BC Geological Survey Assessment Report 35239

EXPLORATION REPORT

ON

PROSPECTING

AND

MMI SOIL SAMPLING

over the

COPPER GRID

within the

TAGISH PROPERTY

TAGISH LAKE, ENGINEER MINE AREA ATLIN MINING DIVISION, BRITISH COLUMBIA

PROPERTY LOCATION: On Tagish Lake 40 km west of the village of Atlin,

British Columbia

59° 38' N Latitude, 133° 28' W Longitude Mineral Titles Maps: M104.049, '50, '59, '60

'67 to '69, '77, '78

N.T.S. - 104M/8,9, and 10

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EXPLORATION REPORT ON PROSPECTING AND MMI SOIL SAMPLING over the COPPER GRID within the TAGISH PROPERTY

TAGISH LAKE, ENGINEER MINE AREA ATLIN MINING DIVISION, BRITISH COLUMBIA

1 INTRODUCTION and GENERAL REMARKS

This report is a discussion of the results of MMI soil sampling and prospecting carried out by Mr Kyler Hardy with an assistant during the period of June 27th to July 18th, 2014.

The purpose of the exploration program on this property is to look for gold mineralization, possibly associated with silver and copper values, and possibly similar to the nearby Engineer Mine, which occurs 2.4 km south of the Llewellyn Property and which is being explored by BC Gold Corp. The Engineer Mine mineralization consists of gold associated with quartz that occurs along two shear zones that are splays off of the Llewellyn Fault, which runs northwesterly through the Llewellyn Property. The secondary purpose is to look for porphyry copper-moly type mineralization since there is some evidence of this occurring on the property.

The specific purpose of the MMI sampling within the Copper Grid was to determine the economic potential along a section of the Llewellyn Fault which, within the area, is associated width economic-type mineralization.

MMI stands for mobile metal ions and describes ions, which have moved in the weathering zone and that are weakly or loosely attached to surface soil particles. MMI, which requires special sampling and testing techniques, are particularly useful in responding to mineralization at depth probably in excess of 700 meters (The best depth for gold so far has been 300 meters.). It is also not affected by glacial till, while standard soil sample techniques are. MMI is characterized in having a high signal to noise ratio and therefore can provide accurate drill targets. However, it may also move along fault lines and therefore could show the causative source to be laterally moved from where it actually is.

2 PROPERTY and OWNERSHIP

The Llewellyn Property is comprised of 3 contiguous tenures that comprise an area of 10,580.9 ha and occurs within the Atlin Mining Division in the northwest reaches of the province of British Columbia, Canada (Figure 1 and 2; Table 1). These tenures are located on 1:50,000 scale NTS mapsheets 104M/08, 09, 10 and on 1:20,000 scale map sheets 104M049, 050, 059, 060, 067, 068, 069, 077 and 078. The property is owned by Nash Meghji and is being optioned to Momentum Minerals Inc, both of Vancouver, British Columbia.

Table 1

Tenure Number	Claim Name	Good To Date	Area (ha)
570299	TAG LINE	2014/June/30	98.1221
948198	TAGISH BLOCK	2014/June/30	9184.8212
948199	TAGISH LAKE	2014/June/30	1297.9615
		TOTAL AREA	10,580.9048

The expiry date shown assumes that the work discussed within this report is accepted as submitted for assessment credits.

3 LOCATION AND ACCESS

The claim group stretches almost 40 kilometres southeast from Teepee Peak. This mountain is found about 20 km east of Fraser, British Columbia, which is located on the Klondike highway, a paved highway that links Whitehorse, in the Yukon Territory, to the deep water port of Skagway, Alaska. The claims cross Tagish Lake about 22 km southeast of Teepee Peak. The centre of the property is at approximately 59° 37′ 10″ N latitude, 134° 22′ 39″ W longitude.

The Llewellyn property claim tenures are located 27 km west from Atlin, British Columbia at their closest point and 57 km northwest at their farthest. Whitehorse, located 200 km north of Atlin, is the closest major city to the Llewellyn property. Whitehorse and Atlin have mining and mineral exploration driven economies and are sources of supplies, equipment and personnel for mining and exploration projects.

While the Klondike highway is only 14 kilometres from the northwest part of the Llewellyn property there are no roads that offer direct access. Access is from Atlin or from Whitehorse by helicopter or float plane to one of the lakes. One can also travel by an hour long boat ride from Atlin, across Atlin Lake, up Atlin River, along Graham Inlet, and to the main part of Tagish Lake. Boats and barges are also able to navigate the waterways from either Carcross or Tagish Bridge in Yukon.

4 PHYSIOGRAPHY and VEGETATION

The Llewellyn Property is found within the Tagish Highland, which is part of the Yukon Plateau, which itself is a physiographic unit of the Interior Plateau System. The Tagish

Highland is characterized by areas of relatively smooth, gently rolling upland surface lying, for most part between 1,500 and 2,000 meters, with local peaks rising above. The area is incised to an elevation of about 670 meters by tributary rivers of Atlin and Tagish Lakes. The valleys are wide and U-shaped and many to the west of Atlin, i.e., the Llewellyn Property area, are occupied by lakes. The relief in the Tagish Highland within the property area is about 1100 meters.

Elevations on the property vary from less than 700 meters on Tagish Lake to over 1900 meters on the mountain at the west end of the property. Slopes vary from being gentle to steep. Glaciers occupied the Tagish Highland and thus much of the claim area is covered by glacial drift. For the most part it is not thick, but can be when closer to the larger lakes.

The main water sources on the property are the lakes, the main one being Tagish Lake.

Tree line is at about 1400 meters (4600 feet) on north-facing slopes and 1500 meters (4900 feet) on south-facing slopes. Above the tree line, the property is mostly covered in alpine vegetation, which is predominantly heather and sedges, as well as stunted buck brush. Below the tree line it is covered with light to medium forest consisting of lodge-pole pine, black spruce, aspen, and scrub birch. The underbrush is generally light but can be thick in areas around streams.

The temperatures can reach 30°C in the summer months, with an average of 20° C whereas in winter they can drop down to -35°C with an average of -15°C. Snowfall in winter months is moderate. Depending on the elevation, mining exploration can be carried out from May until the end of October. On a good year this can extend well into November, though this cannot be relied on.

Habitation is reported to include a trailer camp and dock at the Engineer mine on the east shore of Tagish Lake and two cabins in the lower Wann River area.

5 <u>HISTORY OF PREVIOUS WORK</u>

Historical work is broken down by specific areas of the Llewellyn Property and reported on under their own section heading. For further details on the historical work discussed below refer to the section titled Mineralization.

5.1 <u>LLEWELLYN PROPERTY - NORTHWEST AREA</u>

In 1988, (Durfeld, 1989), 1989 (Cuttle, 1989) and in 1990 (Cuttle, 1990) Cyprus Gold (Canada) Ltd conducted assessment programs on their Teepee property (TP, Fill claims) which included the Crine (104M 081) and TP-Main (104M 048) prospects (Figure 3, Table 2). They also conducted prospecting and sampling surveys over significant areas now held as the Llewellyn Property.

Cuttle (1990) reported that a large amount of anomalous float samples and outcrop samples had been found over a two kilometre area along 'Grissly' Creek, an area that

occurs on the northwestern-most section of the Llewellyn property. Cyprus Gold isolated a particularly prospective area called the 'Key Showing' adjacent 'Grissly' Creek on its Fill 4 and 6 claims (Figure 3). During 1990, assays of mineralized float (sample JC-90-R-15) in this area yielded up to 17.1 oz/t Ag, 5.1% Pb and 10.6% zinc. Other rock samples from this area indicated a significant enrichment in gold, silver, arsenic, lead, zinc, some of which show "excellent banded quartz growth within highly brecciated schist". The textures were reported to be characteristic of a high level portion of a mineralizing vein structure.

Several mineralized rock samples were found in the vicinity of the 'Key showing'. Cuttle (1990) stated that "there is a large variety of style of mineralization in these samples of outcrop and float and there remains additional prospecting to locate the source of this vein type material. This area may have under gone a similar mineralizing event to that of the Crine Vein". Significant samples with descriptions and assays are taken in whole from Cuttle (1990):

Table 2

				Cadmium		Lead		Antimony
	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC-90-R-15	9	584.6	133	554.2	3.0 %	5.1%	10.6%	1.1%
Massive sulphide vein material, float								
JC-90-R-18 Brecciated and silicified phyllite beside dyke,	1300	7.2	1180	11.7	41	311	74	49
outcrop								
JC-90-R-19 Highly weathered quartz vein, sub-outcrop	468	2.4	335	5.6	44	53	21	31
MC-90-R-08 Quartzite? Or quartz vein with pyrrhotite and pyrite	1000	3.2	1217	18.2	13	161	69	23
AS-90-R-13 Rusty shear in schist with minor pyrite	422	2.6	4055	59.8	20	367	101	38

JC-90-R-15 - float on Grissly Cr 100m below snow pack of 1% chalcopyrite, 4% sphalerite 8% arsenopyrite with disseminated galena. Fairly large float sample and approx 5cms thick. Has not been transported very far.

JC-90-R-18 - Outcrop of highly brecciated and pervasively silicified phyllite beside east trending aplite dyke. Approx 20% coarse and very fine disseminated pyrite with traces of needles of stibnite.

JC-90-R-19 - float in scree pile of highly weathered qtz vein(?) material with abundant boxwork and fresh disseminated pyrite.

90-MC-R-8 - on Grissly Creek. Quartzite with pyrite and pyrrhotite. Probably float. (gp)

90-AS-R-13 - on Grissly ck. small rusty shear in schist. Brecciated in places with vuggy quartz graphite and trace pyrite. Appears to trend east-west.

Cuttle (1990) reports that found above the areas of mineralized float at the headwaters on 'Grissly' Creek is an area where large zones of quartz breccia had been found during the 1989 season. While no mineralization was yet found associated with these breccias there was reason to believe that they might possibly "represent the upper end of a mineralizing system". They were "commonly healed breccias with open cavity quartz growth and epithermal style banded quartz layering. The boulders have been found up to 6 square meters in size and there are large quantities approximately 1.0 kilometer east and below Iceberg Lake.

Sampling by Cyprus Gold also occurred along the ridge to the immediate west of Grissly Creek and along the ridge in the northwest corner of the property where in 2006 sampling by resulted in the discovery of the Tagish Top (MINFILE 104M 094) showing.

Further sampling by Cyprus Gold occurred to the east of Grissly Creek in the 'Silty Lake' drainage area where the creek draining the lake was found to be anomalous in Au, Ag, As and Sb. At the time this suggested to the Cyprus Gold staff a geochemical signature similar to that of the UM vein found approximately 4 kilometers to the south (MINFILE 104M 084). The UM is an ultramafic hosted, listwanite associated mesothermal gold-quartz vein system.

Cuttle (1990) expressed the opinion that

'with the amount of anomalous float samples and outcrop samples found over a two kilometer area along Grissly Creek it's a matter of time until mineralized material is found in outcrop. This will require a concentrated prospecting and rock sampling program. A small geochemical grid may prove helpful stretching from the ridge southeast of 'Grissly' Creek down to the creek itself and over to the northwest. One must keep in mind though that overburden cover and glacial debris in the valley may create false anomalies from lengthy mineralized boulder trains trailing down from the head waters of 'Grissly' Creek or beyond'.

5.1.1 2006

On behalf of XO Gold Resources Inc in 2006, limited prospecting and sampling was carried out by Garry Payie over two days in the Grissly Creek area of the Llewellyn property, at its northwestern most reaches. The area of the 2006 program was based on the targeting, prospecting and prospecting of Landsat 7 anomalies that displayed significant areas of iron oxide and hydroxyl (clay) alteration. The area visited is largely

underlain by Devonian to Middle Triassic phyllitic metasediments and Tertiary granites. The program resulted in the collection of 8 rock, 10 soil and 4 stream samples that were subsequently remitted to ALS Chemex Lab for analysis.

On August 24, 2006 geologists Garry Payie and George Owsiacki flew by helicopter to investigate radar satellite images that revealed iron oxide targets on the Llewellyn property. Several large limonitic quartz veins, found projecting out of the largely overburden-covered hillside, may be attached to near surface country rock which is less resistant to erosion. Quartz vein chip and rock samples were taken as well as were soil samples and stream samples. Very little outcrop was observed. What little outcrop was noted consisted of dark grey-black foliated to phyllitic metasediments that was locally limonitic. Two stream samples are considered significantly anomalous. These were collected above the confluence of two branches of 'Grissly' Creek. These are sample 06G0W018: 67 ppb gold, 0.6 ppm silver, 164 ppm arsenic, 53 ppm copper, 30 ppm lead and 134 ppm zinc; and sample 06GPA010: 26 ppb gold, 0.8 ppm silver, 173 ppm arsenic, 47 ppm copper, 29 ppm lead and 135 ppm zinc.

On August 29th, 2006 Gary Payie and an assistant made a brief helicopter stop on the ridge northwest of the 'Grissly' Creek area on August 24th. The ridge occurs in the northwest corner of the Tagish property and was also targeted in order to investigate a very high iron oxide radar satellite image. The ridge is very gossanous and three rocks were collected. One intrusive rock sample (06GPA018) was highly anomalous in arsenic (5,000 ppm), molybdenum (211 ppm), lead (906 ppm), and zinc (183 ppm) with gold (29 ppb) and silver (8.5 ppm) also being elevated. This sampled area became known as the Tagish Top showing (MINFILE 104M 094). Complete documentation of the 2006 program work program, including assay sheets of all samples collected can be found in the Assessment Report (28929) by Burjoski (2007).

5.2 <u>LLEWELLYN PROPERTY – CENTRAL AREA</u>

5.2.1 2007

A program of line cutting, MMI soil sampling and a small amount of magnetic surveying (on the MMI lines) were carried out on behalf of XO Gold in 2007.

The following 2007 MMI and ground magnetometer survey section paragraphs were taken in whole or in part from the 2008 BC government assessment report (29966) by the author (2008), wherein documentation of the complete 2007 program work program, including assay certificates can be found on Figure 3a.

The MMI survey has shown metal zoning indicative of mineralization. Continuation of the MMI soil sampling and magnetic surveying to further define the limits of the very strong copper, molybdenum, and zinc zone designated Anomaly A and B in Mark (2008) above is recommended. Sampling should continue at 25 metre intervals along east-west

lines spaced 100 metres apart. If results warrant, IP/Resistivity surveying should follow in order to determine the depth of any target anomaly.

5.3 <u>LLEWELLYN PROPERTY EAST OF TAGISH LAKE (BEE LAKE SHOWING)</u>

5.3.1 1981

A review of the literature has revealed a new area of prospective mineralization first reported in 1982 but not recognized in the government mineral occurrence database (MINFILE). This area is on the Llewellyn property about 800 to 1500 metres east of Tagish Lake, just west of a small lake known locally as Bee Lake. Refer to Assessment Report 10511 by Ashton (1982) for complete details of the documentation.

In 1981, claims on the east side of Tagish Lake were under option to Nomad Resources Ltd and Tagish Resources Ltd. Limited prospecting was done at the time and several samples were collected. The 1981 claims covered some of the same ground that are presently held as part of the Llewellyn Property.

The following results (designated Samples 2, 5 and 6) are taken from a prospecting report signed by Roy Carlson and contained within Assessment Report 10511, by Ashton (1982). The approximate sample locations, taken from Ashton, are plotted on a more legible map than that found in his report. Carlson describes a low erratic greywacke outcrop about 500 metres west of Bee Lake where two greywacke samples (5 and 6) were taken in 1981. These samples are about 400 metres apart (north-south). Sample 2 was taken about 500 metres west of Sample 5 from greywacke outcrop in an area where outcrop was reported as scarce. Two other samples, about 350 metres north of Sample 2 and 500 meters south proved not to be anomalous.

Sample 2) greywacke outcrop 0.026 oz/ton gold (0.9 g/t gold)
Sample 5) greywacke loose, minor pyrite, 0 082 oz/ton gold (2.81 g/t gold)

Sample 6) greywacke, silicified, pyritized, loose, 0.152 oz/ton gold (5.21 g/t gold)

Assays certificates showing the results for these samples are in found in Ashton (1982). A.S. Ashton, P.Eng, who authored the assessment report (10511) documenting the 1981 sampling program.

5.3.2 2011

A program of grid emplacement and MMI soil sampling was carried out on behalf of Momentum Minerals by the author in 2011. The purpose of the work was to determine the response to the three gold-mineralized outcrops, mentioned above, and whether the mineralization may extend and possibly be connected to each other.

5.4 <u>LLEWELLYN PROPERTY – SOUTHEAST AREA (GLEAN SHOWING)</u>

Golden Bee Minerals Inc. staked the Golden Bee claims east of Tagish Lake and conducted work in 1989 and 1990. Some of the ground held at that time is presently covered by Llewellyn Property tenures. Work by Golden Bee consisted of sampling, mapping, prospecting and geochemical and geophysical surveys (Thompson, G.R., 1990a and 1990b; Lunn and Thompson, 1990a and 1990b). This work led to the discovery of the Glean showing (MINFILE 104M 078), which is, in part, on the Llewellyn tenures, and the Golden Bee 2 showing (MINFILE 104M 076), located just off the Llewellyn tenures, both indicated on Figure 4. At the Glean, mineralization occurs in several silicified shears, 1 to 8 metres wide, displaying parallel, stacked and en echelon zoning and consists of disseminations of pyrite, arsenopyrite, chalcopyrite, galena and pyrrhotite.

5.5 <u>LLEWELLYN PROPERTY – AIRBORNE SURVEY</u>

5.5.1 2007

In 2007, a detailed high-resolution helicopter-borne magnetic and gamma ray spectrometric (radiometric) survey was flown over the Llewellyn property while under option to XO Gold Resources Inc. The following section was taken in whole or in part from Shirvani and Gebauer (2008). Further details including survey maps can be found in this report. Portions of the radiometric part of the survey were not completed due to equipment malfunction.

On behalf of XO Gold Resources Ltd and adjacent tenure holders (on their independent properties), McPhar Geosurveys Ltd. conducted a detailed high-resolution helicopterborne magnetic and gamma ray spectrometric survey over the Atlin Region, BC, Canada during the period September 20, 2007 to October 9, 2007 The purpose of the survey was to acquire high resolution gamma ray spectrometric and magnetic data to be used as aids in identifying magnetic and radiometric anomalies and the geophysical characteristics of the geology and structure. Such data were to be applied in an effort to gain insight into geologic and geophysical settings and ultimately to help locate potentially economic uranium mineralization.

The Llewellyn property survey area, for purposes of efficiently mobilizing equipment and personnel, was combined with similar surveys of two other nearby blocks of mineral tenures. Traverse lines in the Tagish Top tenures were oriented at N45°E at 100 m line spacing and tie lines were perpendicular to the traverse lines at 1000 m line spacing.

The geophysical system was mounted on A-Star 350B helicopter, with Canadian registration C-GTNV, supplied by Trans North Turbo Air Ltd., Whitehorse, Yukon for Eagle Plains Resources Ltd and Nash Meghji – XO blocks (Llewellyn Property). Data acquisition utilized precision differential GPS positioning. A high sensitivity magnetometer was installed in a towed bird. A Pico-Envirotec GRS-10 multi channel gamma-ray spectrometer with 16.8 litres "downward looking" and 4.2 litres "upward

looking" NaI(Tl) sensor was mounted inside the helicopter. Ancillary equipment included a GPS navigation system, a radar altimeter and a base station magnetometer. Pre-survey test and calibration flights were completed during the survey, and the data acquisition was completed on August 14, 2007. The mobilization of the helicopter equipment and personnel to Atlin, B.C. was completed on September 20, 2007. The last production flight was on October 9, 2007, and project was terminated by client due to bad weather. Demobilization was completed on October 10, 2007. Final data processing, map compilation and report preparation was completed by McPhar at its Markham, Ontario office and was revised by TERRACAD Geoscience Services Ltd. to comply with standards of reporting work as defined by the Ministry of Energy and Mines of British Columbia. The complete report of this survey is presented in Shirvani and Gebauer (2008) (Assessment Report 30379).

Subsequent to the report by Shirvani and Gebauer (2008), a report on the airborne survey results was prepared by TerraNotes Ltd of Edmonton, Alberta for XO Gold. The report entitled *Integration of Geological & Geophysical Analysis, Llewellyn Property* is included in Brown and Higgs (2008) (Appendix IV of Assessment Report 30365B). Excerpts below referring to TerraNotes are sourced from this report. While the TerraNotes website (www.terranotes.com/) states that TerraNotes is a member of APEGGA (Alberta Professional Engineers, Geologists and Geophysicists Association) no specific staff authorship is given in the report. Terranotes provided its own disclaimer in the report as follows:

"This document has not been reviewed or endorsed by a registered member of the Association of Professional Engineers, Geologists, and Geophysicists of Alberta. RECIPIENT agrees to consult directly with such professionals"

5.5.2 Airborne Radiometrics

The following excerpt from the TerraNotes report provides a useful synopsis of theory with respect to geological interpretation of the airborne radiometric data

"Gamma-Ray Spectrometry (GRS) provides a direct measurement of the surface of the earth with depth of penetration (~ 30 cm). This near surface data allows us to reliably relate the measured radioelement contrasts to mapped bedrock and surficial geology, and alteration associated with mineral deposits. A gamma-ray spectrometer is designed to detect gamma rays associated with surficial radioactive elements and to accurately sort the detected gamma rays by their respective energies. It is this sorting ability that distinguishes the spectrometer from instruments that measure only total radioactivity. Potassium (K), Uranium (U) and Thorium (Th) are the three most abundant, naturally occurring radioactive elements at the earth's surface. Potassium is a major constituent of most rocks and is a common alteration element in certain types of mineral deposits. Uranium and Thorium are present in trace amounts as mobile and relatively immobile elements, respectively. As the concentration of these different radioactive elements varies between different rock types, we can use the information provided by a gamma-

ray spectrometer to map geological boundaries. Where the background radioactive element signature of a host rock is altered by a mineralizing system, the corresponding radioactive element anomaly will provide direct exploration guidance. Depending on the complexity of the geology, subtle variations in K, U and/or Th may not be readily apparent. For these reasons, the proper interpretation of gamma-ray spectrometry data requires the examination of all the measured variables and associated derived ratios. Ratio maps can enhance or reinforce subtle variations in the measured variables. This can be particularly relevant, especially when dealing with varying intensities of alteration associated with a mineralizing process. Airborne radiometric data offer a three-element geochemical image of the prospective area and may reflect later deformation episodes than magnetic data. Apart from magnetic mineralogy, the radioelement concentration may also be changed during hydrothermal alteration. Within the Llewellyn property, distribution of gold is closely connected to hydrothermally altered zones of bedrock. These zones are commonly controlled by both large scale and local structural and tectonic features. By estimating the mean groundlevel abundances of K, U and Th content for bedrock, it is possible to evaluate changes in the altered zones. Alteration of K generally produces the most prominent effects, since K is the most abundant of the three radio elements in bedrock."

The abundance ratios, U/Th, U/K and Th/K, are considered more diagnostic of changes in rock types, alteration, or depositional environment than the values of the radioisotope abundances themselves. Anomalous ratio values have proven useful in locating zones of alteration that may be indicative of precious and base metal mineralization. In case histories, alteration associated with mineralization produces potassium anomalies which can be distinguished from normal lithologic potassium variation by characteristic eTh/K ratio lows.

Shives et al. (1997) conclude in their article, *The detection of potassic alteration by gamma ray spectrometry - recognition of alteration related to mineralization*, "The ability of gamma ray spectrometry to map potassium, uranium and thorium enrichment or depletion provides powerful exploration guidance in a wide variety of geological settings. The case histories presented highlight the use of gamma ray spectrometry to measure and map potassium enrichment related to volcanic hosted massive sulphide, polymetallic and porphyry mineralization. Potassium enrichment in these, and many other geological settings, is characterized by anomalously low eTh/K ratios relative to normal lithological signatures, thus providing significant exploration vectors."

5.5.3 Airborne Geophysical Survey Results Summary

This paragraph is summarized from TerraNotes. The results of the aeromagnetic survey showed anomalies on the western part of the Llewellyn Property coincided with known parts of the Llewellyn Fault system and some magnetic lows and highs were coincident with mapped geological formations. Low magnetic trends were observed at the locations of the creeks. Formation boundaries and small scale faults were also recognizable,

especially at the eastern part. Magnetic lineaments were found to occur in all orientations and where intersecting are considered zones of interest. The western part of the survey area is more interesting in that there is higher occurrence of faulting and abrupt changes in the magnetic field from high to low. There were also splays of the Llewellyn fault yielding many intersection zones. The lack of radiometric coverage on the western portion of the property blocked efforts at defining zones of interest for follow-up.

Terranotes reported five regions of interest based on radiometric and aeromagnetic anomalies. These are indicated on report figures as R3-1, R3-2, R3-3, R3-4 and R3-5. R3-1 and R3-2 are located at the eastern shore of Tagish Lake, the other regions are located at the western shore. Black ellipses represent high K/eTh anomalies, the grey ellipse represents a low K/eTh anomaly. For full details of all available data please refer to Farshad and Gabauer (2008) and Brown and Higgs (2008) (with TerraNotes (2008).

6 GEOLOGY

The following regional geology was taken from a summary by Owsiacki (2007) who used Mihalynuk (1999, 2003), Casselman (2005) and Cuttle (1989, 1990) as his sources. Property scale mapping has not been done; the property description is derived from mapping done by Mihalynuk et al. (1996) and displayed on Ministry of Energy and Mines website – MapPlace.

6.1 **REGIONAL**

The property area occurs at the contact between the Coast Belt and the western margin of the Intermontane Belt. The Coast Belt is comprised predominantly of Late Cretaceous and Tertiary magmatic rocks, while the Intermontane Belt at this latitude is composed of Mesozoic arc volcanic and arc-derived sedimentary rocks.

According to Wheeler et al. (1991) the architecture of the area is a product of Late Triassic to Early Jurassic amalgamation of the following terranes (from east to west): mainly Paleozoic and lesser early Mesozoic oceanic crustal and supracrustal rocks of the Cache Creek Terrane; early Mesozoic arc volcanic and related sedimentary rocks of the Stuhini Group, at this latitude representing Stikine Terrane; and possibly Late Proterozoic to Paleozoic metamorphosed epicontinental rocks of the Nisling Terrane. These terranes are overlapped by Lower to Middle Jurassic basinal turbidites of the Laberge Group that form part of the Inklin overlap assemblage. Laberge strata are succeeded by late Mesozoic and Tertiary mainly felsic volcanic strata of the Windy-Table and Montana Mountain complexes and the Sloko Group. Intrusive roots to the several volcanic episodes postdating Laberge deposition include the granitoids of the Whitehorse Trough and Coast Belt (Figure 4).

Current data indicate that both the Laberge Group and the Stuhini Group strata (which at this latitude represent Stikine Terrane) together constitute an overlap assemblage which is termed the Whitehorse Trough overlap assemblage. The nature of the Nisling rocks is in question; it is not certain that they really constitute a separate terrane. However, to maintain consistency with widespread current usage they are referred to collectively as the Yukon-Tanana Terrane.

The structural geology of the area is dominated by two major subparallel, northnorthwest trending faults that divide and define the boundaries between the Cache Creek Terrane and the Whitehorse Trough, and between the Whitehorse Trough and the Yukon-Tanana Terrane. The Nahlin fault, east of and not in the project area, more or less marks the western extent of the Cache Creek Terrane and eastern extent of the Whitehorse Trough. It is a steeply dipping to vertical fault or series of faults and has been intermittently active, probably since the Late Triassic into the Tertiary. The Llewellyn fault (which transects the Llewellyn property area) marks the boundary between the regionally metamorphosed Yukon-Tanana Terrane in the west and the Whitehorse Trough in the east. It is also steeply dipping and appears to have been active from Late Triassic to Tertiary time.

The Intermontane Belt in the property area is divided into two packages: Yukon-Tanana Terrane to the west, and rocks of the Whitehorse Trough to the east. Overlapping these packages is Lower to Middle Jurassic volcanic rocks. The Yukon-Tanana Terrane consists primarily of the Boundary Ranges metamorphic suite, a belt of polydeformed rocks bounded on the east by the Llewellyn fault and on the west by mainly intrusive rocks of the Late Cretaceous to Tertiary Coast Plutonic Complex. The Boundary Ranges metamorphic suite is comprised of a wide range of protoliths from quartzose to pelitic or carbonaceous and calcareous sediments through volcanic tuffs or flows to small lenses to large bodies up to several kilometres across of gabbroic, dioritic, granodioritic and granitic intrusions and ultramafite. These rocks are believed to be Devonian to Middle Triassic in age.

The Whitehorse Trough is bounded by the Llewellyn fault to the west, and by the Nahlin fault to the east near Taku Arm (Tagish Lake). In the property area, the Whitehorse Trough rocks consist of the Upper Triassic Stuhini Group and Lower Jurassic Laberge Group. The Stuhini Group is comprised of basic to intermediate subalkaline volcanic flows, pyroclastics and related arc sediments. These rocks are intruded by Late Cretaceous and Paleogene granodioritic intrusions. The upper part of the Stuhini Group is comprised of conglomerate, limestone, shale and wacke. The Stuhini Group is correlative with the Lewes River Group in the Yukon and this sequence extends from central Yukon down to the Tulsequah River area in British Columbia.

The Laberge Group is divided into the Takwahoni and Inklin formations. They are dominated by immature marine clastics that are regionally metamorphosed to prehnitepumpellyite and epidote-albite facies. Adjacent to plutons they are hornfelsed to a higher grade. The Takwahoni Formation is of Early to Middle Jurassic age and consists of Stikinia-derived, conglomerate-rich clastic rocks. The Inklin Formation consists of an Early Jurassic, mainly fine grained clastic succession of rhythmically bedded argillites and greywackes with locally abundant thin conglomerate units. The argillite can be

noncalcareous to weakly calcareous to siliceous. Conglomerate units in both the Takwahoni and Inklin formations are polymictic with clasts of well rounded volcanic, sedimentary and intrusive lithologies.

The overlapping Lower to Middle Jurassic volcanic rocks crop out northwest and southeast of Tutshi Lake. They are composed of andesitic to dacitic bladed feldspar porphyry flows and tuffs, dacitic lapilli tuff, rhyolite flows and ash flows, variegated feldspar-phyric flows or coarse pyroclastics, and polymictic felsic lapilli tuffs. In many instances volcanism appears to have been focused along major structural breaks, such as the Nahlin and Llewellyn faults.

6.2 PROPERTY

The central portion of the Llewellyn property covers the northwest trending Llewellyn fault system. The fault zone consists of fault bound sections of the Stuhini Group consisting of argillite, greywacke, wacke, conglomerate turbidites; basalts; calc-alkaline volcanics; conglomerate, coarse clastic sedimentary rocks; limestone, marble, calcareous sedimentary rock; and rhyolite; fault bound Early Cretaceous diorite is also emplaced along the fault system. In general, east of the fault zone and east of Tagish Lake, the property is underlain by Laberge Group-Inklin Formation sedimentary rocks, which include: argillite, greywacke, conglomerate, mudstone, siltstone, shale and fine clastics. The northwest part of the property and the area west of the fault zone is dominated by the Boundary Ranges Metamorphic suite which consists of Devonian to Middle Triassic greenstone and greenschist facies rocks. At the very northwestern reach of the property a plug of granitoid rocks from the Sloko-Hyder Plutonic Suite intrudes Boundary Ranges strata and Early Eocene Sloko Group rock comprising conglomerate, coarse clastic sedimentary rock; rhyolite; and volcaniclastic rock.

The crustal scale southeast trending Llewellyn fault transects the Llewellyn property along much of its southeast trending length. The steeply dipping fault marks the boundary between regionally metamorphosed rocks of the Yukon-Tanana Terrane on the west and Whitehorse Trough rocks on the east.

Locally the Llewellyn fault zone is a discreet, near vertical structure only a few tens of metres across. Lithologies within the fault zone are commonly silicified, sericitized, argillically altered, and pervasively cleaved; locally protomylonite and orthomylonite textures are preserved. More commonly, the Llewellyn fault zone is one to three kilometers across and is comprised of numerous elongate lenses of various, nearly vertical lithologies.

The fault provides conduits for pluton emplacement and mineralizing hydrothermal systems.

6.3 MINERALIZATION

6.3.1 Tagish Top (MINFILE 104M 094)

The Tagish Top showing was discovered in 2006 by the author while investigating a radar satellite image indicating very high iron oxide near the northwester most corner of the Tagish Top claim, Llewellyn property. The showing area is underlain by phyllitic metasediments (quartzite) of the Devonian to Middle Triassic Boundary Range Metamorphic Suite close to the contact with granitic rocks of the Paleocene to Eocene Sloko-Hyder Plutonic Suite. A felsic dyke was also observed cutting across the ridge. The ridge turned out to be very gossanous and a brief helicopter landing allowed for the collection of three granitic rock samples. A sample of a rusty granitic rock yielded 8.5 grams per tonne silver, 0.09 per cent lead, 5000 ppm arsenic, and 211 ppm molybdenum (Burjoski, 2007). While lumped into the polymetallic vein deposit category, more work on the showing may yet determine if there is potential for a porphyry style molybdenum deposit or a skarn deposit.

6.3.2 Glean (MINFILE 104M 078)

The Golden Bee group of claims were staked by Golden Bee Minerals in 1989. Golden Bee Minerals conducted a program of sampling, mapping, prospecting and geochemical surveys in 1989 and 1990. Maps from the Golden Bee programs report indicate that part of the Glean showing is on the Llewellyn property tenures. The following is taken in whole from MINFILE.

The area, bounded by faults, is underlain by sediments of the Lower Jurassic Laberge Group. These comprise greywacke, argillite, shale and conglomerate intruded by granite near Bee Peak. The Llewellyn fault is 2 kilometres to the west and separates these rocks from the Coast Plutonic Complex. To the east, the Nahlin fault separates the rocks from the Cache Creek Group. The area of the showing contains splays from these major faults. The bedding generally trends north to northwest.

At the Glean showing, mineralization is hosted in rhyolite, basalt, andesite and tuff of the Paleocene Tagish Volcanic Suite. Mineralization occurs in several silicified shears, 1 to 8 metres wide, displaying parallel, stacked and en echelon zoning. Mineralization, as sparse disseminations and concentrations of up to 40 per cent, consists of pyrite, arsenopyrite, chalcopyrite, galena and pyrrhotite. Sulphides, 1 per cent or less, also occur within large altered units of andesite and rhyolite. A copper zone has been identified by malachite staining on the east face of the rhyolite talus. Alteration consisting of silicification +/-chlorite and sericite is associated with mineralized zones. Samples were taken from the altered contact zone between andesite and banded brecciated rhyolite flows of uncertain age. The zone, 1 metre wide and exposed for 75 metres in length, trends north-south and dips 50 degrees east. The highest sample (89-5R03) assayed 3.2 grams per tonne gold, 58.9 grams per tonne silver, 0.095 per cent copper, 0.986 per cent lead, 0.203 per cent

zinc, 8 per cent arsenic and 0.06 per cent antimony (Thompson, 1990b). Samples in 1990 confirmed these values and further delineated the zone (Lunn and Thompson, 1990b)

6.3.3 Bee Lake Occurrence

In 1981, claims on the east side of Tagish Lake were under option to Nomad Resources Ltd and Tagish Resources Ltd (Ashton, 1982). Limited prospecting was done at the time and several samples were collected in an area west of Bee Lake. The 1981 claims covered some of the same ground that is presently held as part of the Llewellyn Property. About 500 metres west of Bee Lake, is a low erratic greywacke outcrop where two greywacke samples (5 and 6) were taken, about 400 metres apart. Sample 2 was taken about 500 metres west of Sample 5 from greywacke outcrop in an area where outcrop was reported as scarce. Two other samples, about 350 metres north of Sample 2 and 500 meters south proved not to be anomalous.

Sample 2) greywacke outcrop 0 0.026 oz/ton gold (0.9 g/t gold)

Sample 5) greywacke loose, minor pyrite, 0.082 oz/ton gold (2.81 g/t gold)

Sample 6) greywacke, silicified, pyritized, loose, 0.152 oz/ton gold (5.21 g/t gold)

Assays certificates showing the assay results for Samples 5 and 6 are included in Ashton (1982). A.S. Ashton who authored the assessment report (10511) documenting the 1981 sampling program is identified as a P.Eng.

6.3.4 Northwest Showing

In 1988, 1989 and 1990 Cyprus Gold (Canada) Ltd conducted assessment programs on their Teepee property which covered parts of the northwestern-most section of the present Llewellyn Property. Significant mineralized in situ outcrop and float were found in the 'Grissly' Creek area.

6.3.5 Engineer Mine

The following was taken from BC Gold's web site with BC Gold being the current operators of the Engineer Mine:

Gold was discovered on the Engineer Mine property in 1899. A total of 561,659 grams gold (18,058 ounces) and 278,373 grams silver (8,950 ounces) was produced from 14,263 tonnes of ore at Engineer Mine during the period 1913 and 1952. This equates to total realized gold and silver production grades of 39.38 g/t gold (1.15 oz/ton) and 19.52 g/t Ag (0.57 oz/ton), respectively.

Quartz veining and gold mineralization occurs in two modes at Engineer Mine and is directly related to two main shear zones. Both shear zones form distinct regional-scale lineaments trending sub-parallel at 145 degrees and 160 degrees. High grade gold and silver mineralization occurs in several narrow, less than 2 metre wide tensional and vertical, northeast-southwest striking quartz-calcite veins hosted in well bedded

sediments of the Lower Jurassic Laberge Group. Veins pinch and swell along strike and display good vertical continuity.

Lower grade gold mineralization is known to occur within the two broad shear zones and subordinate structures, as well as in two densely veined / stockworked quartz "hubs" that appear to represent intersection points with secondary north-south structures. The latter offers excellent potential for lower grade, bulk-tonnage gold mineralization.

Gold and silver mineralization at Engineer has been characterized as transitional epimesothermal (B.C. Ministry of Energy and Mines Bulletin 105). Gold grades are very sporadic ranging from trace to 50 grams per tonne gold. Native gold is the principle metallic mineral and occurs in pockets associated with roscoelite, a dark green to black micaceous alumino-silicate. Minor pyrite, tetrahedrite, chalcopyrite, antimony, berthierite, allemontite and tellurides are also reported. Ore grade vein material displays vuggy and drusy quartz crystals and abundant cockscomb and colloform textures in successive layers of quartz and calcite coating country rock fragments and vein material. helped

7 GRID EMPLACEMENT

The grid was emplaced as the MMI soil sampling survey was being carried out. This was done by using the UTM coordinates, zone 8, NAD 83, as the grid base and by employing a GPS unit, with the aid of a compass and hip chain. The lines were put in every 100 meters in an east-west direction and the stations were put in every 25 meters along the lines. These were marked by blaze orange flagging with the line and station number marked thereon. The line numbers, being the UTM northings used only the final six digits and thus were missing the first number being six. Thus, for example, line 599600N is actually UTM northing 6299600. The stations were marked used the full UTM six digit easting.

8 MMI SOIL SAMPLING

8.1 SAMPLING PROCEDURE

Copper Grid -- The first line was a reconnaissance one that carried out in July, 2007 and was located to run due northeast across the northwest-trending Llewellyn fault. It consisted of 107 samples picked up along a 2,675 meter length running in a northeast-southwest direction with samples picked up every 25 meters. The lab results revealed a copper-molybdenum-zinc anomaly at its southwest end as well as strong gold anomaly midway within the northeastern half. Thus this work was followed up with seven additional lines carried out in the fall of 2007 with the lines running in an east-west direction.

Bee Lake Grid -- In 2011, the Bee Lake Grid was emplaced taking 819 samples over thirteen lines for a total length of 21,550 meters.

The location of the two grids is shown on the claim map, fig 3.

The sampling procedure was to first remove the organic material from the sample site $(A_0 \text{ layer})$ and then dig a pit over 25 cm deep with a shovel. Sample material was then scraped from the sides of the pit over the measured depth interval of 10 centimeters to 25 centimeters. About 250 grams of sample material were collected and then placed into a plastic Zip-loc sandwich bag with the sample location marked thereon. The 800 samples were then packaged and sent to SGS Minerals located at 1885 Leslie Street, Toronto, Ontario. (This is only one of three labs in the world that do MMI analysis, the other being in Perth, Australia where the MMI method was developed.)

8.2 ANALYTICAL METHODS

At SGS Minerals, the testing procedure begins with weighing 50 grams of the sample into a plastic vial fitted with a screw cap. Next is added 50 ml of the MMI-M solution to the sample, which is then placed in trays and put into a shaker for 20 minutes. (The MMI-M solution is a neutral mixture of reagents that are used to detach loosely bound ions of any of the 53 elements from the soil substrate and formulated to keep the ions in solution.) These are allowed to sit overnight and subsequently centrifuged for 10 minutes. The solution is then diluted 20 times for a total dilution factor of 200 times and then transferred into plastic test tubes, which are then analyzed on ICP-MS instruments.

Results from the instruments for the 53 elements are processed automatically, loaded into the LIMS (laboratory information management system which is computer software used by laboratories) where the quality control parameters are checked before final reporting.

9 INTERPRETATION

The MMI results show anomalies that correlate with the previous work carried out in 2007.

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11 GEOPHYSICIST'S CERTIFICATE

I, DAVID G. MARK, of the City of Surrey, in the Province of British Columbia, do hereby certify that:

I am registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

I am a Consulting Geophysicist of Geotronics Consulting Inc, with offices at 6204 - 125th Street, Surrey, British Columbia.

I further certify that:

- 1. I am a graduate of the University of British Columbia (1968) and hold a B.Sc. degree in Geophysics.
- 2. I have been practicing my profession for the past 47 years, and have been active in the mining industry for the past 50 years.
- 3. This report is comprised of field work carried out in the Copper Grid area of the Tagish Property carried out by Mr. Kyler Hardy of Smithers, BC from
- 4. I do not hold any interest in this property nor in any property owned by Nash Meghji, nor do I expect to receive any interest as a result of writing this report.

David G. Mark, P.Geo. Geophysicist

March 18, 2015

12 AFFIDAVIT OF EXPENSES

MMI soil sample surveying as well as some prospecting was carried out over the Copper Grid which is part of the Tagish Property, which occurs on TagishLake, located 82 km northwest of the village of Telegraph Creek, B.C, from June 27th to July 18th, 2014 and from January 12th to 26th, 2015, to the value of the following:

Mob/demob:		
wages	4,000.00	
room and board	880.00	=
truck rental and gas	1,550.00	
TOTAL	6,430.00	6,430.00
Field:		
MMI, 2-man crew, 7 days @ \$1,500/day	10,500.00	
Helicopter	5,650.00	
TOTAL	16,150.00	16,150.00
<u>Laboratory:</u>		
Shipping	165.00	
Testing of 49 samples @ \$42/sample	2,058.00	
Rock sample analysis	160.00	
TOTAL	2,383.00	2,383.00
Office:		
Data reduction	2,100.00	
Senior geophysicist	1,575.00	
TOTAL	3,675.00	3,675.00
GRAND TOTAL		28,638.00

Respectfully submitted, Geotronics Consulting Ltd.

David G. Mark, P.Geo, Geophysicist

March 18, 2015

12 ADDENDIN I MANI COLL CEOCHEMICTON DATA
13 APPENDIX I – MMI SOIL GEOCHEMISTRY DATA

ANALYTE Wt	-	Al	As	Au And not n	Ва	Bi	Ca	Cd	10.41 . 0
METHOD G_' DETECTION	0.01	0.5	1	//////////////////////////////////////	0.1	10	0.5	2	1
UNITS kg	ppb	ppm	ppb	ppb	ppb		ppm	ppb	1
17076	0.371	36.9	15 <10	ррь	0.6	930 <0.5	ррпп	476	7
17077	0.326	70.1	21 <10		0.5	1080 < 0.5		400	5
17078	0.347	45.5	14 <10		0.5	1080 < 0.5		540	18
17079	0.304	22	39	10	0.8	1630 < 0.5		474	18
17080	0.164	24.3	14 <10		0.2	430 < 0.5		666	39
17081	0.301	29.2	98	20 < 0.1		400 < 0.5		330	44
17082	0.237	13.2	55 <10		0.1	760 < 0.5		503	51
17083	0.155	6.6	4 <10		0.1	450 < 0.5		592	52
17084	0.424	23.6	128	120	0.2	1500	1.8	244	4
17085	0.343	45.7	19	20	1.9	2130 < 0.5		601	3
17086	0.387	16.2	94	50	0.3	3450	1.1	357	4
17087	0.392	33.3	98	20	0.4	1450 < 0.5		395	30
17088	0.365	13.1	181	30	0.2	1450	1	266	10
17089	0.355	11.9	18 <10		0.2	1320 < 0.5		518	15
17090	0.387	25	11 <10		0.6	1090 < 0.5		517	11
17091	0.308	29.2	34 <10	40	0.5	1350 < 0.5	•	514	16
17092	0.418	15.7	194	40	0.1	3120	2	151	7
17093	0.333	73.8	225	100	0.4	2780	2.5	220	7
17094 17095	0.348 0.31	32.6 34.8	150 212	80 90	0.4 0.2	3980 5730	2.2 2.6	291 280	10 30
17096	0.31	25.5	178	180	0.2	1110	5.2	189	6
17097	0.334	47.4	150	40	0.7	1260	2.1	343	14
17098	0.239	19.4	91	10	0.4	790	0.6	431	24
17099	0.303	13.2	234	80	0.2	1520	3.1	195	12
17101	0.503	52.4	10	10	0.5	660 < 0.5		582	31
17102	0.605	22.4	119	120	0.5	2500	20.7	358	10
17103	0.576	68.7	122	110	0.6	1490	2.1	340	18
17104	0.539	79.5	173	70	0.5	1850	2.3	257	13
17105	0.529	50.3	194	50	0.4	1930	1.6	231	15
17106	0.506	65.7	125	30	0.3	2740	1.1	315	13
17107	0.538	42.9	172	200	0.5	2670	4.9	210	22
17108	0.482	66.3	133	70	0.4	2480	1.4	274	7
17109	0.464	55.8	116 <10		0.9	2490	0.6	428	14
17110	0.396	32.6	49 <10		0.7	1610 < 0.5		529	30
17111	0.511	78.3	148	60	8.0	2890	2.4	290	7
17112	0.263	4.1	25 <10	<0.1	0.0	1400 < 0.5		667	28
17113	0.483	44	31	10	0.8	1920 < 0.5	4.2	564	12
17114 17115	0.447	43.5	122 82	70 20	0.3	1980	1.2	394 472	15 16
17115 17116	0.428 0.595	98.8 34.7	82 196	20 90	0.3 0.2	2510 <0.5 2500	3.3	473 132	16 5
17116	0.595	34.7	102	20	0.2	2980	3.3 1.2	198	5 9
17117	0.544	13.7	231	100	0.4	1090	2.3	144	6
17119	0.344	41.1	108	70	0.8	1890	1.1	204	3
1,113	3 , 3		100	. 5	0.0	1000			9

17120	0.398	12.7	128 <10		0.1	2220	0.5	376	22
17121	0.534	44.4	14	10	2.6	1270 < 0.5		363	15
17122	0.5	37.8	93	30	0.2	3040	0.7	294	8
17123	0.388	45.2	26 <10		0.3	1720 < 0.5		519	9
17124	0.395	35.4	19 <10		1	1190 < 0.5		527	11
17125	0.428	28.1	104	40	0.6	2660	0.7	287	6

Ce	Со	Cr	Cs	Cu	•		Eu	Fe	Ga	
GE_N		_MMI_FGE ₋ 1	_MMI_1 GE 100	_MMI_1 GE 0.2	:_MMI_1 GE _. 10		MMI_1 GE_N 0.2	лмі_і GE_і 0.2	MMI_FGE_I 1	_
ppb	2 ppl					0.5 ppb		0.2 ppm	ppb	0.5
ppb	8 8	25 <10		5 թբ 1.1	3360	σ ρρυ 4.1	1.9	1.3	9 9	0.6
	16	41 <10		1.7	620	2.8	1.3	0.9	10	0.9
	5	19 <10		0.7	1990	3	1.9	0.9	8 < 0.5	
	64	105 <10		1.1	540	25.1	15.6	7.6	13	1
<2		17 <10	00	6.9	790	3.4	2.2	1	5 < 0.5	;
	88	79 <10	00	19.9	340	16.6	9.3	4.7	52	3.1
	28	56 <10	00	32.3	200	6.6	3.9	1.7	23	1.5
<2		11 <10		1.1	990	0.8	0.5 < 0.2		4 < 0.5	
	63	55 <10		8	390	5.6	3.4	1.9	95	11
	19	22 <10		1.1	7290	7.4	4.2	2.5	19	0.8
	106	52 <10		13.7	920	16.6	7.6	7.9	58	4.6
	133	63 <10		13.6	1140	19.5	11.7	6.2	32	3
	99	223 <10		8.5	460	24.3	13.7	6.9	131	7.8
	9 4	20 <10 25 <10		0.7	740 2420	1 1.6	0.6 0.8	0.4 0.6	16 12 <0.5	0.5
	4 11	25 < 10 15 < 10		0.7	1210	3.2	1.7	1.1	15 <0.5	0.9
	86	99 <10		3.1	240	8	4.1	2.3	158	16.5
	112	96	100	7.2	590	9.5	5.3	3	141	13.6
	66	55 <10		4.5	480	7.3	4.1	2.5	111	10.1
	81	167	200	4	530	7.1	4.1	2.2	155	13.9
	89	93	100	6.8	630	9.5	4.9	2.9	183	16.4
	92	114 <10	0	3.5	640	8.5	4.3	2.5	98	8.4
	36	117 <10	0	1.7	230	4.3	2.4	1.1	91	5.3
	93	121	200	5.6	260	8.3	4.5	2.5	168	16
	11	96 <10	0	8.6	9070	1.6	1.1	0.5	16	1.5
	77	238	100	4.6	760	6.3	3.3	2.3	108	8.3
	59	88	100	5.2	820	6.3	3.5	1.7	118	7.7
	60	89 <10		4	550	6.2	3.3	1.9	103	8.4
	116	99 <10		4.2	870	14.5	8.1	4.1	114	4.8
	48	60 <10		1.7	290	5	2.6		70	6.5
	105	271		5.2	560	8.9	5	2.8	185	13
	74 07	116 <10		3.8	750	6.9	3.6 17.7	2.1	69 06	5.2
	97 28	86 <10 31 <10		0.5 0.7	3850 3660	27.6 9	5.6	6.9 2.8	96 53	1.6 0.9
	283		100		4400	39.2	25.1	9.5	33 88	5
	7		00 <0.		280	1.8	1.2	0.5	12	1.1
	, 27	37 <10		1.9	1740	4.4	2.4	1.6	23	2.3
	65	72 <10		0.8	340	5.9	3.3	1.8	79	5.9
	102	109 <10		0.6	1860	30.1	17.8	8.5	27	1.4
	210	215		5.1	310	12.1	6	3.4	148	19.3
	117	56 <10		2	170	5.6	3.1	1.8	102	11.5
	172	102		6.1	420	17.1	8.8	4.8	113	10
	113	38 <10	00	4	810	10.6	5.2	3.3	58	5.2

34	154 <100	0.6	420	6.4	3.9	1.5	39	1.7
10	37 <100	0.5	2590	3.9	2.2	1.2	9	0.6
131	78 <100	1.7	470	17.5	9.8	5.1	36	3
14	28 <100	<0.2	940	3.4	2	1.2	11	0.6
6	18 <100	<0.2	3130	3.2	1.8	1.1	12	0.6
95	73 <100	8.1	1290	19.5	11.3	6.5	41	2.4

Gd GE M	11/41	Hg	In IGE M	K ML 1GE	La	Li AMI NGE MN	Mg		n Mo _MMI_1GE_W	Nb	1 11/11
GL_IV	'_'''' 0.5		_i	0.1	0.5	1	1	0.5	100	2	0.5
ppb	0.5	ppb	ppb	рр		ppb	ppm			– ppb	0.0
1-1	4.7	<1	<0.1	1-1-	10.8	6 <1		75.9	900	4 < 0.5	
		<1	<0.1		13.2	8 <1		73.1	900	3 < 0.5	
	3.8	<1	<0.1		11.1	4 <1		113	1200	5 < 0.5	
	34.2	<1	< 0.1		61.9	47 <1		102	5800 <2	<0.5	
	4.3	<1	<0.1		7.6	2	7	109	3200	5 < 0.5	
	20.5	<1	<0.1		40.1	28 <1		25.8	3700	5 < 0.5	
	7.5	<1	<0.1		28.5	10	3	76.6	4300	5 < 0.5	
	0.7	<1	<0.1		12.1 <1		2	109	2500	8 < 0.5	
	7.5	<1		0.1	17.4	25	3	25.6	1200	17	1.9
	10.5	<1	<0.1		7.2	15	5	66.9	1000	5 < 0.5	
	27.9		<0.1		11.3	41 <1		15.4	2000	7 < 0.5	
	27.2		<0.1		13.9	51 <1		27.9	2300	3 < 0.5	
		<1		0.2	40.4	31	5	37.3	6300	8	1.2
		<1	<0.1		5.2	3	3	74.4	800	4 < 0.5	
		<1	<0.1		4.8	2	5	99.5	900	4 < 0.5	
	4.5		<0.1		8.6	9	3	86.2	1100	3 < 0.5	
	8.3			0.2	13.2	41	3	28.6	1900	22	4.5
		<1		0.2	20.9	54	3	23.7	1800	29	3.2
	9.2		<0.1	0.2	31.5	32	2	37.9	2500	21	2.2
	8.3			0.2	71	38	4	33.2	8100	21	3.4
	11.5		10.1	0.2	17.6	43	1	22.2	2500	31	2.9
	10.3		<0.1		21.5	44 <1	2	33.8	2000	13	1.2
	4.7	<1	<0.1	0.2	14.8 54.9	13 43	2 3	27.3	6200 2900	4 < 0.5	2.2
		<1	<0.1	0.2	54.9 4.8	43 3	9	24.3 107	2800	14 7 <0.5	3.3
		<1	<0.1	0.1	4.6 36.5	34 <1	9	58.3	2900	7 < 0.5 18	1.2
	7.8		<0.1	0.1	40.3	31 <1		27.8	3100	23	1.1
	6.9		\0.1	0.1	25.8	28	1	31.5		24	1.2
	16.2			0.1	15.5	54 <1	1	19.6	3100	15	0.8
	6.1		<0.1	0.2	118	24 <1		54.3	3500		1
	10.7		10.1	0.2	38.7	53 <1		21	6000	29	2.2
	7.8		<0.1	0.2	90.2	33 <1		50.1	1500	24	0.7
	30.7		<0.1		9.4	50	3	51.5	3500	2 < 0.5	
	10.4		<0.1		4.6	19 <1		103	1600	5 < 0.5	
	45.4		<0.1		23	125	2	26.9	4600	10	1.3
		<1	<0.1		17.5	3 <1		147	3300	20 < 0.5	
	6.4	<1	<0.1		9.2	15	4	94.8	1100	17 < 0.5	
		<1		0.1	95	24	1	55.7	3600	24	0.9
	39.5	<1	<0.1		52.6	80 <1		77.1	5300	17 < 0.5	
	15.9	<1		0.2	60.4	109	2	17.7	5200	17	4
	7.5	<1	<0.1		46.2	61	2	28.2	2000	11	2.7
	20	<1		0.1	28.3	68	1	7.8	5200	17	1.5
	14.6	<1	<0.1		77.7	47 <1		16.9	700	15	0.7

6.3 <1	< 0.1	53.7	13 <1	75.3	3800	2 < 0.5
5.9 <1	<0.1	13.9	6 <1	98	2000	7 < 0.5
21.3 <1	< 0.1	52.8	44 <1	49	4000	6 < 0.5
5 <1	< 0.1	20.9	6 <1	168	2400	4 < 0.5
4.4 <1	< 0.1	6.5	6 <1	133	1500	4 < 0.5
22.5 <1	<0.1	47.7	37 <1	26.2	1700	5 < 0.5

Nd CE M	Ni Nal nge n	P	Pb	Pd MMI_1 GE_MN	Pr	Pt	Rb	Sb	Sc	4 N 4 I I I
GE_IVI	1	///VII_I GE_IV 5	0.1	5	vii_r Ge_i\ 1	0.5	0.1	1	0.5	5
ppb	ppb	ppm	ppb		ppb	ppb	ppb	ppb	ppb	3
• •	12	195	0.6	11 <1	• • •	1.9 < 0.1	• •	53	0.8	12
	12	132	0.2	43 <1		2.4 < 0.1		79	0.5 <5	
	8	182	0.3	12 <1		1.5 < 0.1		48 < 0.5		7
	76	208	0.6	175 <1		16 < 0.1		94	0.7	18
	5	524	0.4	11 <1		0.8 < 0.1		19 < 0.5		5
	56	248	1.2	95 <1		11.6 < 0.1		285	1.5	13
	18	131	0.5	108 <1		3.6 < 0.1		245 < 0.5		10
	1	479	0.4	10 <1	<0.5	<0.1		3	1.4 <5	
	30	107	1.3	321 <1		6.8 < 0.1		175	5.4	18
	28	122	0.6	18 <1		5.8 < 0.1		13	0.7	14
	84	94	0.9	114 <1		17.1 < 0.1		145	1.7	14
	87	129	0.7	75 <1		17.9 < 0.1		108	0.8	22
	61	195	2.2	303 <1		12.4 < 0.1		182	2.7	50
	5	378	0.1	11 <1		1.1 < 0.1		9	0.5 <5	
	5	428	0.3	7 <1		0.9 < 0.1		51 < 0.5	<5 .5	
	15	268	0.3	10 <1		3.2 < 0.1		106 < 0.5	<5	24
	39 40	86	4.5	412 <1		9.7 < 0.1		229	1.3	24
	49 21	210	2.7	417 <1		12.1 < 0.1		322	9.1	27 22
	31 33	194 255	2.2 3.8	335 <1 679 <1		8.1 < 0.1 8.1 < 0.1		320 352	6.8 9	23 32
	44	132	4.4	450 <1		11.2 < 0.1		289	8.5	33
	44	148	1.8	313 <1		10.8 < 0.1		200	3.2	19
	18	126	1.1	164 <1		4 < 0.1		68	1.3	20
	43	143	5.5	1370 <1		10.5 < 0.1		268	5.7	30
	6	945	0.6	13 <1		1.1 < 0.1		38	2.5	7
	31	423	1.3	547 <1		8.2 < 0.1		185	6.2	19
	29	297	1.4	651 <1		7.1 < 0.1		516	9.5	18
	29	185	1.8	1460 <1		7.2 < 0.1		236	6.7	18
	58	228	1.9	799 <1		13.7 < 0.1		219	6.1	28
	26	218	1.3	507 <1		6.2 < 0.1		387	3.5	11
	48	284	3.8	1100 <1		12.6 < 0.1		411	18	28
	37	175	1.3	913 <1		8.6 < 0.1		403	7.9	22
	81	997	0.4	379 <1		17.3 < 0.1		29	1.7	76
	30	780	0.3	134 <1		6.6 < 0.1		9	1.6	21
	156	790	1.2	359 <1		38.3 < 0.1		92	7.2	92
	5	157	1.1	49 <1		0.9 < 0.1		6	1.4 <5	
	24	251	0.5	41 <1		5.1 < 0.1		97	3.2	11
	31	130	1	298 <1		7.4 < 0.1		208	7.8	18
	121	340	0.4	162 <1		26.3 < 0.1		95	1.6	37
	77	159	5.4	419 <1		20.9 < 0.1		490	6.2	27
	42	104	4.7	194 <1		11.5 < 0.1		428	1.3	12
	80	208	3.6	588 <1		20 < 0.1		334	8.6	46
	58	111	0.7	219 <1		12.8 < 0.1		356	4.1	24

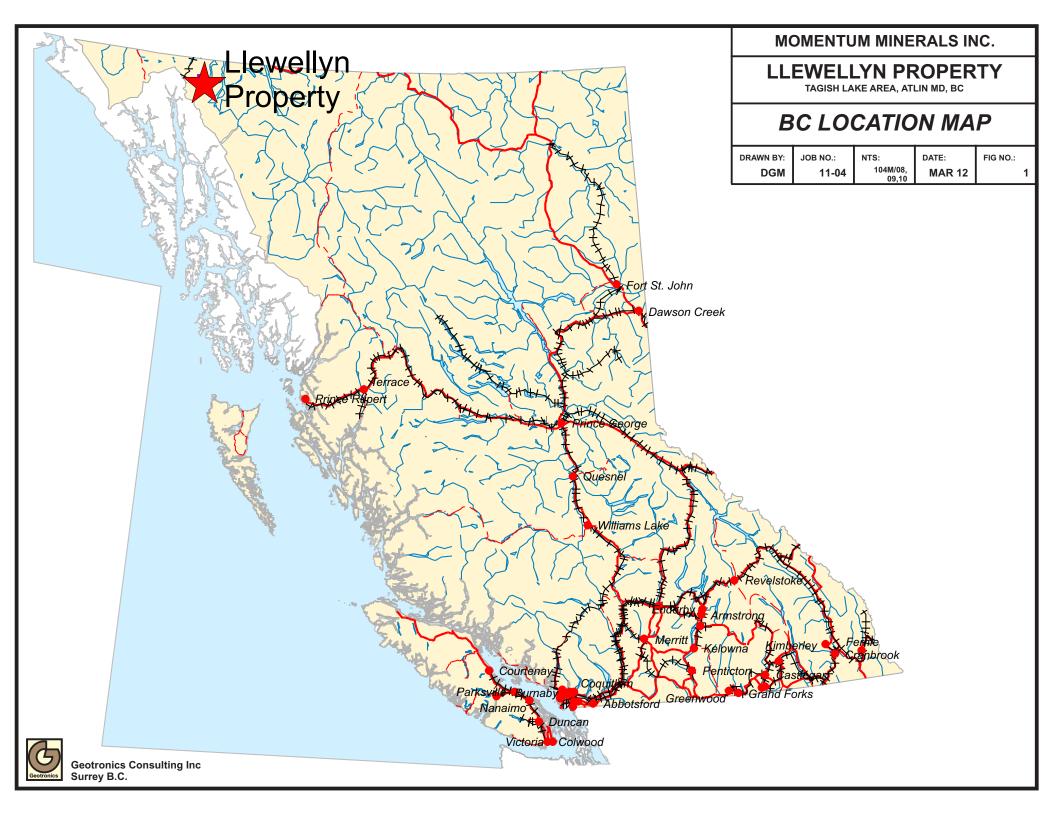
18	273	0.3	273 <1	3.7 < 0.1	394 <0.	5	15
12	138	0.4	17 <1	2.3 < 0.1	64	0.9	9
65	139	0.5	291 <1	14.4 < 0.1	238	3.1	24
11	182	0.3	61 <1	2.3 < 0.1	72 <0.	5 <5	
11	269	0.5	24 <1	1.9 < 0.1	16	0.6	7
65	137	0.5	358 <1	13.6 < 0.1	236	3.7	47

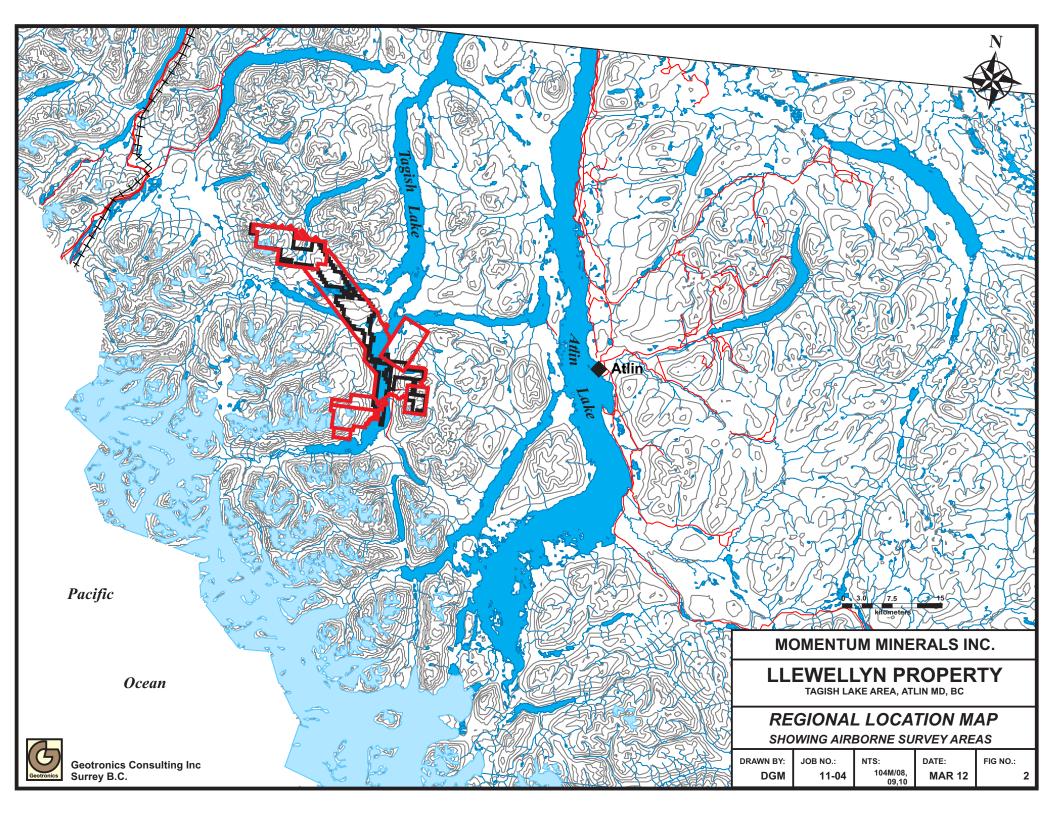
Sm	Sn		Ta Tb	Te	Th	Ti	TI	U	
GE_M			GE_MMI_1GE_N						_
ppb	1 ppb	1 10 ppb	ppb ppb	0.1 ppb	10 ppb	0.5 ppb	10 ppb	0.1 ppb	0.5
ppu	4 <1	2780		0.7 <10	ppo	3.4	20	0.1	13.9
	3 <1	2780		0.5 <10		4.5	20	0.1	13.9
	3 <1	3950		0.6 <10		2.2 <10	20	0.1	10.6
	25 <1	3050		4.9 <10		7.9	30	0.3	12.1
	2 <1	5020		0.6 <10		0.6	10	0.1	9.6
	17 <1	1170		3 <10		7.3	150	0.1	7.6
	6 <1	3370		1.1 <10		5.7	60	0.2	17.6
<1	<1	4160	<1	0.1 <10	<0.5	<10		0.2	11
	7 <1	900	<1	1 <10		19.6	810	0.3	6.5
	8 <1	3120	<1	1.3 <10		7.5	20	0.1	15.5
	26 <1	1750	<1	3.5 <10		17.5	230	0.1	23.9
	23 <1	1580	<1	3.7 <10		23.7	170	0.3	38.4
	21 <1	910	<1	4.3 <10		20.4	670	0.1	8.7
	1 <1	2750	<1	0.2 <10		2	10 < 0.1		5.8
	1 <1	2670	<1	0.3 <10		1.5 <10	< 0.1		7.2
	4 <1	2590	<1	0.6 <10		3.7	10 < 0.1		6.5
	9 <1	580	<1	1.4 <10		36.4	1800	0.3	12.5
	11 <1	820	<1	1.7 <10		32.5	1690	0.3	11
	8 <1	1360	<1	1.3 <10		24.5	1080	0.4	11.6
	7 <1	1360		1.2 <10		31	1390	0.3	10.3
	11 <1	560		1.6 <10		38.7	1740	0.3	17.7
	10 <1	1010		1.6 <10		27	740	0.2	16.7
	4 <1	1320		0.7 <10		11.4	220	0.1	11.8
	10 <1	380		1.5 <10		29.8	1850	0.3	9.2
	2 <1	3970		0.3 <10		2.2	100	0.4	7.3
	7 <1	1560		1.1	10	14.7	730	0.4	7.2
	7 <1	1010		1.1 <10		20.7	630	0.2	7.5
	7 <1	920		1.1 <10		20.1	650	0.2	7.5
	14 <1	740		2.5 <10		27.7	340	0.3	17.3
	6 <1	1530		1 < 10		12.8	440	0.2	7.6
	11 <1 8 <1	960 1210		1.6 <10		31.9	1060	0.3	10.8
	24 <1	2460		1.2 <10 4.6 <10		27 18.5	340 60	0.2 0.1	10.6 68.1
	9 <1	2930		4.6 <10 1.5 <10		7	40	0.1	45.7
	38 <1	1130		6.6 <10		86.2	550	0.5	110
	2 <1	2970		0.3 <10		1.9	20	0.2	175
	6 <1	2090		0.8 <10		10	180	0.2	114
	7 <1	1340		1.1 <10		25.2	360	0.3	40.3
	32 <1	1620		5.5 <10		24.9	50	0.2	237
	16 <1	470		2.2 <10		49	1810	0.4	10.8
	8 <1	1030		1.1 <10		27.8	1020	0.4	7.1
	19 <1	390		2.9 <10		58	810	0.4	19.7
	14 <1	540		2 < 10		25.9	360	0.3	16.2
	±±	5-10	•	2 10			550	0.5	

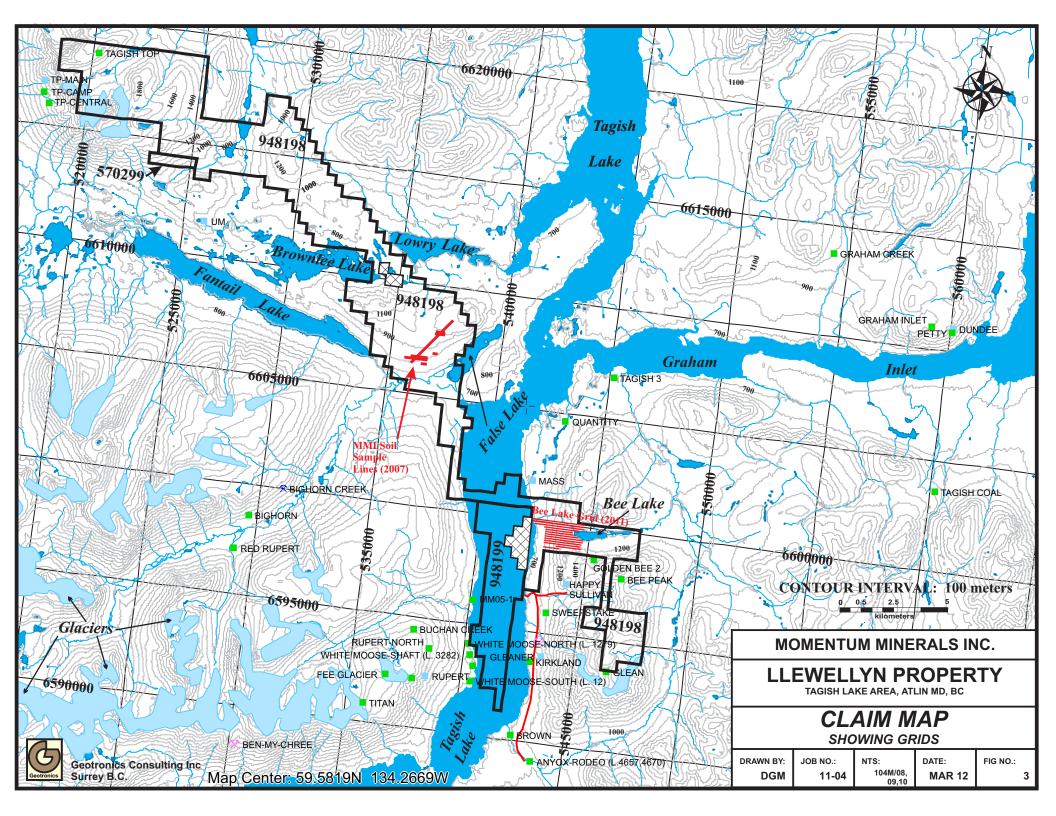
4 <1	1390 <1	1 <10	10	50	0.2	7.1
5 <1	1980 <1	0.8 < 10	3.3	20	0.2	10.9
18 <1	1320 <1	3 <10	22.3	170	0.2	26
3 <1	3330 <1	0.6 <10	4.7	10 <0.	1	18.9
3 <1	3210 <1	0.6 <10	3.9	10 <0.	1	15.8
19 <1	1520 <1	3.6 < 10	30.6	140	0.4	19.9

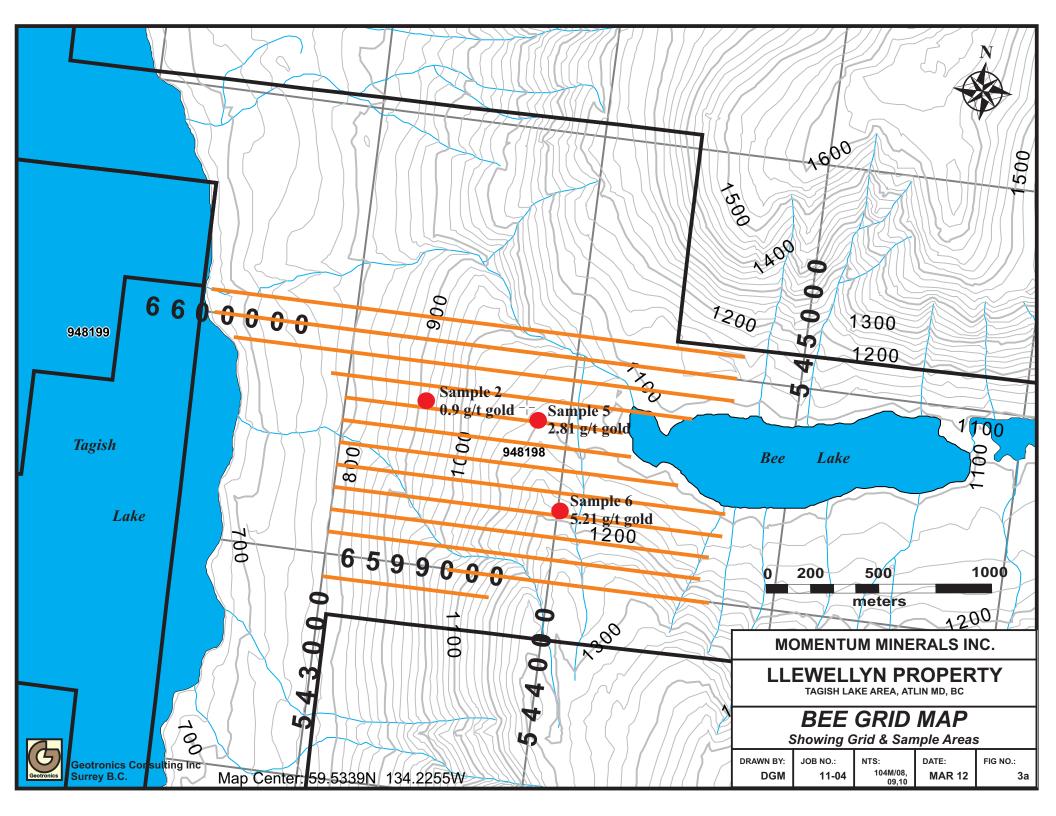
W	Υ	Yb	Zn	Zr	
GE_M	IMI_I GE_N	/MI_I GE_I	MMI_1 GE_N	/MI_1GE_M	IMI_M
	0.5	1	0.2	10	2
ppb	ppb	ppb	ppb	ppb	
	0.7	27	1.6	20 <2	
<0.5	0.6	17	1	20 <2	
	0.6	23	1.3	40 <2	
<0.5	0.6	170 35	11.5 1.7	130 <2 50 <2	
\0. 5	0.6	33 87	6.8	860	8
<0.5	0.0	41	3	120	3
<0.5		8	0.4	330 <2	J
	2.9	32	2.6	120	10
<0.5		56	3.6	10 <2	
	1.1	71	5.5	40	11
	0.5	111	7.8	90	6
	1.3	120	9.6	150	16
	0.6	7	0.6	20 <2	
<0.5		12	0.7 <10	<2	
<0.5		21	1.4	10 <2	
	1.8	35	3.2	160	13
	4.6	48	3.8	110	18
	3.1	36	3	140	15
	4.3	39	2.8	400	21
	4.1	41	3.6	160	18
	1.7	40	3.1	270	11
<0.5	2.2	23	2.1	110	8
	3.3	41	3.5	470	20
	0.7 2.6	14 25	0.9	20	3 9
	2.6	35 33	2.7 2.8	160 140	8
	2.9	32	2.7	220	10
	2.2	79	6.3	330	9
	1.7	24	2	90	8
	6.3	47	3.9	270	26
	3.2	31	2.6	100	15
	0.7	194	14.8	50	8
	0.9	66	4.9	110 <2	
	2.8	255	20.9	80	18
	0.6	14	1.1	100 <2	
	1	24	1.7	30	2
	1.8	30	2.7	190	9
<0.5		183	13.5	70	4
	4.3	60	4.7	180	26
	1.6	30	2.3	150	9
	3.2	80	7.2	100	18
	1.8	52	4.2	90	8

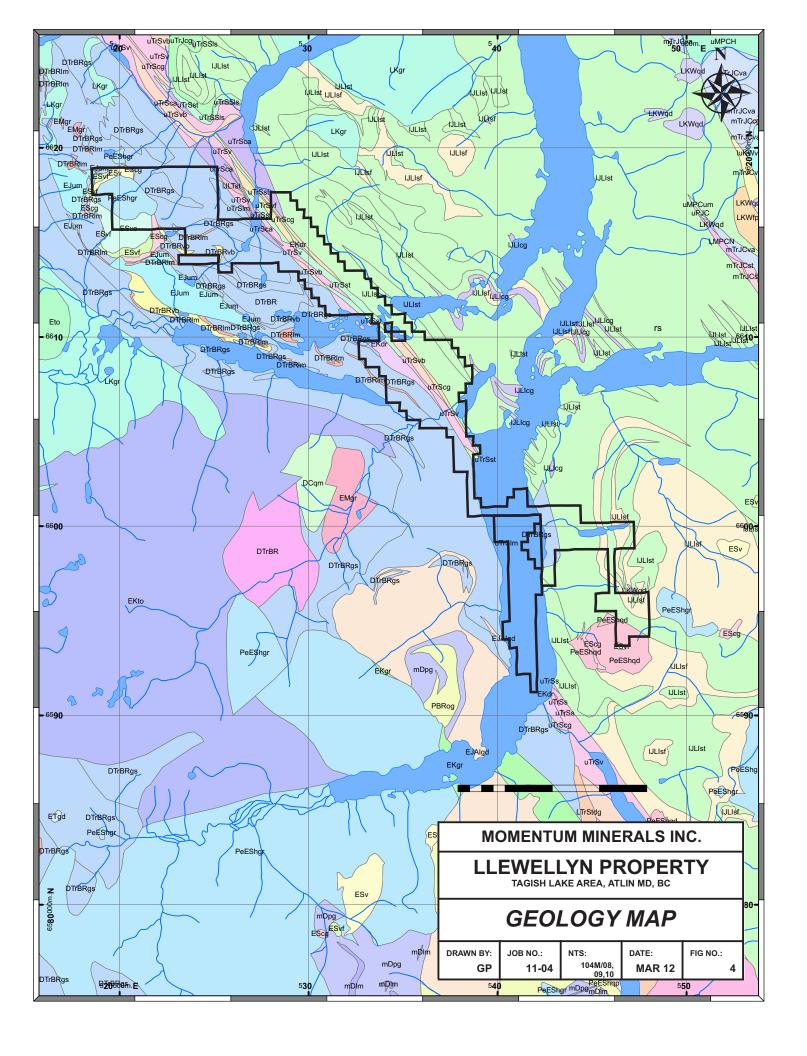
<0.5		39	3.1	410	4
	0.8	28	1.7	20	3
	1	98	7.4	130	8
<0.5		24	1.8	20 <2	
	0.8	25	1.7	10 <2	
	1.3	98	8.7	70	9











Legend



