NTS 093L/10E BCGS 093L 057
LAT. 54 34' 42" N
LONG. 126 44' 33 W

GEOCHEMICAL REPORT ON MTO mineral tenures- 553762, 553764 and 557529 (including 553767 & 557530 contiguous tenures), GROUSE MOUNTAIN

McQUARRIE LAKE, HOUSTON, B.C.

OMINECA MINING DIVISION

FOR

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BY

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1.0 SUMMARY

A program of rock chip sampling, and soil geochemical surveys were carried out on Grouse Mtn 1-5 claims (size 1,482.018 hectares), June 2-5, 2010 on MTO mineral tenures 553762, 553764, 557529 in the Omineca Mining Division. The Grouse Mtn 1-5 claims are located on Grouse Mtn 20 km north-northwest of Houston, B.C. In 2010, Torch R Res surveyed a total of 0.7 km grid lines (34 soil samples, and 9 rock chip samples), covering a 1 X 2 km area that coincides with BC Ministry of Energy & Mines Quest West 2008 airborne, terrain corrected positive gravity anomaly (survey by Saunders Geophysics Ltd). The 2010 program followed up anomalous soil values obtained in 2009.

The claims are underlain by a complex of extrusive, intrusive, and sedimentary rocks. The intrusive rocks include Late Cretaceous Bulkley Intrusive Suite and Eocene Goosly monzodiorite to gabbro. Intrusive rocks (mainly 5-70 m wide dykes of feldspar porphyry and silicified granodiorite) are spatially related to silver (copper, zinc, gold) bearing mineralization located on the following occurrences: Grouse Mtn (Minfile 93L 251), Paola (Minfile 93L 296), and Christina (Minfile 93L 295

Based on fieldwork carried out by Torch R Res on Grouse Mtn mineral tenures 553762, 553764, 557529, there are several areas of potential mineralization that require detailed follow-up sampling and hand trenching. This includes:

1) Christina showings
2) Paola showings
3) Grouse Mountain showings

Rock chip/soil samples surveys were carried out by Andris Kikauka,P.Geo, Geological, geochemical and geophysical data compiled by the author has led to recommendations for work on the Grouse Mtn claims. A two phase program of geological mapping, geophysical and geochemical survey grids and follow-up core drilling is recommended. Proposed fieldwork within the Grouse Mtn claims, would be focused on exploring known and new mineral occurrences, as well as detailed ground investigation of geophysical and geochemical anomalies.

Phase 1 recommendations include geological mapping, geochemical rock chip sampling, EM/magnetometer geophysics with a proposed budget of $75,000. The proposed fieldwork would involve approximately 7 kilometers of geophysical and geochemical grid lines across geochemioal targets outlined. Contingent on results from phase 1, a second phase that includes 1,250 m of core drilling, geochemical sampling, and geological mapping is recommended. The estimated budget for phase 2 is $400,000. The proposed budget total for phase 1 and 2 is C$475,000.

2.0 INTRODUCTION

In June, 2010, Dr William E. Pfaffenberger requested the writer to review all relevant information on the Grouse Mtn group of claims owned by Torch River Res Ltd. If appropriate, outline a program of surface exploration and diamond drilling to enhance exploration of Ag-Au-Cu-Pb-Zn bearing mineralization situated on the subject property. This report is based in part on previous work, carried out by various mining companies, the British Columbia Geological Survey, as well as the author's site visit that included geological mapping, and geochemical sampling. This report is partly based on published and unpublished fieldwork reports carried out by various private sector mining company personnel and public sector government personnel

3.0 RELIANCE ON OTHER EXPERTS

This report is based in part on documents and technical reports prepared by various authors. The portions of this report that give information gathered from various authors are referenced. The documents and technical reports from other authors were used to compile the Grouse Mtn property history.

4.0 PROPERTY DESCRIPTION AND LOCATION

The Grouse Mtn group consists of 5 contiguous mineral tenures that are located 20 km NNW of Houston, BC (Fig. 2). The Grouse Mtn group of mineral tenures is within the Omineca Mining Division and the registered owner of the mineral tenures is FMC number 143363, William E. Pfaffenberger (president, Torch River Res Ltd). The Grouse Mtn claim group is comprised of the following mineral tenures (source: www.mtonline.gov.bc.ca):

CLAIM NAME*	HECTARES	TENURE NO.	EXPIRY DATE
Grouse Mtn 1	468.706	553762	August 14, 2011*
Grouse Mtn 2	187.428	553764	August 14, 2011*
Grouse Mtn 3	131.243	553767	August 14, 2011*
Grouse Mtn 4	318.562	557529	August 14, 2011*
Grouse Mtn 5	356.079	557530	August 14, 2011*

*Expiry date based on assessment work on mto tenure 553762, 553764, and 553767, (work done June, 2010, and filed with Ministry of Energy and Mines).

The author is not aware of any planned or existing land use that would adversely affect development of mineral resources on the Grouse Mtn property. The mineral tenure area has not been subject to a legal survey.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE & PHYSIOGRAPHY

The property is located 2 km west of McQuarrie Lake about 20 kilometres north-northwest of Houston, B.C (Fig. 1). Elevations on the claims range from 3,870-4,985 feet (1,180-1,520 m). The Grouse Mtn claim ID # 553762 can be accessed via a 7.2 km 4WD forest access road (which crosses private land) from highway 16. Limited access to the NW portion of the claim group is possible using a new logging road ending about 750 m NW of Christina showings. .Alternate access to other portions of Grouse Mtn claims are by helicopter.

There are moderate slopes (and rare steep slopes) throughout the Grouse Mtn claims and the road access follows a ridge where slopes are <20 percent grade, sections of the ridge have short (<50 m) sections exceeding 20 percent grade.

The town of Houston is approximately 45 minutes driving time to the Grouse Mtn claim (located 2 km west of McQuarrie Lake). The community of Houston has over 500 permanent residents that include a small percentage of people actively involved in mining and exploration. A variety of services are available in Houston, that include health, emergency, aircraft, mechanical, equipment, lumber, transportation, and retail stores. Additional services are available in Smithers, B.C. Westland Helicopters and Highland Helicopters operate charter flights from their base in Houston, BC.

6.0 PROPERTY HISTORY

The Grouse Mtn claim group has been intermittently explored for mineral resources over the past 50 years. Recorded exploration in the Grouse Mountain area began in 1914 with discovery of copper-zinc-silver mineralization near Coppermine Lake, where work on the Ruby Zone included 1,100 meters of crosscutting and 18,000 meters of oore drilling (1980's). Historic resource estimates on the Ruby prospect include 360,000 tonnes @ 0.38% Cu, 4.23% Zn, 0.88 opt Ag. The Ruby Zone mineral resource is located about 1 kilometre south of mineral tenure ID # 553762.

A chronological summary of previous work on the Grouse Mtn claim group (carried out on mineral tenure ID # 553762) is summarized as follows:
The first recorded work on the Grouse Mtn vein system (also referred to as Gwenda, Cornucopia, Chance, Julia Veins) was in 1938 and 1940 when 2.72 tonnes of ore produced 12,548 grams silver and 85.3 kgs copper (Source: MINFILE). In 1952, the owners of the claim performed hand trenching, stripping and excavation of a 15 metre long adit. Grades up to 312 opt Ag, 0.33 opt Au and 4.0% Cu were recorded. From 1964 to 1970, additional trenching and road development was carried out. In 1984, Adriatic Resources carried out 26 diamond drill holes, (total depth of 1,170 metres or 3,838 feet), geological mapping, geochemical soil surveys, and geophysical VLF-EM surveys

(Cavey,1990). Significant assay results from 1984 core drilling on the Julia, Gwenda, and Christina Vein systems are summarized as follows (Cavey, 1990):

Hole no.	From (m)	To (m)	Interval (m)	% Cu	Ag opt	Au opt	% Pb	% Zn	Zone name
84-2	16.69	16.76	0.07	0.24	7.03	0.006			Julia
84-2	21.91	21.98	0.07	0.13	6.64	0.009			Julia
84-2	28.94	29.45	0.51	2.30	55.72	0.135			Julia
84-4	23.38	23.59	0.21	1.04	48.46	0.045	0.02	0.81	Julia
84-4	42.61	42.88	0.27	0.62	44.94	0.059	6.87	8.57	Julia
84-5	15.91	16.21	0.30	0.41	23.03	0.014	0.47	0.60	Julia
84-26	5.24	6.00	0.76	0.32	13.83	0.023	0.08	0.67	Julia
84-26	6.80	7.47	0.67	0.34	12.24	0.011	0.01	.6.08	Julia
84-26	10.00	10.58	0.58	0.55	30.10	0.031	3.26	3.65	Julia

The results indicate relatively higher grades of silver bearing mineralization are associated with relatively higher Cu-Pb-Zn values. Relatively higher gold values have a positive correlation with increased copper percentage. Due to a lack of 3-D data and understanding of the distribution of mineralization, it is not known whether these intervals represent true width. Work done by Adriatic Resources in 1984 indicates the presence of variable and relatively narrow drill intercept intervals (0.07-0.76 m) of elevated silver values and lesser gold associated with copper-zinc bearing minerals over a vertical distance of less than 30 metres and strike length of less than 200 metres on the Julia (aka Last Chance) quartz-sulphide fissure vein occurrence.

In 2005, Valley Resources Ltd carried out trenching and excavated a total of 8 trenches, 140 metres in length (Hanson, 2005). Trenches were mapped and grab samples were collected from mineralized intervals. Fourteen rock chip samples were collected and submitted to Acme Analytical, Vancouver, BC for base and precious metal geochemical analysis.

In 2007, Torch R Res Ltd carried out rock chip, soil sampling and magnetometer geophysics on numerous quartz-sulphide vein occurrences located in the area west of McQuarrie Lake (and the area south of Torch R Res Ltd 2009 grid which is the subject of this report). Torch River Res 2007 grid consists of 8 east-west lines that were surveyed with Garmin 60Cx GPS and flagged at 25 m intervals. A total of 77 soil samples were taken at 25 meter spacing along 1.725 kilometers of grid lines. The soil samples were taken from a depth of 20-35 centimeters using a grubhoe and placed into marked kraft envelopes. The grid lines were also walked with a GEM –GSM 19 proton magnetometer. A total of 156 mobile readings were taken at 12.5 meter spacing along 2 kilometers of east-west oriented grid lines (L 4750 N to L 5100 N). The survey was carried out during 0900 to 1300 hours on June 27, 2007 which was checked for magnetic activity by checking NRC magnetic readout for their base stations throughout Canada for the day of the Grouse Mtn magnetic survey. The total field magnetic data from the Grouse Mountain was manually corrected by looping (returning to a common

point on the baseline and doing a repeat reading and adjusting the readings manually to compensate for minor diurnal variation. A total of 4 rock chip samples were taken from widths ranging from 0.2 to 0.3 m. Approximately 2 kilograms of rock chips were collected from previously trenched exposures of the Julia quartz-sulphide vein system. The rock chips were placed in marked poly ore bags and all samples were shipped to Pioneer Labs, Richmond, BC for 30 element ICP geochemioal analysis, Au geochemical analysis, and whole rock geochemical analysis.

At the Julia Vein, mineratized zones are developed along brittle-ductile fault zones with quartz-carbonate veins related to conjugate ahear fractures that generally occur within a shear zone and/or fault structure. Results from 2007 soil sampling program show a relatively strong silver anomaly (>5 ppm Ag) immediately adjacent to the Julia Vein near the adit and two trenches located 50-100 m SSW of and 60-100 m N of the Julia adit. Soil in these areas of >5 ppm Ag contain above average Cu-Au-Zn values. Relatively moderate-strength and more wide-spread silver in soil anomalies (1-5 ppm Ag) are located in the NE portion of the grid area. Total field magnetometer positive anomalies did not correlate with silver in soil anomalies. The strongest magnetometer positive anomalies were located in the southwest portion of the grid area which is close to a large, prominent NW trending Eocene Goosly dyke that appears as a regional scale total field moderate strength magnetic high (GSC Map 7760G, Airborne Magnetic Survey, 1966). The silver in soil anomalies correlated with a weak and poorly defined total field magnetic low located in the centre and east portions of the grid area. The 2007 grid consists of 8 east-west lines with a total of 77 soil samples taken at 25 meter spacing along 1.725 kilometers of grid lines. The soil samples were taken from a depth of 20-35 centimeters using a grubhae and placed into marked kraft envelopes. The grid lines were also surveyed with a GEM –GSM 19 proton magnetometer, with mobile readings taken at 12.5 meter spacing along 2 kilometers of east-west oriented grid lines (L 4750 N to L 5100 N). A total of 3 rock chip samples were taken from widths ranging from 0.2 to 0.3 m. Approximately 2 kilograms of rock chips were collected from previously trenched exposures of the Julia quartz-sulphide vein system. The rock chips were placed in marked poly ore bags and all samples were shipped to Pioneer Labs, Richmond, BC for 30 element ICP geochemical analysis, Au geochemical analysis, and whole rock geochemical analysis. A total of 156 magnetometer readings were taken at 12.5 m interval along E-W oriented grid tie-lines covering a total distance of 1.8 kilometres. The magnetometer survey was carried out to attempt to detect the presence of intrusive rock high in magnetite content (mag high) and to locate altered and silicified rock (mag low). Results from the mag survey shows a variation of 422 nT (ranging from 56390 to 56812), which occurs at the west end of L4850 N (stn 4887 E to 4912 E), suggesting there may be intrusive rocks with high magnetite content in this area. There is a very weak 20-30 nT response over the Julia Vein area suggesting that alteration has destroyed magnetic minerals adjacent to the Julia Vein. Two other moderate strength (100-200 nT) positive magnetic anomalies occur (L 4800 N stn 4937 E, and L 5000 N,

stn 4912 E), which may also be explained by the presence of magnetic minerals and related intrusive rocks. Areas of known mineralization in the area of the Julia Vein form a poorly defined, weak strength (20-30 nT) magnetic low.

In 2009, Torch R Res surveyed a total of 7.5 km grid lines (166 soil samples, 600 magnetometer readings, and 4 rock chip samples), covering a 1 X 2 km area that coincides with BC Ministry of Energy & Mines Quest West 2008 airborne, terrain corrected positive gravity anomaly (survey by Saunders Geophysics Ltd). The Quest West (2008 govt sponsored survey) terrain corrected airborne gravity anomaly occurs in an area of area of complex cross-faulting and irregular topography located immediately north of the Christina silver (copper-zinc-gold) mineral occurrence. Highlights from 2009 soil geochemical analysis of grid samples covering gravity anomaly is summarized in the following table:

Grid Northing	Grid Easting	*Cu ppm	*Zn ppm	*Ag ppm	*Au ppb	Comments
5600	5100	24	161	5.6	1	Near Christina trenches
6200	4750	23	400	2.1	11	Near intrusive contact
6600	5450	118	359	1.2	3	Near circular lake
6800	4650	26	52	0.5	415	Near creek gully
7200	4400	219	183	7.3	70	Near logging rd & feldspar porphyry dyke
7200	5800	77	218	2.5	18	Creek gully
7600	4250	14	81	0.2	260	Near rock sample GM09AR3, creek gully

Geochemical analysis of 2009 rock chip samples covering the gravity anomaly is highlighted in the following table:

Sample #	Northing	Easting	*Cu ppm	*Zn ppm	*Ag ppm	*Au ppb	Comments
GM09AR3	7560	4290	185	82	10.6	110	Qtz-calcite-ankerite-limonite

(*Pioneer Laboratories Inc, geochemical analysis certificate number 2092269)

The 2009 geophysical survey carried out by Torch R Res consisted of 7,5 km of total field magnetic survey using GEM GSM-19 portable proton magnetometer. All readings were taken at 12.5 m spacing along E-W trending grid lines spaced 200 m apart. Total field magnetic highs (H=>57,000 nT) and lows (L=<56,000 nT) are summarized in the following table:

Northing	Easting	Reading in nT	Comments
5800	5250	57,478.73	H-Intrusive dyke (?) northeast of Christina showing
5800	5287.5	55,635.92	L-Broad (5 reading) low adjacent to high to the west
5800	5300	55,824.97	L- "
5800	5312.5	55,680.35	L- "
5800	5325	55,828.41	L- "
5800	5337.5	55,992.56	L- "
6000	5050	57,313.71	H- 3 reading high adjacent to 3 reading low to east
6000	5062.5	57,509.75	H- "
6000	5075	57,107.09	H- "
6000	5112.5	55,109.69	L- 3 reading low adjacent to 3 reading high to west
6000	5125	55,580.39	L- "
6000	5137.5	55,949.62	L- "
6400	4700	55,881.89	L- Near old camp
6400	4712.5	55,842.00	L- "
6600	4612.5	55,954.09	L- "
6600	5525	57,101.15	H- East of circular lake
6600	5537.5	57,134.10	H- 3 reading high adjacent to 2 reading low to east
6600	5550	57,272.77	H- "
6600	5575	55,593.60	L- 2 reading low adjacent to 3 reading high to west
6600	5587.5	55,685.18	L- "
6800	5487.5	57,045.89	H- Northeast of circular lake
6800	5500	57,027.41	H- "

7.0 GEOLOGICAL SETTING

The property is underlain mainly by andesitic (calc-alkaline) tuffs/flows, volcanic breccia, minor siltstone, greywacke, and volcaniclastic rocks of Lower Jurassic Hazelton Group Telkwa Formation. In the Grouse Mountain area, the Hazelton Group has been intruded by Upper Cretaceous and/or Eocene stocks and north-northwest trending dykes that include feldspar porphyry, feldspar-biotite porphyry, and fine-grained mafic lithologies (Fig. 4 & 5). The feldspar porphyries which occur west of Grouse Mountain have similar mineralogy to the Eocene intrusions found at the Equity Silver Mine (located approximately 50 kilometres southeast of Grouse Mountain). The main lithologies that have been mapped within 1 kilometre radius from the Julia Vein are summarized as follows:

Eocene Goosly Intrusive Complex, monzodioritic to gabbroic dykes/sills

Late Cretaceous Bulkley Intrusive Complex
calc-alkaline intermediate composition dykes/sills

Lower Jurassic Hazelton Group Telkwa Formation:
andesitic (calc-alkaline) tuffs/flows, volcanic breccia, minor siltstone, greywacke, and volcaniclastic rocks

Epigenatic quartz-carbonate-polymetallic sulphide minerals (pyrite-chalcopyrite-sphalerite-galena-tetrahedrite) occur as vein/shear zones trending N to NE and dipping moderately west.

8.0 DEPOSIT TYPES

Exploration on the Grouse Mtn group of claims is directed towards precious and base metal bearing zones. The main deposit type on the subject property consists of epigenetic, hydrothermal quartz-sulphide fissure vein/replacement. The gravity anomaly, is an unknown type of target, but theoretically it may represent a concentration of sulphide and/or iron bearing minerals that would be much denser than the surrounding bedrock.

9.0 MINERALIZATION

Within the Grouse Mtn group of claims, there are quartz-carbonate-sulphide vein and/or replacement deposit types:

Deposit Type	Au:Ag Ratio	Ore Minerals	Gangue Minerals	Textures	Alteration	Structure	Age
Au-Ag Base Metal Veins, Poly-metallic	>1:126 <1:1163	Pyrite, Chalco-pyrite, Sphalerite Tetra-hedrite, Galena,	K-feldspar, chlorite, calcite, epidote, kaolinite, sericite	Quartz-calcite inter-growths, comb structure, Colloform, vuggy, cockade	Pyrite, chlorite, silica, sericite, carbon-ate	Vein stockwork, breccia veins, dyke margin dissemin-ated	Early Creta-ceous, Eocene

10.0 2010 EXPLORATION

Rock chip/soil sampling, mapping, and surveying were carried out in June, 2010 by Andris Kikauka,P.Geo.

A 2,000 meter long by 1,000 meter wide area was surveyed by east-west oriented grid lines in 8 follow-up soil anomaly zones labeled S-1 to S-8 (Fig. 3 & 5). The 2010 soil grids focused on areas adjacent to intrusive contacts that returned anomalous Cu-Zn-Ag-Au values in the 2009 soil survey (Fig 5). The 2010 grid consists of 8 areas (S-1 to S-8) and each small grid has 4-6 samples at 20 meter spacing along east-west lines with a total of 34 soil samples. The soil samples were taken from a depth of 20-35 centimeters using a grubhoe and placed into marked kraft envelopes and Cu, Pb, Zn, Ag, Au,As geochemical analysis results are listed in Fig. 6-13. A total of 9 rock chip samples were taken (Fig 3 & 5).

Approximately 2 kilograms of rock chips were collected from previously trenched exposures of the Christina and Paola quartz-sulphide vein systems and from other various outcroppings (Fig 3 & 5). The rock chips were placed in marked poly ore bags and all samples were shipped to Pioneer Labs, Richmond, BC for 30 element ICP geochemical analysis, Au geochemical analysis. A total of 9 rock chip samples were collected from various areas near the old trenches and

soil grid anomalies (Fig 3 & 5). A rock chip sample from the Christina showings (GM10AR-53) contains elevated Au-As, and two rock chip samples from the Paola showings contain elevated Cu-Ag (GM10AR-55) and elevated Pb-Zn (GM10AR-56):

Sample number	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	As ppm
GM10AR-53	31	30	116	3.9	640	613
GM10AR-55*	3287	18	414	32.7	28	177
GM10AR-56	177	1476	2846	4.7	12	17

* true width 28 cm (all other samples are sub-crop, i.e. float in overburden)

Rock chip sample GM10AR-53 (Christina showing) is sub-crop and consists of 0.1-5 cm wide sheeted quartz veins cutting qtz-carb-ankerite-limonite altered volcanic-sedimentary rocks. The showing is poorly exposed because of overburden, but there is a considerable amount of sheeted quartz present as float in overburden.

The Paola showing is hosted in dark grey to green coloured tuff, and tuffaceous greywacke. There is weak alteration of the host rock rock consisting of sericite-chlorite-clay (kaolinite)-epidote. The Paola showing consists of a N-S trending shear zone that dips 40-50 degrees west, and north to northwest trending, steeply dipping feldspar porphyry dykes (5-30 m wide), with a late (cross-cutting) quartz-carbonate vein system that roughly traces the shear zone. Rock sample GM10AR-55 and 56 are from the shear zone and are quartz-carbonate vein/replacement type mineralization (polymetallic epigenetic vein).

Additional fieldwork in 2010 consisted of taking a total of 54 soil samples from 8 zones labeled S-1 to S-8. The small-scale grids (see Fig. 6-13) were established on previous Cu-Zn-Ag-Au-As soil anomalies from the soil sampling program carried out by Torch R Resourcs Ltd. in 2009 taken at 50 m grid spacing. Each sample taken in 2010, consisted of 400-500 gme of 'B' horizon soil material from a depth of 20-40 cm, and was collected using a hoe and placed in marked kraft envelopes and dried. The soil samples were shipped to Pioneer Labs Inc, Richmond, BC for 30 element ICP and Au geochemical analysis (Appendix A).

Results from geochemical analysis of 54 soils taken in 2010 indicate there a few weak strength anomalies in Zn-Ag-Au-As present as follows:

S-1: No significant anomalies.

S-2: Moderate strength Ag anomaly (2 soil @ 1.3 ppm Ag), moderate strength As anomaly (1 soil @ 168 ppm).

S-3 Moderate strength Ag anomaly (2 soil @ 1.2 ppm Ag), moderate strength zinc anomaly (1 soil @ 299 ppm Zn).

S-4: No significant anomalies.

S-5: Moderate strength Ag anomaly (1 soil @ 1.0 ppm Ag).

S-6: Moderate strength Zn anomaly (1 soil @ 206 ppm Zn).

S-8: Moderate strength Ag anomaly (1 soil @ 1.9 ppm Ag).

Based on the above list of moderate strength soil anomalies from 2010 follow-up exploration to 2009 soil grid, further work is not warranted on the soil grid areas that cover the Quest West 2008 gravity anomaly. The S-6 area is adjacent to the Paola trench and this area requires follow-up exploration to explore the north, south and east extensions of significant Cu-Pb-Zn-Ag values obtained from rock chip samples GM10AR-55, and 56 (Fig 5).

11.0 DRILLING

In 1984, Adriatic Resources carried out 26 diamond drill holes, (total depth of 1,170 metres or 3,838 feet), geological mapping, geochemical soil surveys, and geophysical VLF-EM surveys (Cavey, 1990). Significant assay results from 1984 core drilling on the Julia, Gwenda, and Christina Vein systems are summarized as follows (Cavey, 1990):

Hole no.	From (m)	To (m)	Interval (m)	% Cu	Ag opt	Au opt	% Pb	% Zn	Zone name
84-2	16.69	16.76	0.07	0.24	7.03	0.006			Julia
84-2	21.91	21.98	0.07	0.13	6.64	0.009			Julia
84-2	28.94	29.45	0.51	2.30	55.72	0.135			Julia
84-4	23.38	23.59	0.21	1.04	48.46	0.045	0.02	0.81	Julia
84-4	42.61	42.88	0.27	0.62	44.94	0.059	6.87	8.57	Julia
84-5	15.91	16.21	0.30	0.41	23.03	0.014	0.47	0.60	Julia
84-26	5.24	6 00	0.76	0.32	13.83	0.023	0.08	0.67	Julia
84-26	6.80	7.47	0.67	0.34	12.24	0.011	0.01	0.08	Julia
84-26	10.00	10.58	0.58	0.55	30.10	0.031	3.26	3.65	Julia

The results indicate relatively higher grades of silver bearing mineralization are associated with polymetallic base metal values. Gold values obtained from 1984 drill core samples show a correlation with increased copper percentage.

12.0 SAMPLING METHOD AND APPROACH

A total of 34 soil samples were taken during June, 2010 fieldwork from a depth of 20-35 centimeters using a grubhoe and placed into marked kraft envelopes and significant Cu-Pb-Zn-Ag-Au-As results are listed in Fig. 6-12.

A total of 9 rock chip samples were taken Approximately 2 kilograms of rock chips were collected with hammer and chisel from previously trenched exposures of the Christina quartz-sulphide vein system and from outcrop. The rock chips were placed in marked poly ore bags and all samples were shipped to Pioneer Labs, Richmond, BC for 30 element ICP geochemical analysis, Au geochemical analysis (Appendix A).

13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Sampling and assay data from 2010 was carried out using relevant and reliable methods. The samples were prepared using standard analytical procedures by Pioneer Labs, Richmond, B.C. This includes crushing the rock chip samples, and passing through -10 mesh, and splitting 250 grams and pulverizing and passing -150 mesh. Multi-element ICP analysis was done on all samples which involves taking 0.5 grams sample and digesting with 3 ml of aqua regia, diluted with 10 ml water. Gold analysis was done separately on all samples taking 10 grams and digesting with aqua regia, MIBK extracted, and finished by AA or graphite furnace AA.

14.0 DATA VERIFICATION

Pioneer Labs performs internal quality control by performing routine check analysis on random samples to verify data. The results of geochemical surveys performed are intended to be an exploration guide and do not constitute mineral resource or reserve studies involving geo-statistical evaluation.

15.0 ADJACENT PROPERTIES

The well mineralized Babine Eocene age and Bulkley Cretaceous age belt of intrusive rocks extend for 50 km north and south of Houston, BC. Exploration and development of mineral deposits in the Houston area include Lakeview, Fireweed, CR and Poplar occurrences that contain various base and precious metal bearing minerals.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The Grouse Mountain group of claims has had limited past production (in 1938 and 1940 when 2.72 tonnes of ore produced 12,548 grams silver and 85.3 kgs copper Source: MINFILE). This work on the Julia Vein is poorly documented, and there has been no metallurgical testing of mineralization.

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

The Grouse Mountain group of claims does not have any established mineral resource or mineral reserve estimate.

18.0 OTHER RELEVANT DATA AND INFORMATION

The Grouse Mtn group of claims has an abandon cabin (circa 1938-40) situated about 150 m north of the Julia Vein adit.

19.0 INTERPRETATIONS AND CONCLUSIONS

The focus of exploration of Grouse Mtn 1-5 claims has been to identify drill targets that are similar to the Equity Silver deposit located 25 km SE of Grouse Mtn. Equity Silver is a past producer with production and reserves of 32,154,000 tonnes, producing 2,293,230 kgs Ag, and 16,938 kgs Au (source-**MINFILE**). The Equity Silver deposit is a volcanic-hosted Ag-Cu-Au (As-Sb) ore body associated with Eocene intrusive activity, and associated high temperature aluminous alteration assemblages that include andalusite, pyrophyllite, scorzalite, corundum, diaspore, and dumortierite superimposed by sericite-illite-kaolinite-chlorite-carbonate assemblages. Tourmaline is present at Equity Silver in clay-altered brecciated zones that flank the ore zones. Similar alteration is not present on the Grouse Mtn 1-5 claims. The presence of Equity Silver type mineralization on the Grouse Mtn 1-5 claims is possible, but not likely near surface.

A compilation of geological, geochemical and geophysical data indicates there are several areas of interest for follow-up mineral exploration fieldwork on the subject property. The area west of McQuarrie Lake has numerous quartz-sulphide vein occurrences. At the Julia Vein, the better mineralized zones are developed along brittle-ductiie fault zones that generate quartz-carbonate veins related to fractures (conjugate shear fractures) that generally occur within a shear zone and/or fault structure. Results from 2010 soil sampling suggest there are no exploration follow-up targets in the area that was sampled, i.e. no significant results.

A total of 9 rock chip sample were taken, and significant Cu-Ag content was encountered at the Paola showing trench. Rock chip sample GM10AR-55 returned 3,287 ppm Cu and 32.7 ppm Ag, and adjacent sample GM10AR-56 returned 1,476 ppm Pb and 2,846 ppm Zn.

Based on previous fieldwork carried out by Torch R Res on their Grouse Mtn mineral tenures 553762, 553764, 557529, and including historic fieldwork since 1914, there are several areas of potential mineralization that require detailed follow-up sampling, mapping, EM geophysics and hand trenching. The best targets for future exploration include the extensions of Grouse Mountain, Paola, and Christina workings (approximately 3-10 hectare areas of follow-up geochemical and geophysical fieldwork for each mineral zone). Also, the east portion of the mineral tenure requires reconnaissance scale mapping and sampling because there is no information regarding mineral occurrences.

20.0 RECOMMENDATIONS

Intrusion-related Ag-Au-Cu-Zn bearing quartz-sulphide fissure veins occur in the area of the Grouse Mtn 1-5 claims. Geological and geochemical fieldwork focused on outlining the presence of base and precious metal bearing quartz-sulphide veins on the Greuse Mtn claim group.

In order to advance exploration on the Grouse Mtn property, a 2 phase fieldwork program focused on exploring known mineral occurrences, geophysical and geochemical anomalies. As well as follow up work on known mineral occurrences, a program of mapping and sampling is recommended. The economic viability of the mineralization situated on the Grouse Mtn claims should be evaluated. Based on the potential for discovery of base and precious metal bearing mineralization, a 2 phase program of core drilling, geological mapping, DEEP-EM (Pulse-EM or UTEM) and magnetometer geophysics, and geochemical sampling is recommended.

PHASE 1

Detailed geological mapping, geochemical soil/rock chip sampling and magnetometer geophysics covering about 6 km of grid lines in the area of the Grouse Mountain, Paola, and Christina mineral occurrences are racommended. The approximate budget for this work would be C$75,000.

PHASE 2
Contingent on the results of phase 1, diamond drilling is recommended. The total diamond drilling in phase 2 would amount to 2,000 meters (6,096 feet). Additional geological mapping and sampling is also recommended. The proposed budget for phase 2 is approximately C$400,000.

PROPOSED BUDGET
PHASE 1

Item	Description	Amount (Cdn$)
Personnel: Geologist Field Assistant	 25 days X $300/day 25 days X $250/day	 7,500 6,250
Camp costs Satellite phone Equipment (generators, saws, etc.)	25 days X $100/day 1 month X $1,000/month	2,500 1,000 500
Expenses Food Fuel Travel	175 man-days X $20/man/day	 3,500 1,750 2,000
Transportation Survey costs	Helicopter charters 7 km grid lines	14,500 25,000
Analytical soil and rock samples	500 samples X $25/sample	6,200
Communication Telephone and Fax		 800
Report and drafting		2,500
Filing Fees		1,000
Total		**75,000**

TOTAL PHASE 1 = **$ 75,000**

Contingent on the results of phase 1, a second phase of fieldwork including 2,000 meters of core drilling is recommended and outlined as follow:

PROPOSED BUDGET- PHASE 2

Item	Description	Amount (Cdn$)
Personnel: Geologist Field Assistant Cook	 50 days X $300/day 50 days X $250/day 50 days X $175/day	 15,000 12,500 8,750
Camp costs Satellite phone Equipment (generators, saws)	50 days X $100/day 2 months X $1,000/month	5,000 2,000 1,550
Drilling	2,000 meters (6,562 ft)	270,000
Expenses Food Fuel Travel	350 man-days X $20/man/day	 7,000 4,200 4,000
Transportation		49,000
Analytical Core and rock samples	500 samples X $25/sample	12,500
Communication Telephone and Fax		1,600
Report and drafting		4,000
Filing Fees		2,900
Total		$ 400,000

TOTAL PHASE 1 & 2 = $ 475,000

21.0 REFERENCES

Cavey, George, 1990, Report on the AIC International Res Corp Chance Property

EMPR AR 1925-pg 141, 1926-pg 135, 1928-pg 169, 1929-pg 169, 1937-C11
EMPR GEM 1970-pg 158, 1972-pg 397-417
EMPR Assessment report 10,182, 12,374, 12,364, 13,364, 13,720, 14,256, 20,665, 21,880
EMPR Fieldwork 1988, pg 195-208

GSC Map 7760G, 1968, Airborne Magnetic Survey, Smithers 93L, 1"=4 miles

Hanson, Daryl J., 2005, Geological Report Grouse Mtn (Julia) Property, Omenica Mining Division, for Valley Resources Ltd.

22.0 DATE AND SIGNATURE PAGE

I, Andris Kikauka, of 4901 East Sooke Rd., Sooke B.C. V9Z 1B6 am a self employed professional geoscientist. I hereby certify that;

1. I am a graduate of Brock University, St. Catharines, Ont., with an Honours Bachelor of Science Degree in Geological Sciences, 1980.

2. I am a Fellow in good standing with the Geological Association of Canada.

3. I am registered in the Province of British Columbia as a Professional Geoscientist.

4. I have practiced my profession for twenty years in precious and base metal exploration in the Cordilllera of Western Canada, U.S.A., South America, and for three years in uranium exploration in the Canadian Shield.

5. I am responsible for the technical report on behalf of Torch River Resources Ltd.

6. The information, opinions, and recommendations in all sections of this technical report are based on fieldwork carried out on the subject properties as well as historic data from various referenced sources.

7. I am not aware of any material fact or material change with respect to the subject matter in this technical report that is not reflected in this report or omissions that render the report to be misleading.

8. I am employed as an independent consultant on behalf of Torch River Resources Ltd.. Recommendations in this report are not intended for public financing purposes.

9. This report is intended to satisfy the requirements of the Mineral Act with respect to assessment report protocol.

Andris Kikauka, P. Geo.,

A Kikauka

Dated August 26, 2010 at Sooke, B.C.

ITEMIZED COST STATEMENT-

GROUSE MTN/ PROJECT- GEOCHEMICAL SURVEY AND FIELDWORK DONE JUNE 2-5, 2010, LOCATED ON MINERAL TENURE 553762, 553764, 557529. MAPSHEET- TRIM 093L 057, OMENICA MINING DIVISION

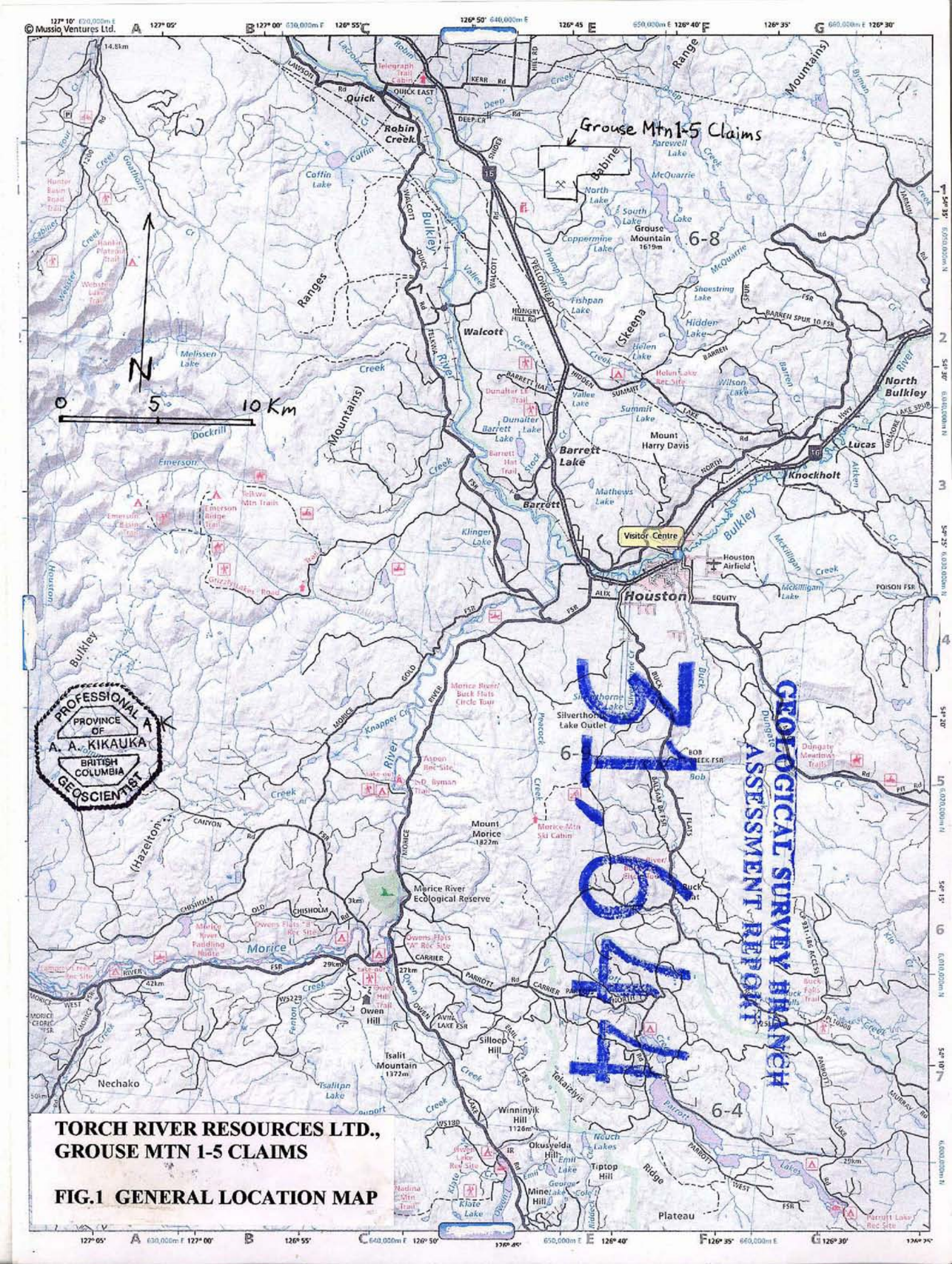
FIELD CREW:

Andris Kikauka (Geologist) 4 Days	$ 1,850.00
Xio Apted (Geotechnician) 4 Days	1,000.00
Ryan Kikauka (Geotechnician) 4 days	1,000.00

FIELD COST:

Mob and Demob	$ 364.00
Equipment and Supplies	151.00
Geochemical analysis 34 soil, 9 rock ICP 30 element, Au geochem	899.27
Food & Accommodation	329.00
Report	500.00

Total amount= $ 6,093.27


© Mussio Ventures Ltd.
Grouse Mtn 1-5 Claims
N
0 5 10 Km
Quick
Robin Creek
Walcott
Barrett Lake
Houston
Visitor Centre
Houston Airfield
Knockholt
Lucas
North Bulkley
Grouse Mountain 1619m
Mount Harry Davis
Mount Morice 1822m
Morice River Ecological Reserve
Owen Hill
Tsalit Mountain 1372m
Silloop Hill
Winniniyk Hill 1126m
Okusyelda Hill
Tiptop Hill
Mine Hill
Nechako
Plateau
Bulkley Ranges
Hazelton Mountains
Babine Range Mountains
6-8
6-4
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
A. A. KIKAUKA
GEOSCIENTIST
GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT
TORCH RIVER RESOURCES LTD.,
GROUSE MTN 1-5 CLAIMS
FIG.1 GENERAL LOCATION MAP

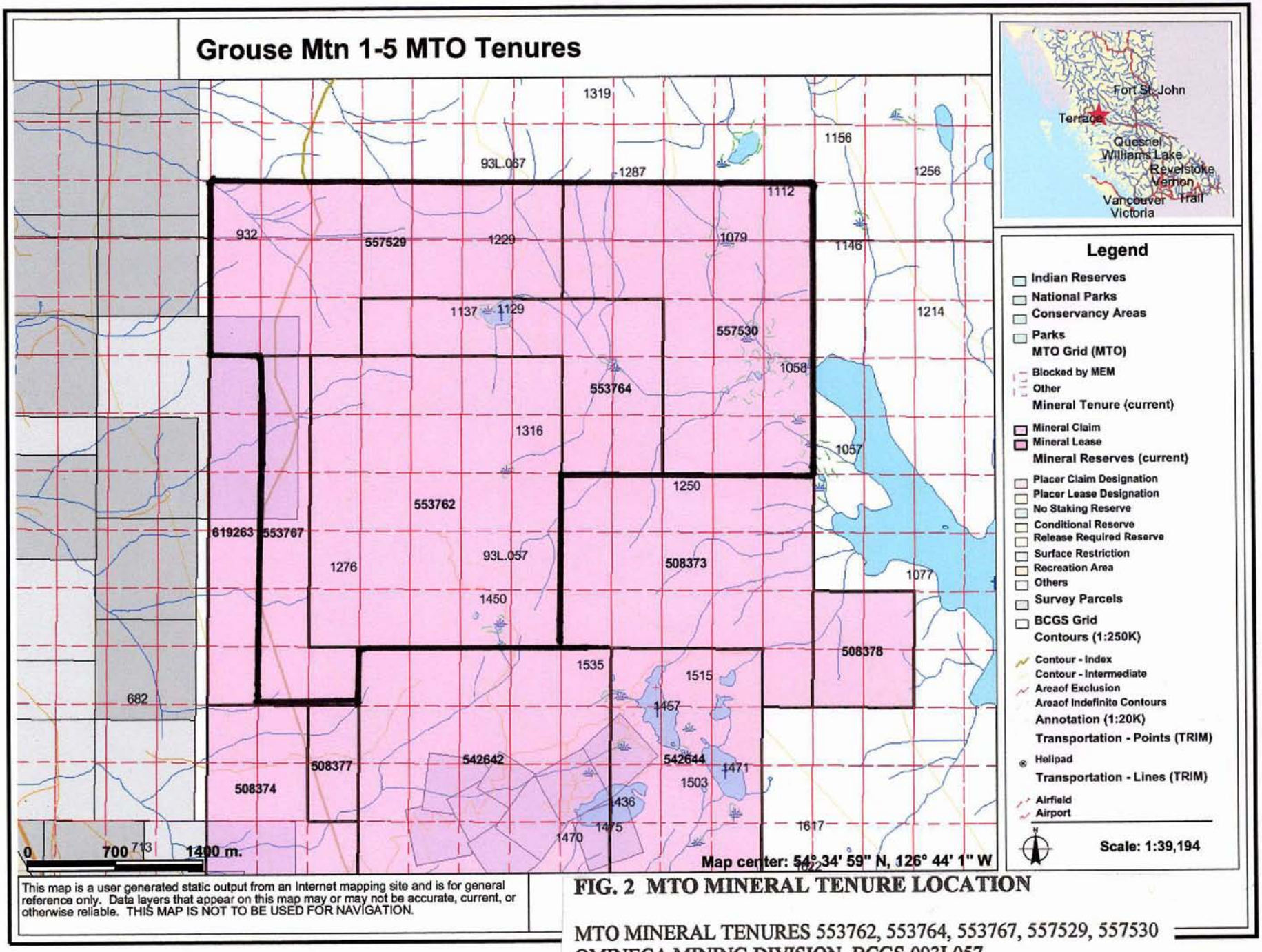


FIG. 2 MTO MINERAL TENURE LOCATION

MTO MINERAL TENURES 553762, 553764, 553767, 557529, 557530
OMINECA MINING DIVISION, BCGS 093L057

FIGURE 3 SOIL GRID & ROCK CHIP SAMPLE LOCATIONS

Creeks in blue, roads as dashed orange line,
Contour interval 20 m, BCGS 093L.057 Omineca M.D.

sample no	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppb Au	ppm As
GM-10AR-51	9	10	64	0.3	9	263
GM-10AR-52	25	15	75	0.1	7	44
GM-10AR-53	31	30	116	3.9	640	613
GM-10AR-54	47	91	404	2.1	42	170
GM-10AR-55	3287	18	414	32.7	28	177
GM-10AR-56	177	1476	2846	4.7	12	17
GM-10AR-57	85	81	62	0.3	8	8
GM-10AR-58	16	18	79	0.6	10	7
GM-10AR-59	11	19	52	0.1	9	5

New logging road

6053000 N UTM NAD 83

Longitude 126 45' 00" W

S-1

● Soil sample ▫ Rock chip sample

Longitude 126 44' 00" W

Latitude 54 36' 00" N

645000 E (NAD 83)

S-2

557529

S-8

GM10AR-57

S-4

GM10AR-58

6052000 N UTM NAD 83

GM10AR-51

553764

S-7

553767

646000 E (NAD 83)

S-3

553762

MTO tenures

GM10AR-59

6051000 N

S-5

GM10AR-52

GM10AR-53

GM10AR-54

Latitude 54 35' 00" N

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

31,644

N

6050000 N (NAD 83)

Deactivated Road

S-6

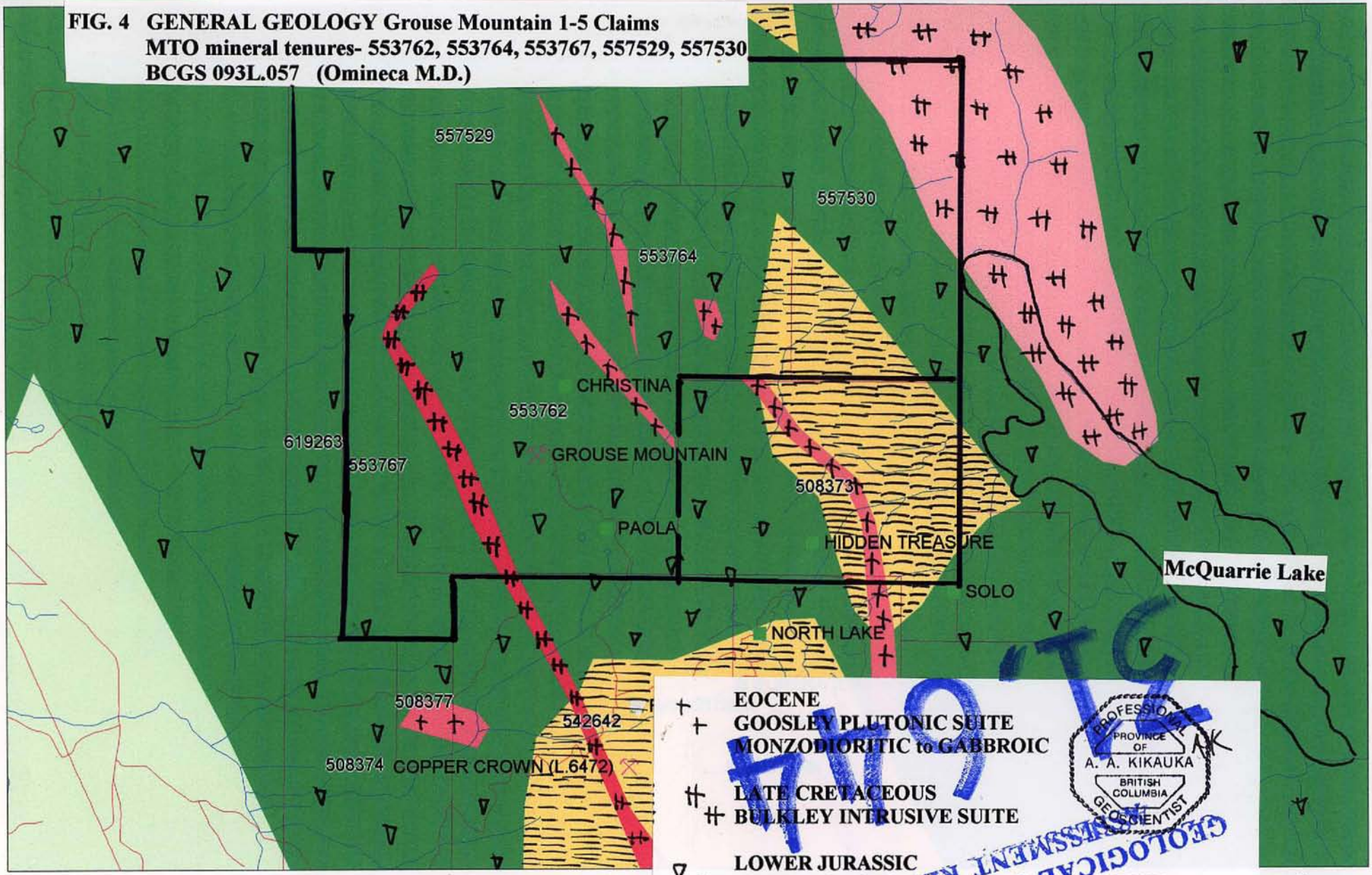
GM10AR-56

GM10AR-55

0 500 m

SCALE 1:10,000 1 cm equivalent to 100 m

FIG. 4 GENERAL GEOLOGY Grouse Mountain 1-5 Claims
MTO mineral tenures- 553762, 553764, 553767, 557529, 557530
BCGS 093L.057 (Omineca M.D.)

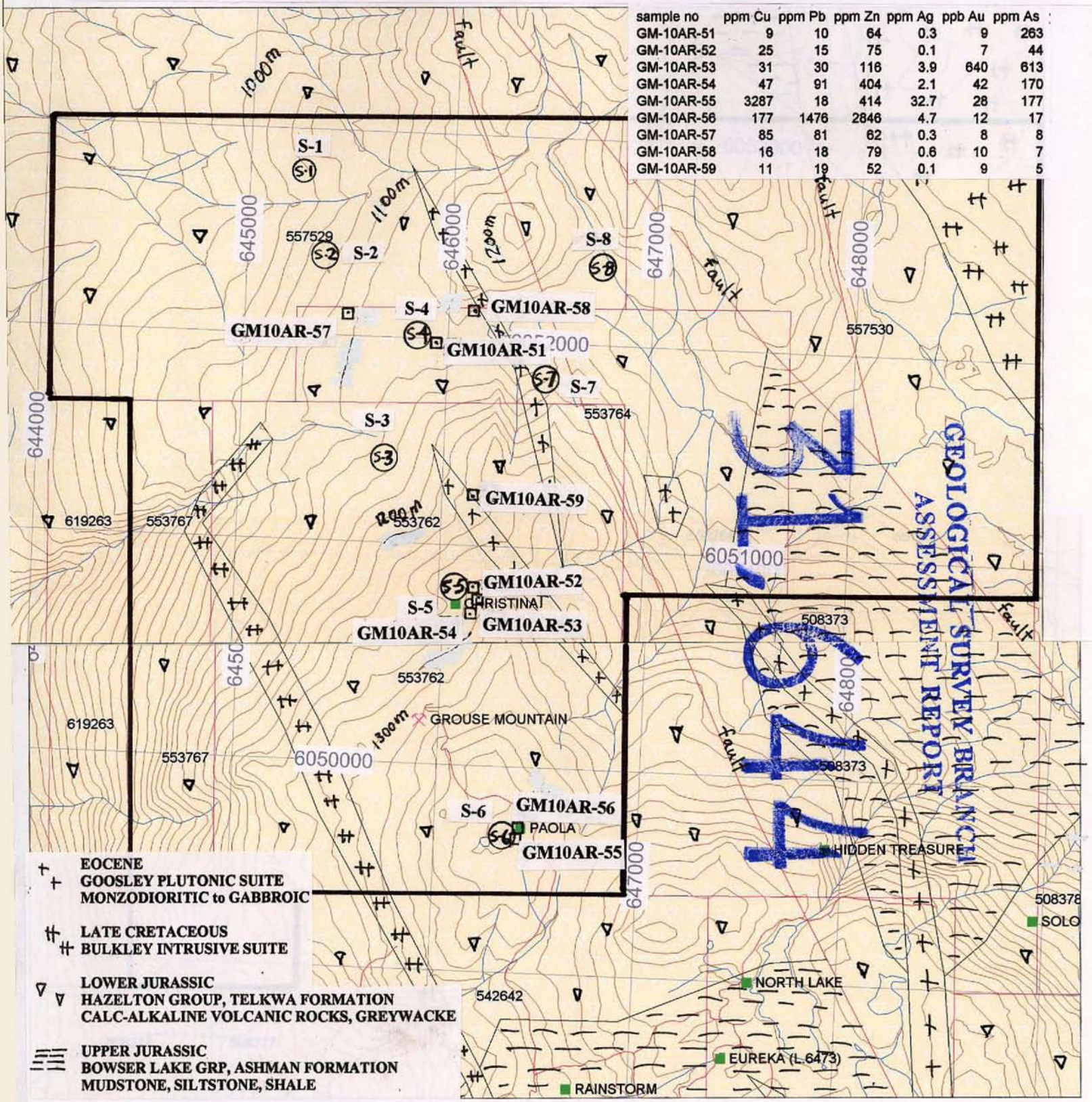


Grouse Mtn 1-5 claims

FIGURE 5 SOIL GRID & ROCK CHIP SAMPLE LOCATION GEOLOGY

Creeks in blue, faults line in red, UTM NAD 83 (Zone 9) **Soil sample** **Rock chip sample**
Contour interval 20 m, BCGS 093L.057 Omineca M.D.

sample no	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppb Au	ppm As
GM-10AR-51	9	10	64	0.3	9	263
GM-10AR-52	25	15	75	0.1	7	44
GM-10AR-53	31	30	116	3.9	640	613
GM-10AR-54	47	91	404	2.1	42	170
GM-10AR-55	3287	18	414	32.7	28	177
GM-10AR-56	177	1476	2846	4.7	12	17
GM-10AR-57	85	81	62	0.3	8	8
GM-10AR-58	16	18	79	0.6	10	7
GM-10AR-59	11	19	52	0.1	9	5



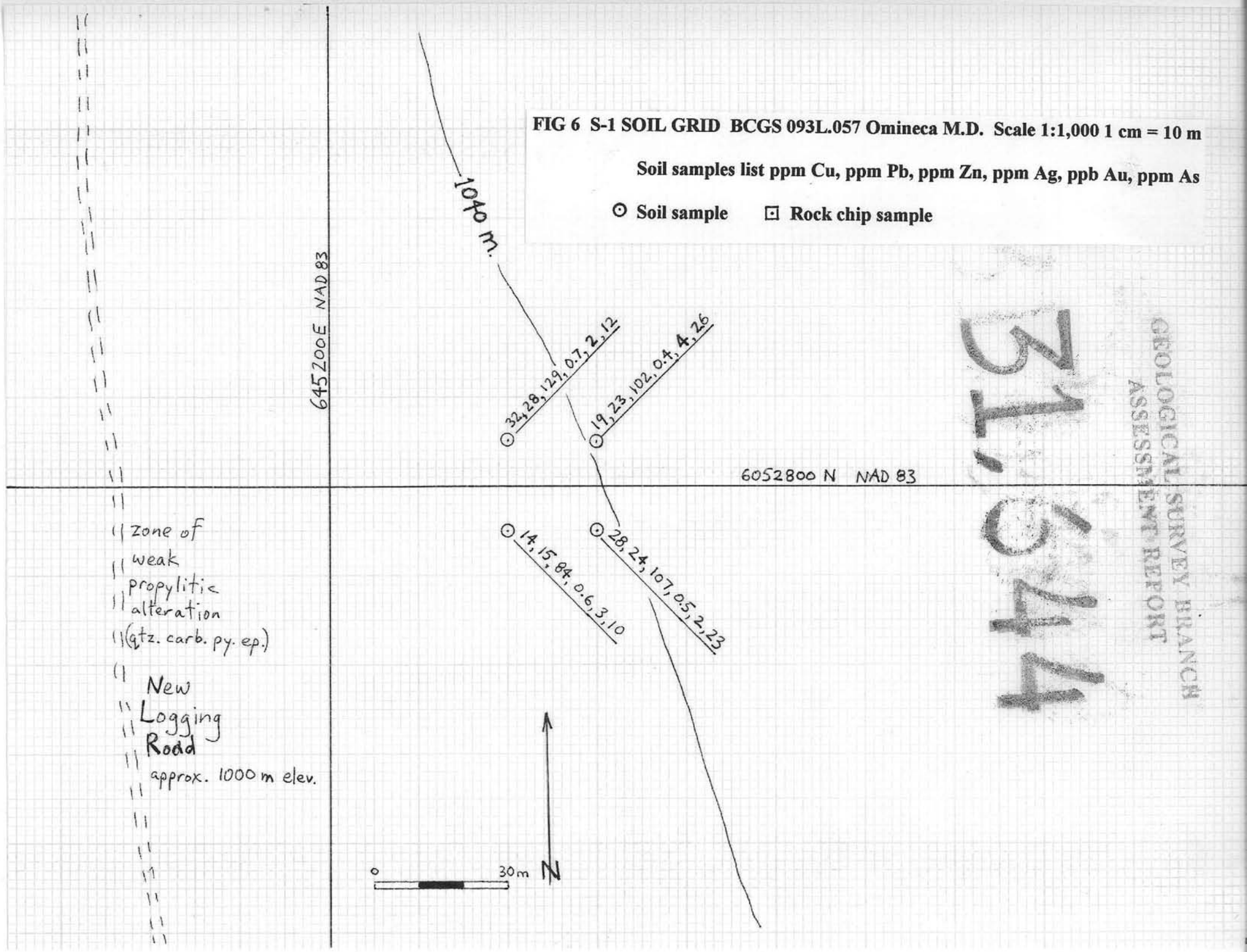


FIG 6 S-1 SOIL GRID BCGS 093L.057 Omineca M.D. Scale 1:1,000 1 cm = 10 m
Soil samples list ppm Cu, ppm Pb, ppm Zn, ppm Ag, ppb Au, ppm As
⊙ Soil sample ⊡ Rock chip sample
1040 m.
645200E NAD 83
6052800 N NAD 83
32, 28, 129, 0.7, 2, 12
19, 23, 102, 0.4, 4, 26
14, 15, 84, 0.6, 3, 10
28, 24, 107, 0.5, 2, 23
zone of weak propylitic alteration (qtz. carb. py. ep.)
New Logging Road
approx. 1000 m elev.
0
30m
N
GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT
21,644

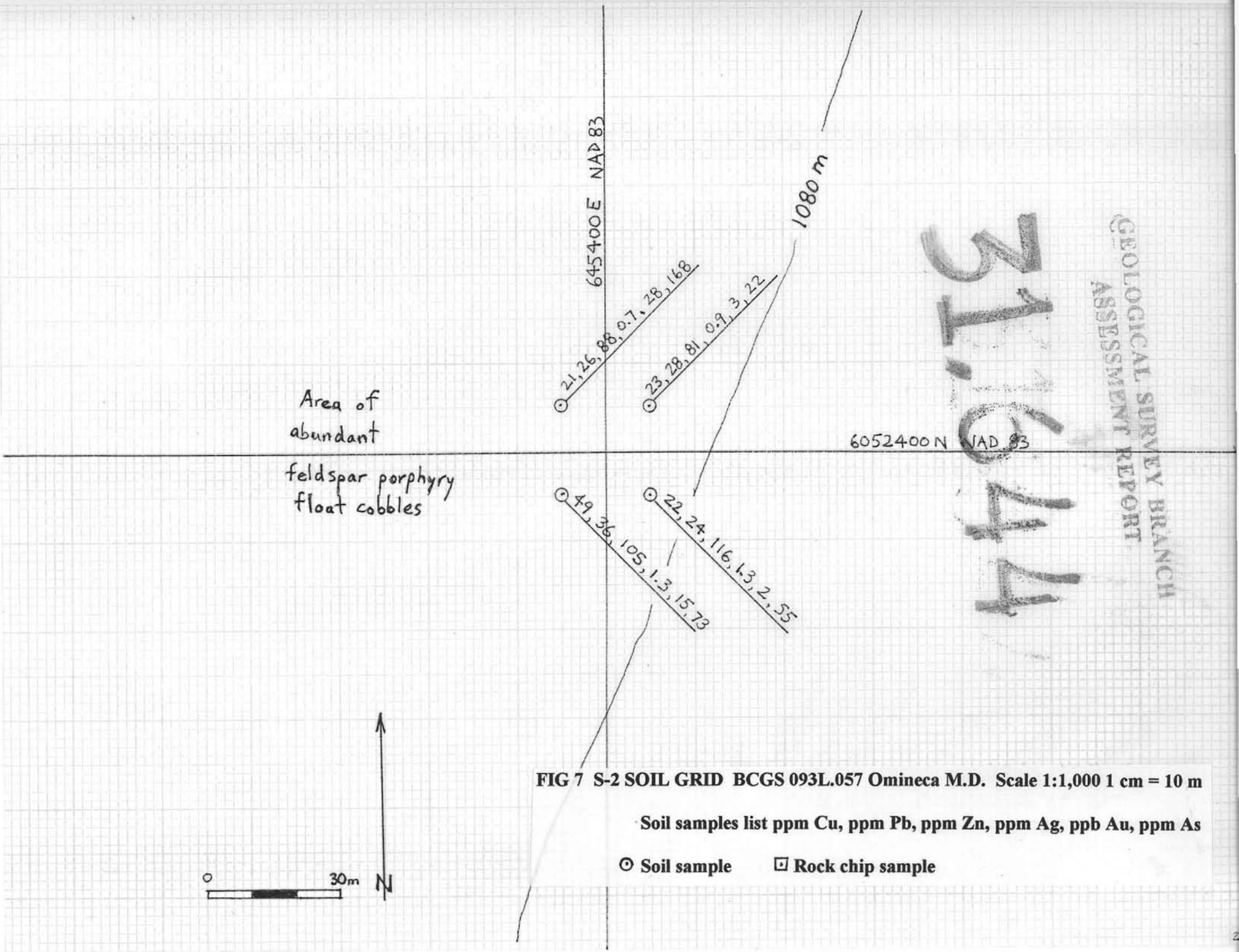


FIG 7 S-2 SOIL GRID BCGS 093L.057 Omineca M.D. Scale 1:1,000 1 cm = 10 m

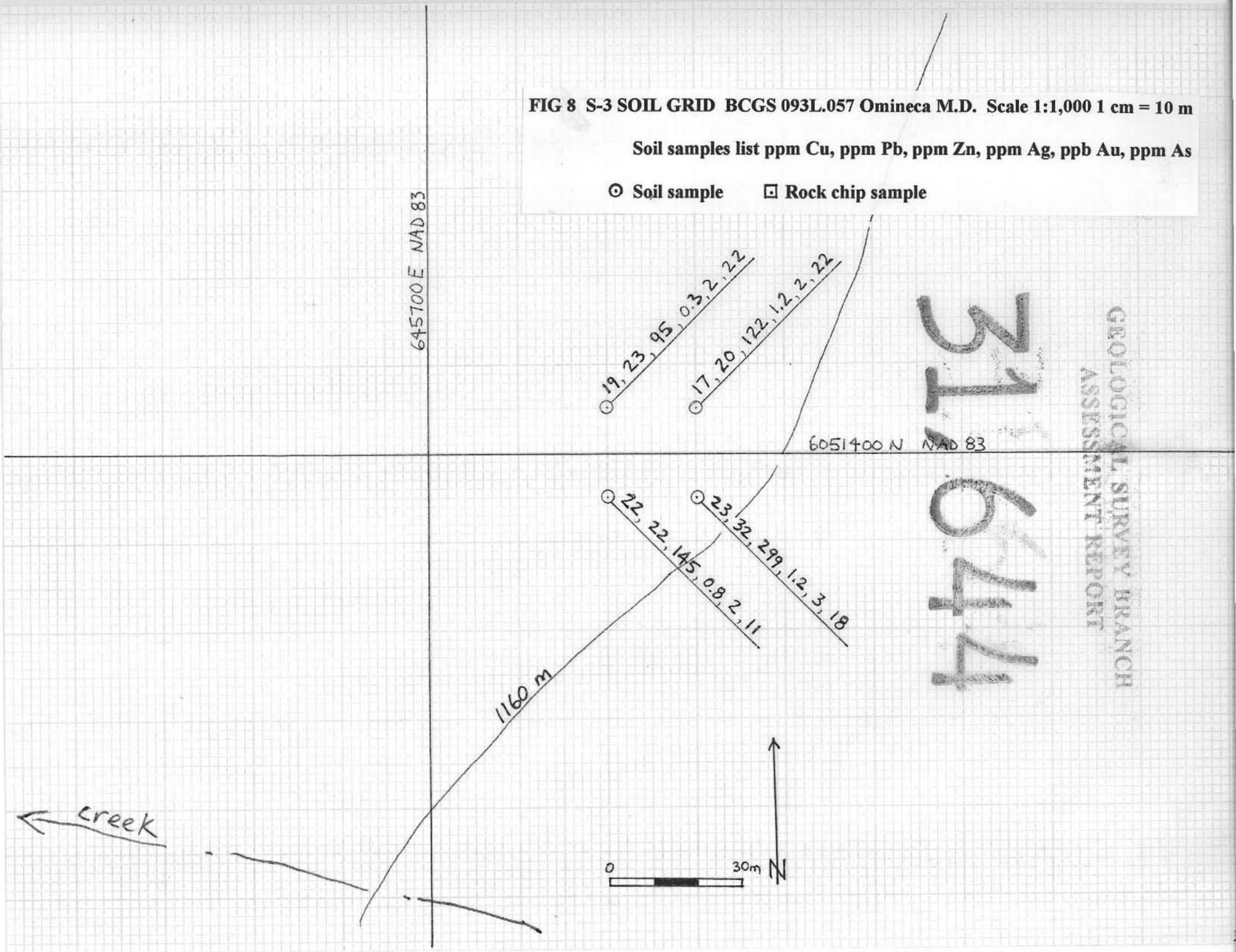
Soil samples list ppm Cu, ppm Pb, ppm Zn, ppm Ag, ppb Au, ppm As

⊙ Soil sample ⊡ Rock chip sample

FIG 8 S-3 SOIL GRID BCGS 093L.057 Omineca M.D. Scale 1:1,000 1 cm = 10 m

Soil samples list ppm Cu, ppm Pb, ppm Zn, ppm Ag, ppb Au, ppm As

⊙ Soil sample ⊡ Rock chip sample



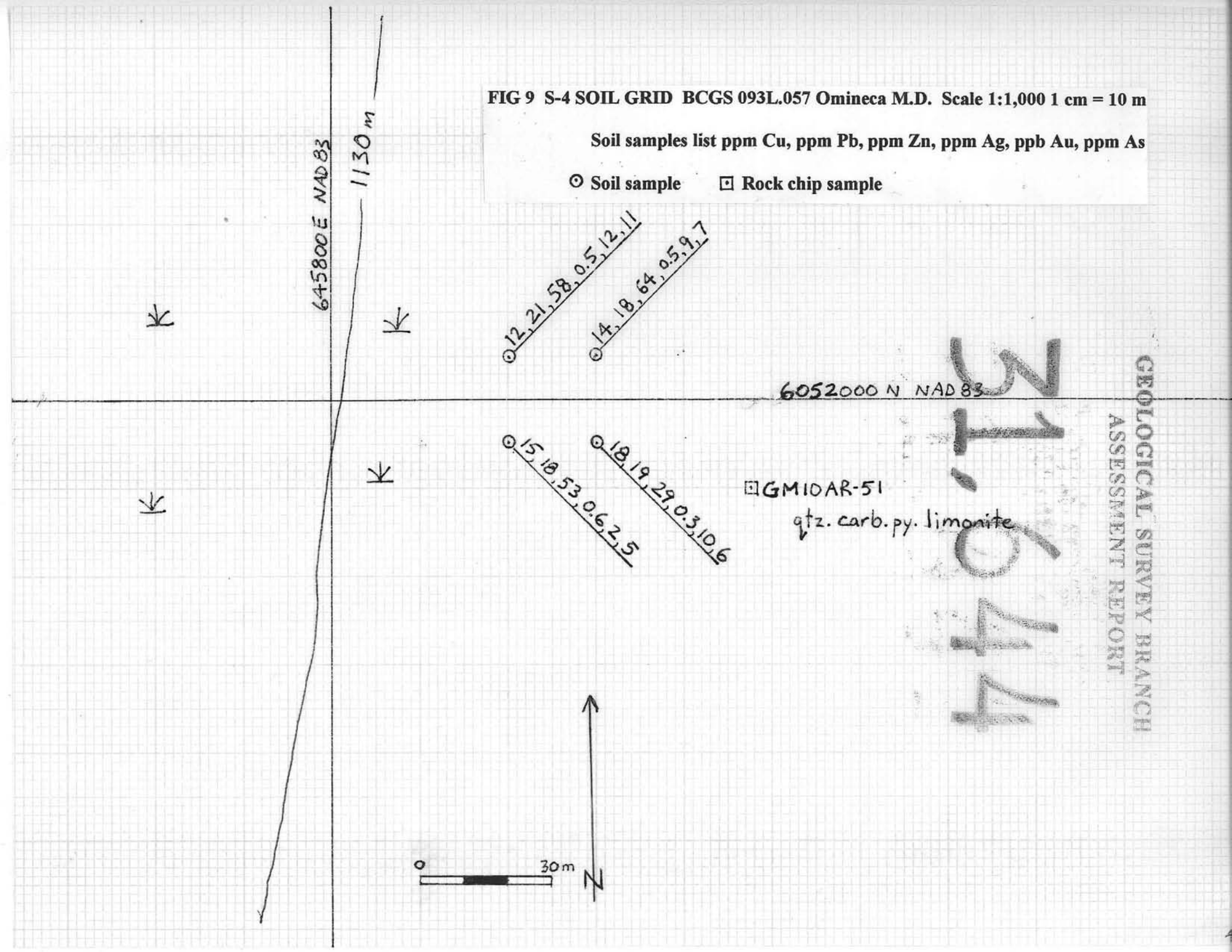


FIG 10 S-5 SOIL GRID BCGS 093L.057 Omineca M.D. Scale 1:1,000 1 cm = 10 m

Soil samples list ppm Cu, ppm Pb, ppm Zn, ppm Ag, ppb Au, ppm As

⊙ Soil sample ⊡ Rock chip sample

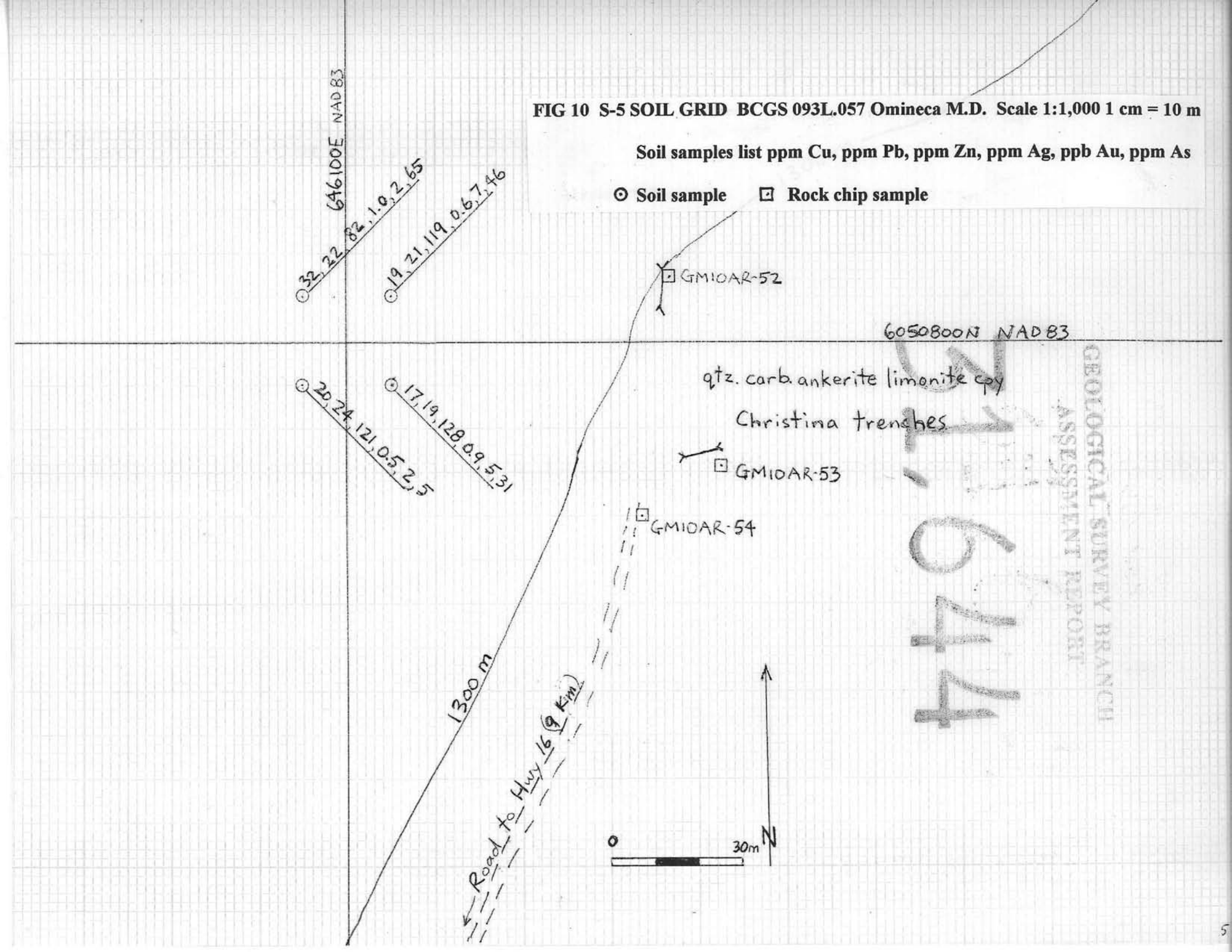
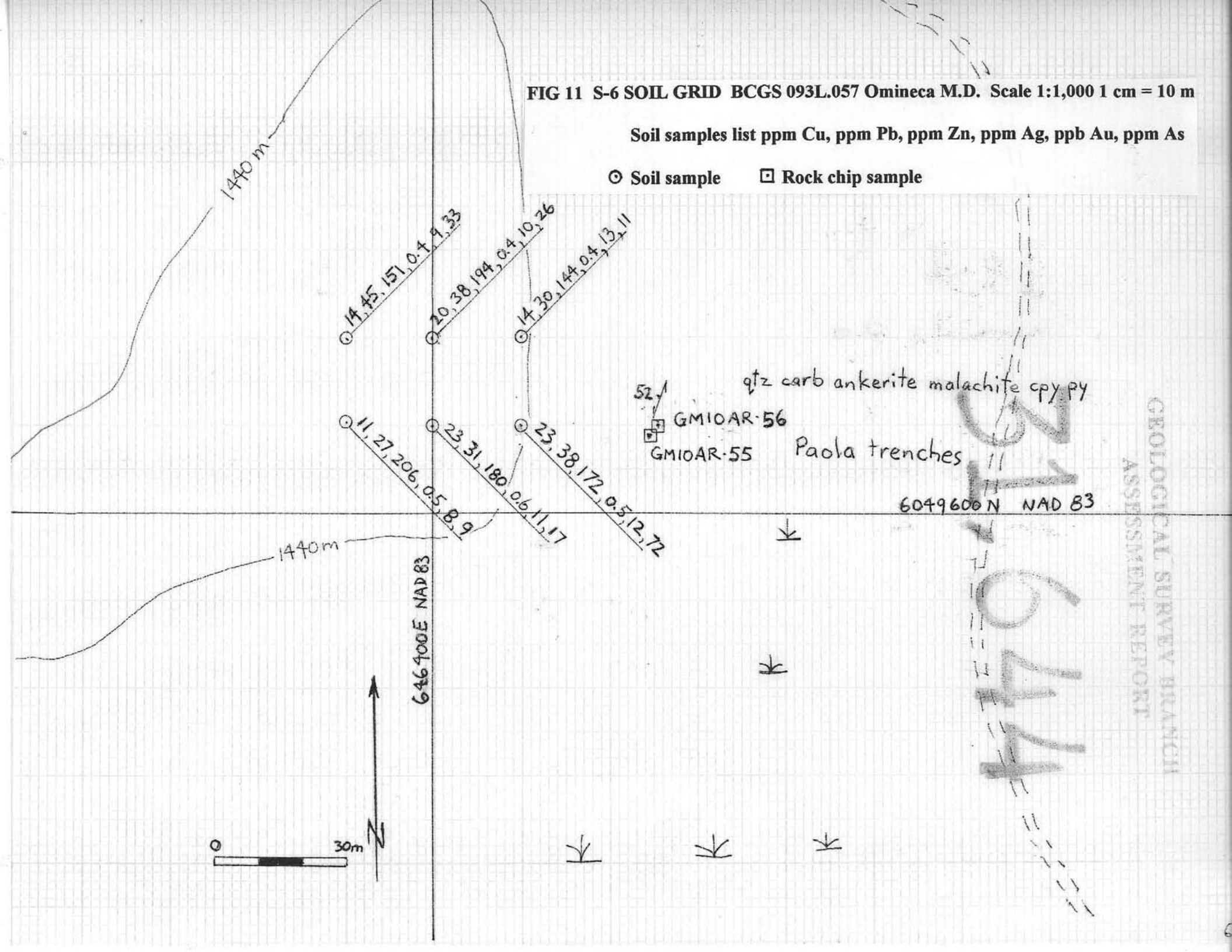


FIG 11 S-6 SOIL GRID BCGS 093L.057 Omineca M.D. Scale 1:1,000 1 cm = 10 m

Soil samples list ppm Cu, ppm Pb, ppm Zn, ppm Ag, ppb Au, ppm As

⊙ Soil sample ⊡ Rock chip sample



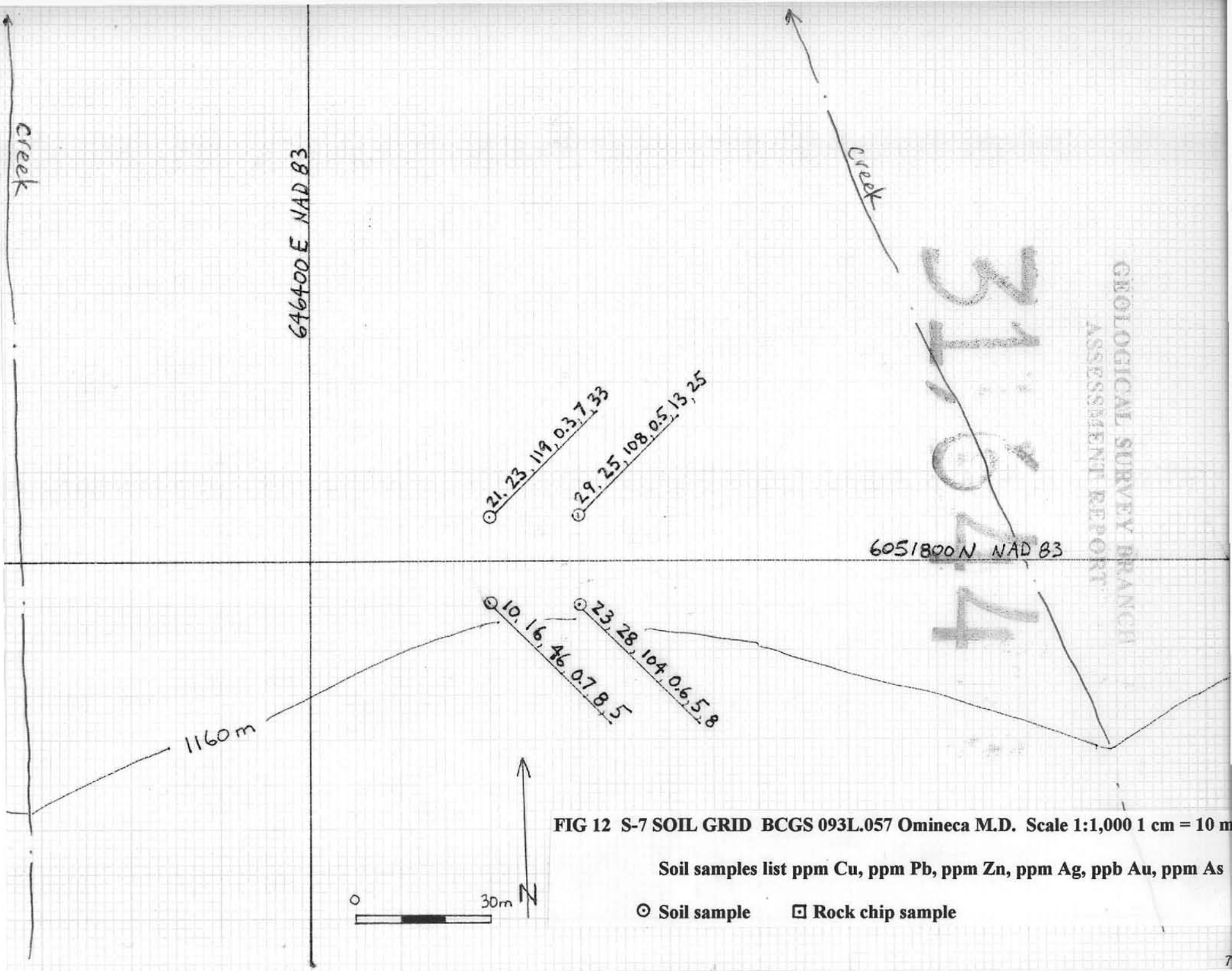


FIG 12 S-7 SOIL GRID BCGS 093L.057 Omineca M.D. Scale 1:1,000 1 cm = 10 m

Soil samples list ppm Cu, ppm Pb, ppm Zn, ppm Ag, ppb Au, ppm As

⊙ Soil sample ⊡ Rock chip sample

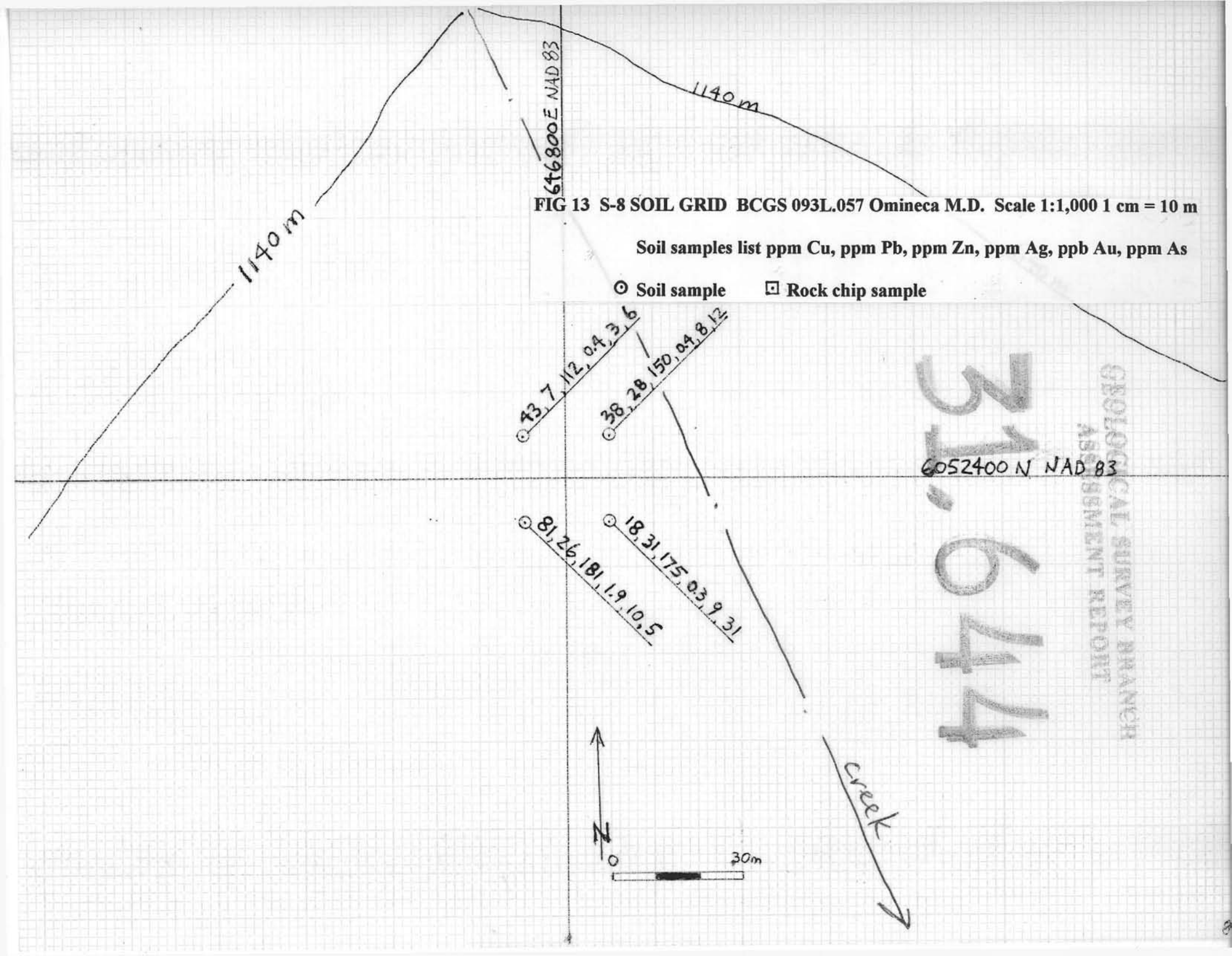


FIG 13 S-8 SOIL GRID BCGS 093L.057 Omineca M.D. Scale 1:1,000 1 cm = 10 m

Soil samples list ppm Cu, ppm Pb, ppm Zn, ppm Ag, ppb Au, ppm As

⊙ Soil sample ⊡ Rock chip sample

PIONEER LABORATORIES INC. #103-2691 VISCOUNT WAY RICHMOND, BC CANADA V6V 2R5 TELEPHONE (604) 231-8165

GEOCHEMICAL ANALYSIS CERTIFICATE

TORCH RIVER RESOURCES LTD.
Project: Grouse Mtn.
Sample Type: Soils/Rocks

Appendix A

Multi-element ICP Analysis - 0.500 gram sample is digested with 3 ml of aqua regia, diluted to 10 ml with water. This leach is partial for B, Ba, Cr, Fe, Mg, Mn, Na, P, S, Sn, Ti and limited for Na, K and Al. *Au Analysis- 20 gram sample is digested with aqua regia, MIBK extracted, and is finished by AA or graphite furnace AA.

Analyst RSam
Report No. 2102646
Date: June 18, 2010

ELEMENT / SAMPLE		Ag ppm	Al %	As ppm	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sn ppm	Sr ppm	Te ppm	Ti %	Tl ppm	V ppm	Zn ppm	Au* ppb
L645240E-6052790N		.6	1.35	10	<5	150	<10	.28	<1	9	28	14	2.85	.06	.49	599	1	.05	15	.07	15	.01	<2	<2	36	5	.01	<5	53	84	3
L645240E-6052810N	(S-1)	.7	2.51	12	<5	197	<10	.14	<1	17	42	32	4.20	.07	.76	715	2	.04	26	.10	28	.02	<2	<2	12	<5	.01	<5	72	129	2
L645260E-6052790N		.5	2.24	23	<5	212	<10	.31	2	13	37	28	3.84	.07	.84	1319	1	.05	26	.09	24	.01	<2	<2	25	<5	.01	<5	66	107	2
L645260E-6052810N		.4	1.61	26	<5	174	<10	.23	<1	13	31	19	3.42	.07	.63	1119	3	.04	19	.12	23	.01	3	<2	19	9	.01	<5	64	102	4
L645390E-6052390N		1.3	2.21	73	<5	316	<10	.60	<1	17	43	49	4.46	.10	.94	1613	1	.05	32	.17	36	.03	<2	<2	33	<5	.01	<5	67	105	15
L645390E-6052410N	(S-2)	.7	1.47	168	<5	129	<10	.18	<1	11	31	21	4.18	.08	.47	663	1	.04	15	.10	21	.01	<2	<2	11	7	.01	<5	74	88	28
L645410E-6052390N		1.3	1.58	55	<5	191	<10	.37	<1	11	34	22	4.15	.06	.53	483	2	.05	16	.09	20	.02	<2	<2	23	6	.01	<5	83	116	2
L645410E-6052410N		.9	1.73	22	<5	136	<10	.20	<1	10	35	23	3.87	.06	.60	494	1	.04	18	.09	28	.01	<2	<2	15	8	.01	<5	75	81	3
L645740E-6051390N		.8	1.57	11	<5	175	<10	.15	<1	9	31	22	3.30	.04	.56	615	2	.05	16	.07	22	.01	<2	<2	13	<5	.01	<5	67	145	2
L645740E-6051410N	(S-3)	.3	1.73	22	<5	171	<10	.23	<1	10	30	19	3.18	.07	.62	561	1	.04	20	.05	23	.01	<2	<2	30	5	.01	<5	56	95	2
L645760E-6051390N		1.2	2.35	18	<5	153	<10	.12	<1	10	41	23	4.75	.05	.63	427	2	.04	20	.11	32	.01	<2	<2	10	<5	.01	<5	76	299	3
L645760E-6051410N		1.2	1.82	22	<5	154	<10	.15	<1	9	36	17	4.57	.06	.55	1146	1	.05	17	.23	20	.01	<2	<2	11	<5	.01	<5	83	122	2
L645840E-6051990N		.6	1.33	<5	<5	52	<10	.06	<1	6	21	15	4.04	.04	.34	249	2	.04	8	.15	18	.02	<2	<2	6	<5	.02	<5	114	53	2
L645840E-6052010N		.5	1.35	11	<5	144	<10	.10	<1	4	21	12	2.83	.04	.32	178	1	.05	10	.08	21	.02	<2	<2	9	<5	.01	<5	59	58	12
L645860E-6051990N	(S-4)	.3	1.49	6	<5	223	<10	.19	<1	4	31	18	1.74	.04	.30	131	2	.04	8	.11	19	.04	<2	<2	18	<5	.02	<5	64	29	10
L645860E-6052010N		.5	1.52	7	<5	139	<10	.05	<1	5	21	14	3.53	.04	.32	227	1	.03	9	.09	18	.01	<2	<2	7	<5	.01	<5	76	64	9
L646090E-6050790N		.5	1.98	<5	<5	122	<10	.08	<1	7	25	20	4.22	.04	.41	338	2	.04	12	.16	24	.01	<2	<2	7	<5	.01	<5	77	121	2
L646090E-6050810N	(S-5)	1.0	2.05	65	<5	98	<10	.07	<1	8	21	32	4.72	.03	.40	413	3	.03	8	.16	22	.02	<2	<2	5	5	.02	<5	134	82	2
L646110E-6050790N		.9	2.31	31	<5	94	<10	.05	<1	7	36	17	5.35	.04	.53	460	2	.05	14	.18	19	.01	<2	<2	7	9	.02	<5	128	146	5
L646110E-6050810N		.6	2.24	46	<5	129	<10	.10	<1	8	31	19	4.63	.05	.55	396	1	.03	16	.19	21	.02	<2	<2	10	8	.01	<5	77	119	7
L646380E-6049620N		.5	1.91	9	<5	147	<10	.05	1	7	19	11	3.98	.05	.44	476	2	.04	8	.15	27	.01	<2	<2	7	<5	.01	<5	64	206	8
L646380E-6049640N		.4	1.86	33	<5	118	<10	.06	<1	10	17	14	3.72	.07	.51	1275	1	.05	8	.26	45	.02	<2	<2	7	<5	.01	<5	62	151	9
L646400E-6049620N	(S-6)	.6	2.23	17	<5	243	<10	.07	<1	9	25	23	3.98	.06	.50	632	2	.04	9	.19	31	.02	<2	<2	8	6	.01	7	74	180	11
L646400E-6049640N		.4	2.51	26	<5	169	<10	.04	<1	8	24	20	4.17	.08	.53	591	1	.05	12	.17	38	.02	<2	<2	6	7	.01	<5	65	194	10
L646420E-6049620N		.5	2.19	72	<5	154	<10	.11	<1	8	21	23	4.43	.04	.56	554	2	.04	10	.27	38	.04	<2	<2	7	<5	.01	<5	58	172	12
L646420E-6049640N		.4	1.60	11	<5	350	<10	.21	<1	7	18	14	3.47	.06	.41	641	1	.03	8	.20	30	.02	2	<2	16	<5	.01	<5	62	144	13
L646440E-6051790N		.7	.96	5	<5	65	<10	.06	<1	4	14	10	2.44	.03	.17	188	2	.04	6	.10	16	.02	<2	<2	6	<5	.01	<5	70	46	8
L646440E-6051810N	(S-7)	.3	1.66	33	<5	152	<10	.22	2	16	25	21	3.61	.04	.57	1581	1	.03	17	.06	23	.01	<2	<2	11	<5	.01	<5	62	119	7
L646460E-6051790N		.6	1.76	8	<5	198	<10	.54	<1	8	25	23	3.14	.06	.33	382	2	.05	13	.13	28	.02	<2	<2	23	<5	.01	<5	62	104	5
L646460E-6051810N		.5	2.29	25	<5	229	<10	.26	<1	12	29	29	3.52	.05	.53	424	1	.04	20	.10	25	.02	<2	<2	17	<5	.01	<5	58	108	13
L646790E-6052390N		1.9	2.22	5	<5	381	<10	1.46	2	11	30	81	3.63	.09	.41	3060	4	.03	26	.45	26	.12	<2	<2	67	<5	.01	<5	51	181	10
L646790E-6052410N	(S-8)	.4	.36	6	7	179	<10	4.07	2	2	7	43	.42	.03	.06	391	3	.04	7	.20	7	.24	2	<2	139	<5	.01	<5	7	112	3
L646810E-6052390N		.3	2.27	31	<5	156	<10	.04	<1	8	21	18	3.82	.06	.48	545	2	.03	11	.15	31	.02	<2	<2	5	<5	.01	<5	58	175	9
L646810E-6052410N		.4	2.28	12	<5	388	<10	.58	<1	11	26	38	3.29	.07	.51	1213	1	.02	24	.16	28	.03	<2	<2	36	<5	.01	<5	47	150	8
GM-10-AR-51		.3	.18	263	<5	55	<10	.06	<1	7	193	9	2.35	.01	.04	831	8	.04	10	.05	10	.02	<2	<2	3	<5	.01	<5	15	64	9

ELEMENT / SAMPLE	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sn ppm	Sr ppm	Te ppm	Ti %	Tl ppm	V ppm	Zn ppm	Au* ppb
GM-10-AR-52	.1	1.56	44	<5	25	<10	5.64	<1	10	23	25	3.27	.05	1.05	955	1	.05	7	.14	15	.58	<2	<2	45	<5	.04	6	46	75	7
GM-10-AR-53	3.9	.31	613	<5	27	<10	7.27	1	43	18	31	6.68	.16	2.04	3439	2	.04	24	.09	30	2.74	7	<2	156	<5	.01	<5	22	116	640
GM-10-AR-54	2.1	1.23	170	<5	38	<10	3.71	3	14	24	47	6.13	.12	.98	1746	8	.05	3	.16	91	1.23	<2	<2	67	8	.01	<5	30	404	42
GM-10-AR-55	32.7	.16	177	<5	428	<10	.11	5	2	103	3287	.35	.10	.02	179	4	.04	4	.03	18	.03	61	<2	7	<5	.01	<5	7	414	28
GM-10-AR-56	4.7	1.25	17	<5	12	<10	5.06	15	20	42	177	7.48	.03	.44	13030	8	.03	3	.11	1476	4.60	<2	<2	69	11	.01	<5	6	2846	12
GM-10-AR-57	.3	.19	8	<5	297	<10	.82	1	2	64	85	.69	.20	.01	268	27	.04	4	.03	81	.59	<2	<2	21	<5	.01	<5	7	62	8
GM-10-AR-58	.6	.21	7	<5	645	<10	.72	<1	5	77	16	1.31	.18	.08	644	5	.06	5	.06	18	.05	<2	<2	20	<5	.01	<5	6	79	10
GM-10-AR-59	.1	.34	5	<5	89	<10	1.48	<1	2	55	11	.56	.17	.14	1148	1	.05	3	.04	19	.01	<2	<2	36	<5	.01	<5	<1	52	9

Appendix B - 2010 Rock chip sample data

sample no	width	easting	northing	elev (m)	lithology	alteration	minerals
GM-10AR-51	subcrop	645893	6051981	1138	volcanic-sedimentary	qtz-carb-ank	limonite-pyrite
GM-10AR-52	subcrop	646173	6050815	1306	volcanic-sedimentary	qtz-carb-ank	limonite-pyrite-chalcopyrite
GM-10AR-53	subcrop	646187	6050772	1307	volcanic-sedimentary	qtz-carb-ank	limonite-pyrite
GM-10AR-54	subcrop	646175	6050760	1311	volcanic-sedimentary	qtz-carb-ank	limonite-pyrite
GM-10AR-55	28 cm	646447	6049618	1435	volcanic-sedimentary	qtz-carb-ank	malachite-tetrahedrite-chalcopyrite-pyrite
GM-10AR-56	grab	646452	6049621	1433	volcanic-sedimentary	qtz-carb-ank	limonite-pyrite-galena-sphalerite
GM-10AR-57	subcrop	645550	6052188	1146	volcanic-sedimentary	qtz-carb-ank	limonite-pyrite
GM-10AR-58	subcrop	646096	6052085	1150	volcanic-sedimentary	qtz-carb-ank	limonite-pyrite
GM-10AR-59	subcrop	646124	6051205	1264	volcanic-sedimentary	qtz-carb-ank	limonite-pyrite

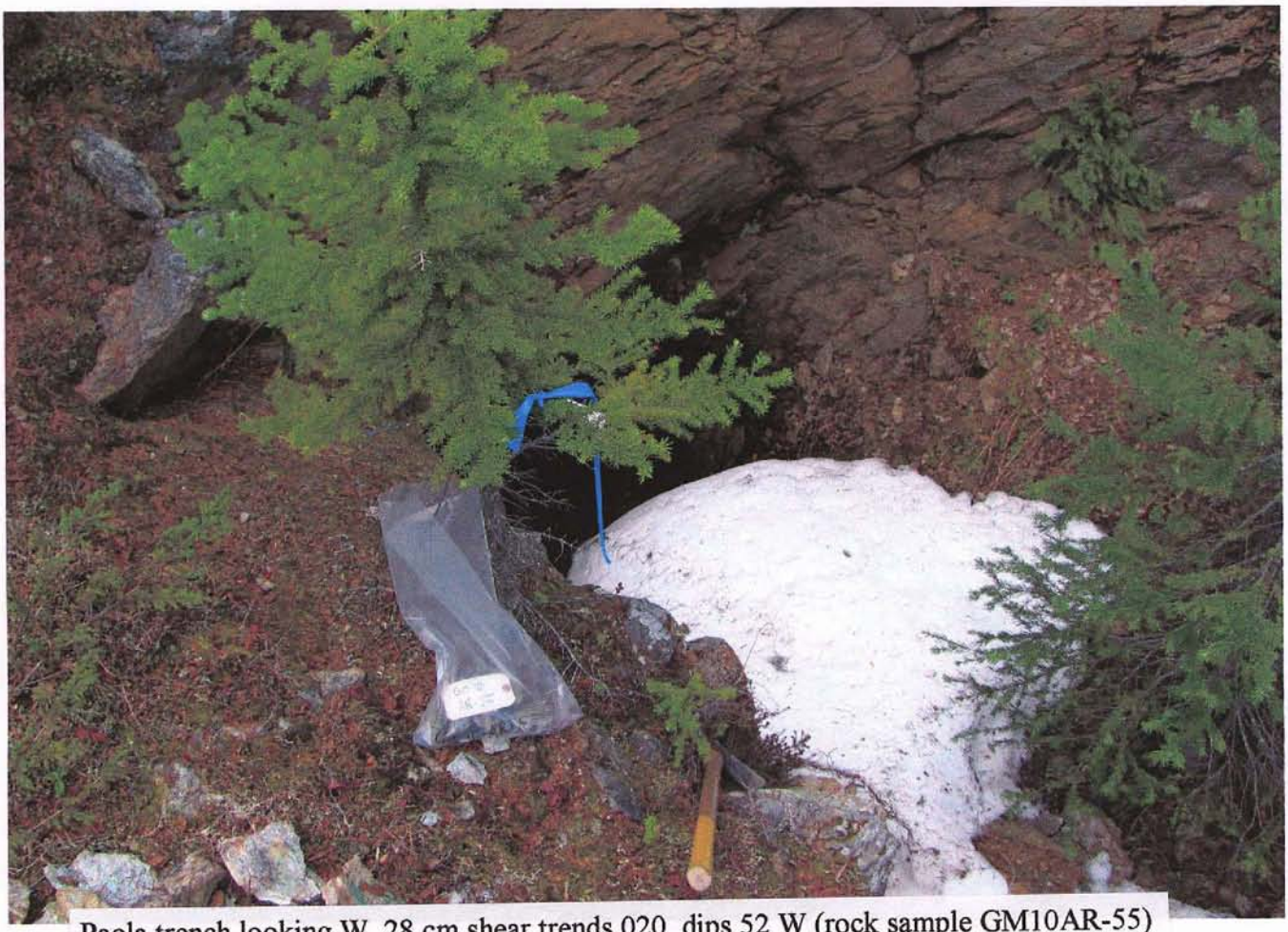
sample no	ppm Cu	ppm Pb	ppm Zn	ppm Ag	ppb Au	ppm As
GM-10AR-51	9	10	64	0.3	9	263
GM-10AR-52	25	15	75	0.1	7	44
GM-10AR-53	31	30	116	3.9	640	613
GM-10AR-54	47	91	404	2.1	42	170
GM-10AR-55	3287	18	414	32.7	28	177
GM-10AR-56	177	1476	2846	4.7	12	17
GM-10AR-57	85	81	62	0.3	8	8
GM-10AR-58	16	18	79	0.6	10	7
GM-10AR-59	11	19	52	0.1	9	5

description of rock chip samples (prefix GM10AR)

51 sub-crop near soil sample L 6800N, stn 4850E, no outcrop in area near swamp
52 sub-crop 0.1-3 cm wide qtz vn (sheeted texture), old trench Christina showings
53 sub-crop 0.1-5 cm wide qtz vn (sheeted texture), old trench Christina showings
54 sub-crop 0.1-5 cm wide qtz vn (sheeted texture), old trench Christina showings
55 outcrop 1-3% diss and tract fill pyrite, 1% chalcopyrite, 1% malachite as fracture coatings,minor sphalerite, tetrahedrite, old trench Paola showing
56 dump grab 5% disseminated-fracture fill pyrite, 2% chalcopyrite, 1% sphalerite, trace tetrahedrite, old trench Paolo showing, shear zone trends 020, dip 52W
57 sub-crop, 10% qtz, as 1-3 cm wide vns (stockwork texture), 0.5% disseminated and fracture filling pyrite (0.1-2 mm blebs), mag anomaly L 7000 N, stn 4550 E
58 sub-crop, 40% qtz, as 0.1-3 cm wide vns (stockwork texture), 2% disseminated and fracture filling pyrite (0.1-3 mm blebs), at grid location 6900 N, 5100 E
59 sub-crop, 8% qtz, as 1 cm wide vns (stockwork texture), 0.5% disseminated and fracture filling pyrite (0.1-2 mm blebs), at grid location L 6000 N, stn 5125E

APPENDIX-C

Christina trench area looking northwest (rock chip sample GM10AR-53 lower right)



Paola trench looking W, 28 cm shear trends 020, dips 52 W (rock sample GM10AR-55)