Profile Map
Horizontal Loop EM Field (% of Primary)
In Phase Frequency: 28160 − 440 Hz
Out of Phase Frequency: 28160 Hz

0 100 200 300 400 500
meters

St. Elias Mines Ltd.
Ground HLEM Survey
Gold Summit Property
Lillooet, B.C.

Plate MM−1



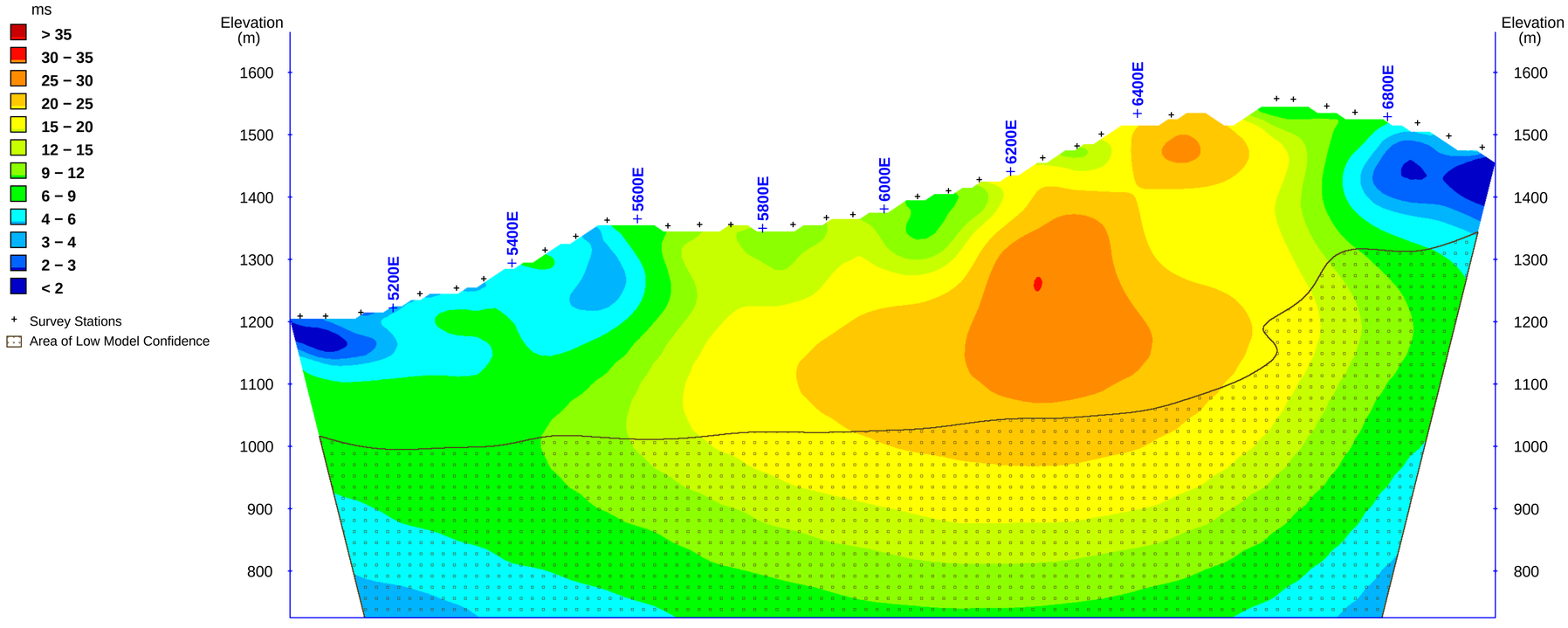


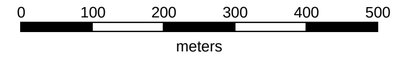
INDEX MAP: LINE 6300N

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011





St. Elias Mines Ltd.

Gold Summit Property

IP Grid

Lillooet, B.C.

3D Inversion Model

of

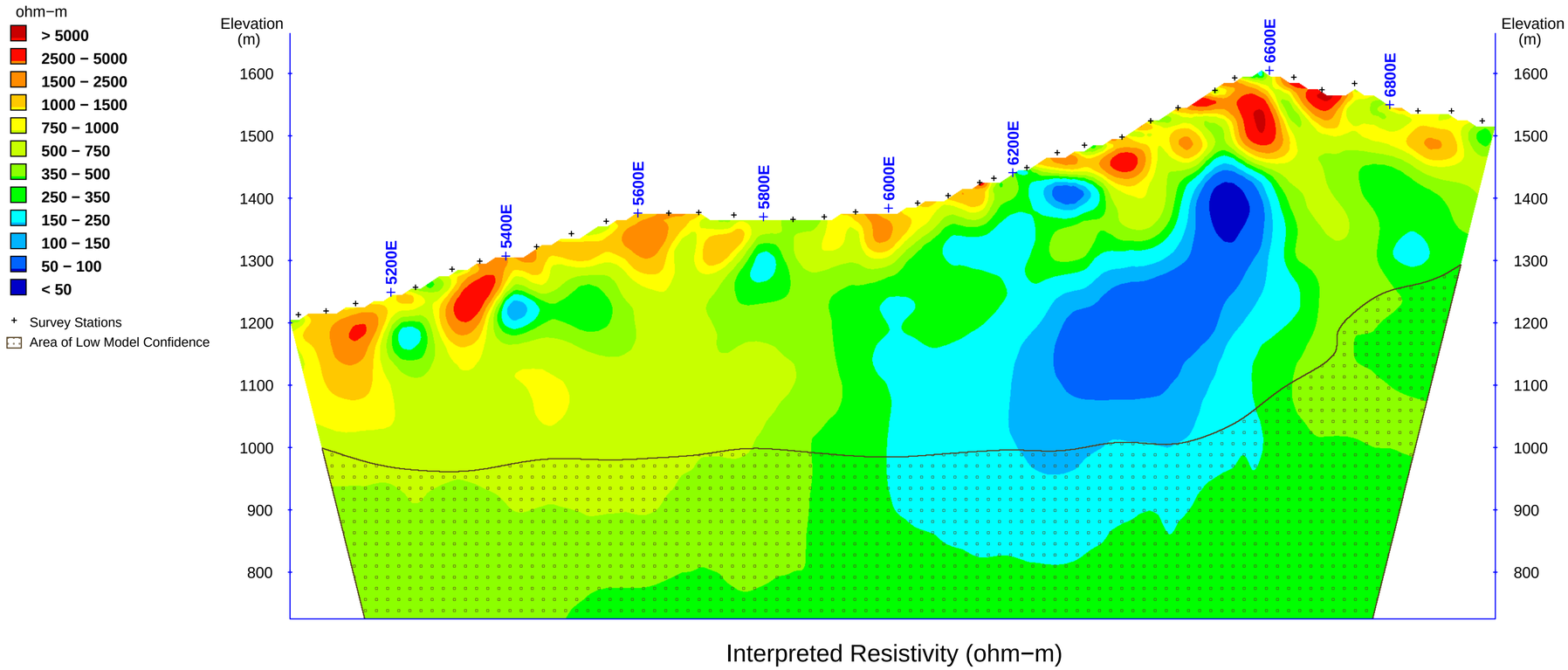
Interpreted

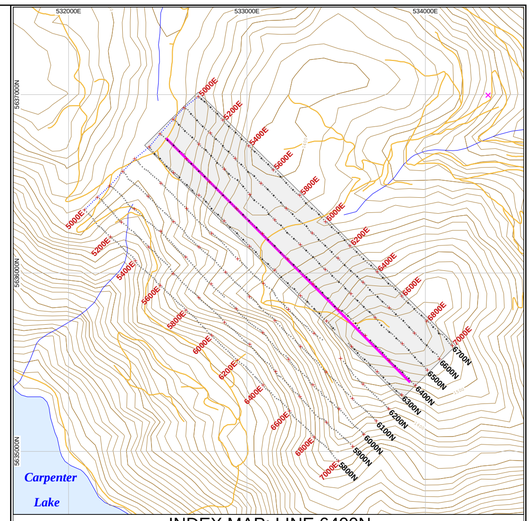
Resistivity & Chargeability

Cross Section Map

Section: 6300N

SJ Geophysics Ltd.



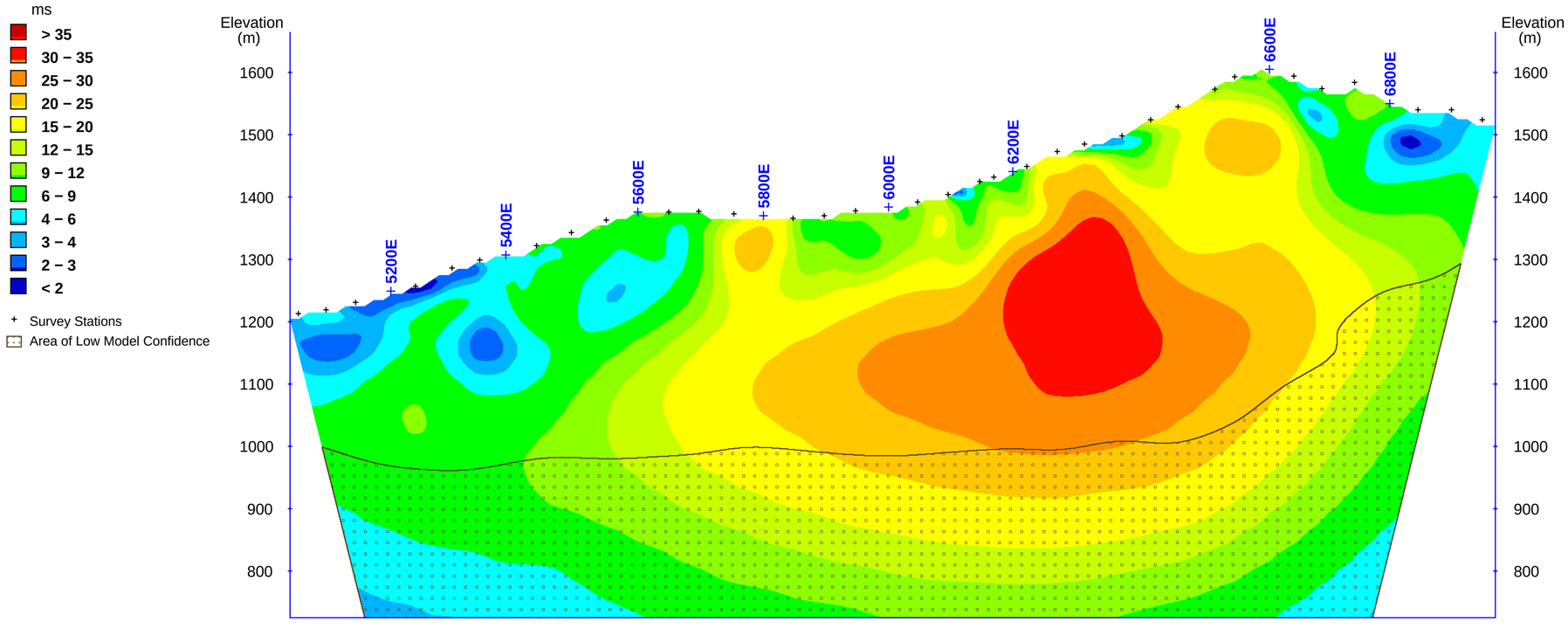


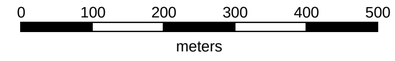
INDEX MAP: LINE 6400N

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011





St. Elias Mines Ltd.

Gold Summit Property

IP Grid

Lillooet, B.C.

3D Inversion Model

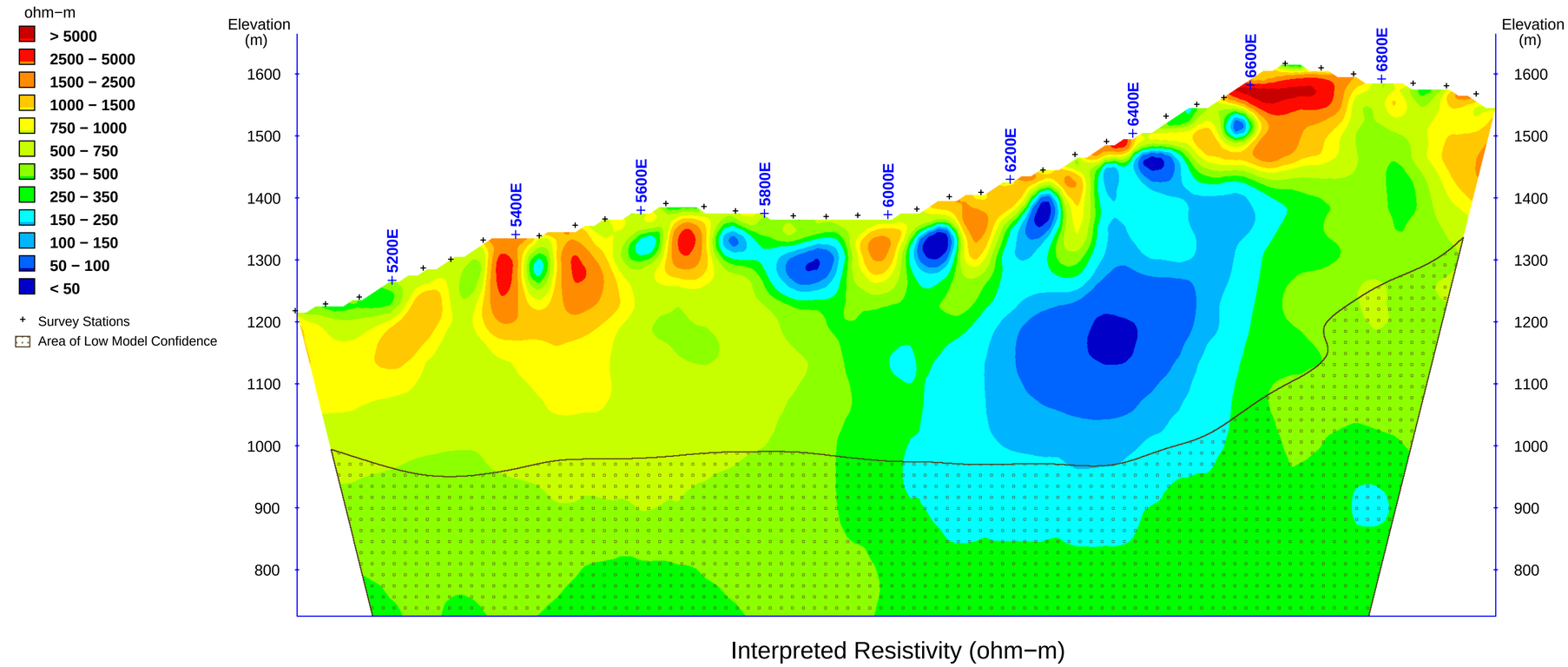
of

Interpreted

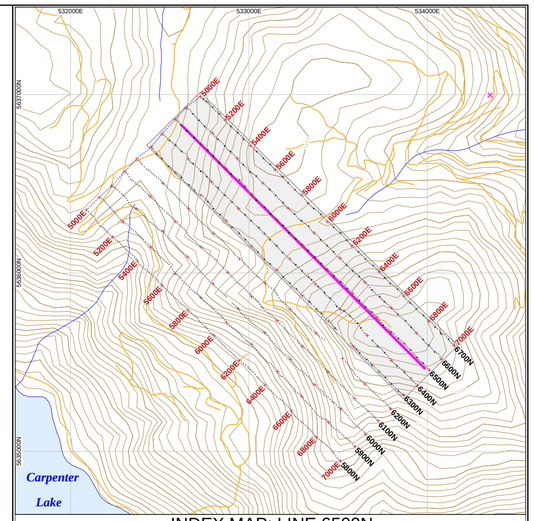
Resistivity & Chargeability

Cross Section Map

Section: 6400N



Interpreted Resistivity (ohm−m)

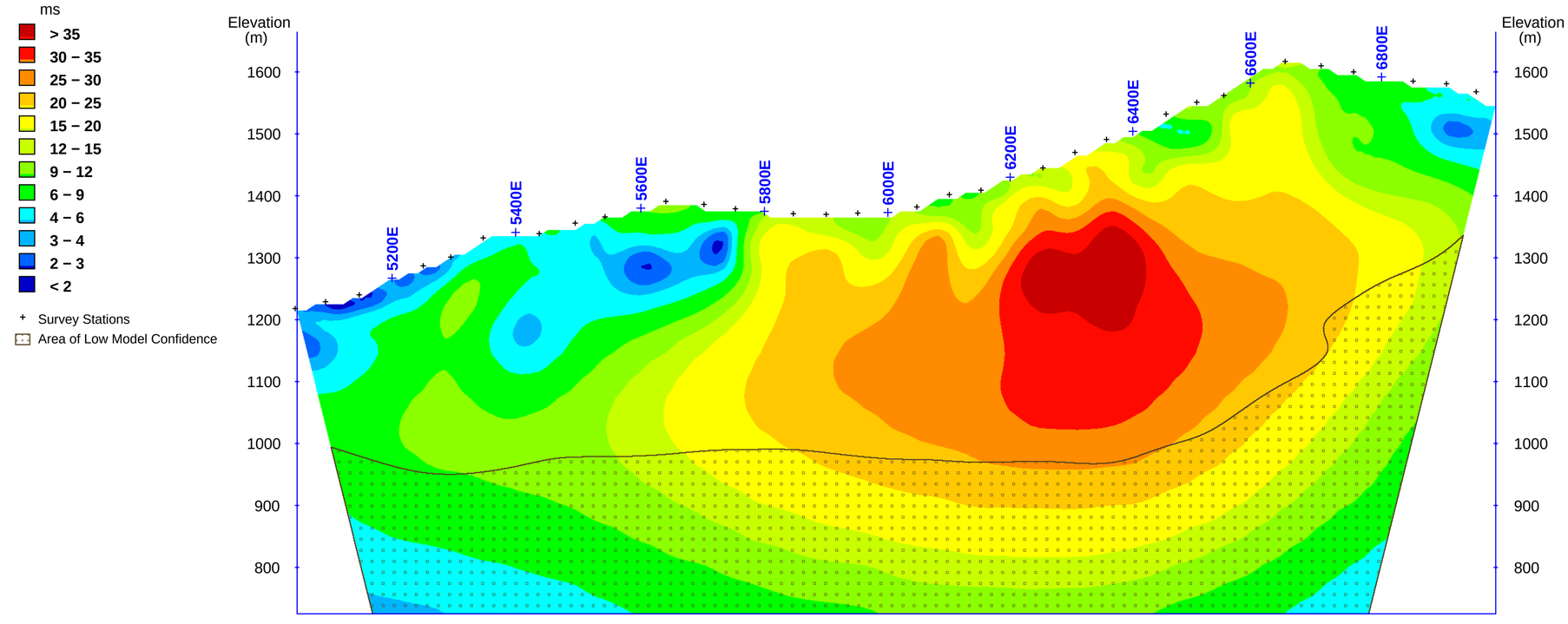


INDEX MAP: LINE 6500N

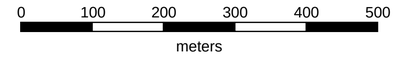
Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011



Interpreted Chargeability (ms)



St. Elias Mines Ltd.

Gold Summit Property

IP Grid

Lillooet, B.C.

3D Inversion Model

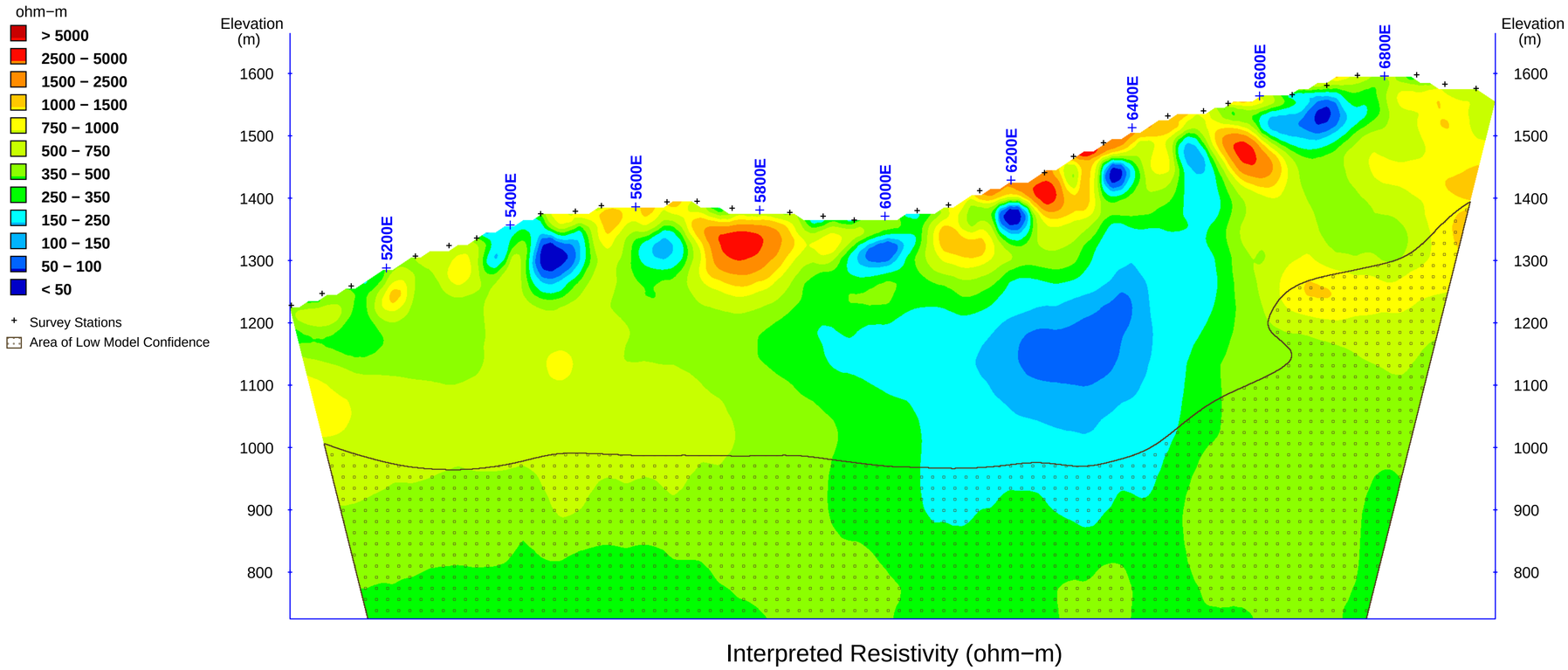
of

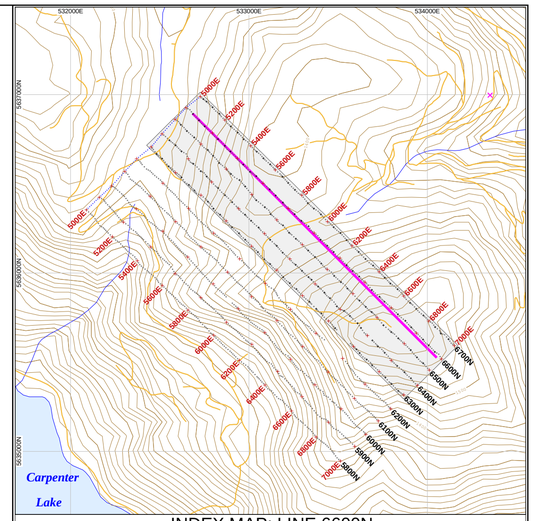
Interpreted

Resistivity & Chargeability

Cross Section Map

Section: 6500N



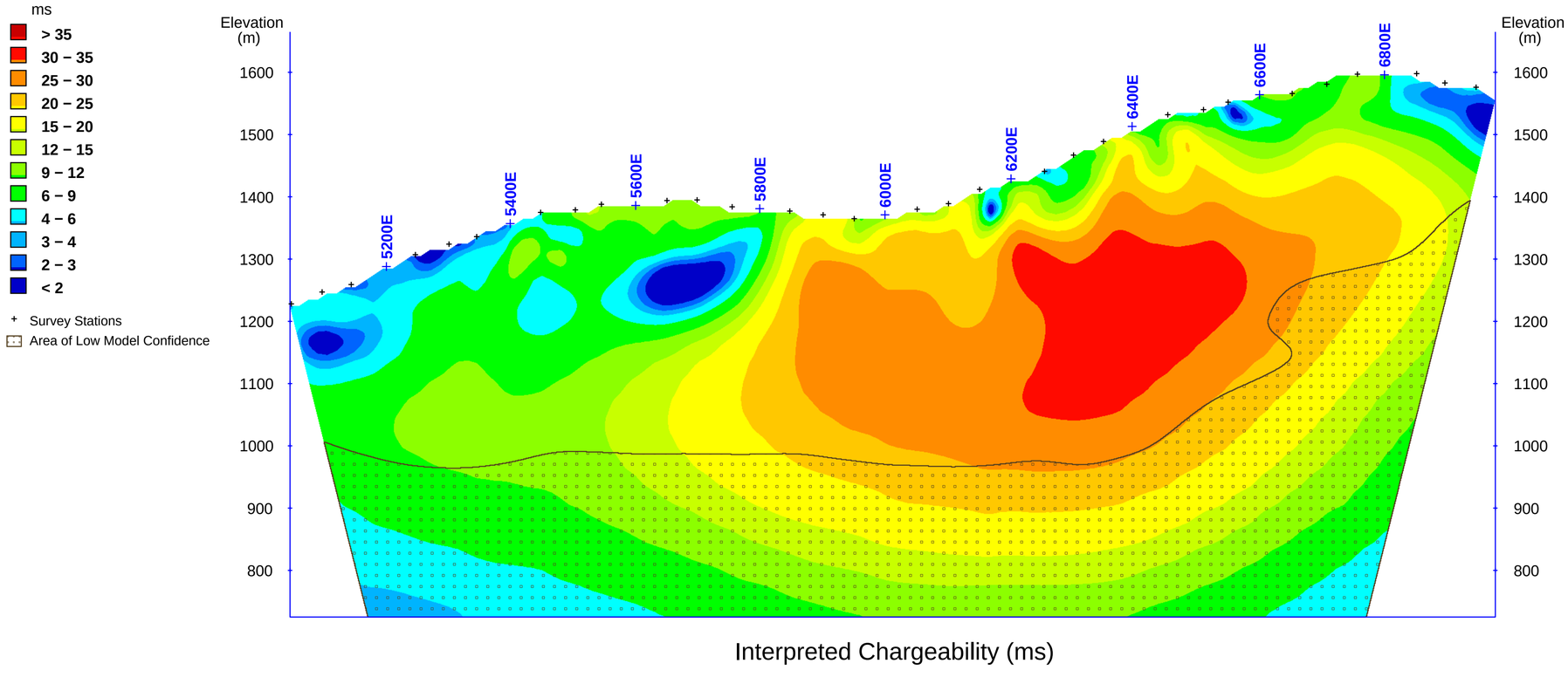


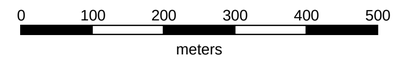
INDEX MAP: LINE 6600N

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011





St. Elias Mines Ltd.

Gold Summit Property

IP Grid

Lillooet, B.C.

3D Inversion Model

of

Interpreted

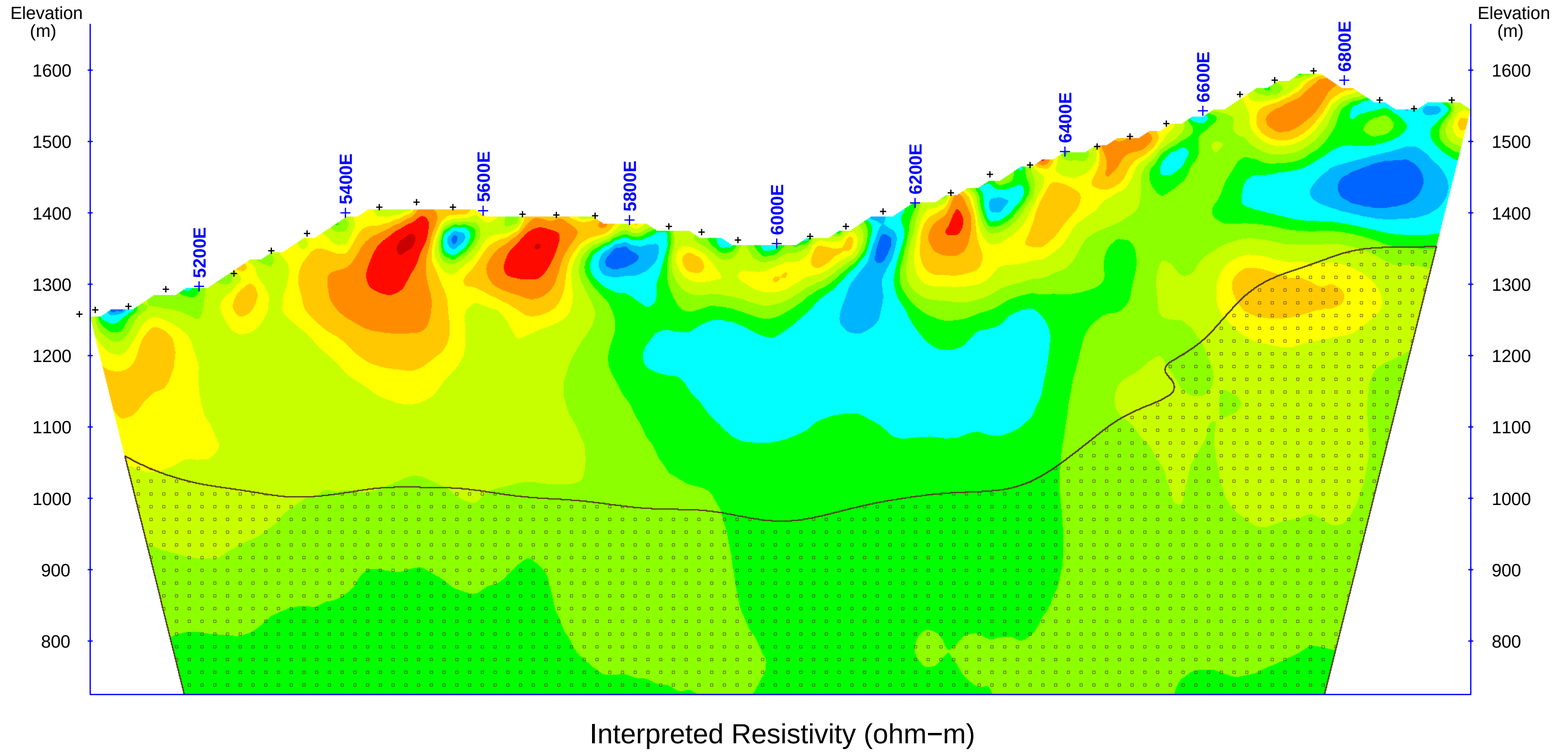
Resistivity & Chargeability

Cross Section Map

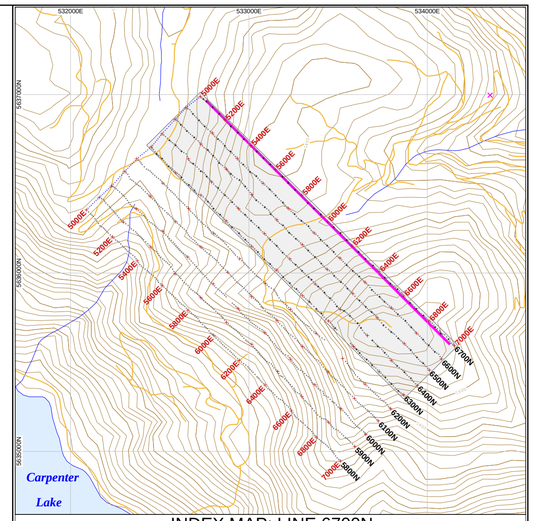
Section: 6600N

ohm−m
- > 5000
- 2500 − 5000
- 1500 − 2500
- 1000 − 1500
- 750 − 1000
- 500 − 750
- 350 − 500
- 250 − 350
- 150 − 250
- 100 − 150
- 50 − 100
- < 50

+ Survey Stations
Area of Low Model Confidence



Interpreted Resistivity (ohm−m)



INDEX MAP: LINE 6700N

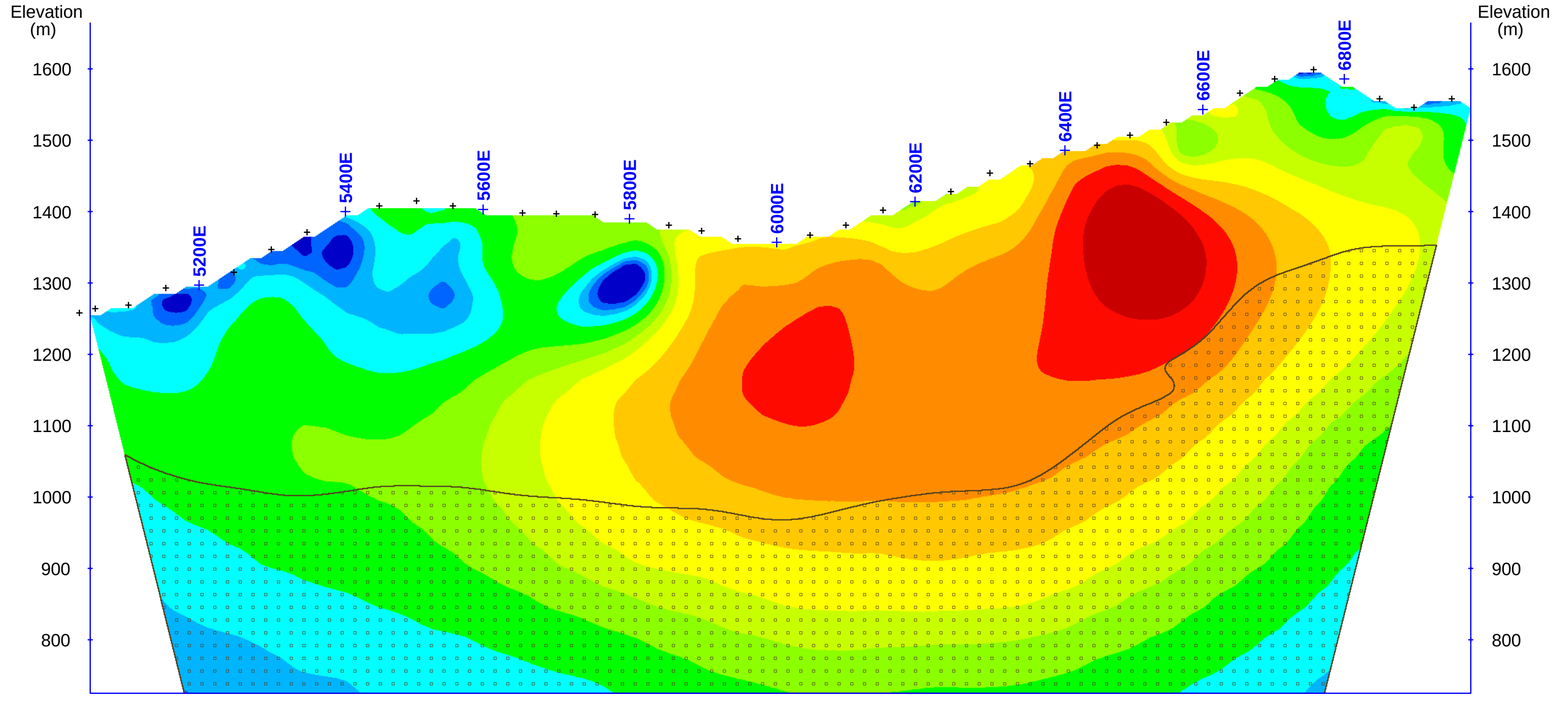
Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

ms
- > 35
- 30 − 35
- 25 − 30
- 20 − 25
- 15 − 20
- 12 − 15
- 9 − 12
- 6 − 9
- 4 − 6
- 3 − 4
- 2 − 3
- < 2

+ Survey Stations
Area of Low Model Confidence



Interpreted Chargeability (ms)

0 100 200 300 400 500
meters

St. Elias Mines Ltd.

Gold Summit Property

IP Grid

Lillooet, B.C.

3D Inversion Model

of

Interpreted

Resistivity & Chargeability

Cross Section Map

Section: 6700N

SJ Geophysics Ltd.

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E 534500E

5637000N 5636500N 5636000N 5635500N 5635000N

7900N 6250E

6700N 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N

5000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E

1400 1500

TX RC TX RC TX

Carpenter Lake

Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ms

- > 35
- 30 − 35
- 25 − 30
- 20 − 25
- 15 − 20
- 12 − 15
- 9 − 12
- 6 − 9
- 4 − 6
- 3 − 4
- 2 − 3
- < 2

N

UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 25m Below Topography

0 200 400 600 800 1000

meters

St. Elias Mines Ltd.

Interpreted Chargeability (ms)

Gold Summit Property

Lillooet, B.C.

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E 534500E

5637000N 5636500N 5636000N 5635500N 5635000N

7900N 6250E

6700N 5000E 6600N 6500N 5200E 6400N 6300N 5400E 6200N 6100N 5600E 6000N 5900N 5800E 5800N 6000E 5000E 6200E 5200E 6400E 5400E 6600E 5600E 6800E 5800E 7000E 6000E 6200E 6400E 6600E 6800E 7000E

1400 1500

TX RC TX RC TX

Carpenter Lake

Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ms

- > 35
- 30 − 35
- 25 − 30
- 20 − 25
- 15 − 20
- 12 − 15
- 9 − 12
- 6 − 9
- 4 − 6
- 3 − 4
- 2 − 3
- < 2

N

UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 50m Below Topography

0 200 400 600 800 1000

meters

St. Elias Mines Ltd.

Interpreted Chargeability (ms)

Gold Summit Property

Lillooet, B.C.

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E
532500E
533000E
533500E
534000E
534500E
5637000N
5636500N
5636000N
5635500N
5635000N
7900N 6250E
1400
1500
6700N 5000E
6600N
6500N 5200E
6400N
6300N 5400E
6200N
6100N 5600E
6000N
5900N 5800E
5800N 6000E
5000E 6200E
5200E 6400E
5400E 6600E
5600E 6800E
5800E 7000E
6000E TX
6200E RC
6400E TX
6600E RC
6800E TX
7000E
Carpenter
Lake
Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ms

- > 35
- 30 − 35
- 25 − 30
- 20 − 25
- 15 − 20
- 12 − 15
- 9 − 12
- 6 − 9
- 4 − 6
- 3 − 4
- 2 − 3
- < 2

N
UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 75m Below Topography

0 200 400 600 800 1000
meters

St. Elias Mines Ltd.

Interpreted Chargeability (ms)

Gold Summit Property

Lillooet, B.C.

Plate C−3

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E 534500E

5637000N 5636500N 5636000N 5635500N 5635000N

7900N 6250E

6700N 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N

5000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E

1400 1500

TX RC TX RC TX

Carpenter Lake

Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ms

- > 35
- 30 − 35
- 25 − 30
- 20 − 25
- 15 − 20
- 12 − 15
- 9 − 12
- 6 − 9
- 4 − 6
- 3 − 4
- 2 − 3
- < 2

N

UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 100m Below Topography

0 200 400 600 800 1000

meters

St. Elias Mines Ltd.

Interpreted Chargeability (ms)

Gold Summit Property

Lillooet, B.C.

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E 534500E

5637000N 5636500N 5636000N 5635500N 5635000N

6700N 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N

5000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E

7900N 6250E

1400 1500

TX RC TX RC TX

Carpenter Lake

Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ms

- > 35
- 30 − 35
- 25 − 30
- 20 − 25
- 15 − 20
- 12 − 15
- 9 − 12
- 6 − 9
- 4 − 6
- 3 − 4
- 2 − 3
- < 2

N

UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 150m Below Topography

0 200 400 600 800 1000

meters

St. Elias Mines Ltd.

Interpreted Chargeability (ms)

Gold Summit Property

Lillooet, B.C.

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E 534500E

5637000N 5636500N 5636000N 5635500N 5635000N

7900N 6250E

6700N 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N

5000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E

1400 1500

TX RC TX RC TX

Carpenter Lake

Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ms

- > 35
- 30 − 35
- 25 − 30
- 20 − 25
- 15 − 20
- 12 − 15
- 9 − 12
- 6 − 9
- 4 − 6
- 3 − 4
- 2 − 3
- < 2

N

UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 200m Below Topography

0 200 400 600 800 1000

meters

St. Elias Mines Ltd.

Interpreted Chargeability (ms)

Gold Summit Property

Lillooet, B.C.

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E
532500E
533000E
533500E
534000E
534500E
5637000N
5636500N
5636000N
5635500N
5635000N
7900N 6250E
6700N
6600N
6500N
6400N
6300N
6200N
6100N
6000N
5900N
5800N
5000E
5200E
5400E
5600E
5800E
6000E
6200E
6400E
6600E
6800E
7000E
1400
1500
Tx
Rc
Carpenter
Lake
Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ms

- > 35
- 30 − 35
- 25 − 30
- 20 − 25
- 15 − 20
- 12 − 15
- 9 − 12
- 6 − 9
- 4 − 6
- 3 − 4
- 2 − 3
- < 2

N
UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 250m Below Topography

0 200 400 600 800 1000
meters

St. Elias Mines Ltd.

Interpreted Chargeability (ms)

Gold Summit Property

Lillooet, B.C.

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E
532500E
533000E
533500E
534000E
534500E
5637000N
5636500N
5636000N
5635500N
5635000N
7900N 6250E
6700N 5000E
6600N
6500N 5200E
6400N
6300N 5400E
6200N
6100N 5600E
6000N
5900N 5800E
5800N 6000E
5000E 6200E
5200E 6400E
5400E 6600E
5600E 6800E
5800E 7000E
6000E
6200E
6400E
6600E
6800E
7000E
1400
1500
1300
TX
RC
Carpenter
Lake
Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ms

- > 35
- 30 − 35
- 25 − 30
- 20 − 25
- 15 − 20
- 12 − 15
- 9 − 12
- 6 − 9
- 4 − 6
- 3 − 4
- 2 − 3
- < 2

N
UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 300m Below Topography

0 200 400 600 800 1000
meters

St. Elias Mines Ltd.

Interpreted Chargeability (ms)

Gold Summit Property

Lillooet, B.C.

Plate C−8

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E 534500E

5637000N 5636500N 5636000N 5635500N 5635000N

6700N 5000E 6600N 6500N 5200E 6400N 6300N 5400E 6200N 6100N 5600E 6000N 5900N 5800E 5800N 5000E 6000E 6200E 5200E 6400E 5400E 5600E 6600E 5800E 6800E 6000E 7000E 6200E TX 6400E Rc 6600E TX 6800E Rc 7000E TX

7900N 6250E

1400 1500

Carpenter Lake

SJ Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ohm−m

- > 5000
- 2500 − 5000
- 1500 − 2500
- 1000 − 1500
- 750 − 1000
- 500 − 750
- 350 − 500
- 250 − 350
- 150 − 250
- 100 − 150
- 50 − 100
- < 50

N

UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 25m Below Topography

0 200 400 600 800 1000

meters

St. Elias Mines Ltd.

Interpreted Resistivity (ohm−m)

Gold Summit Property

Lillooet, B.C.

Plate R−1

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E 534500E

5637000N 5636500N 5636000N 5635500N 5635000N

7900N 6250E

6700N 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N

5000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E

1400 1500

TX RC TX RC TX

Carpenter Lake

Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ohm−m

- > 5000
- 2500 − 5000
- 1500 − 2500
- 1000 − 1500
- 750 − 1000
- 500 − 750
- 350 − 500
- 250 − 350
- 150 − 250
- 100 − 150
- 50 − 100
- < 50

N

UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 50m Below Topography

0 200 400 600 800 1000

meters

St. Elias Mines Ltd.

Interpreted Resistivity (ohm−m)

Gold Summit Property

Lillooet, B.C.

Plate R−2

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E 534500E

5637000N 5636500N 5636000N 5635500N 5635000N

6700N 5000E 6600N 6500N 5200E 6400N 6300N 5400E 6200N 6100N 5600E 6000N 5900N 5800E 5800N 6000E 5000E 6200E 5200E 6400E 5400E 6600E 5600E 6800E 5800E 7000E 6000E 6200E 6400E 6600E 6800E 7000E

7900N 6250E

1400 1500

TX RC TX RC TX

Carpenter Lake

Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ohm−m

- > 5000
- 2500 − 5000
- 1500 − 2500
- 1000 − 1500
- 750 − 1000
- 500 − 750
- 350 − 500
- 250 − 350
- 150 − 250
- 100 − 150
- 50 − 100
- < 50

N

UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 75m Below Topography

0 200 400 600 800 1000

meters

St. Elias Mines Ltd.

Interpreted Resistivity (ohm−m)

Gold Summit Property

Lillooet, B.C.

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E 534500E

5637000N 5636500N 5636000N 5635500N 5635000N

6700N 5000E 6600N 6500N 5200E 6400N 6300N 5400E 6200N 6100N 5600E 6000N 5900N 5800N 5800E 5000E 6000E 6200E 5200E 6400E 5400E 5600E 6600E 5800E 6800E 6000E 7000E 6200E TX RC 6400E TX RC 6600E 6800E 7000E

7900N 6250E

1400

1500

Carpenter Lake

SJ Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ohm−m

- > 5000
- 2500 − 5000
- 1500 − 2500
- 1000 − 1500
- 750 − 1000
- 500 − 750
- 350 − 500
- 250 − 350
- 150 − 250
- 100 − 150
- 50 − 100
- < 50

N

UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 100m Below Topography

0 200 400 600 800 1000

meters

St. Elias Mines Ltd.

Interpreted Resistivity (ohm−m)

Gold Summit Property

Lillooet, B.C.

Plate R−4

532000E 532500E 533000E 533500E 534000E 534500E

5637000N 5636500N 5636000N 5635500N 5635000N

7900N 6250E

6700N 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N

5000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E

1400 1500

TX RC TX RC TX

Carpenter Lake

Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ohm−m

- > 5000
- 2500 − 5000
- 1500 − 2500
- 1000 − 1500
- 750 − 1000
- 500 − 750
- 350 − 500
- 250 − 350
- 150 − 250
- 100 − 150
- 50 − 100
- < 50

N

UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 150m Below Topography

0 200 400 600 800 1000

meters

St. Elias Mines Ltd.

Interpreted Resistivity (ohm−m)

Gold Summit Property

Lillooet, B.C.

Plate R−5

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E
532500E
533000E
533500E
534000E
534500E
5637000N
5636500N
5636000N
5635500N
5635000N
7900N 6250E
1400
1500
6700N
6600N
6500N
6400N
6300N
6200N
6100N
6000N
5900N
5800N
5000E
5200E
5400E
5600E
5800E
6000E
6200E
6400E
6600E
6800E
7000E
TX
Rc
Carpenter
Lake
Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ohm−m

- > 5000
- 2500 − 5000
- 1500 − 2500
- 1000 − 1500
- 750 − 1000
- 500 − 750
- 350 − 500
- 250 − 350
- 150 − 250
- 100 − 150
- 50 − 100
- < 50

N
UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 200m Below Topography

0 200 400 600 800 1000
meters

St. Elias Mines Ltd.

Interpreted Resistivity (ohm−m)

Gold Summit Property

Lillooet, B.C.

Plate R−6

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E 532500E 533000E 533500E 534000E 534500E

5637000N 5636500N 5636000N 5635500N 5635000N

7900N 6250E

6700N 6600N 6500N 6400N 6300N 6200N 6100N 6000N 5900N 5800N

5000E 5200E 5400E 5600E 5800E 6000E 6200E 6400E 6600E 6800E 7000E

1400 1500

TX RC

Carpenter Lake

Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ohm−m

- > 5000
- 2500 − 5000
- 1500 − 2500
- 1000 − 1500
- 750 − 1000
- 500 − 750
- 350 − 500
- 250 − 350
- 150 − 250
- 100 − 150
- 50 − 100
- < 50

N

UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 250m Below Topography

0 200 400 600 800 1000

meters

St. Elias Mines Ltd.

Interpreted Resistivity (ohm−m)

Gold Summit Property

Lillooet, B.C.

Plate R−7

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com

532000E
532500E
533000E
533500E
534000E
534500E
5637000N
5636500N
5636000N
5635500N
5635000N
7900N 6250E
1400
1500
6700N
6600N
6500N
6400N
6300N
6200N
6100N
6000N
5900N
5800N
5000E
5200E
5400E
5600E
5800E
6000E
6200E
6400E
6600E
6800E
7000E
TX
RC
Carpenter
Lake
Geophysics Ltd.

LEGEND

- 3DIP Survey Stations
- 3DIP Remote Station
- Magnetometer Stations
- Magnetic Baseline
- Roads
- Streams
- Elevation Contours (20m)
- Lakes
- Area of Low Model Confidence

ohm−m

- > 5000
- 2500 − 5000
- 1500 − 2500
- 1000 − 1500
- 750 − 1000
- 500 − 750
- 350 − 500
- 250 − 350
- 150 − 250
- 100 − 150
- 50 − 100
- < 50

N
UTM Grid North

Project Information:
Survey by: SJ Geophysics Ltd.
3D Inversion by: S.J.V. Consultants Ltd.
Survey Date: July 2011

Instrumentation:
Receiver: SJ−24 Full−Waveform Digital IP Receiver
Transmitter: GDD TX II
Array Type: 3D

Mapping Information:
Datum: NAD83
Projection: UTM Zone 10
Mapping Date: 26−Aug−2011

Planmap

3D Inversion Model

Depth: 300m Below Topography

0 200 400 600 800 1000
meters

St. Elias Mines Ltd.

Interpreted Resistivity (ohm−m)

Gold Summit Property

Lillooet, B.C.

Plate R−8

Mapping By : S.J.V. Consultants Ltd. 11966−95A Avenue, Delta, British Columbia, Canada V4C 3W2 (604) 582−1100 www.sjgeophysics.com