1999 REPORT OF GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL WORK ON THE YREKA PROPERTY

British Columbia
Nanaimo Mining Division
92L/5E
Latitude 50°27'30''N
Longitude 127°34'00''W

For

TALLTREE RESOURCES LTD.
1104 – 750 West Pender Street,
Vancouver, B.C.,
V6C 2T8

by

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(1406) Buenos Aires, Argentina

October 7, 1999

SUMMARY

The Yreka Cu-Zn property is situated 24-km south-southwest of the town of Port Hardy on northern Vancouver Island in southwestern British Columbia. Skarn hosted high-grade copper mineralization has been the focus of exploration and mining efforts since the turn of the century. In addition, zinc, molybdenum and gold occurrences are found within the property borders.

The most significant economic deposit in the area was the Island Copper mine, a large copper-molybdenum-gold porphyry deposit located 16 kilometers northeast of the Yreka property. During its production from 1971 to 1997, the mine produced copper concentrate containing 1.3 billion kilograms of copper, 31 million kilograms of molybdenum, 31.7 million grams of gold, 336 million grams of silver and 27,000 kilograms of rhenium. It was the third largest copper mine in Canada. In addition to porphyry mineralization, the Island Copper mineralized area was also host to copper skarn mineralization (the Northwest Zone).

In 1998 Talltree Resources Ltd. conducted an initial exploration program of prospecting, rock and soil geochemistry. A total of 83 rock samples and 285 soil samples were collected from the property area. Two areas were selected for detailed sampling and examination: Lower Blue Grouse and Clyde (Figure 4). Results were encouraging in the North Arm (Cu and Mo) prospect and the Upper Blue Grouse area (Cu, Zn, Au).

The efforts of the 1999 exploration program consisting of property mapping, prospecting, soil geochemistry and VLF-EM in the North Arm creek, Upper Blue Grouse and the Tuscarora areas. A total of 31 rock samples were collected and analyzed for 30 element ICP and FAA gold. A total of 491 soil samples were collected on the Canyon Grid and the Tuscarora grids, following up on the 1998 areas. A total of 12.5 line km of VLF-EM was carried out on the grids. Approximately 11 days were spent conducting geological and prospecting traverses.

Results from the 1999 work program indicate an area of strongly anomalous copper and molybdenum concentrations in soils over the North Arm Creek area. The combination of anomalous levels of both elements, together with the discovery of a dense quartz-stockwork zone and visible molybdenum in hand specimen is a very positive indication that porphyry-style mineralization might exist on the property.

The Blue Grouse and Tuscarora prospects were found to contain high concentrations of zinc in rock samples and this contributed to the hypothesis that a mineralogical zonation might exist on the property. Mo and Cu would represent proximal mineralization while zinc would be distal to the intrusive heat source.

Recommendations for future exploration involve a detailed airborne survey of the entire property, correlation with ground information and, given positive results, a second phase of aggressive diamond drilling with a helicopter-supported rig.

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1. INTRODUCTION

This report was prepared at the request of J. Minni, president of Talltree Resources Ltd., 1104 – 750 West Pender Street, Vancouver, B.C., who controls the claims under option. This report and the general focus of the 1999 work program on the Yreka property described within it are based upon the conclusions and recommendations of the previous work program and report in 1998 authored by Chris Baldys, P. Geo. Therefore, readers are advised to refer to the 1998 report for a detailed version of the historical property data and regional geology.

The CD, BF, Bern, and Micha 5 claims form a contiguous group called the "Yreka property", situated 24 km south-southwest of the town of Port Hardy on northern Vancouver Island in southwestern British Columbia (Figure 1).

The property is host to Cu-Zn skarn mineralization and is underlain by sedimentary, volcanic and intrusive rocks of the Wrangellia Terrane of the Insular physiographic belt (Figure 2).

Copper skarn mineralization was discovered on the Yreka property at the turn of the century and was the target of intermittent exploration and production until 1979. A total 145,334 tonnes of ore averaging 2.71 percent copper, 31.22 g/t silver and 0.34 g/t gold was mined. Noranda Explorations Ltd. delineated the deposit by diamond drilling and underground development in 1953-56. Most of the production took place between 1965 and 1967 by a joint venture between Mitsubishi Metal Mining Co. and Yreka Mines Limited.

The Yreka property has had considerable historical exploration since the turn of the century. Numerous geochemical, geophysical and geological programs have been completed on the Yreka and to a lesser extent on the surrounding occurrences. The potential for developing an economic deposit on the property lies within three areas: 1) greatly expanding the tonnage of the known mineralization at the Yreka mine itself 2) defining a geological resource in the outlying occurrences such as the Blue Grouse or Tuscarora through detailed drill testing or 3) the discovery of a Cu-Mo resource of porphyry-style mineralization in the North Arm creek area. Expanding the tonnage of the Yreka deposit is considered unlikely considering the great amount of drilling carried out by Noranda in locating the "blind" deposit. The other two avenues are considered to be geologically possible.

2. LOCATION, ACCESS AND TOPOGRAPHY

The Yreka property is located in the northern part of Vancouver Island, B.C. (Figures 1 and 2), centered at approximately 50°27'30''N Lat., 127°34'00''W Long (UTM 5,590,500N and 601,700E).

The nearest settlement is Port Alice, the site of a pulp mill, situated across Neurotsos Inlet, 3.5 km southeast of the property. The inlet is the southeast arm of Quatsino Sound, which leads westerly to the Pacific Ocean. Access to a dock on the property is by boat from Juneau Landing near Port Alice or Coal Harbour at Holberg Inlet 12 kilometers southwest of Port Hardy. A 1.9-km reconditioned road leads from the dock to the property workings.

The west side of Vancouver Island is well known for rugged terrane, high relief and high annual precipitation. The property extends from tidewater up the mountainside to the west, and covers an area of 675 hectares. Most of it is heavily wooded and accessible by foot. Steep slopes and bedrock cliffs are common and the elevation ranges from 0 to 1128 metres above sea

Figure 1. Location of Yreka Property in British Columbia

level (Mount Comstock). The highest peak in the area, Mount Wolfenden (1273 m), lies to the south of the claim area only 3 kilometers from the shore of Neroutsos Inlet. Mine workings range in elevation from 325 to 700 meters.

Montane and lowland areas are deeply incised by valleys that drain to Neroutsos Inlet. Major valleys and fjords exploit regional northwest and northeast-striking faults.

3. CLAIMS

The property consists of 4 continuous mineral claims comprising 27 units located in Nanaimo Mining Division, NTS 92L/5E (Figure 3). The particulars are as follows:

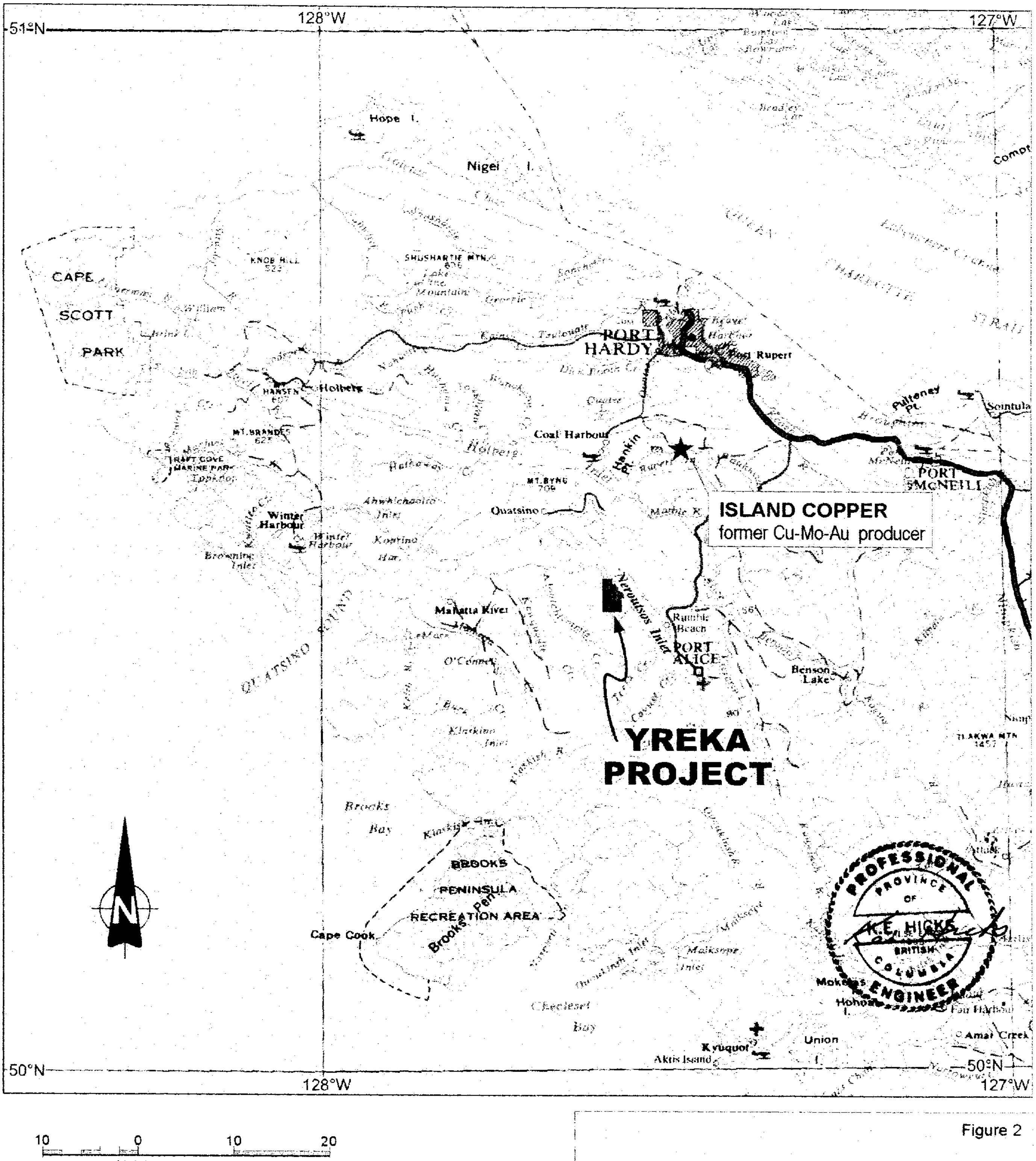


Figure 2

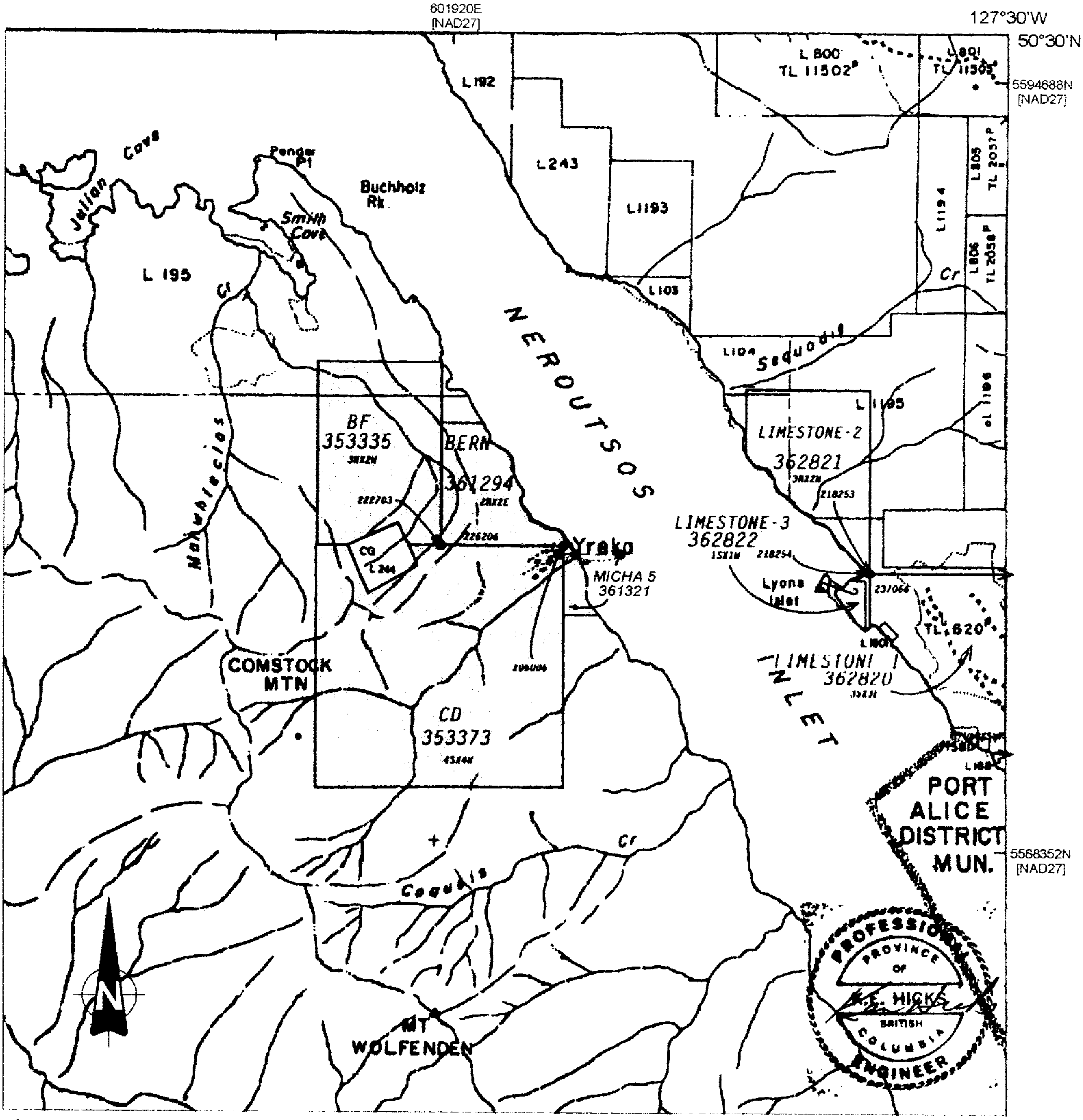
YREKA PROJECT

Property Location
Northern Vancouver Island

September, 1999

Map Base scanned & modified after:
'SOUTHWESTERN British Columbia':
MAPS-BC, Surveys and Resource Mapping Branch,
BC Ministry of Environment, Lands and Parks, Victoria, BC,
6th Edition, 1993, scale 1:600,00

Van_Island_North.cdr



Source:

BRITISH COLUMBIA

MINISTRY OF ENERGY AND MINES

ENERGY AND MINERALS DIVISION
MINERAL TITLES BRANCH

MINERAL TITLES REFERENCE
MAP 092L05E
U.T.M. ZONE 9
LAST MAP UPDATE: 1999 JUN 15

ADMINISTRATIVE AREAS
MINING DIVISIONS: ALBERNI, NANAIMO

Figure 3

YREKA PROPERTY

CLAIM MAP

500 0 500 1000 1500 2000
METERS
Scale: 1:50,000[approx]

September 1999

Claim_Map.cdr

CLAIM NAME	NUMBER OF UNITS	TYPE	RECORD NUMBER	REGISTERED OWNER	EXPIRY DATE
CD	16	MGS	353373	C.DYAKOWSKI	JAN. 25, 2001
BF	6	MGS	353335	C.DYAKOWSKI	JAN. 25, 2001
BERN	4	MSG	361294	C.DYAKOWSKI	JAN. 24, 2001
MICHA 5	1	2 POST	361321	C.DYAKOWSKI	FEB. 19, 2001

The claims are currently under option to Talltree Resources Ltd. of Vancouver B.C. The Edison Crown Granted claim (Lot #244) is contained within the perimeter of the claim group boundary but is not part of the Yreka property (Figure 3). The property is approximately 675 hectares in size.

4. PROPERTY HISTORY AND DEVELOPMENT

The Yreka copper deposit was discovered at the end of the last century, the first claims being staked in 1898 and 1899. By 1903 the property was equipped with an aerial tram, a ten-drill air compressor powered by a Pelton wheel, ore bunkers, and a wharf. In that year 2500 tons of copper ore, of unknown grade, was shipped from the Clyde workings on the property. In 1903 the Northwestern Smelting and Refining Company assumed control of the property from Yreka Copper Company, however all work ceased in 1904.

A new wharf, ore bunkers and aerial tramway were erected in the spring of 1917 and a shipment of 900 tons of 3% copper ore was made, but the property was again abandoned later in the year.

No further work was done on the property until 1952, when it was taken over by Noranda Exploration Company Limited. In 1953 the company conducted detailed mapping and "X-Ray" diamond drilling. Two short holes were drilled at the portal of Tunnel # 1 on the Clyde workings. One hole intersected 18.5 feet of 1.42 % copper.

Underground sampling indicated similar average copper grades in sulphide zones mapped in Tunnels # 1, 2 and 3. Gold assays of up to 0.05 oz/t and silver up to 3.0 oz/t were returned from chip samples of the best mineralized sections. At Upper Blue Grouse they outlined an area of mineralization approximately 34 metres long and 5 – 10 metres wide on a steep northerly facing scarp immediately south of, and across Canyon Creek from the Clyde prospect. Nine samples taken later by Green Eagle Mines Ltd. in 1971 averaged 0.42 % copper and 1.30 % zinc (Poloni, 1971).

Noranda carried out more diamond drilling at higher elevation in 1954 followed by underground development on two levels in 1955 and 1956 at the central and northern part of the main skarn zone. No production was reported during this period.

By 1956 a total 40,388 feet of diamond drilling (EX and AX size), 6103 feet of drifting and cross cutting and 1723 feet of raises were completed on the property (Poloni, 1971).

The property was dormant between 1958 and 1964. In 1965, Minoca Mines Ltd., jointly owned by Mitsubishi Metal Mining Co. Ltd. (49%) and Yreka Mines Ltd. (51%), prepared the property for production based on the ore resource figure of 154,221 tonnes grading 3.7% copper and 41.15 g/t silver. Based on Noranda's exploration work from 1953 to 1956, this figure was classified as "measured geological resource". An additional indicated resource was estimated at 45,359 tonnes of 2.6 percent copper and 34.29 g/t silver (MINFILE reprint from Northern Miner, 1965).

Production between the commencement of milling in November, 1965 and cessation of operations at the beginning of October 1967 was 133,572 tonnes of ore, grading 2.9% copper, 32.79 g/t silver and 0.36 g/t gold (MINFILE, 1989).

In 1970 the property was optioned by Green Eagle Mines Ltd from K.Akre. The company conducted airborne electromagnetic and magnetometer surveys over the main part of the property as well as ground geophysical and geochemical surveys over the Tuscarora and Upper Blue Grouse areas. In addition, reconnaissance stream sediment sampling was carried out along the creeks to the south and north of Canyon Creek. Copper, zinc and molybdenum anomalies were located in creeks draining the slopes of Upper and Lower Blue Grouse prospects to the south of Canyon Creek.

In 1972 ISO Explorations Ltd., who optioned the property from Green Eagle Mines Ltd., conducted geochemical and geophysical surveys on nine prospective areas in the vicinity of the Yreka Mine workings. The main focus of ISO's work was the targets surrounding the Yreka deposit. It did, however, include the northern (Superior) and the southern (Clyde) limits of the skarn horizon. A majority of the target areas were surveyed by MAG, VLF, self-potential and soil geochemistry surveys. A total of 1,844 feet of drilling at Comstock-Edison was performed to test two copper-silver showings discovered in 1971 and 1972. The down dip extension of one of the showings (No.8) was intersected. The best assay yielded 1.92 % copper across 5.9 metres. Two holes drilled in the North Arm Creek were aimed at testing a VLF conductor. One hole was lost in bad ground at 46 feet. The second hole was drilled to 116 feet. No mineralization, only pyrite, was intersected (Crossley, 1972).

In March and May 1998 Talltree Resources Ltd. conducted an exploration program aimed at evaluating the economic potential of the property. Initial examination was done by using boat access from Coal Harbour located 15 kilometres northeast of the property. Subsequently a camp with a 5-man crew was established on the property to conduct detailed work on two selected exploration targets. A total of 135 man-days were spent on the property.

The exploration work consisted of rock and soil geochemistry surveys, prospecting and line cutting. A total of 83 rock samples and 285 soil samples were collected from the property area.

Two areas were selected for detailed sampling and examination in 1998: Lower Blue Grouse and Clyde. Blue Grouse is an old prospect with showings comprising trenches and open cuts. The Clyde area surrounds old underground exploratory workings, which have seen little surveying since the 1950's. It is situated 300 metres south of the former Yreka Mine. Geological evidence suggests that the skarn horizon of the main zone reaches its greatest thickness in this area. A part of the footwall zone branches off and traverses the steep hill to the northeast (Baldys, 1998).

5. REGIONAL GEOLOGY AND METALLOGENY

The generalized geology of northern Vancouver Island is shown in Figure 4. The oldest rocks encountered in the Quatsino Sound area belong to the Upper Triassic Vancouver Group and comprise tholeitic flood basalts (Karmutsen Formation) at the base, overlain by thinly bedded to massive limestone (Quatsino Formation) and intercalated marine shale, siltstone and impure limestone (Parson Bay Formation). Above it, the Lower to Middle Jurassic Bonanza Group is composed of mafic to felsic volcanic and lesser intercalated sedimentary rocks laid down in both submarine and subaerial environments. The Bonanza Group is unconformably overlain by marine to non-marine Upper Jurassic (?) to Cretaceous clastic sequences and localized Tertiary volcanic rocks. The Mesozoic strata are intruded by Lower to Middle Jurassic granitoids of the Island Plutonic Suite, and mafic to felsic dykes and sills of Karmutsen, Bonanza and Tertiary age (Perello *et al*, 1995).

The regional structure of northern Vancouver Island is dominated by block faulting. The blocks being bounded by prominent northwest to west-northwest-trending, normal or strike-slip faults which dip steeply northeast.

The collisional and volcanic arc tectonics of the Wrangellia Terrane give rise to a large number and variety of mineral deposits. Exhalative massive sulphides (Myra falls, H-W), Cu-Mo-Au porphyry (Island Copper), Au, Cu and Fe skarns (Yreka, Merry Widow) are just some examples of the wide range of mineral deposit types in this terrane.

Timing of mineralization can be divided into two age groups. The first is within the Triassic Sicker Group volcanics and are represented primarily by exhalative massive sulphides like the H-W deposit. The second major period of mineralization is related to volcanic and plutonic activity in the Early to Mid Jurassic. This is best represented by the porphyry and skarn mineralization at Island Copper and adjacent areas. At Island Copper a wide quartz-feldspar porphyry dyke intrudes the volcanic sequence. The mine produced copper concentrate containing 1.3 billion kilograms of copper, 31 million kilograms of molybdenum, 31.7 million grams of gold, 336 million grams of silver and 27,000 kilograms of rhenium.

6. PROPERTY GEOLOGY

6.1 STRATIGRAPHY

New mapping data collected in 1999 is correlated with stratigraphic subdivisions used in the 1998 report by Baldys. The basic framework of geological units is the same (Figures 8a, 8b).

Sediments and volcanics of the Lower to Middle Jurassic Bonanza Group are the best exposed stratigraphy on the Yreka property. The highest stratigraphic unit is seen above the upper Blue Grouse area and consists of a cliff-forming porphyritic and amygdaloidal flow. This is correlated with the JBF_3 unit of the Bonanza Group. Underlying this is the most important unit in term of receptiveness for skarn mineralization. A new debris slide that occurred in the winter of 1998 in the area of third creek has exposed a thick (unmineralized) section of this unit. It is comprised of a thick sequence of mainly bedded limestones, lesser tuff and angular breccias intruded by narrow dioritic dykes. The limestones ranged from arenaceous near the base to black

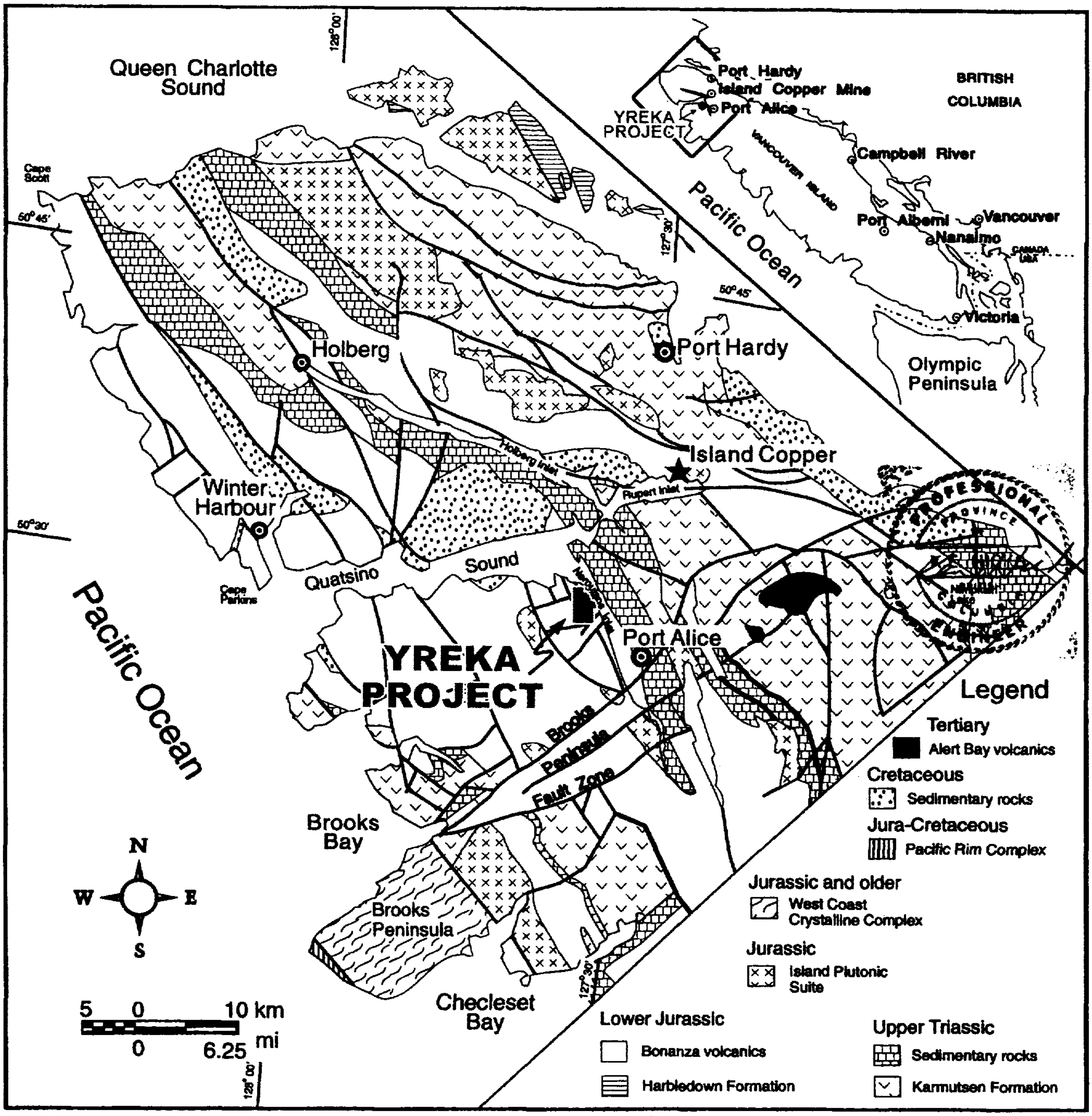


Figure 4

YREKA PROJECT

Regional Geology of the YREKA Area

September, 1999

Source:
"Porphyry copper-gold-molybdenum deposits in the Island Copper Cluster, northern Vancouver Island, British Columbia"; J.A.Perellò, et al, *in* "Porphyry Deposits of the Northwestern Cordillera of North America, T.G.Schroeter, ed., Canadian Institute of Mining, Metallurgy and Petroleum, Special Volume 46, Montreal, Quebec, 1995, fig.2, p216.

Regional_Geology.cdr

argillaceous and finally fossiliferous (crinoidal) limestone. This dominantly limestone package is the JBtls subdivision. A mafic volcanic flow unit is shown within the area between the Upper and Lower blue grouse but appears to pinch out laterally in the Edison creek area to the northwest. The Lower Blue grouse and the Tuscarora area are underlain by a package of thin-bedded tuffs, calcareous tuffs and thin-bedded limestones. A coarse heterolithic debris flow with limestone and sedimentary clasts possibly marks a transition between regimes. Finally, the lowest stratigraphic unit encountered in the Bonanza Group is mafic flows and breccias in the area of the Gold Adit in the lower reaches of Canyon Creek (JBF_1).

Limestone exposed on the shoreline is tentatively correlated with the Upper Triassic Quatsino Formation. The intervening Parson's Bay Formation, consisting of limestone and impure limestone are suggested to be absent in this area.

6.2 INTRUSIVES

Dykes and sills of felsic porphyries and quartz-diorite that are probably comagmatic with the Upper Bonanza Group volcanics intrude the bedded sequences. A large number of small quartz-feldspar and feldspar porphyry intrusions, usually one to several metres in thickness, are found in the Yreka skarn zone and the 3rd Creek slide area. Many appear to be sill-like, and conform to the existing bedding while others definitely cut stratigraphy.

6.3 STRUCTURE

Minor variations of bedding orientations are found in the sedimentary and tuffaceous layers, however no solid evidence of minor or major fold structures or stratigraphic repetitions was found. The structure is essentially homoclinal with an average strike of approximately 135° and dip of 35° southwest (Figures 8a, 8b). The BC Minfile report on the Yreka reports that "the rocks have been folded about a northwest plunging and trending axis".

The most prominent regional fault orientation is the northeast trending Brooks Peninsula Fault Zone which cuts across the southern reaches of Neroutsos Inlet, south of the Yreka property. Coincidentally, many of the creek drainages on the property follow minor fault or shear zones parallel to that orientation. The significance or more importantly correlation of these minor structures to mineralization is unknown at this time.

6.4 ALTERATION AND MINERALIZATION

The bedded limestone and calcareous tuffs within the JBtl2 and JBt subdivisions of the Bonanza Group appear to have been the "receptive hosts" of the majority of the alteration and mineralization evident on the Yreka Property (Figures 8a, 8b). A large amount of this calcareous rock has undergone a pervasive silicification, resulting in hard, blocky fracturing outcrops. Exposed at the very end of the access road, vertically below the Yreka workings, is medium-bedded limestone, partially silicified and with irregular patches of tremolite. This exposure displays the erratic occurrence of calc-silicate formation within the general area of contact metamorphism.

New rock outcrops in the North Arm slide area exposed a number of shear related gossans with narrow zones of calcite-quartz and ankerite veins with abundant sulphides. The T & P showing and the Upper Showing are examples of this type of mineralization. The veins have a general orientation of 245 degrees with a vertical dip. A 1 meter wide fine-grained quartz monzonite dyke trending 162 degrees with a vertical dip was also exposed by the slide.

A well-developed quartz stockwork outcrop was discovered in the 5+50NW, 0+23SW area of the Canyon Grid. A sample (JL99-1) collected from outcrop in this area contained visible molybdenite in the general area of closely spaced veining pervasive through the silicified limestone host (Figures 8a, 8b, Appendices II and II).

The 3rd Creek slide area showed a nearly continuous rock exposure through the very little in the way of silicification or mineralization in contrast to the Tuscarora and Blue Grouse areas.

The mineralization at the Yreka deposit is hosted by a garnet skarn which is 500 metres long and 30 –100 metres wide. It strikes in a northwesterly direction, appears conformable to bedding and contains calcite, biotite, chlorite, hedenbergite, epidote, quartz, magnetite and sulphides. Most of the copper-gold-silver production came from a high-grade sulphide zone of limited size. It was oval-shaped with a steep southwest dip with dimensions approximately 15 meters wide by 49 meters long by 60 meters high. The average mined grade from this zone was 2.9% Cu (Baldys, 1998).

The presence of garnet in skarn within the Yreka area appears to be unique compared to other mineralized locals. Silicification and only weak calc-silicate formation are found in the Tuscarora and Blue Grouse zones. This lends credence to the hypothesis that a mineralogical zonation is discernible on a property-wide scale.

Pyrrhotite is pervasive throughout most of the property. It occurs as fine-grained dissemination as well as massive replacements generally devoid of other sulphides.

7. 1999 WORK COMPLETED

A total of 31 rock samples were collected and analyzed for 30 element ICP and FAA gold (Figures 8a, 8b). A total of 491 soil samples were collected on the Canyon Grid (Figures 5a-5d), Lower Blue Grouse (Figures 6a-6d) and the Tuscarora grids (Figures 7a-7d), following up on the 1998 areas of coverage. A total of 12.5 line kms of VLF-EM was carried out (Figures 5e,5f, 7e, 7f).

Rock samples were collected from a wide area throughout the property wherever economic mineralization was found. No attempt was made to resample the existing Clyde or Yreka workings in detail. A total of 31 reconnaissance rock samples were collected from various areas of the property. These include the Upper and Lower Blue Grouse, Tuscarora, North Arm creek and the Gold Adit. Sample descriptions, locations and analytical results are listed in Appendix III. Rock samples were located whenever possible through either relative coordinates to preexisting soil grid lines and/or GPS coordinates taken in the field.

Soil sample coverage followed up on the 1998 recommendations by extending a grid from the North Arm prospect up into the Upper Blue Grouse area. The existing 1998 Grid #2 (now the Tuscarora grid) was extended to the west to cover a prospective area between the Clyde Prospect and lower Edison Creek. This also corresponded to a multi-element anomaly in the lower Tuscarora creek. Additional samples were collected and coverage extended on the 1998 Grid #1 (now the Lower Grouse Grid) to follow up Cu + Zn anomalies near the ridge nose. A new grid was established in the North Arm – Canyon Creek-Upper Blue Grouse areas (called the Canyon Grid) to follow up evidence of Mo near the lower reaches of North Arm creek.

Reconnaissance mapping was carried out in the newly exposed areas of the North Arm and 3rd Creek slide areas together with traverses to most of the known areas of interest (Figures 8a, 8b). The "Gold Adit", a small exploratory working mentioned in the 1972 ISO assessment report was "rediscovered" in Canyon Creek just below the Lower Blue Grouse grid area. The adit itself was collapsed; however, samples of float material from outside the adit workings were collected for analysis and the results are displayed in Appendix III. Whenever possible, GPS coordinates were collected on grid locations and property landmarks in order to tie them into a relocateable coordinate position.

Within the Canyon and Tuscarora grids, approximately 12.5 line-kms of VLF-EM were completed during the 1999 field program. This was carried out in an attempt to correlate the soil geochemistry and reconnaissance mapping with possible structural features such as faults, which can be the loci of mineralizing fluids in a skarn system. In addition, other conductive bodies such as massive sulphides might be detected (Figures 5e, 5f, 7e, 7f).

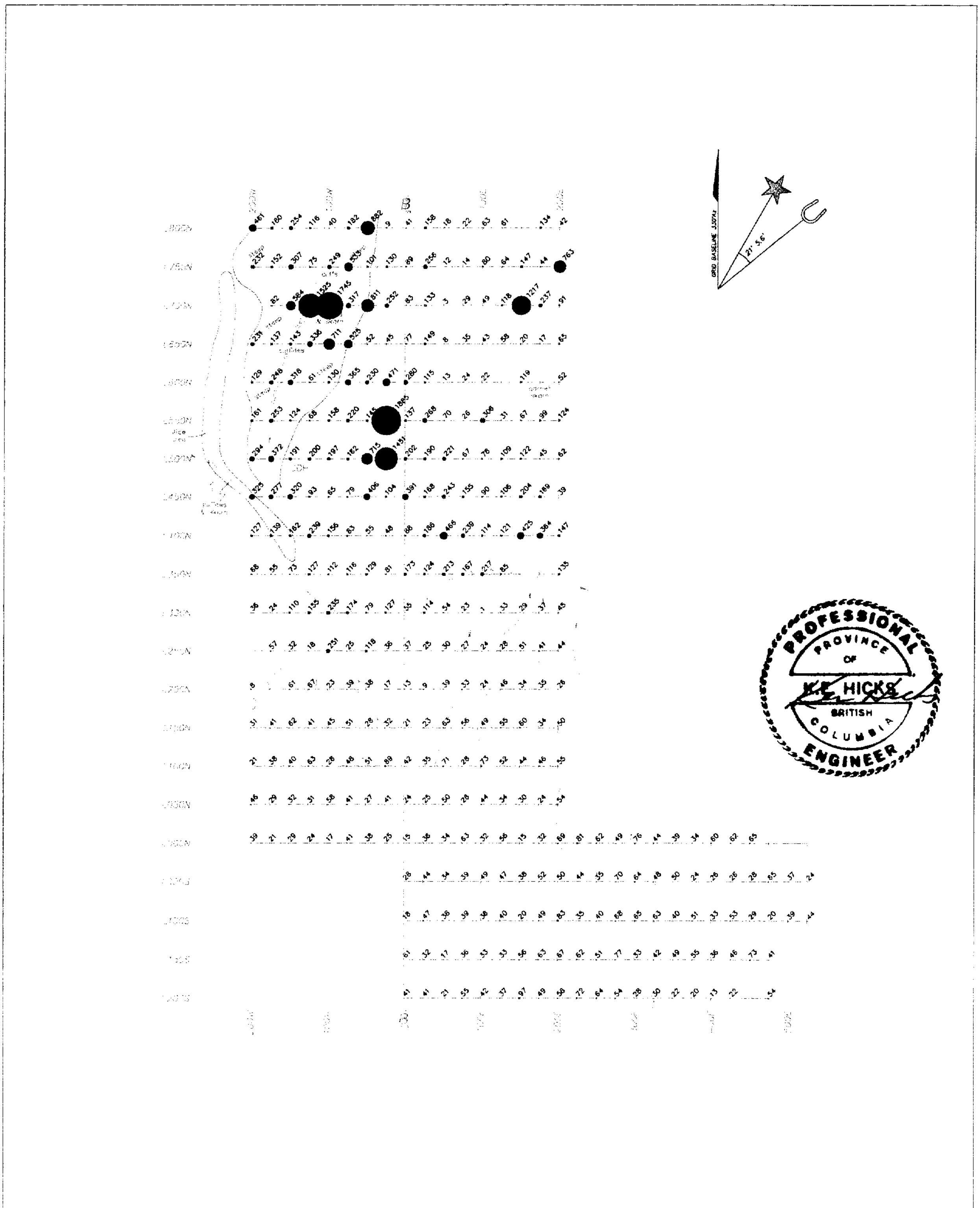
8. 1999 WORK PROGRAM RESULTS

8.1 RECONNAISSANCE ROCK SAMPLING RESULTS

The Tuscarora area rock samples returned values very anomalous in zinc (highest > 99999 ppm Zn) or greater than 10% Zn. Copper values ranged from 1000 to 3000 ppm. Silver was slightly enriched with the highest values in the range of 7.0 ppm. All samples contained very low gold values.

The Upper Blue Grouse and Lower Blue Grouse areas generated moderately anomalous zinc values to 19408 ppm or roughly 1.9 % Zn. Copper values had a high of 10095 ppm (1%) but were generally in the 500 – 2000 ppm range. The best sample (KH140999-3), returned the highest copper, zinc, as well as silver and gold values in this area.

Samples collected from North Arm creek area contained very little in terms of zinc values but did contain copper in the 500 – 2000 ppm. The only rock sample strongly anomalous in Mo (JL99-1) was taken on the Canyon grid, close to North Arm creek and had a value of 1027 ppm Mo. Visible molybdenite was seen (Figures 8a, 8b).



NOTES:
Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.

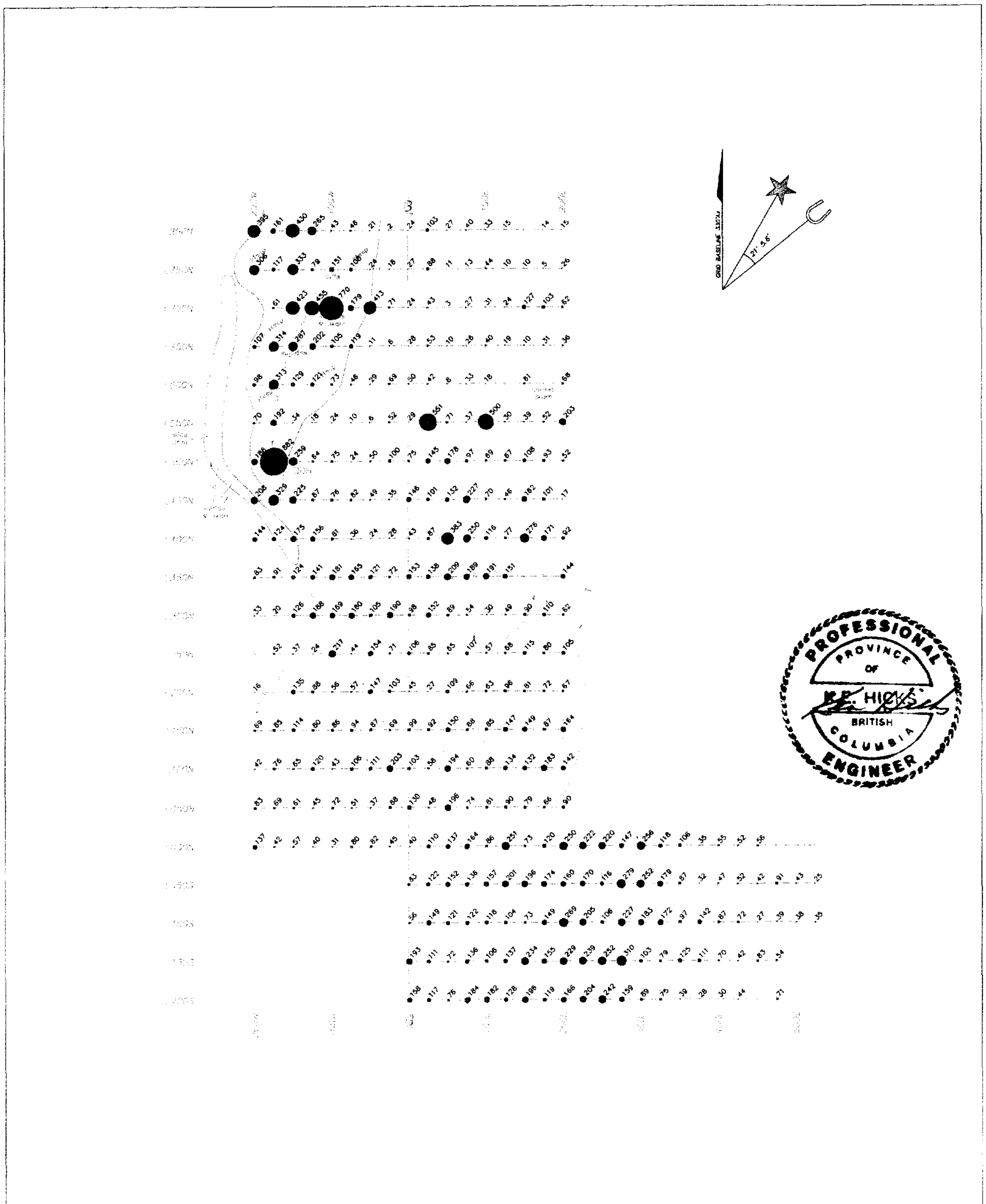
Samples highlighted with filled circle of size proportional to assay value. Assay values in ppm.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

COPPER in Soils
Canyon Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure: 5a Canyon
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	
File:	Canyon_grid.dwg	Date:	Sept. 1999	



NOTES:
Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.

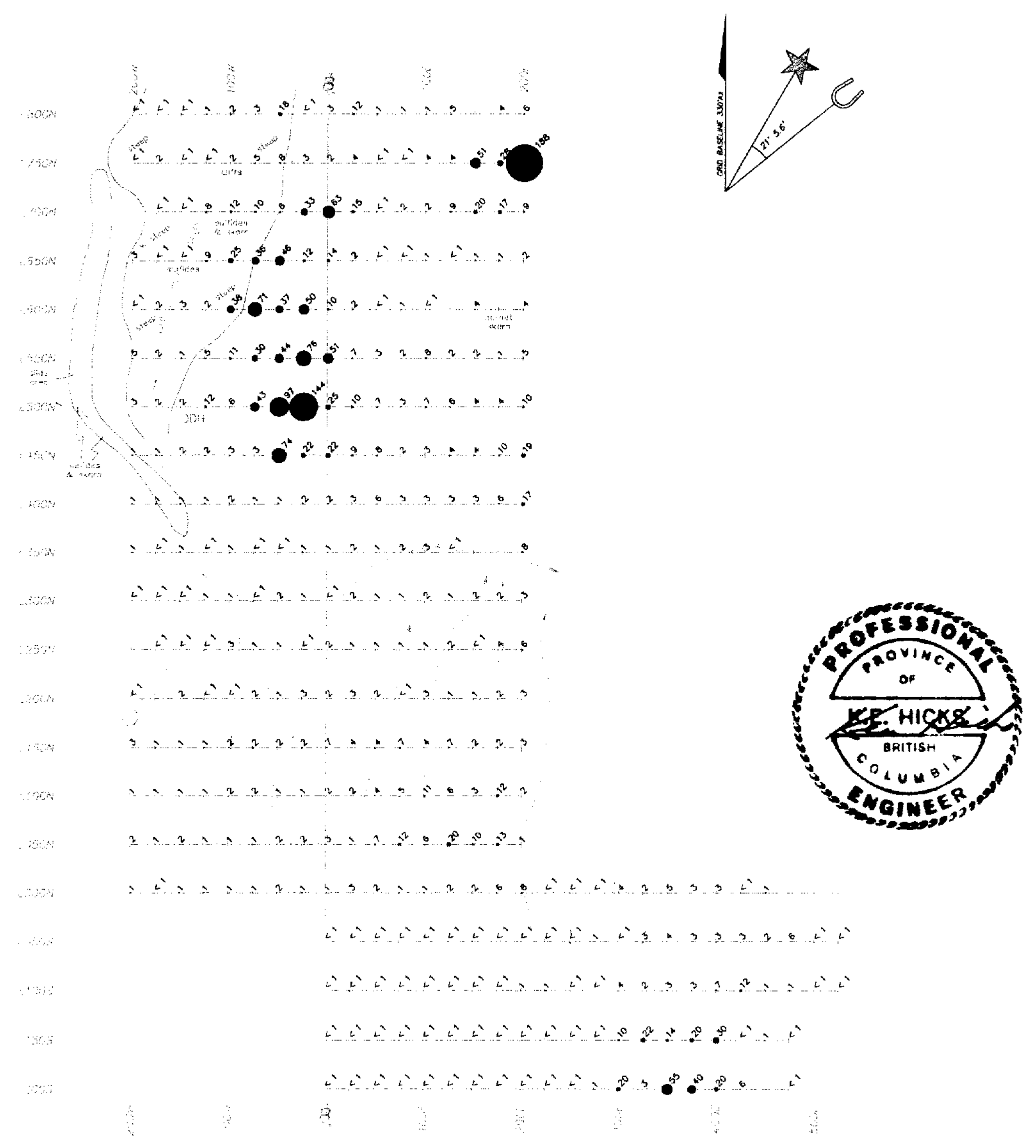
Samples highlighted with filled circle of size proportional to assay value. Assay values in ppm.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

ZINC in Soils
Canyon Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure: 5b Canyon
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	
File:	Canyon_grid.dwg	Date:	Sept. 1999	



NOTES:
Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.

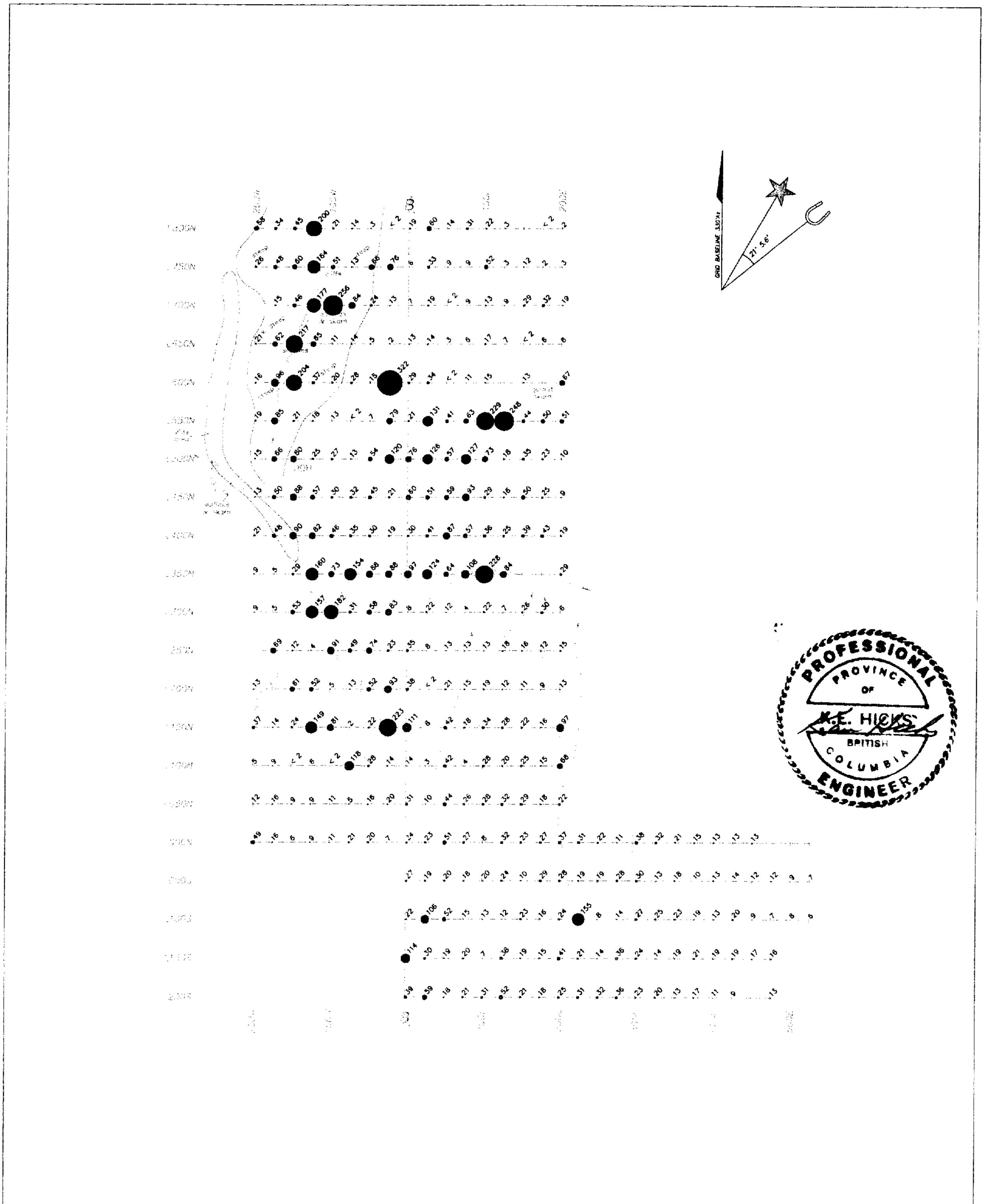
Samples highlighted with filled circle of size proportional to assay value. Assay values in ppm.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

MOLYBDENUM in Soils
Canyon Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	5c Canyon
File:	Canyon_grid.dwg	Date:	Sept. 1999	



NOTES:

Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.

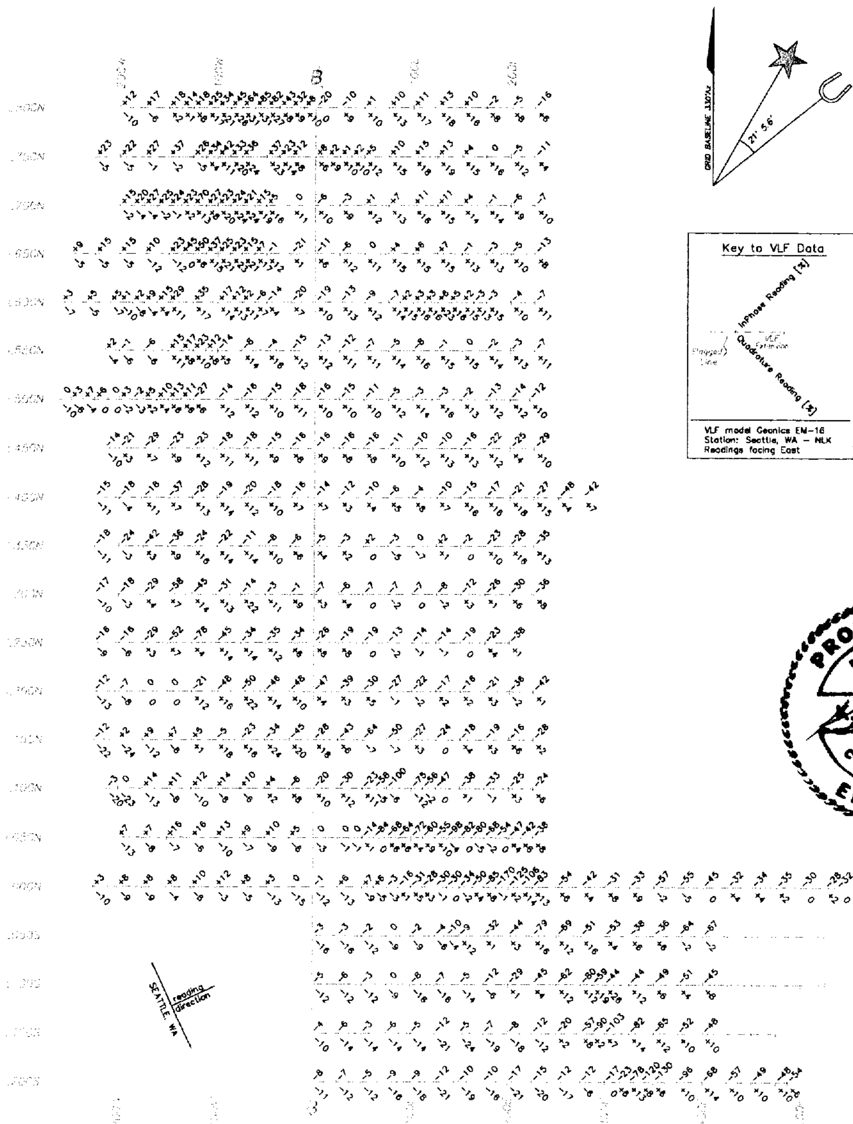
Samples highlighted with filled circle of size proportional to assay value. Assay values in ppm.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

ARSENIC in Soils
Canyon Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	5d Canyon
File:	Canyon_grid.dwg	Date:	Sept. 1999	



PROFESSIONAL · PROVINCE OF · K.E. HICKS · BRITISH COLUMBIA · ENGINEER

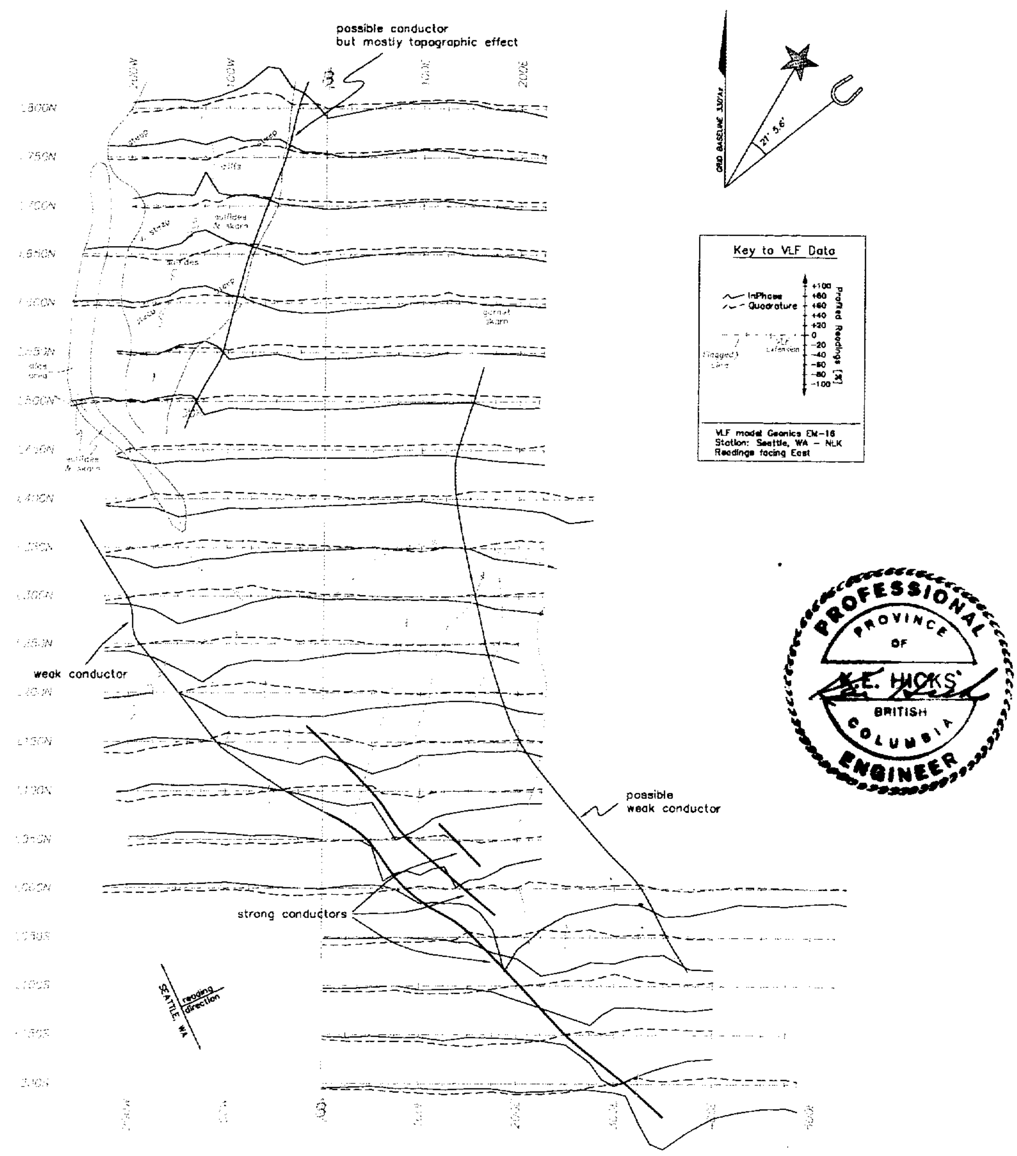
NOTES:
Survey conducted by J.D. Williams, Pat Poissant & Milton Grace, August & September 1999.
Extensions to end of lines, indicated by dashing, are readings taken beyond the flagged portion of the grid – these locations are approximate as they were measured in neither distance or direction.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

VLF Survey Field Readings
Canyon Grid

Survey by:	J.DWilliams, P.P. & M.G.	Scale:	1 : 500	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	5e Canyon
File:	Canyon_grid.dwg	Date:	Sept. 1999	



NOTES:
Survey conducted by J.D. Williams, Pat Poissant & Milton Grace, August & September 1999. Extensions to end of lines, indicated by dashing, are readings taken beyond the flagged portion of the grid – these locations are approximate as they were measured in neither distance or direction.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

VLF Survey Profiles & Interpretation
Canyon Grid

Survey by:	J.D.Williams, P.P. & M.G.	Scale:	1 : 500	Figure: 5f Canyon
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	
File:	Canyon_grid.dwg	Date:	Sept. 1999	

8.2 SOIL GEOCHEMISTRY RESULTS

Canyon Grid: The northwest corner of the grid, immediately adjacent to North Arm Creek shows a well defined cluster of samples anomalous in Cu and Mo. This is in the vicinity of the Quartz Stockwork outcrop and visible Molybdenite. There appears to be an approximate upslope termination of this geochemical anomaly on line 750N. Zinc has a slightly larger dispersion of the elements plotted. This multi-element anomaly is considered a high priority in follow-up work. The highest Cu value is 1885ppm which is 50m upslope of the highest Mo value of 144ppm. An isolated Mo value of 188ppm occurs on the northeastern part of the grid.

Lower Blue Grouse Grid: (Figures 6a-6d) Copper and zinc appear to have a good correlation along the nose of the ridge although the zinc values are more consistent in magnitude. Arsenic is anomalous in the same general area but does not show the same geochemical dispersion train. The distribution of zinc appears to indicate a zinc enrichment parallel to the ridge connecting the Upper and Lower Blue Grouse.

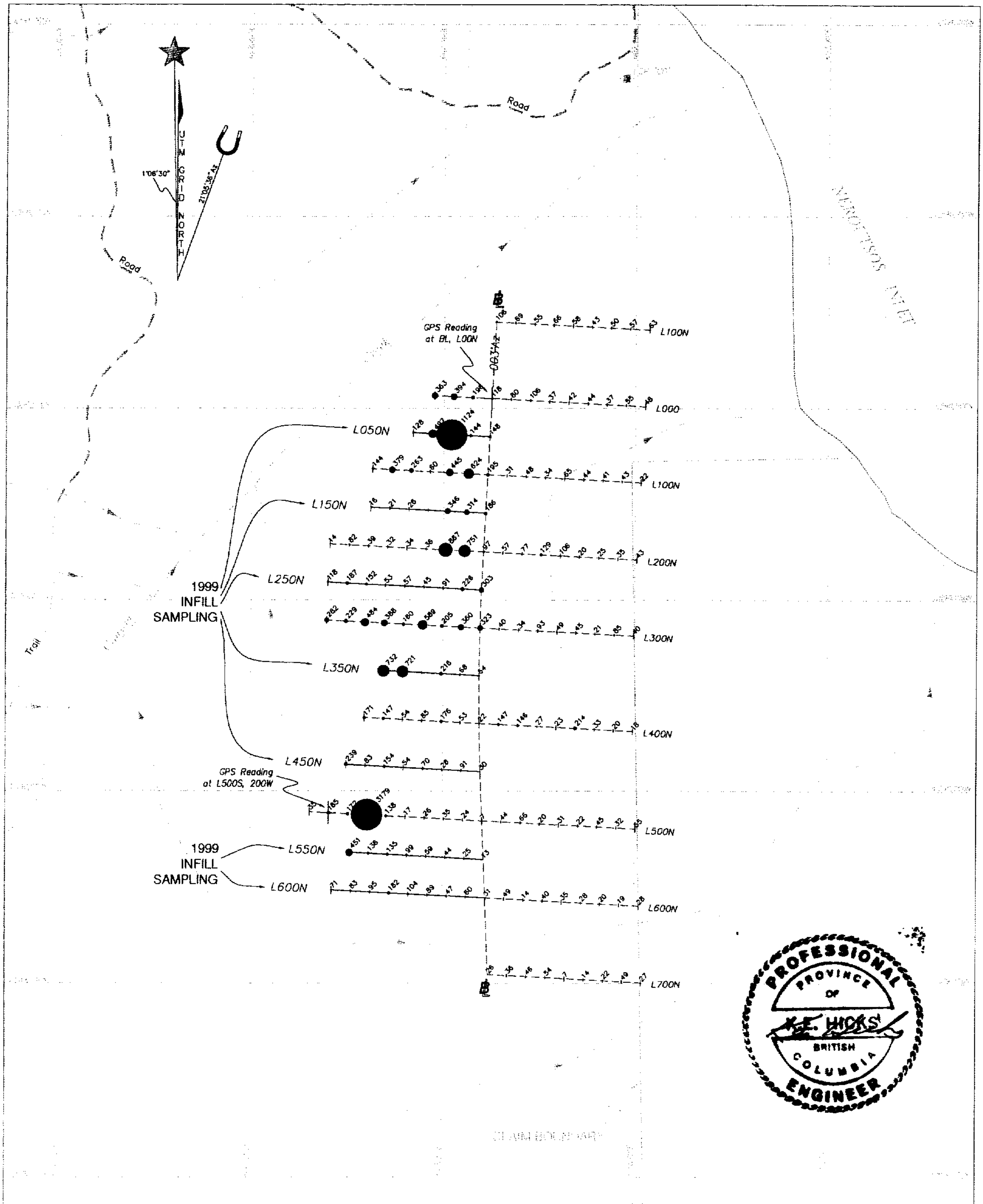
Tuscarora Grid: (Figures 7a-7d) The 1999 work on the Tuscarora grid did not show the extension of a strong Cu-Zn anomaly on line 200S. Therefore, the termination of the anomaly occurs at the end of the 1998 line. Arsenic appears to be the only element which shows a consistent multi-point anomaly on line 00S. Copper, zinc, and molybdenum values on the 1999 grid are minimal or single point anomalies.

8.3 GEOPHYSICS – VLF-EM - RESULTS

A number of strong conductors were found and are displayed in Figures 5e, 5f, 7e, 7f. Refer to the soil geochemistry and rock sampling results.

VLF-EM on the Tuscarora Grid shows a strong conductor axis trending northwest, which is parallel to stratigraphy at that point. This could be interpreted as bedding parallel shears, which were prominent in the exposed outcrops.

A similar response was found at the Canyon Grid with possible shear zones parallel bedding. The conductors have an east-west strike on the lower half of the grid where the geochemical values are at background levels. They appear to deflect to a roughly northerly trend in the area of the anomalous Cu, Mo, and Zn geochemistry.



NOTES:
Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.
Topographic detail digitized after '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994. UTM Projection, NAD83, Zone 09.
Details of 1998 grid lines taken from 98-14.dwg, part of report by C.Baldys, 1998.

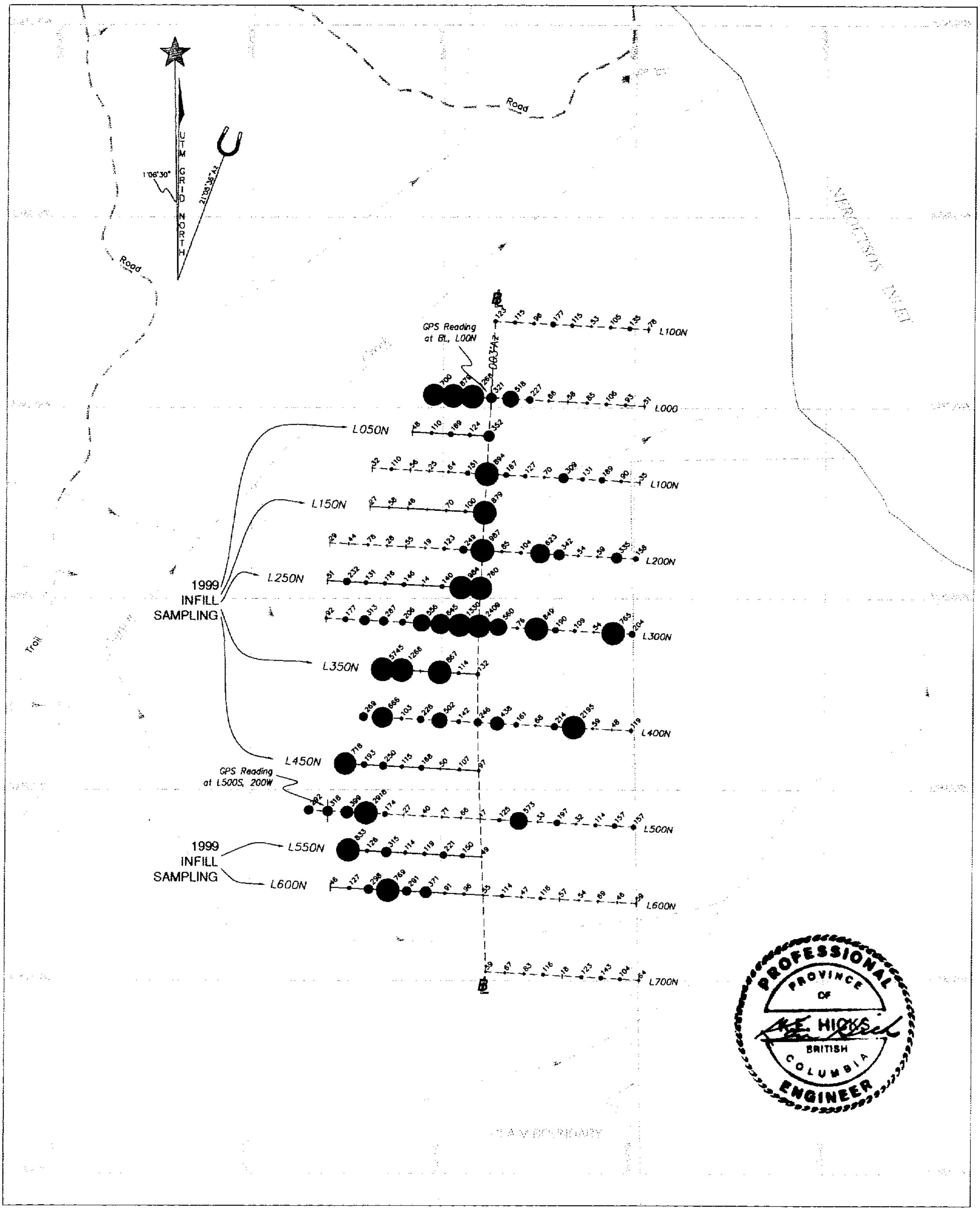
Samples highlighted with filled circle of size proportional to assay value [to a max radius of 20m]. Assay values in ppm.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

COPPER in Soils
Lower Blue Grouse Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	6a Grouse
File:	Grouse_grid.dwg	Date:	Sept. 1999	



NOTES:
Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.
Topographic detail digitized after '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994. UTM Projection, NAD83, Zone 09.
Details of 1998 grid lines taken from 98-14.dwg, part of report by C.Baldys, 1998.

Samples highlighted with filled circle of size proportional to assay value [to a max radius of 15m]. Assay values in ppm.

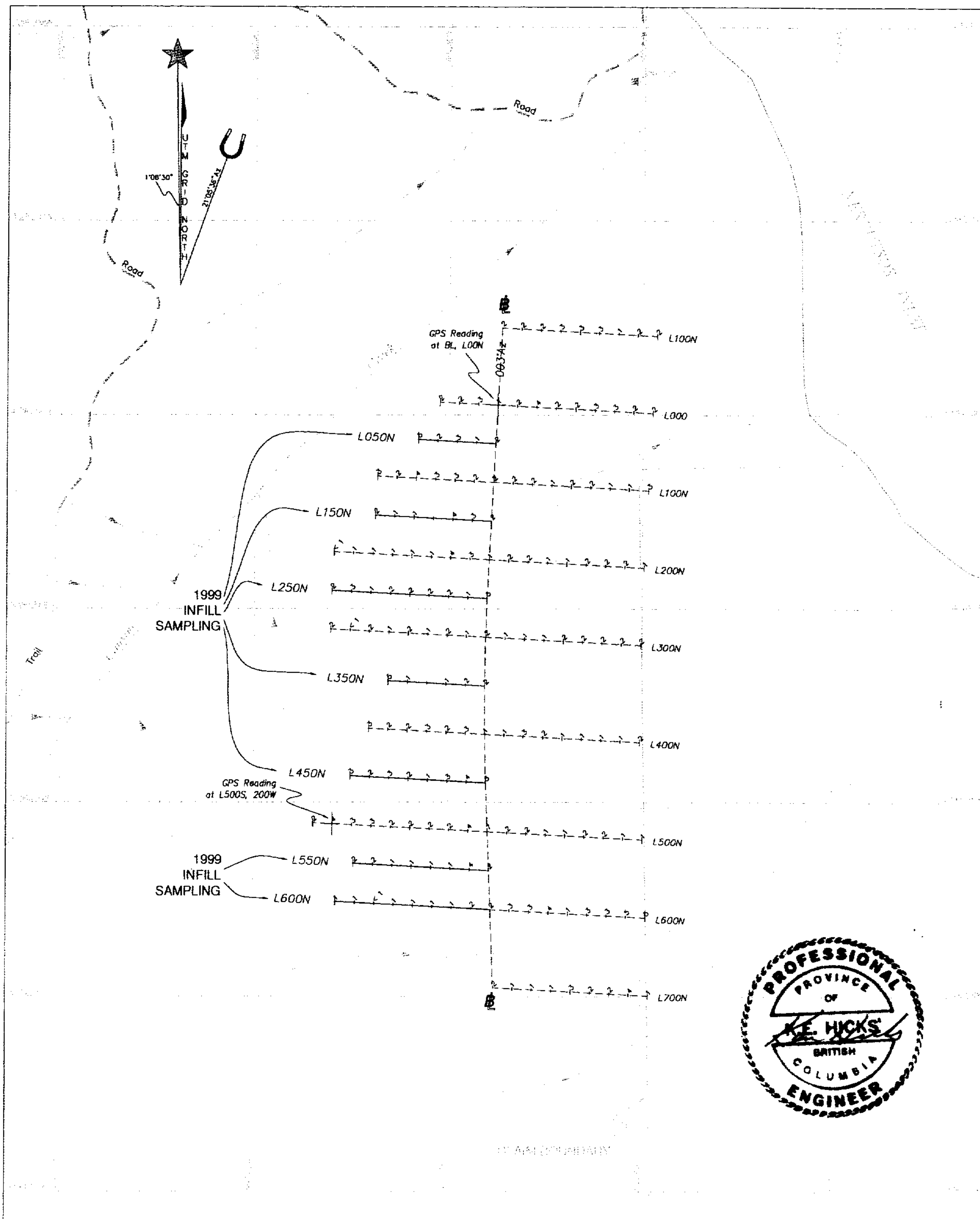
100 METRES 0 50 100 150 200 250

YREKA PROJECT

ZINC in Soils
Lower Blue Grouse Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05n
File:	Grouse_grid.dwg	Date:	Sept. 1999

Figure: 6b Grouse



NOTES:
Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.
Topographic detail digitized after '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994. UTM Projection, NAD83, Zone 09.
Details of 1998 grid lines taken from 98-14.dwg, part of report by C.Baldys, 1998.

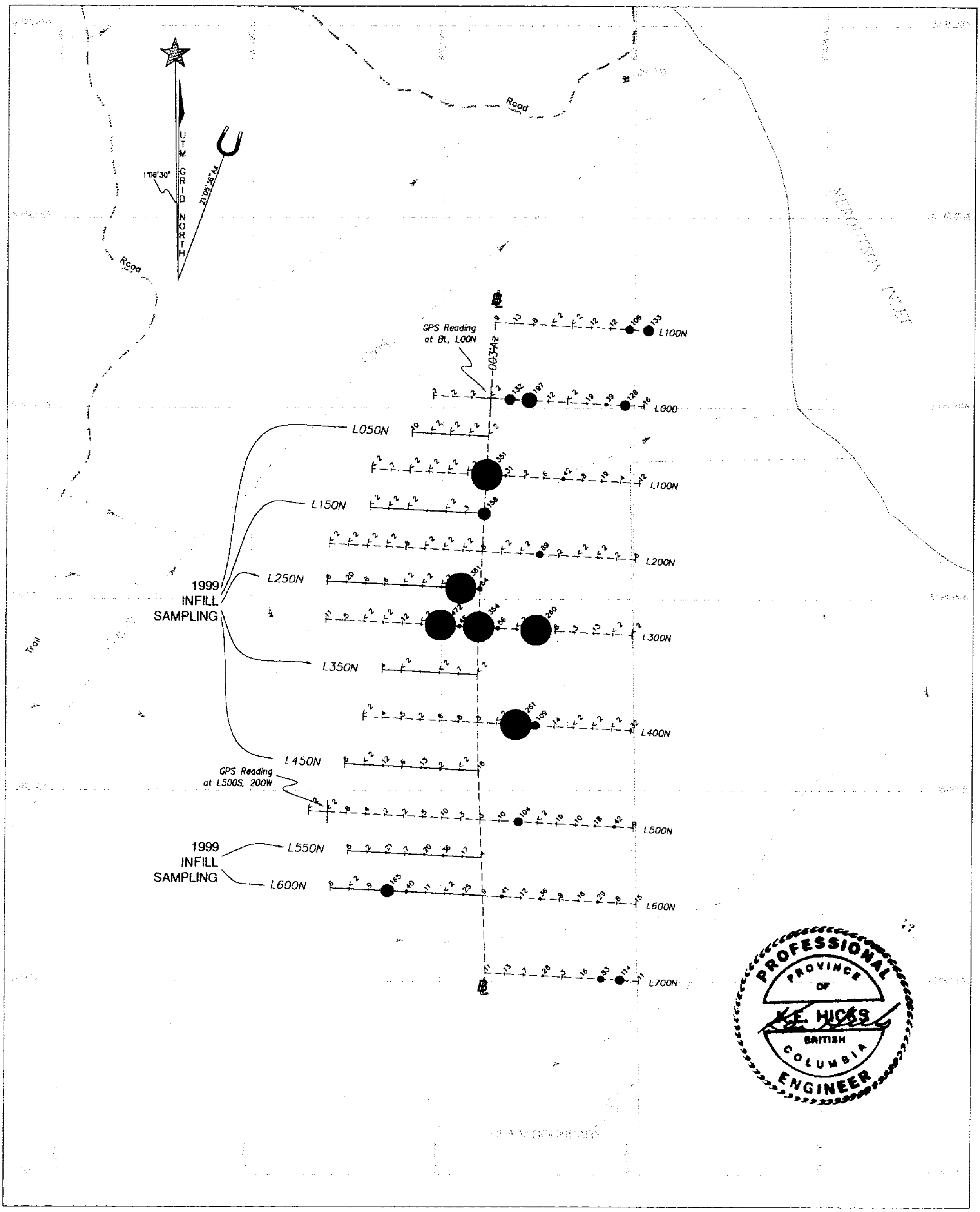
Samples highlighted with filled circle of size proportional to assay value [to a max radius of 20m]. Assay values in ppm.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

MOLYBDENUM in Soils
Lower Blue Grouse Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure: 6c Grouse
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	
File:	Grouse_grid.dwg	Date:	Sept. 1999	



NOTES:
Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.
Topographic detail digitized after '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994. UTM Projection, NAD83, Zone 09.
Details of 1998 grid lines taken from 98-14.dwg, part of report by C.Baldys, 1998.

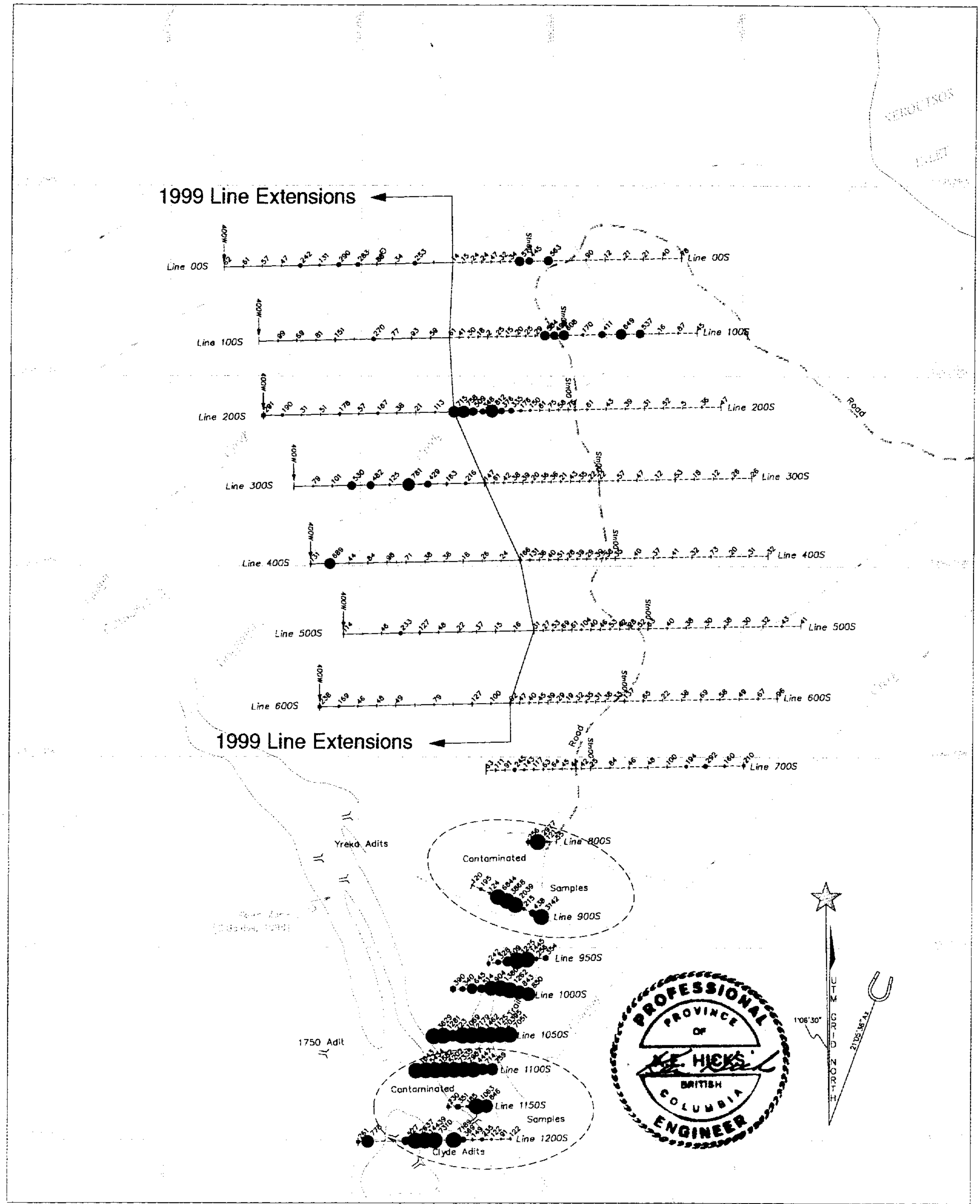
Samples highlighted with filled circle of size proportional to assay value [to a max radius of 20m]. Assay values in ppm.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

ARSENIC in Soils
Lower Blue Grouse Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	6d Grouse
File:	Grouse_grid.dwg	Date:	Sept. 1999	



NOTES:
Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.
Topographic detail digitized after '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994. UTM Projection, NAD83, Zone 09.
Details of 1998 grid lines taken from 98-14.dwg, part of report by C.Baldys, 1998.

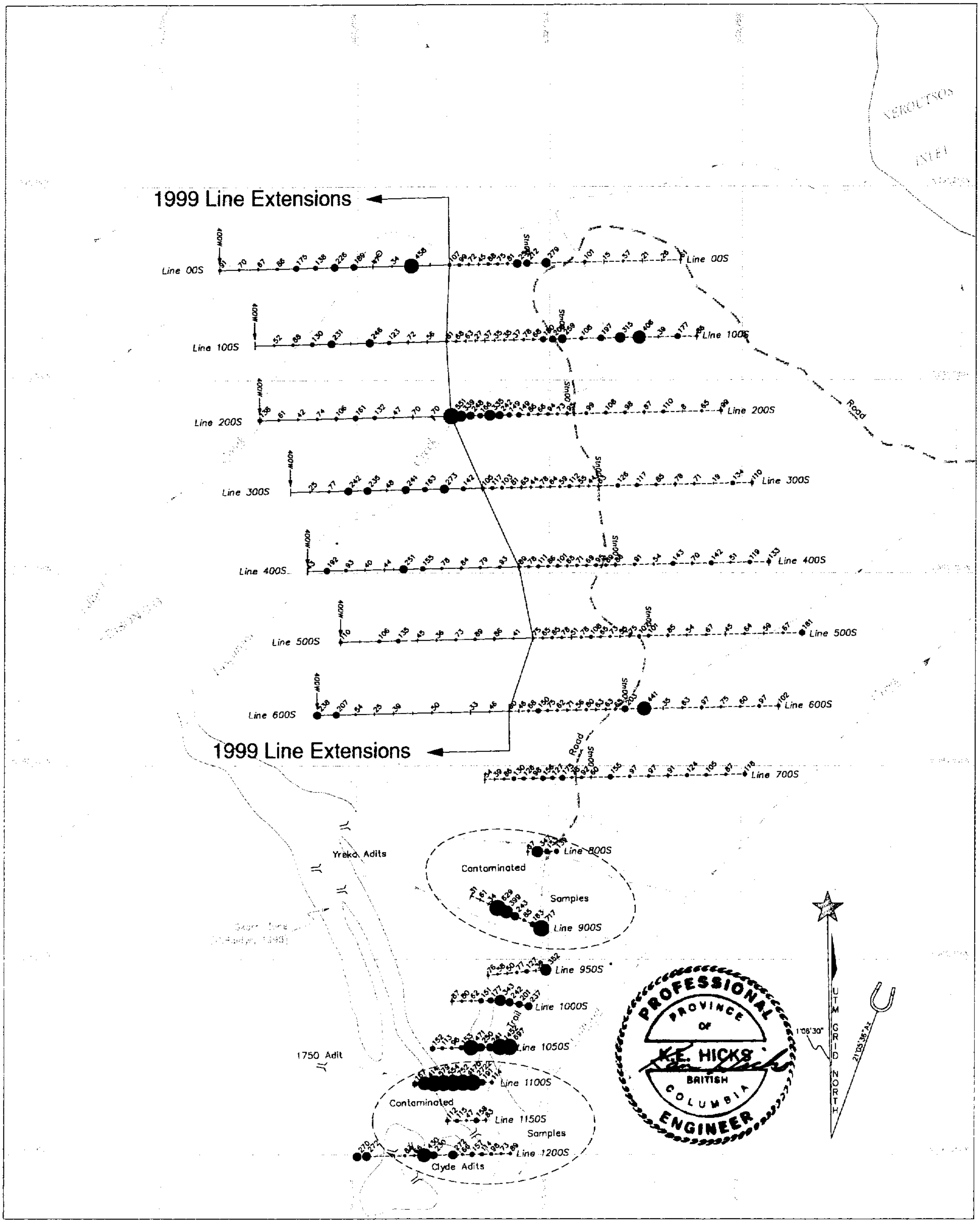
Samples highlighted with filled circle of size proportional to assay value [to a max radius of 10m]. Assay values in ppm.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

COPPER in Soils
Tuscarora Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	7a Tuscarora
File:	Tuscarora_grid.dwg	Date:	Sept. 1999	



NOTES:
Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.
Topographic detail digitized after '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994. UTM Projection, NAD83, Zone 09.
Details of 1998 grid lines taken from 98-14.dwg, part of report by C.Baldys, 1998.

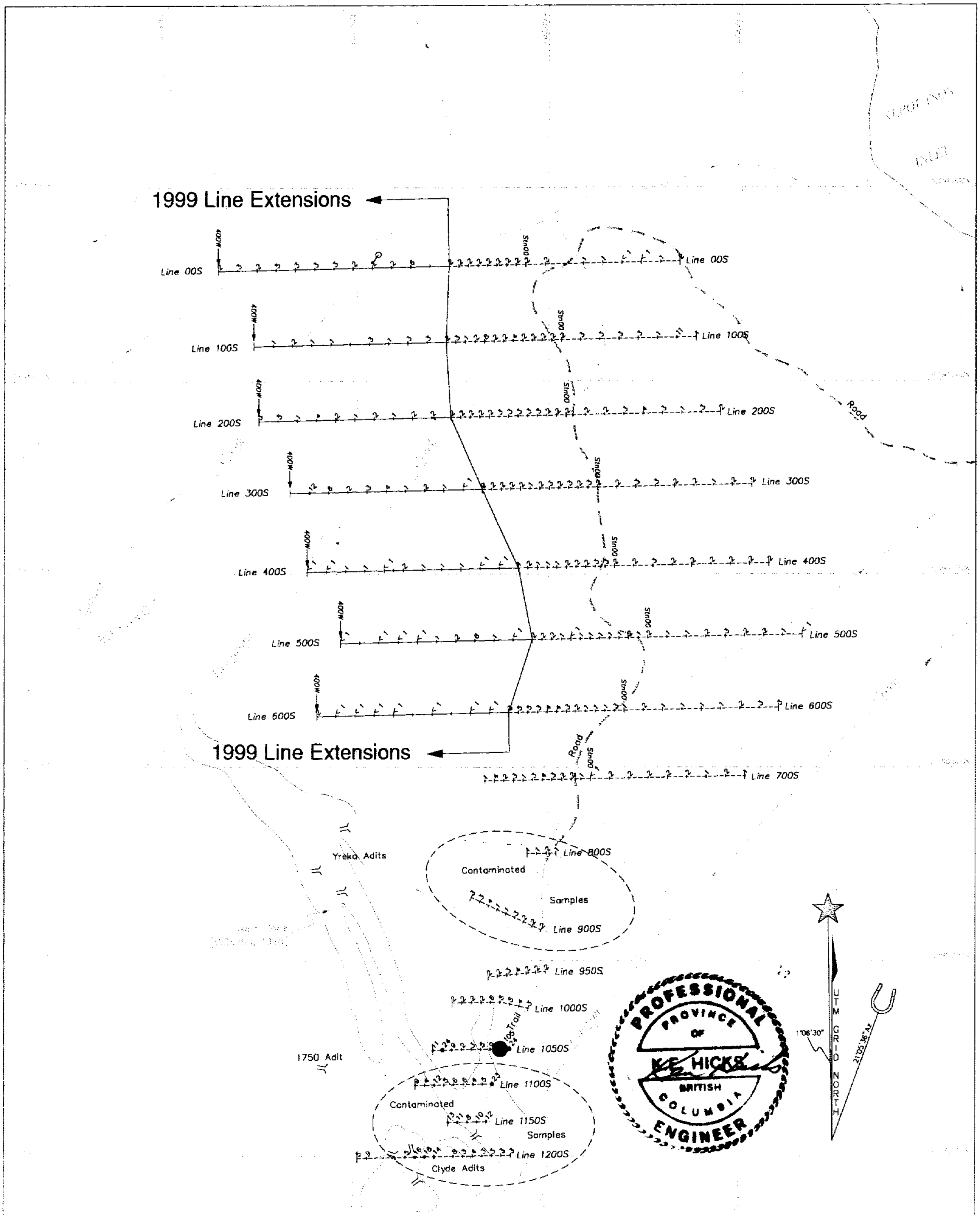
Samples highlighted with filled circle of size proportional to assay value [to a max radius of 10m]. Assay values in ppm.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

ZINC in Soils
Tuscarora Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	7b Tuscarora
File:	Tuscarora_grid.dwg	Date:	Sept. 1999	



NOTES:
Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.
Topographic detail digitized after '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994. UTM Projection, NAD83, Zone 09.
Details of 1998 grid lines taken from 98-14.dwg, part of report by C.Baldys, 1998.

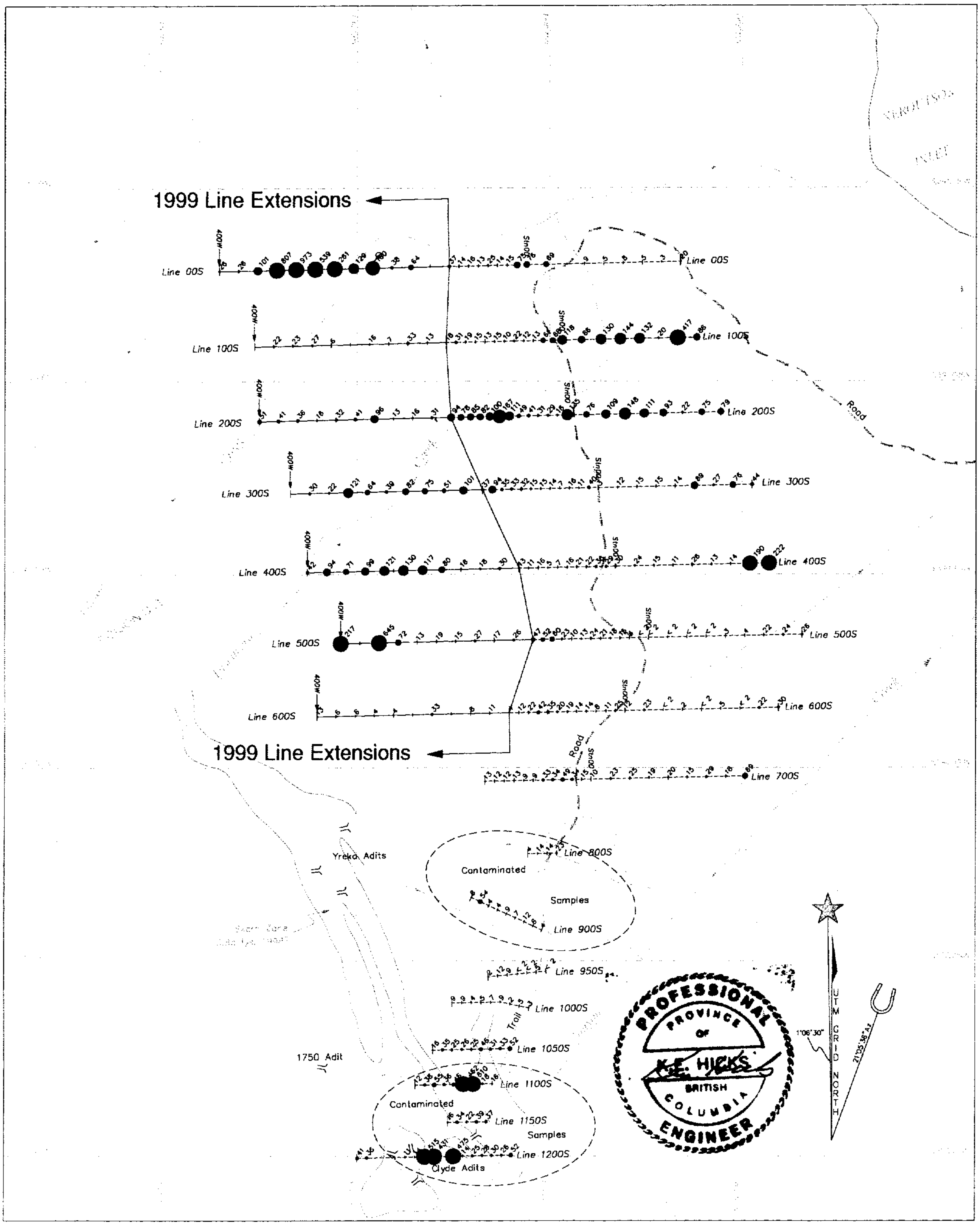
Samples highlighted with filled circle of size proportional to assay value [to a max radius of 10m]. Assay values in ppm.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

MOLYBDENUM in Soils
Tuscarora Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	7c Tuscarora
File:	Tuscarora_grid.dwg	Date:	Sept. 1999	



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NOTES:
Soil sampling conducted by Pat Poissant & Milton Grace, August & September 1999.
Topographic detail digitized after '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994. UTM Projection, NAD83, Zone 09.
Details of 1998 grid lines taken from 98-14.dwg, part of report by C.Boldys, 1998.

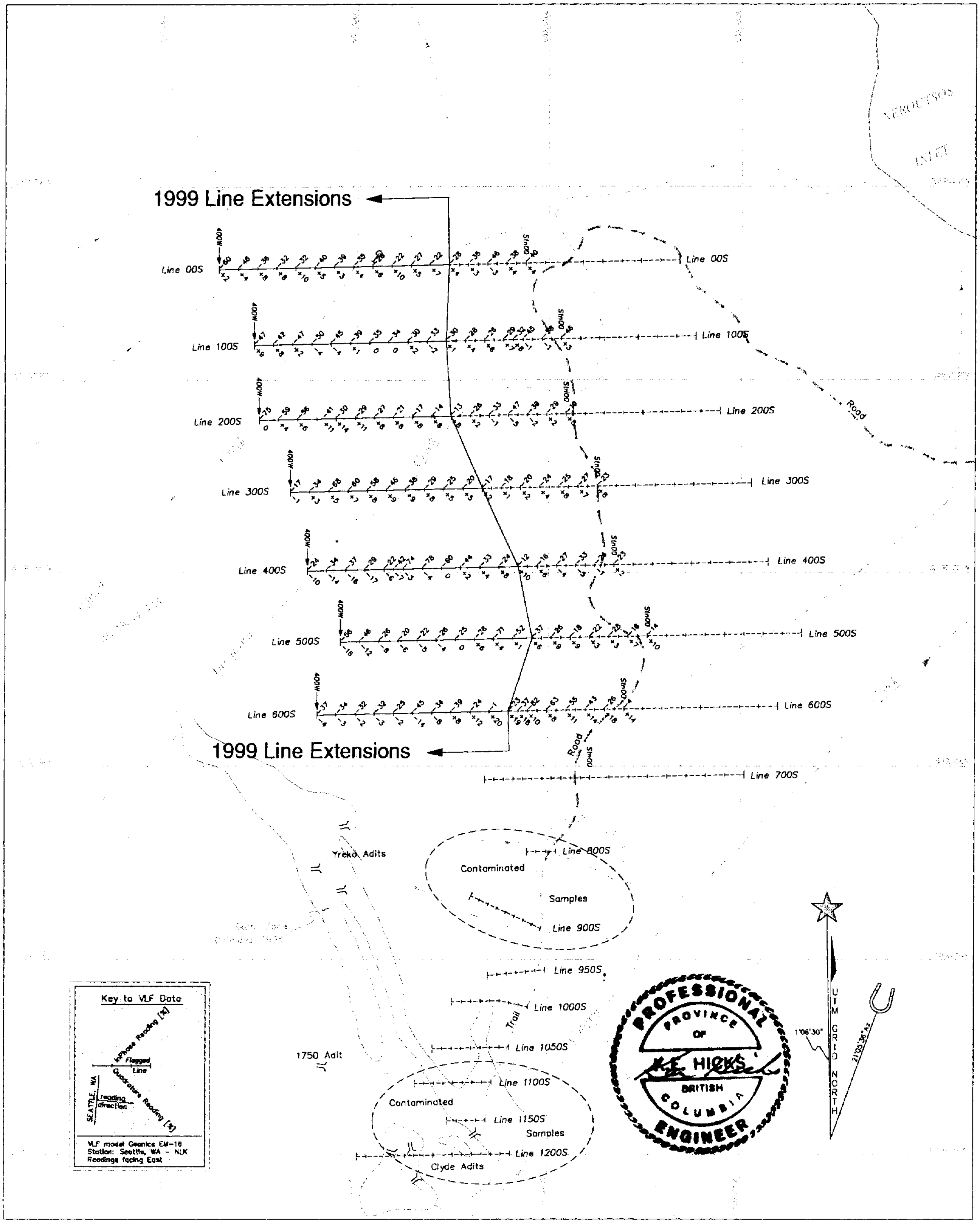
Samples highlighted with filled circle of size proportional to assay value [to a max radius of 10m]. Assay values in ppm.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

ARSENIC in Soils
Tuscarora Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	7d Tuscarora
File:	Tuscarora_grid.dwg	Date:	Sept. 1999	



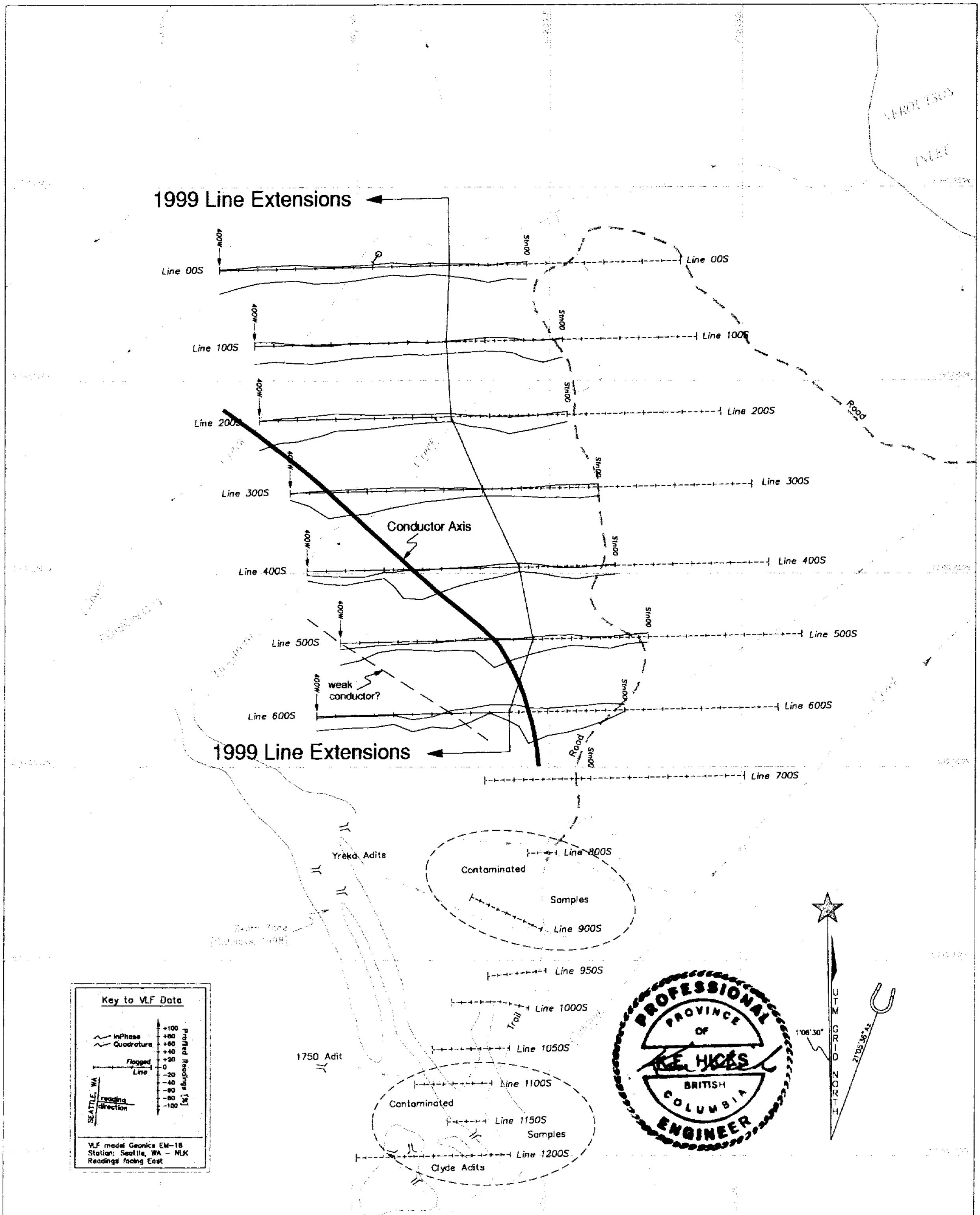
NOTES:
VLF survey conducted by Pat Poissant & Milton Grace, August & September 1999.
Topographic detail digitized after '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994. UTM Projection, NAD83, Zone 09.
Details of 1998 grid lines taken from 98-14.dwg, part of report by C.Boldys, 1998.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

VLF Readings
Tuscarora Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	7e Tuscarora
File:	Tuscarora_grid.dwg	Date:	Sept. 1999	



NOTES:
VLF survey conducted by Pat Poissant & Milton Grace, August & September 1999.
Topographic detail digitized after '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994. UTM Projection, NAD83, Zone 09.
Details of 1998 grid lines taken from 98-14.dwg, part of report by C.Baldys, 1998.

100 METRES 0 50 100 150 200 250

YREKA PROJECT

VLF Profiles & Interpretation
Tuscarora Grid

Survey by:	Pat Poissant & Milton Grace	Scale:	1 : 500	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	7f Tuscarora
File:	Tuscarora_grid.dwg	Date:	Sept. 1999	

9. CONCLUSIONS

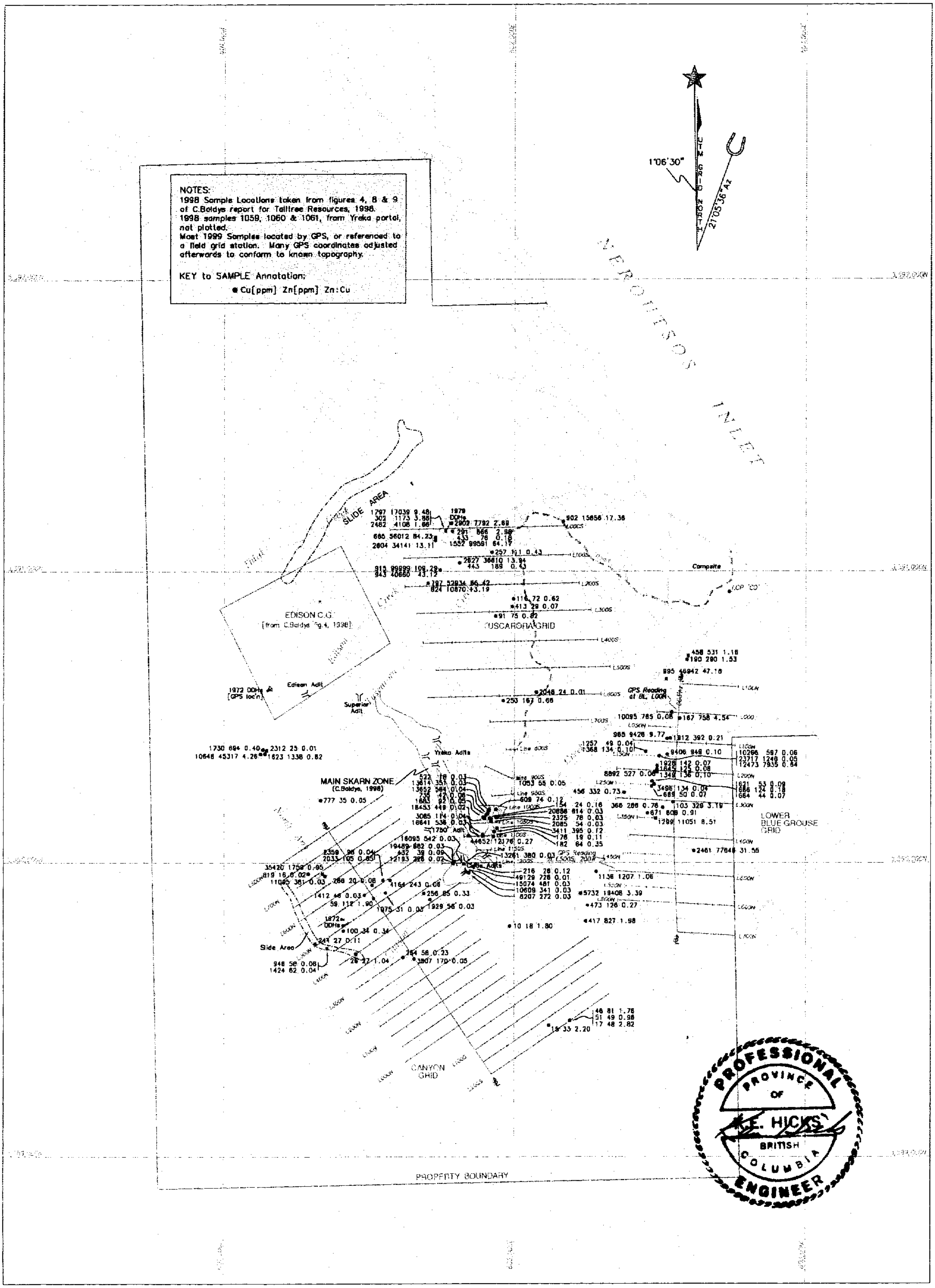
The Yreka property has been a focus of copper exploration since the turn of the century. Cu, Zn, Mo and less amounts of other elements are contained within skarn and/or calc-silicate rocks as a result of contact metamorphism with an adjacent intrusive. To date no large intrusive body has been discovered on the property. It is postulated to reside at depth below Comstock Mtn (Figures 8a, 8b).

Soil geochemistry and prospecting have been effective in defining a crude mineralogical zonation of copper and zinc concentrations on the property. Higher grade copper mineralization at the Yreka and Clyde workings are considered to be higher temperature and proximal to the intrusive body. The occurrence of molybdenite near North Arm creek to the south of the Clyde workings is also considered to indicate that an intrusive source is close by. Zinc-rich sulphide occurrences at the Tuscarora and the Upper and Lower Blue Grouse Showings occur peripheral to the old working, distal to the hidden intrusive. In addition, while the peripheral occurrences are zinc rich their copper values are still significant and worthy of follow-up. If the same model of lateral zonation is carried into the third dimension, these zinc-rich occurrences might possibly become more copper rich with an increase in depth as they approach the proposed intrusive contact. The occurrence of pyrrhotite as opposed to magnetite as the dominant Fe-oxide suggests a more reducing, possibly higher temperature formation than the oxidizing conditions prevalent for the creation of magnetite.

VLF-EM geophysics was successful in defining a number of high conductivity zones. However, they do not correlate with the known areas of anomalous geochemistry or with the signature of sulphide zones exposed in outcrop. Therefore, these anomalies are suggested to be conductive faults rather than massive sulphides.

The samples of high sulphide float from the area of the Gold adit indicate an arsenic-rich precious metal occurrence outside of the Cu-Zn mineralized zone. Insufficient evidence is available to draw definite conclusions but this might possibly point to a peripheral gold zone which might be expected in porphyry related mineralization.

The specific controls on the mineralization within the property boundary are not well defined. Skarns, by their genesis, can be erratic in the distribution of mineralization even within a restricted area because of host lithology, structures, depth of formation and many other factors. This fact, together with the rugged terrain and considerable extent of cover, make prospecting difficult. The correlation of anomalous Cu and Mo soil geochemistry and the outcrop of molybdenite at the North Arm prospect is a very good indicator for the possibility of Cu-Mo porphyry-style mineralization in the area (Figures 8a, 8b).



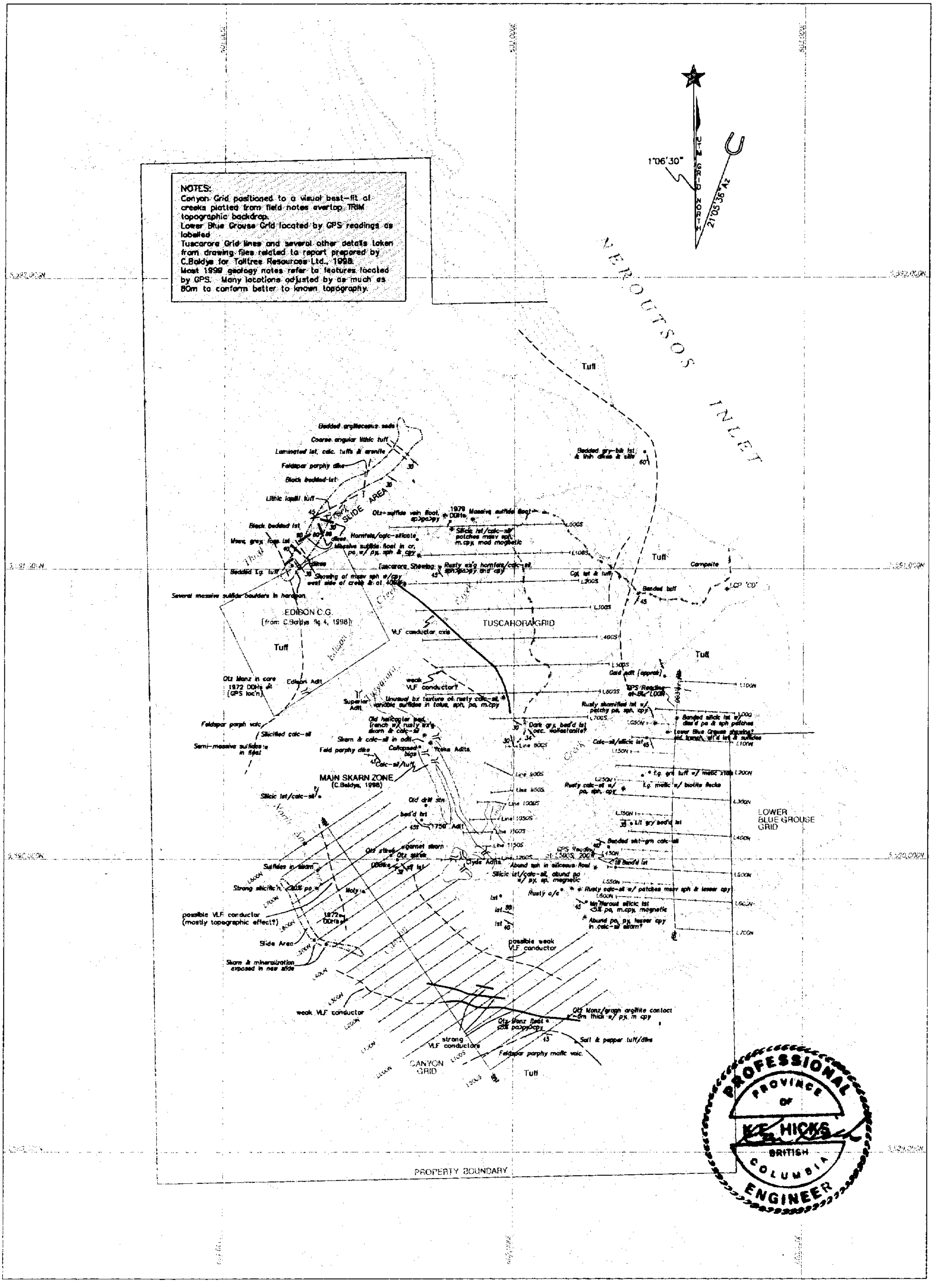
NOTES:
Backdrop Topography scanned from '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994.
U.T.M. Projection, NAD83, Zone 09. Contour interval 25 meters.
Additional details from Fig98-4.dwg, part of report by C. Boldys for Talltree Resources Ltd., Vancouver BC, 1998.
Orientation of Astronomic north defined at NAD83 coordinate 5590000N, 602000E.
Magnetic North obtained from NOAA at http://www.ngdc.noaa.gov/cgi-bin/seg/gmag/fldsnth1.pl

100 METRES 0 50 100 150 200 250

YREKA PROJECT

1999 Fieldwork Summary
Rock Sampling & Assays 1998 & 1999

Survey by:	Ken Hicks, P.Geo.[1999 Samples]	Scale:	1 : 1,250	Figure: 8a YREKA
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	
File:	Property_Summary.dwg	Date:	Sept. 1999	



NOTES:
Backdrop Topography scanned from '92L.043 Digital'; B.C. Ministry of Crown Lands, Surveys and Resource Mapping Branch, 1:20,000, 1994.
U.T.M. Projection, NAD83, Zone 09. Contour interval 25 meters.
Additional details from Fig98-4.dwg, part of report by C. Baldys for Tailtree Resources Ltd., Vancouver BC, 1998.
Orientation of Astronomic north defined at NAD83 coordinate 5590000N, 602000E.
Magnetic North obtained from NOAA at http://www.ngdc.noaa.gov/cgi-bin/seg/gmag/fldsnth1.pl

100 METRES 0 50 100 150 200 250

YREKA PROJECT

1999 Fieldwork Summary
Geology, Geochem & Geophys

Survey by:	Ken Hicks, P.Geo.	Scale:	1 : 1,250	Figure:
Drawn by:	J.D.Williams, P.Eng.	N.T.S.:	092L/05h	8b YREKA
File:	Property_Summary.dwg	Date:	Sept. 1999	

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10. RECOMMENDATIONS

Future exploration on the Yreka property should concentrate on determining if a large concentration of mineralization does exist on the property. From the information gathered to date, high concentrations of copper and zinc sulphides are intimately associated with pyrrhotite within skarn rock. High concentrations of magnetic pyrrhotite will be readily detectable with an airborne survey. Porphyry-style Cu-Mo mineralization should be closely associated with a large intrusive body which should have a distinctive magnetic signature. Therefore, a detailed property-wide helicopter magnetic, radiometrics and EM survey would be useful in locating magnetic targets as well as providing a mapping tool. However, there are magnetite bearing mafic flows in the stratigraphy which might cause problems as well the pervasive disseminated pyrrhotite.

The solution would be the compilation of all previous geological, geochemical and ground geophysical data onto a common base to be used for interpreting the airborne data. With careful calibration and redundancy checks of differential GPS readings from the survey, the correlation of ground and airborne data should be adequate.

Once the airborne anomalies have been interpreted and ground-checked, drill testing of significant anomalies should be carried out using a helicopter supported fly rig. Emphasis should be on defining the limits of a geological resource.

11. PROPOSED EXPLORATION BUDGET

PHASE 1:	COST
a) Compilation of all previous data into a single database, interpretation and plotting on a detailed orthophoto.	$10,000
b) Property-wide Helicopter magnetometer, radiometrics and multi-frequency EM survey on tightly spaced lines of 50 meters and approximately 3 km long (150 line-km total)	$30,000
Total budget Phase 1:	**$40,000**

PHASE 2:

Drill testing of significant anomalies using a helicopter-supported diamond drill fly rig.

ITEM			COST
1) Helicopter Support	100 hours @ $800/hr		$80,000
2) Drill Site Preparation	(5 sites)		$ 8,000
3) Permitting and Environmental			$ 3,000
4) Diamond Drilling NQ size (all inclusive)	2000 meters @ $100/meter		$200,000
5) Assays	30 % (2000 metres)	@ $25.00	$17,500
6) Travel			$ 7,000
7) Personel:			
Geologist	($300/day * 1 month)		$9,000
Core Technician	($200/day * 1 month)		$6,000
Cook/Expediting	($200/day * 1 month)		$6,000
8) Reporting, Consulting Geologist	($300/day * 10 days)		$3,000
9) Food, Materials	(7 – 8 man crew * 1 month)		$15,000
10) Field Camp Equipment, Supplies			$5,000
11) Communications			$2,000
11) Truck Rental	$70/day * 1 month		$2,000
12) 4-Wheel Drive ATV Rental	$30/day * 1 month		$1,000
		Subtotal	$364,500
Contingency (10%)			$35,500
Total budget Phase 2:			**$400,000**

12. REFERENCES

Ball, C.W. (1980)	Assessment Work, Tuscarora Mineral Claim Yreka Copper – Zinc Property, Nanaimo M.D., British Columbia, Assessment Report 7981
Crossley, R.V. (1972)	Report on Exploration, Yreka (Green Eagle Mines Ltd. Option), ISO Explorations Ltd., Assessment Report 4425
Jeletzky, J.A. (1976)	Mesozoic and Tertiary Rocks of Quatsino Sound, Vancouver Island, British Columbia; Geological Survey of Canada, Bulletin 242
Massey, N.W.D. (1995)	The Vancouver Island Mineral Potential Project (92B,C,E,F,G,K,L, and 102I), Geological Fieldwork 1994, Paper 1995-1 , Mineral Resources Division GSB, Government of British Columbia
Meinert, D.L. (1992)	Skarn and Skarn Deposits. Internet website based upon updated and expanded information from: Meinert, L.D., 1992, Skarns and skarn deposits: Geoscience Canada, v. 19, p. 145-162. Site address: http://www.wsu.edu:8080/~meinert/aboutskarn.html
Nixon, G.T. et al (1993)	Quatsino – San Josef Map Area, Northern Vancouver Island; Geological Overview (921L/12W, 1021/8,9) Geological Fieldwork 1994, Paper 1995-1, Mineral Resources Division GSB, Government of British Columbia
OPENFILE Report (1991)	Geology & Mineral Occurrences of the Merry Widow Skarn Camp. Open file No. 1991-8. By G.E. Ray and I.C.L. Webster. NTS 092L/6. Scale 1:5000. Mineral Resource Division GSB, Government of British Columbia.
Perello, J.A. et al (1995)	Porphyry Cu-Au-Mo deposits in the Island Copper Cluster, northern Vancouver Island, BC. Paper 11 in "Porphyry Deposits of the Northwestern Cordilleran of North America". CIM Special Volume 46. Ed. Tom Schoeter. 1995
Poloni, J.R. (1971)	Assessment Report on the Green Eagle Mines Ltd. Claims, Nanaimo M.D., British Columbia, Assessment Report 3165

STATEMENT OF QUALIFICATIONS

I, Kenneth Elbert Hicks, of Calle Felipe Vallese 2202, Suite 4A, in the capital city of Buenos Aires, in the country of Argentina, hereby certify that:

1. I am a Professional Geologist residing at the above address.
2. I graduated with a Bachelor of Science (Honours) degree in Geology from the University of British Columbia in 1982.
3. I have practiced my profession on a continual basis since graduation.
4. I am a registered Professional Geoscientist in the Province of British Columbia in good standing.
5. I do not have, nor do I expect to receive, any direct or indirect interest in the mineral properties that are the subject of this report.
6. The interpretations contained within this report are based upon my personal experience on the Yreka property on northern Vancouver Island as well as a review of available relevant literature in the public domain.
7. I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of a public or private financing.

Signed: ______________________

Kenneth E. Hicks, P. Geo.
Dated: October 1999

1999 WORK PROGRAM
ON THE YREKA PROJECT,
ITEMIZED COST STATEMENT

PERSONNEL:		
C.I. Dyakowski, P.Geo		
Project Manager		
13 days @ 400/day		$5200
B.Fitch,		
Field Coordinator		
32 days @ $300/day		$9600
Ken Hicks, P. Geo		
Field Geologist		
Fieldwork:	Sept 4 to Sept 16 (13 days @ 300/day)	$3900
Integrex Engineering		
Geophysical Survey (VLF-EM) and Geological Field Work		
20 days @ $225/day		$4500
J. Lucke		
Geophysical Survey (EM and Mag)		
11 days @ $275/day		$3025
T. Jones		
Line Cutting, Soil Sampling and Prospecting		
12 days @ $175/day		$2100
P. Poissant		
Line Cutting, Soil Sampling and Prospecting		
33 days @ $175/day		$5775
M. Grace		
Line Cutting, Soil Sampling and Prospecting		
22 days @ $175/day		$3850
S. Dyakowski		
Helper		
13 days @ $100.00/day		$1300
TRANSPORTATION:		
Toyota P/U truck		
2 days @ $100.00		$200
Chevrolet 4x4 pick-up truck		
10 days @ $100.00		$1000
Ford F250 4x4 pick-up truck		
13 days @ $100/day		$1300
Fuel		$436
Thomas Cook Group (Travel company)		
J. Lucke:	Flight from Castlegar to Port Hardy return	$698
J. Williams :	Flight from Vancouver to Port Hardy return	$333
Pacific Coastal Airlines		
K. Hicks:	Flight from Port Hardy to Vancouver	$390
S. Dyakowski:	Flight from Port Hardy to Vancouver	$170
J. Lucke	Penalty for changing return	$100

Quatsino Sound Marine Transportation Ltd Water Taxi-19 trips	$1827
AquaSea Industries	
Barge	$550
BC Ferries	$533
ACCOMMODATION:	
Field Camp	
169 man days @ $60/day	$10140
Hotels	$723
Misc meals and groceries	$894
RENTALS:	
Northern Exposures	
2 ATV's for 33 days	$2260
Magnetometer	$100
Rhonka VLF-EM	
3 wks @ $150/wk	$450
Chainsaw	
4 wks @ $100/wk	$400
Honda Generator	
4 wks @ 100/wk	$400
ASSAYS:	
Acme Analytical Labs Ltd	$4643
TELEPHONE:	
BC Tel Mobility	$206
Autotel	$361
EXPLORATION SUPPLIES:	
Neville Crosby Miscellaneous items	$304
WCB	$2076
TOTAL 1999 PROPERTY EXPENDITURES	**$69744**

APPENDIX I:
SOIL SAMPLING FIELD NOTES FOR YREKA PROJECT 1999

YREKA PROJECT 1999

SOIL SAMPLE FIELD NOTES

CANYON GRID

Survey: Pat Poissant, Milton Grace
Date: August & September 1999

Grid Coordinate Line	Station	Horizon	SOIL Color	Depth [cm]	Remarks
200SE	0	B	orange		
	25NE	B	orange		
	50NE	B	orange		
	75NE	B	brown		
	100NE	B	orange		
	125NE	B	orange		
	150NE	B	tan/orange		
	175NE	B	brite orange		
	200NE	B	mixed brn/org		
	225NE	B	mixed/orange		
	250NE	B	orange		
	275NE	B	mixed/orange		
	300NE	B	orange		
	325NE	B	tan/orange		
	350NE	B	orange		
	375NE	B	orange		
	400NE	B	mixed tan/brn		
	425NE	A	mixed		
	450NE	n/s	n/s		
	475NE	B	orange		
150SE	0	B	lite orange	15	silty
	25NE	B	brite orange	20	silty
	50NE	B	red brite org	40	silty
	75NE	B	brite orange	10	silty
	100NE	B	brite orange	15	silty
	125NE	B	brite orange	15	silty
	150NE	B	brite orange	20	silty
	175NE	B	brite orange	10	silty
	200NE	B	brite orange	20	silty
	225NE	B	red-orange	20	silty
	250NE	B	drk org mixed	40	silty
	275NE	B	lite red-org	exposed	silty
	300NE	B	lite red-org	15	silty
	325NE	B	mixed org-brn	60	silty
	350NE	B	brite orange	15	silty, dry; creek at 355NE
	375NE	B	red-orange	30	silty
	400NE	B	brown	30	silty
	425NE	B	brown	15	clayish
	450NE	B	orange	10	silty
	475NE	B	red-brown	30	clayish, edge of topography

SOIL SAMPLE FIELD NOTES

Survey:	Pat Poissant, Milton Grace
Date:	August & September 1999

CANYON GRID

Grid Coordinate Line	Grid Coordinate Station	SOIL Horizon	SOIL Color	SOIL Depth [cm]	Remarks
100SE	0	B	red-orange	10	silty
	25NE	B	mixed brn-red	30	silty
	50NE	B	red-orange	20	silty
	75NE	B	brite orange	50	clayish
	100NE	B	lite red-org	15	silty
	125NE	B	brite orange	30	silty
	150NE	B	brite orange	20	silty, clayish
	175NE	B	orange	40	clayish
	200NE	B	orange	5	clayish
	225NE	B	orange	20	clayish
	250NE	B	brite orange	20	silty
	275NE	B	lite orange	30	clayish
	300NE	B	tan-orange	10	clayish
	325NE	B	lite orange	exposed	silty
	350NE	B	brite orange	exposed	clayish
	375NE	B	light orange	30	clayish
	400NE	B	brown	50	silty, wet
	425NE	A & B	brown	40	silty; canyon
	450NE	B	orange	10	clayish
	475NE	B	mixed orange	30	clayish
	500NE	B	orange-brown	30	clayish
	525NE	B	red-orange	15	silty, sample taken at 520NE, edge of topography
050SE	0	B	red-orange	20	
	25NE	B	lite orange	10	
	50NE	B	lite orange	30	
	75NE	B	brite orange	20	stoney
	100NE	B	orange-brown	20	
	125NE	B	light orange	10	
	150NE	B	mixed brown	30	moist
	175NE	B	red-orange	30	stoney
	200NE	B	orange-brown	40	stoney
	225NE	B	brite orange	10	stoney
	250NE	B	brite orange	30	stoney
	275NE	B	brite orange	50	stoney
	300NE	B	brite orange	50	very stoney
	325NE	B	brite red-org	10	stoney
	350NE	B	red-orange	50	stoney
	375NE	B	brite orange	10	clayish
	400NE	B	brite orange	30	clayish
	425NE	B	red-orange	30	clayish
	450NE	B	red-orange	30	silty
	475NE	B	red-orange	10	clayish; canyon at 467NE
	500NE	B	red-orange	50	clayish
	525NE	B	red & brown	30	clayish; sample taken at 520NE

SOIL SAMPLE FIELD NOTES

Survey:	Pat Poissant, Milton Grace
Date:	August & September 1999

CANYON GRID

Grid Coordinate Line	Station	SOIL Horizon	Color	Depth [cm]	Remarks
00SE	200SW	B	brn, slighty red		
	175SW	B	reddy org		
	150SW	B	reddish brown		
	125SW	B	reddish		
	100SW	B	red		
	75SW	B	orange-brown		
	50SW	B	reddsih-brown		
	25SW	B	org-red (gry)		
	0	B	grey & brown		clay mix
	25NE	B	orange		
	50NE	B	reddish		
	75NE	B	reddish		
	100NE	B & C	org & grey		grey clay of C-horiz
	125NE	B	brown		sandy
	150NE	B	lite brown		
	175NE	B	reddsih-brn		mushroom spores; spring at 5NW,170NE
	200NE	B	orange-brown		creek nearby
	225NE	B	orange	30	clayish
	250NE	B	orange	30	clayish
	275NE	B	brite orange	40	muddy
	300NE	B	orange-brown	exposed	clayish
	325NE	B	brite orange	20	clayish
	350NE	B	orange	30	clayish
	375NE	B	orange	30	clayish
	400NE	B	lite orange	30	silty
	425NE	B	brown-orange	10	clayish
	450NE	B	brite orange	30	clayish
	475NE	B	red-orange	5	clayish
	500NE	B	reddsih	30	clayish
	525NE	B	brite orange	30	clayish
050NW	200SW	B	brown		
	175SW	B	red-brn mixed		
	150SW	B	red-brn mixed		
	125SW	B	brown		
	100SW	B	red-brn mixed		
	75SW	B	red		
	50SW	B	reddish-brn		
	25SW	B	brown		
	0	B	brown		
	25NE	B	brown		
	50NE	B	brown		
	75NE	B	brown		
	100NE	B	lite brown		
	125NE	B	brown mixed		
	150NE	B	brn-gry mixed		outcrop area
	175NE	B	red		
	200NE	B	red-brn mixed		creek at 195NE

SOIL SAMPLE FIELD NOTES

CANYON GRID

Survey:	Pat Poissant, Milton Grace
Date:	August & September 1999

Grid Coordinate Line	Grid Coordinate Station	SOIL Horizon	SOIL Color	SOIL Depth [cm]	Remarks
100NW	200SW	B	dark orange		creek at 240SW
	175SW	B	dark orange		
	150SW	B	brown		
	125SW	B	brown		clay
	100SW	B	brn-org-red mix		
	75SW	A,B,C	brown		large mushy area
	50SW	B	brown mix		
	25SW	B	brown mix		stoney
	0	B	reddish		clayish
	25NE	B	brown		slide at 35 to 45NE
	50NE	B	brown		
	75NE	B	brown mix		rocky
	100NE	B	red-orange		old trench sample 113 95NE [from 85 to 105NE]
	125NE	B	orange-red		
	150NE	B	brown		
	175NE	B	lite brown		
	200NE	B	orange		
150NW	200SW	B	red		Canyon Creek at 218SW
	175SW	B	brown		
	150SW	B	brown		stoney
	125SW	B	brown mixed		
	100SW	B	dark orange		old slide
	75SW	B	orange		
	50SW	B	brown		uprooted trees
	25SW	B	reddsih brown		creek at 35NW
	0	B	brown		
	25NE	B	brown		
	50NE	B	lite brown		slide at 55NE
	75NE	B	red		
	100NE	B	red		creek at 97NE
	125NE	B	lite brown		outcrop at 152NE
	150NE	B	orange-brown		
	175NE	B	orange-brown		
	200NE	B	brown		creek at 198NE
200NW	200SW	B	brown mixed		
	175SW	n/s	n/s		main creek
	150SW	B	lite brown		
	125SW	B	orange-red		
	100SW	B	drk & lite brn		
	75SW	B	brown mixed		
	50SW	B	lite brown		creek at 52SW
	25SW	B	brown		
	0	B	brown		
	25NE	B	lite brown mix		outcrop
	50NE	B	lite brown		
	75NE	B	brite orange		slide at 70NE
	100NE	B	org & brn mix		creek at 110NE
	125NE	B	lite orange		
	150NE	B	red		
	175NE	B	brite orange		
	200NE	?	no entry		

SOIL SAMPLE FIELD NOTES

CANYON GRID

Survey: Pat Poissant, Milton Grace
Date: August & September 1999

Grid Coordinate Line	Station	SOIL Horizon	Color	Depth [cm]	Remarks
250NW	200SW	B	red mixed		
	175SW	B	red		
	150SW	A & B	brown mixed		
	125SW	n/s	n/s		no sample - main creek
	100SW	B	red		
	75SW	B	red		
	50SW	B	lite brown		slide area
	25SW	B	red		
	0	B	red		
	25NE	B	lite brown		outcrop above
	50NE	B	orange-brown		
	75NE	B	red		slide at 85NE
	100NE	B	orange		
	125NE	B	red		creek at 125NE
	150NE	B	brn red mixed		
	175NE	B	org-red		creek at 158NE
	200NE	B	red		
300NW	200SW	B	reddish-brn		
	175SW	B	brown mixed		
	150SW	B	lite brn mixed		
	125SW	silt	brown		
	100SW	silt	brown		fork at 90NW; old cribbing at junction
	75SW	B	lite brown		sample taken at 295NW
	50SW	B	reddish		main creek - sample taken at 307NW
	25SW	B	brown		main creek - sample taken at 297NW
	0	B	brown		main creek - sample taken at 297NW
	25NE	B	brown mixed		silty
	50NE	B	red-orange		
	75NE	B	red		
	100NE	B	reddish		slide at 94NE
	125NE	B	reddish		
	150NE	B	red-orange		creek at 153NE
	175NE	B	red-org mixed		
	200NE	B	orange		
350NW	200SW	B	reddish		
	175SW	B	red-orange		
	150SW	B	lite brown		main creek at 145SW; sample taken at 155NW
	125SW	B	lite orange		stn 150SW just below log jam (slide)
	100SW	B	red-orange		
	75SW	B	lite orange		overflow creek bed; sample taken at 355NW
	50SW	B	brown mixed		
	25SW	B	brn-org mixed		
	0	B	orange		
	25NE	B	red		
	50NE	B	brite orange		
	75NE	B	orange-brown		main creek at 340NW
	100NE	B	orange		main creek at 360NW
	125NE	B	brown		creek at 354NW
	150NE	n/s	n/s		creek at 346NW
	175NE	n/s	n/s		creek at 348NW
	200NE	B	lite brn mix		creek at 330NW

SOIL SAMPLE FIELD NOTES

CANYON GRID

Survey: Pat Poissant, Milton Grace
Date: August & September 1999

Grid Coordinate Line	Grid Coordinate Station	SOIL Horizon	SOIL Color	SOIL Depth [cm]	Remarks
400NW	200SW	B	lite org-brn		
	175SW	B	tan & org mix		sample taken at 399NW, 178SW
	150SW	B	orange		sample taken at 403NW, 145SW
	125SW	B	orange		Slide area stations 150 & 175SW
	100SW	B	orange		
	75SW	B	red-orange		
	50SW	B	red-orange		
	25SW	B	orange		
	0	B	reddish		
	25NE	B	red-orange		
	50NE	B	lite brown		
	75NE	B	orange		
	100NE	B	red		
	125NE	B	orange		
	150NE	B	lite brown		
	175NE	B	orange		
	200NE	B	orange		
450NW	200SW				field notes missing
	175SW				field notes missing
	150SW				field notes missing
	125SW				field notes missing
	100SW				field notes missing
	75SW				field notes missing
	50SW				field notes missing
	25SW				field notes missing
	0				field notes missing
	25NE	B	orange		
	50NE	B	lite orange		
	75NE	B	reddish		
	100NE	B	reddish		
	125NE	B	red-orange		
	150NE	B	orange		
	175NE	B	brite orange		
	200NE	B	brite orange		
500NW	200SW				field notes missing
	175SW				field notes missing
	150SW				field notes missing
	125SW				field notes missing
	100SW				field notes missing
	75SW				field notes missing
	50SW				field notes missing
	25SW				field notes missing
	0				field notes missing
	25NE				field notes missing
	50NE				field notes missing
	75NE				field notes missing
	100NE				field notes missing
	125NE				field notes missing
	150NE				field notes missing
	175NE				field notes missing
	200NE				field notes missing

YREKA PROJECT 1999

SOIL SAMPLE FIELD NOTES

CANYON GRID

Survey: Pat Poissant, Milton Grace
Date: August & September 1999

Grid Coordinate Line	Station	SOIL Horizon	Color	Depth [cm]	Remarks
550NW	200SW	B	brite org-gry		
	175SW	B	lite orange		
	150SW	B	orange		
	125SW	B	orange		
	100SW	A & B	dark red		
	75SW	B	dark red		
	50SW	B	lite orange		
	25SW	B	mixed brown		outcrop at 29SW
	0	n/s	n/s		no sample - outcrop
	25NE				field notes missing
	50NE				field notes missing
	75NE				field notes missing
	100NE				field notes missing
	125NE				field notes missing
	150NE				field notes missing
	175NE				field notes missing
	200NE				field notes missing
600NW	200SW	B	red & org mix		
	175SW	B	brown		creek at 162SW
	150SW	B	red-orange		
	125SW	n/s	n/s		no soil
	100SW	B	lite brown		steep/rocky
	75SW	B	red-orange		
	50SW	B	dark orange		
	25SW	B	brite orange		
	0	B	super orange		
	25NE	B	dark brown		
	50NE	B	lite greyish		
	75NE	B	orange		
	100NE	B	greyish brown		
	125NE	B	orange		
	150NE	B	orange		
	175NE	n/s	n/s		outcrop
	200NE	B	red-orange		
650NW	200SW	B	red-orange		
	175SW	B	orange		
	150SW	B	lite reddish		creek at 147SW
	125SW	B	red-orange		
	100SW	B	orange		
	75SW	B	orange		
	50SW	B	lite red		
	25SW	B	brite orange		
	0	B	red		
	25NE	B	orange		
	50NE	B	greyish-brown		
	75NE	B	orange		
	100NE	B	reddsih-brown		
	125NE	B	lite orange		
	150NE	B	grey & lite org		
	175NE	B	orange		
	200NE	B	orange		

SOIL SAMPLE FIELD NOTES

CANYON GRID

Survey:	Pat Poissant, Milton Grace
Date:	August & September 1999

Grid Coordinate Line	Station	SOIL Horizon	Color	Depth [cm]	Remarks
700NW	200SW	n/s	n/s		no sample & no station due to steep terrain
	175SW	B	orange		
	150SW	B	lite brown		
	125SW	B	brite orange		
	100SW	B	dark orange		
	75SW	B	orange		
	50SW	B	brite orange		
	25SW	B	orange-brown		
	0	B	red-brown mix		
	25NE	B	orange		
	50NE	B	grey		
	75NE	B	greyish-brown		
	100NE	B	dark brown		
	125NE	B	brown mix		
	150NE	B	reddsih		
	175NE	B	lite orange		
	200NE	B	orange		
750NW	200SW	B	orange		
	175SW	B	lite brown		
	150SW	B	lite brown		
	125SW	B	reddsih brown		creek at 115SW
	100SW	B	orange		
	75SW	B	red-brn mix		cliffs 50SW to 100SW
	50SW	B	orange		
	25SW	B	lite brown		
	0	B	orange		
	25NE	B	reddish		
	50NE	B	dark orange		
	75NE	B	greyish brown		
	100NE	B	greyish brown		
	125NE	B	lite orange		
	150NE	B	brite orange		
	175NE	B & C	greyish brown		
	200NE	B	lite orange		
800NW	200SW	B	orange		
	175SW	B	reddish-brn mix		
	150SW	B	orange-brown		
	125SW	B	red-orange		creek at 115SW
	100SW	B	orange		
	75SW	B	lite orange		
	50SW	B	lite orange		
	25SW	B & C	lite orange		
	0	B & C	gry-brn-lit org		
	25NE	B	red-orange		
	50NE	B	greyish		
	75NE	B	red-orange		
	100NE	B	orange		
	125NE	B	orange		
	150NE	B	red		
	175NE	B	lite orange		
	200NE	B	lite orange		

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SOIL SAMPLE FIELD NOTES

LOWER BLUE GROUSE GRID

Survey by:: Pat Poissant, Milton Grace
Date: August 1999

Grid Coordinate Line	Station	SOIL Horizon	Color	Remarks
050S	0	B	reddish	valley bottom 5mE
	25W	B	red	
	50W	B & C	reddish	
	75W	A & C	brn & wht	sample taken at 55S, 76W [big mess]
	100W	B	brite red	line offset 10m south for stations 100 to 150W
	125W	n/s	n/s	no sample - too close to cliff edge
	150W	n/s	n/s	no sample - soil leached
150S	0	B	brown	
	25W	B	reddish	
	50W	B & A	red-brn	outcrop at 55W
	75W	n/s	n/s	site of 1998 #1040 rock sample
	100W	B	lite brn	saddle
	125W	B	brown	
	150W	B	reddish-brn	
250S	0	B	red	base of o/c, many small skarns
	25W	A & B	brown	
	50W	B	red	
	75W	B	lite reddish brn	
	100W	B	red	
	125W	B	reddish	
	150W	B	brite org	big o/c - start of upper ridge
	175W	B	brite org	
	200W	B	brite red	
350S	0	B	red	
	25W	B	reddish	
	50W	A & B	drk brn	
	75W	n/s	n/s	no sample - outcrop
	100W	B	drk brn	unstable soil - fluid ground
	125W	C	red-org	end of line at cliff - big skarn area
450S	0	B	reddish	
	25W	B	lit brn	
	50W	B	red	
	75W	B	lit org	
	100W	B	orange	
	125W	B	brown	
	150W	B	brown	
	175W	B	brown	base of outcrop

SOIL SAMPLE FIELD NOTES

LOWER BLUE GROUSE GRID

Survey by::	Pat Poissant, Milton Grace
Date:	August 1999

Grid Coordinate		SOIL		
Line	Station	Horizon	Color	Remarks
550S	0	B	red	harder rock - marble
	25W	B	drk & lit brn	
	50W	B	brite org	
	75W	B	brite org	
	100W	B	drk red	
	125W	B	red	
	150W	B	red	
	175W	B & C	reddish	
600S	0	n/s	n/s	sample previously taken
	25W	B	red	
	50W	B	mixed brown	
	75W	B	brite org	
	100W	B	red	
	125W	B	brown	
	150W	B	brite org	
	175W	B	lit org - brn	
	200W	B	brite org	

YREKA PROJECT 1999

SOIL SAMPLE FIELD NOTES

TUSCARORA GRID

Survey by:: Pat Poissant, Milton Grace
Date: September 1999

Grid Coordinate Line	Station	SOIL Horizon	SOIL Color	Remarks
000S	150W	A & B	brown	
	175W	A	brown	
	200W	A & B	red-brn-org	
	225W	B	orange	
	250W	A & B	mixed	
	275W	B	mixed	
	300W	B	mixed	sampled at 307W
	325W	B	org/mixed	
	350W	B	org/mixed	
	375W	B	brite red/org	
	400W	B	org/mixed	
100S	175W	B	brite red/org	
	200W	B	brite red/org	
	225W	B	red-org	
	250W	B	brite red/org	
	275W	n/s	n/s	
	300W	B	brn-tan/red	
	325W	B	tan	
	350W	B	brite org	
	375W	A & C	brown-mixed	
	400W	n/s	n/s	
200S	150W	A & B	brown-mixed	
	175W	B	orange-tan	
	200W	B	org-tan mixed	taken at 205W
	225W	B	mixed	
	250W	B	org/tan mixed	
	275W	A & B	mixed	
	300W	B	orange	
	325W	B	tan	
	350W	B	orange/tan	
	375W	B	brite orange	
	400W	B	tan mixed	gully
300S	150W	A & B	orange	
	175W	B	orange/tan	
	200W	B	orange	
	225W	B	brite orange	
	250W	B	brite orange	taken at 245W
	275W	B	bite org red	
	300W	B	brown/mixed	
	325W	B	orange/tan	
	350W	B	tan	
	375W	B	brite org/org	
	400W	B	brite org/red	

YREKA PROJECT 1999

SOIL SAMPLE FIELD NOTES

TUSCARORA GRID

Survey by: Pat Poissant, Milton Grace
Date: September 1999

Grid Coordinate		SOIL		
Line	Station	Horizon	Color	Remarks
400S	150W	B	tan/orange	taken at 145W
	175W	B	tan/orange	
	200W	A	brown	
	225W	B	tan	
	250W	B	tan	
	275W	A & B	brown	
	300W	B	brn/red/org mix	
	325W	B	mixed	
	350W	B	mixed	
	375W	B	brite orange	
	400W	B	brite org/red	
500S	175W	A & B	tan	
	200W	A & C	brown/grey	
	225W	A & C	grey/drk brn	
	250W	B	dark brown	
	275W	B	brown	
	300W	B	drk red/drk brn	
	325W	A & B	brn/drk brn	
	350W	B	brown	
	375W	n/s	n/s	
	400W	A & B	dark brown	
600S	175W	B	tan-orange	
	200W	B	brite orange	
	225W	n/s	n/s	
	250W	B	tan/red	
	275W	n/s	n/s	
	300W	B	orange	sampled at 307W
	325W	A & B	orange	
	350W	A & B	brite orange	
	375W	B	orange	
	400W	B	brite red/org	

APPENDIX II:
1999 SOIL AND ROCK ANALYTICAL RESULTS

(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Max Investment Inc. PROJECT YREKA File # 9903559

3750 West 49th Ave, Vancouver BC V6B 3T8

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
JDW-08-09-99-1	2	15	3	33	<.3	6	7	246	2.08	<2	<8	<2	4	12	<.2	<3	<3	28	.16	.046	10	14	.58	28	.01	13	1.00	.07	.07	3	1
JDW-09-09-99-1	2	1552	23	99591	4.1	20	21	1286	9.30	2	<8	<2	<2	64	510.7	<3	8	35	5.82	.049	4	53	.55	7	.03	55	.99	.03	.05	<2	14
JDW-09-09-99-2	<1	915	10	99999	2.8	15	62	2276	10.91	4	<8	<2	<2	111	659.7	<3	4	52	3.51	.062	5	43	.76	6	.04	61	2.35	.11	.03	<2	4
JDW-09-09-99-3	2	2902	20	7792	7.3	27	18	1139	8.91	3	<8	<2	<2	75	46.7	<3	5	98	3.65	.091	4	40	.61	34	.05	47	1.79	.07	.16	51	5
KH-08-09-99-1	<1	291	7	866	.3	70	27	358	5.44	4	<8	<2	<2	194	5.2	<3	<3	68	1.81	.153	4	151	1.64	18	.21	27	3.06	.33	.12	6	<1
KH-08-09-99-2	2	433	7	76	<.3	19	33	188	5.85	4	<8	<2	<2	51	<.2	<3	3	73	1.54	.271	12	7	.49	37	.23	28	.86	.11	.25	2	1
KH-08-09-99-3	1	473	7	126	.3	20	51	153	5.72	3	<8	<2	<2	86	<.2	<3	<3	60	1.63	.292	11	3	.39	39	.24	28	1.13	.15	.21	2	1
KH-08-09-99-4	1	417	9	827	1.1	118	19	482	4.58	3	<8	<2	<2	406	4.9	<3	<3	66	3.67	.123	4	174	.61	20	.12	21	4.39	.60	.06	6	<1
KH-08-09-99-5	30	46	16	81	.5	16	13	592	7.81	11	<8	<2	<2	30	<.2	6	<3	160	.35	.065	5	19	.61	19	.24	42	2.34	.10	.11	<2	<1
KH-08-09-99-6	14	51	10	49	.4	36	26	538	6.90	26	<8	<2	<2	61	<.2	<3	<3	199	1.31	.089	4	46	1.31	11	.30	39	3.46	.28	.05	<2	3
KH-08-09-99-7	76	17	12	48	<.3	23	7	507	3.55	20	<8	<2	<2	25	<.2	3	<3	49	.23	.057	5	29	1.07	38	.04	19	2.19	.06	.15	<2	<1
KH-09-09-99-1	2	2627	14	36610	6.8	20	34	1538	9.98	3	<8	<2	<2	96	211.5	<3	<3	58	2.59	.064	4	39	.72	13	.05	52	1.93	.08	.04	<2	8
KH-09-09-99-2	5	443	11	189	.4	49	60	167	3.11	5	<8	<2	<2	760	.5	<3	<3	19	3.60	.058	2	26	.47	16	.11	16	4.71	.50	.03	<2	4
RE KH-09-09-99-2	5	432	9	141	.3	49	61	159	3.06	5	<8	<2	<2	775	.3	<3	<3	19	3.68	.058	2	27	.47	16	.11	15	4.82	.51	.03	<2	4
KH-14-09-99-1	1	456	6	332	.9	112	45	272	3.96	5	<8	<2	<2	479	2.0	<3	<3	25	3.35	.076	2	65	.67	27	.10	20	4.14	.21	.02	2	4
KH-14-09-99-2	6	1136	10	1207	3.5	19	15	202	5.70	3	<8	<2	<2	336	9.9	<3	6	28	2.85	.087	3	19	.45	18	.06	24	4.66	.74	.02	<2	4
KH-14-09-99-3	<1	5732	10	19408	21.0	29	258	171	24.48	<2	<8	3	<2	7	104.1	11	10	12	.06	.087	11	18	.15	5	.01	143	.31	.01	.01	<2	26
KH-15-09-99-1	35	995	457	46942	21.9	27	77	348	9.79	24878	<8	6	<2	4	286.1	49	96	9	.21	.033	4	59	.16	3	<.01	52	.24	.01	.03	<2	3680
STN-32	2	943	14	40660	2.3	17	34	1987	8.41	39	<8	<2	<2	190	236.9	<3	4	64	6.48	.062	4	31	1.02	8	.04	43	2.92	.21	.04	<2	9
STN-40	2	253	5	167	<.3	67	21	166	3.04	8	<8	<2	<2	294	.4	<3	<3	35	1.93	.065	2	59	.41	23	.19	15	2.35	.32	.12	3	8
STN-55	1	10095	9	765	32.7	24	37	542	7.17	4	<8	<2	<2	178	5.9	<3	9	132	3.43	.095	4	37	.99	21	.07	36	3.14	.37	.06	8	140
STANDARD C3/AU-R	26	66	39	164	6.2	41	12	815	3.51	57	24	3	22	30	25.1	19	24	82	.57	.101	19	177	.61	125	.08	43	1.92	.04	.17	15	486
STANDARD G-2	2	7	4	52	<.3	10	4	519	2.08	2	<8	<2	5	67	<.2	<3	<3	39	.61	.103	8	83	.56	187	.12	7	.92	.07	.46	3	<1

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU* GROUP 3A- 10.00 GM SAMPLE, AQUA-REGIA/MIBK EXTRACT, ANALYSIS BY GF/AA.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 20 1999 DATE REPORT MAILED: Sept 27/99 SIGNED BY .... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ✓ FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Max Investment Inc. File # 9903346

3750 West 49th Ave, Vancouver BC V6B 3T8 Submitted by: C. Dyakowski

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm
WP62	6	3507	<3	170	2.3	7	114	659	21.31	134	<8	<2	<2	110	2.3	<3	<3
RS-L300N-032W	3	254	4	58	.3	16	23	353	4.67	4	<8	<2	<2	81	.5	<3	<3
KH060999-1	4	777	<3	35	1.5	4	20	94	4.08	4	<8	<2	<2	31	<.2	<3	<3
KH060999-2	3	2312	4	25	.9	<1	53	107	25.75	4	<8	<2	<2	4	<.2	<3	23
KH070999-1	3	10	<3	18	<.3	1	3	449	3.47	<2	<8	<2	<2	73	<.2	<3	<3
UPPER SHOWING	11	244	3	27	.3	25	26	205	11.09	30	<8	<2	<2	98	<.2	<3	<3
RE UPPER SHOWING	12	246	4	27	.3	25	27	209	11.15	31	<8	<2	<2	100	<.2	<3	<3
T & P SHOWING	11	946	31	58	2.5	6	42	1245	14.42	115	<8	<2	<2	40	1.1	7	52
RS-400N-160W	1	26	<3	27	<.3	14	6	1837	2.76	224	<8	<2	<2	82	.3	<3	<3
0509A	4	100	<3	34	<.3	17	22	249	3.68	3	<8	<2	<2	70	.2	<3	<3

SAMPLE#	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm	Au* ppb
WP62	16	2.33	.022	9	7	1.02	5	.02	<3	1.06	.09	.03	<2	<5	<1	2
RS-L300N-032W	117	1.34	.144	12	14	1.17	12	.26	<3	2.02	.23	.08	<2	<5	1	1
KH060999-1	21	.57	.023	5	5	.34	26	.13	<3	.72	.10	.09	<2	<5	<1	3
KH060999-2	7	.17	.051	2	11	.11	5	.01	<3	.16	<.01	<.01	<2	22	<1	<1
KH070999-1	13	.83	.184	11	7	.92	103	.09	<3	1.51	.17	.03	2	<5	<1	2
UPPER SHOWING	62	.72	.102	7	23	.55	20	.14	<3	1.72	.18	.12	<2	<5	<1	1
RE UPPER SHOWING	63	.74	.102	8	22	.57	20	.14	<3	1.77	.19	.13	<2	<5	<1	1
T & P SHOWING	62	2.49	.024	9	11	1.63	12	.02	<3	1.09	.01	.02	<2	<5	<1	201
RS-400N-160W	90	16.92	.042	17	25	.75	7	<.01	<3	.88	.02	.05	<2	<5	<1	2
0509A	107	1.38	.198	13	24	.90	81	.29	<3	2.04	.26	.47	3	<5	<1	1

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU* GROUP 3A- 10.00 GM SAMPLE, AQUA-REGIA/MIBK EXTRACT, ANALYSIS BY GF/AA.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 9 1999 **DATE REPORT MAILED:** Sept 21/99 **SIGNED BY** C. L. D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ✓ FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Max Investment Inc. PROJECT YREKA File # 9903345 Page 1

3750 West 49th Ave, Vancouver BC V6B 3T8 Submitted by: C. Dyakowski

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm
8+00NW 2+00NE	6	42	<3	15	<.3	3	<1	42	4.82	2	<8	<2	2	12	<.2	<3	<3	173	.09	.027	3	10	.28	15	.31	8	1.23	.03	.05	<2	<5	<1
8+00NW 1+75NE	4	134	<3	14	<.3	<1	<1	68	5.94	<2	<8	<2	<2	45	<.2	<3	<3	98	.24	.038	2	1	.85	96	.41	3	1.74	.11	.51	<2	<5	<1
8+00NW 1+25NE	5	61	3	15	.3	5	<1	33	4.12	3	<8	<2	2	8	<.2	<3	<3	109	.05	.043	3	17	.13	13	.20	<3	2.05	.01	.03	<2	<5	<1
8+00NW 1+00NE	1	63	3	33	.4	9	2	56	4.12	22	<8	<2	4	5	<.2	<3	<3	71	.03	.054	4	12	.27	15	.11	3	4.80	.01	.02	<2	<5	<1
8+00NW 0+75NE	1	22	8	40	.9	4	2	62	3.15	31	<8	<2	2	2	<.2	<3	<3	52	.01	.017	4	9	.23	10	.14	<3	1.13	<.01	.03	<2	<5	<1
8+00NW 0+50NE	1	18	<3	27	<.3	5	1	30	1.13	14	<8	<2	<2	3	<.2	<3	<3	42	.02	.007	4	5	.11	14	.11	<3	.40	.01	.02	<2	<5	<1
8+00NW 0+25NE	12	158	7	103	1.8	1	<1	22	5.70	60	<8	<2	<2	5	<.2	<3	8	151	.02	.046	2	4	.03	8	.22	6	1.53	.01	.01	<2	<5	<1
8+00NW BL	3	41	4	24	<.3	4	<1	13	2.62	19	<8	<2	<2	2	<.2	<3	<3	97	.02	.014	2	4	.01	3	.11	<3	.80	<.01	.01	<2	<5	<1
8+00NW 0+25SW	<1	9	6	2	<.3	1	<1	6	1.65	<2	<8	<2	<2	4	<.2	<3	<3	99	.02	.014	2	2	.02	12	.18	<3	.37	.01	.01	<2	<5	<1
8+00NW 0+50SW	18	882	<3	21	1.6	2	<1	29	12.93	3	<8	<2	<2	4	<.2	<3	6	237	.07	.045	2	3	.07	11	.29	5	.56	<.01	.01	<2	<5	<1
8+00NW 0+75SW	3	182	3	46	<.3	5	<1	40	5.03	14	<8	<2	2	5	<.2	<3	<3	147	.02	.018	3	9	.38	19	.34	<3	1.43	.02	.06	<2	<5	<1
8+00NW 1+00SW	2	40	<3	43	<.3	4	<1	83	4.45	21	<8	<2	<2	19	<.2	<3	<3	154	.29	.017	2	11	1.64	25	.38	<3	2.58	.04	.09	<2	<5	<1
8+00NW 1+25SW	1	116	<3	265	<.3	14	23	672	6.29	200	<8	<2	2	27	1.1	<3	<3	115	.25	.088	8	18	1.18	97	.13	<3	4.09	.03	.13	<2	<5	<1
8+00NW 1+50SW	<1	254	<3	430	<.3	39	32	805	7.77	45	<8	<2	<2	226	1.2	<3	<3	126	.49	.059	4	23	1.54	65	.08	<3	5.62	.10	.11	<2	<5	<1
8+00NW 1+75SW	<1	180	9	161	1.5	25	33	909	5.68	34	<8	<2	<2	167	1.5	<3	<3	109	.42	.180	3	15	1.17	49	.06	6	5.96	.08	.09	<2	<5	<1
8+00NW 2+00SW	<1	461	9	395	.9	36	29	574	7.79	58	<8	<2	<2	104	.2	<3	3	164	.51	.092	4	23	1.84	51	.14	7	7.46	.13	.09	<2	<5	<1
7+50NW 2+00NE	188	763	<3	26	2.1	3	<1	33	8.97	3	<8	<2	2	6	<.2	<3	<3	245	.04	.040	3	16	.06	9	.62	7	2.03	.01	.01	<2	6	<1
7+50NW 1+75NE	28	44	7	5	.3	<1	<1	9	1.69	2	<8	<2	<2	5	<.2	<3	<3	63	.03	.012	2	3	.01	7	.31	<3	.25	.01	.01	<2	<5	<1
RE 7+50NW 1+75NE	26	39	7	4	.3	3	<1	8	1.58	2	<8	<2	2	4	<.2	<3	<3	60	.03	.012	2	2	.01	6	.30	<3	.24	.01	.01	<2	<5	1
7+50NW 1+50NE	51	147	3	10	.4	1	<1	30	5.64	12	<8	<2	<2	3	<.2	<3	<3	84	.04	.052	2	8	.06	5	.27	<3	1.92	<.01	.01	<2	<5	<1
7+50NW 1+25NE	4	64	<3	10	.5	2	<1	28	5.35	3	<8	<2	2	6	<.2	<3	<3	82	.03	.033	1	5	.13	14	.28	<3	1.14	.01	.03	<2	<5	<1
7+50NW 1+00NE	4	80	5	44	.4	6	4	50	2.99	52	<8	<2	2	5	<.2	<3	<3	94	.04	.024	3	8	.12	15	.11	<3	.89	.01	.02	<2	<5	<1
7+50NW 0+75NE	<1	14	<3	13	<.3	3	<1	19	1.70	9	<8	<2	<2	3	<.2	<3	<3	46	.02	.013	4	6	.04	6	.10	<3	.49	.01	.01	<2	<5	<1
7+50NW 0+50NE	<1	12	<3	11	<.3	4	<1	20	1.03	9	<8	<2	<2	2	<.2	<3	<3	29	.01	.011	4	5	.06	5	.05	<3	.32	.01	.02	<2	<5	<1
7+50NW 0+25NE	4	256	<3	88	1.2	7	<1	60	6.50	33	<8	<2	2	5	.6	<3	<3	82	.04	.055	2	13	.16	16	.25	<3	9.76	.01	.02	<2	<5	<1
7+50NW BL	2	89	<3	27	.5	5	<1	34	6.43	6	<8	<2	<2	8	.5	<3	<3	168	.05	.043	3	2	.08	8	.39	6	3.92	.01	.02	<2	<5	<1
7+50NW 0+25SW	3	130	17	18	2.3	<1	<1	36	4.18	76	<8	<2	<2	10	.5	<3	8	65	.07	.024	3	4	.14	17	.21	<3	2.70	.02	.07	<2	<5	<1
7+50NW 0+50SW	8	101	6	24	1.7	<1	<1	29	4.63	66	<8	<2	2	10	<.2	<3	3	90	.06	.024	4	6	.13	10	.18	<3	1.44	.02	.03	<2	<5	<1
7+50NW 0+75SW	5	533	<3	108	.7	5	7	342	5.90	13	<8	<2	2	26	<.2	<3	<3	110	.15	.041	4	2	.88	29	.30	9	4.00	.06	.18	<2	<5	<1
7+50NW 1+00SW	2	249	<3	151	1.0	12	4	183	7.01	51	<8	<2	<2	28	.5	<3	<3	122	.14	.033	4	16	1.51	59	.25	4	6.15	.02	.11	<2	<5	<1
7+50NW 1+25SW	<1	75	<3	79	<.3	3	31	1025	6.66	164	<8	<2	<2	114	.9	<3	<3	103	.55	.073	7	3	2.09	122	.10	<3	5.23	.09	.85	<2	<5	<1
7+50NW 1+50SW	<1	307	4	333	<.3	17	23	397	9.36	60	<8	<2	2	76	1.5	<3	3	163	.17	.116	7	10	1.16	117	.21	<3	5.89	.03	.17	<2	<5	<1
7+50NW 1+75SW	2	152	<3	117	<.3	11	17	448	9.93	48	<8	<2	<2	69	1.3	<3	<3	135	.19	.281	6	3	.90	113	.22	<3	4.79	.04	.17	<2	<5	<1
7+50NW 2+00SW	<1	232	<3	306	.4	19	13	501	7.59	26	<8	<2	<2	132	1.4	<3	<3	122	.16	.168	5	17	.89	108	.14	<3	5.09	.03	.11	<2	<5	<1
7+00NW 2+00NE	9	91	4	62	.5	8	<1	63	6.48	19	<8	<2	2	17	.2	<3	<3	169	.06	.034	3	50	.15	23	.22	<3	3.49	.01	.02	<2	<5	<1
STANDARD C3	26	66	34	171	6.2	36	11	824	3.57	59	25	2	20	33	26.5	14	25	82	.59	.095	18	179	.61	146	.09	21	1.91	.04	.20	13	<5	<1
STANDARD G-2	2	2	<3	45	<.3	10	4	565	2.22	<2	<8	<2	5	78	<.2	<3	<3	42	.66	.105	7	87	.60	225	.12	<3	.86	.07	.56	3	<5	<1

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SOIL Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 9 1999 **DATE REPORT MAILED:** Sept 21/99 **SIGNED BY** ....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm
7+00NW 1+75NE	17	237	7	103	.4	7	<1	89	8.01	32	<8	<2	2	20	.9	<3	<3	194	.11	.039	3	73	.27	28	.30	3	6.18	.01	.03	<2	<5	<1
7+00NW 1+50NE	20	1217	<3	127	3.9	12	8	135	7.16	29	<8	<2	3	8	.8	<3	6	109	.08	.052	4	19	.58	22	.30	4	8.33	.01	.02	<2	<5	<1
7+00NW 1+25NE	9	118	5	24	2.3	3	<1	33	3.69	9	<8	<2	2	5	<.2	<3	<3	52	.05	.035	5	10	.12	19	.14	<3	2.74	.01	.04	<2	<5	<1
7+00NW 1+00NE	2	49	7	31	.8	3	<1	24	2.52	13	<8	<2	2	3	<.2	<3	<3	62	.03	.027	3	10	.05	14	.11	<3	1.52	.01	.01	<2	<5	<1
7+00NW 0+75NE	2	29	3	27	.3	2	<1	11	1.63	9	<8	<2	2	1	<.2	<3	<3	60	.01	.010	3	4	.01	8	.11	3	.68	<.01	<.01	<2	<5	<1
7+00NW 0+50NE	<1	3	<3	3	<.3	2	<1	5	.25	<2	<8	<2	<2	1	<.2	<3	<3	14	.01	.003	2	1	.01	4	.03	3	.10	.01	.01	<2	<5	1
7+00NW 0+25NE	15	133	<3	43	.6	<1	<1	38	5.10	19	<8	<2	<2	2	<.2	<3	<3	140	.03	.022	2	7	.35	13	.32	3	1.72	.01	.04	<2	<5	<1
7+00NW BL	63	83	<3	24	.6	<1	<1	24	5.49	7	<8	<2	2	6	<.2	<3	<3	148	.05	.011	1	3	.11	7	.34	3	1.06	.01	.02	<2	<5	<1
7+00NW 0+25SW	33	252	<3	71	.3	8	<1	55	8.10	13	<8	<2	<2	4	.4	<3	<3	133	.06	.038	<1	11	.53	13	.33	<3	1.55	.01	.02	<2	<5	<1
7+00NW 0+50SW	8	811	<3	413	.6	15	14	127	5.91	24	<8	<2	<2	11	.5	<3	<3	102	.16	.031	1	8	1.87	34	.27	<3	3.73	.01	.03	<2	<5	<1
7+00NW 0+75SW	10	317	5	179	1.3	4	2	61	6.85	84	<8	<2	<2	12	.6	<3	4	155	.08	.040	2	9	.46	25	.35	<3	2.77	.01	.02	<2	<5	<1
7+00NW 1+00SW	12	1745	7	770	4.7	12	12	191	6.68	256	<8	<2	2	21	1.1	<3	3	95	.13	.038	5	11	1.80	33	.23	<3	6.80	.02	.07	<2	<5	<1
7+00NW 1+25SW	8	1525	<3	455	1.5	19	30	941	6.18	177	<8	<2	<2	83	3.0	<3	<3	87	.94	.070	6	13	3.38	104	.12	4	4.74	.04	.47	<2	<5	<1
7+00NW 1+50SW	<1	584	5	423	.9	19	87	2031	9.28	46	<8	<2	<2	298	3.2	<3	4	119	.26	.130	9	13	1.07	120	.11	<3	6.54	.02	.28	<2	<5	<1
7+00NW 1+75SW	<1	82	<3	61	<.3	15	16	267	5.33	15	<8	<2	<2	37	.4	<3	<3	108	.20	.088	4	12	.75	85	.25	<3	3.97	.03	.12	<2	<5	<1
6+50NW 2+00NE	2	65	4	36	<.3	9	3	50	3.46	6	<8	<2	<2	18	<.2	<3	<3	140	.19	.015	3	51	.21	19	.30	<3	1.48	.05	.02	<2	<5	<1
6+50NW 1+75NE	1	17	5	31	<.3	5	1	36	3.83	6	<8	<2	<2	7	<.2	<3	<3	160	.09	.018	2	41	.12	26	.15	<3	1.25	.02	.01	<2	<5	<1
6+50NW 1+50NE	1	20	3	10	.4	5	<1	19	1.95	<2	<8	<2	2	14	<.2	<3	<3	93	.16	.008	1	24	.07	6	.22	<3	.85	.02	.01	<2	<5	1
6+50NW 1+25NE	<1	58	<3	19	.6	4	<1	8	1.41	7	<8	<2	<2	4	<.2	<3	<3	39	.01	.012	4	6	.01	20	.03	<3	1.03	<.01	.01	<2	<5	<1
6+50NW 1+00NE	1	43	5	40	.9	5	<1	17	3.06	17	<8	<2	<2	2	<.2	<3	<3	77	.01	.024	5	8	.04	16	.08	<3	1.89	.01	.01	<2	<5	<1
6+50NW 0+75NE	<1	35	3	26	.4	5	1	20	1.91	6	<8	<2	<2	2	<.2	<3	<3	42	.02	.015	5	6	.03	9	.07	<3	1.63	.01	.01	<2	<5	<1
6+50NW 0+50NE	<1	8	<3	10	<.3	4	<1	4	.53	3	<8	<2	<2	2	<.2	<3	<3	17	.01	.008	2	1	.01	7	.04	3	.31	.01	.01	<2	<5	<1
6+50NW 0+25NE	2	149	4	53	1.9	8	<1	20	4.20	14	<8	<2	<2	7	.2	<3	<3	90	.06	.029	2	46	.06	41	.11	<3	2.94	.01	.01	<2	<5	<1
RE 6+50NW 0+25NE	3	136	3	51	1.9	10	<1	19	4.19	15	<8	<2	<2	6	.2	<3	<3	82	.06	.029	2	44	.05	39	.10	<3	2.61	.01	.01	<2	<5	<1
6+50NW BL	14	77	4	28	.7	5	<1	25	3.65	13	<8	<2	<2	10	<.2	<3	<3	127	.05	.022	2	18	.05	12	.25	<3	1.52	.01	.01	<2	<5	<1
6+50NW 0+25SW	12	45	7	6	<.3	<1	<1	14	4.64	2	<8	<2	<2	3	<.2	<3	<3	160	.02	.014	2	9	.05	8	.27	<3	.65	.01	.02	<2	<5	1
6+50NW 0+50SW	46	52	6	11	.6	4	<1	15	2.96	5	<8	<2	<2	9	<.2	<3	<3	238	.03	.020	2	11	.04	15	.46	4	.73	.01	.02	<2	<5	<1
6+50NW 0+75SW	36	525	<3	119	.7	11	1	81	6.85	14	<8	<2	<2	10	.5	<3	<3	199	.11	.031	2	14	.83	44	.46	<3	7.20	.01	.02	<2	<5	<1
6+50NW 1+00SW	25	711	<3	105	1.6	13	2	63	5.69	11	<8	<2	<2	11	<.2	<3	<3	144	.12	.031	2	8	.50	21	.34	<3	3.55	.01	.02	<2	<5	<1
6+50NW 1+25SW	9	336	5	202	.5	11	39	1543	5.54	65	<8	<2	<2	34	.7	<3	<3	90	.68	.079	3	13	.66	40	.12	5	2.66	.02	.05	<2	<5	<1
6+50NW 1+50SW	<1	143	7	287	<.3	15	26	3157	7.04	217	<8	<2	<2	197	2.0	<3	5	132	.70	.087	12	11	1.47	68	.08	<3	3.37	.04	.35	<2	<5	<1
6+50NW 1+75SW	<1	137	<3	314	.5	8	22	772	4.92	62	<8	<2	<2	57	1.0	<3	<3	112	.41	.043	3	8	3.99	30	.14	<3	4.38	.06	.33	<2	<5	<1
6+50NW 2+00SW	3	231	5	107	<.3	22	15	246	5.76	21	<8	<2	<2	17	.2	<3	<3	122	.15	.050	4	17	.98	90	.28	3	7.23	.02	.08	<2	<5	<1
6+00NW 2+00NE	4	52	9	68	<.3	9	1	63	5.56	67	<8	<2	<2	19	<.2	<3	<3	146	.13	.036	2	56	.13	22	.14	<3	2.27	.01	.02	<2	<5	<1
6+00NW 1+50NE	4	119	5	61	1.1	7	1	44	5.55	13	<8	<2	<2	7	<.2	<3	<3	176	.10	.028	2	76	.09	11	.30	<3	4.09	.01	.02	<2	<5	<1
STANDARD C3	28	66	36	167	6.2	41	12	745	3.61	59	26	2	21	32	26.7	16	25	77	.55	.094	17	183	.58	187	.08	18	1.92	.04	.19	13	<5	1
STANDARD G-2	2	3	<3	46	<.3	6	4	586	2.19	<2	<8	<2	5	89	<.2	<3	<3	46	.77	.104	8	83	.68	278	.15	<3	1.07	.09	.65	2	<5	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ___ FA ___

ACME ANALYTICAL

Max Investment Inc. PROJECT YREKA FILE # 9903345

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm
6+00NW 1+00NE	<1	22	<3	18	<.3	<1	<1	13	1.10	15	<8	<2	<2	2	<.2	<3	<3	36	.01	.011	5	5	.01	8	.03	<3	.68	.01	.01	<2	<5	<1
6+00NW 0+75NE	1	24	<3	33	.6	<1	2	32	1.99	11	<8	<2	<2	5	<.2	<3	<3	53	.05	.018	7	9	.08	13	.06	<3	1.10	.01	.02	<2	<5	<1
6+00NW 0+50NE	<1	13	4	8	.3	<1	<1	9	.96	<2	<8	<2	<2	2	<.2	<3	<3	22	.01	.013	1	2	.04	7	.07	<3	.53	.01	.01	<2	<5	<1
6+00NW 0+25NE	2	115	4	42	1.3	5	<1	30	3.02	34	<8	<2	<2	11	<.2	<3	<3	35	.05	.038	5	10	.07	29	.04	<3	4.50	.01	.01	<2	<5	<1
6+00NW BL	10	280	3	50	1.3	9	<1	20	4.78	29	<8	<2	<2	13	<.2	<3	<3	170	.13	.017	2	81	.05	37	.37	<3	5.02	.01	.01	<2	<5	<1
6+00NW 0+25SW	50	471	6	69	3.6	7	2	69	5.35	322	<8	<2	<2	7	<.2	<3	<3	121	.07	.079	<1	15	.21	19	.23	<3	7.11	.01	.02	<2	<5	<1
6+00NW 0+50SW	37	230	4	29	1.0	2	<1	32	8.16	15	<8	<2	<2	6	<.2	<3	<3	145	.05	.044	<1	32	.11	12	.33	<3	5.08	.01	.01	<2	<5	<1
6+00NW 0+75SW	71	365	6	46	.7	9	2	48	6.72	28	<8	<2	<2	5	<.2	<3	<3	112	.07	.037	<1	32	.26	11	.24	<3	4.58	<.01	.01	<2	<5	<1
6+00NW 1+00SW	38	130	7	73	.6	7	4	34	7.94	20	<8	<2	<2	3	<.2	<3	<3	143	.03	.032	<1	20	.11	13	.29	<3	2.54	<.01	.02	<2	<5	<1
6+00NW 1+25SW	2	61	4	121	.3	2	1	65	3.48	37	<8	<2	2	2	<.2	<3	<3	96	.02	.023	6	11	.20	26	.12	<3	2.65	.01	.03	<2	<5	<1
6+00NW 1+50SW	3	318	<3	129	<.3	14	13	217	5.69	204	<8	<2	<2	35	<.2	<3	<3	122	.20	.034	3	19	1.31	65	.11	<3	4.28	.04	.05	<2	<5	<1
6+00NW 1+75SW	2	248	7	313	.4	15	23	1225	5.90	96	<8	<2	<2	42	1.2	<3	<3	120	.45	.079	5	11	1.58	49	.20	<3	4.40	.04	.26	<2	<5	<1
6+00NW 2+00SW	<1	129	<3	98	.4	19	9	308	5.35	16	<8	<2	<2	26	<.2	<3	<3	113	.26	.089	3	14	.86	117	.21	<3	4.84	.03	.10	<2	<5	<1
5+50NW 0+25SW	76	1885	<3	52	4.8	8	270	4159	4.45	79	<8	<2	<2	30	1.1	<3	<3	81	.28	.097	7	24	.11	31	.07	<3	11.35	.01	.02	<2	<5	<1
5+50NW 0+50SW	44	145	4	6	1.1	3	1	50	6.28	7	<8	<2	<2	6	<.2	<3	<3	154	.04	.042	<1	7	.03	13	.27	<3	1.22	.01	.02	<2	<5	<1
5+50NW 0+75SW	30	220	<3	10	1.4	3	<1	37	7.69	<2	<8	<2	<2	6	.2	<3	<3	94	.04	.069	3	19	.06	12	.15	<3	8.49	.01	.01	<2	<5	<1
5+50NW 1+00SW	11	158	<3	24	.4	5	<1	53	5.28	13	<8	<2	<2	7	<.2	<3	<3	52	.04	.059	2	16	.21	10	.13	<3	9.11	.01	.02	<2	<5	<1
5+50NW 1+25SW	5	68	5	18	.4	1	<1	64	6.05	18	<8	<2	<2	16	<.2	<3	<3	209	.08	.029	1	11	.17	20	.44	<3	3.07	.01	.03	<2	<5	<1
5+50NW 1+50SW	1	124	<3	34	<.3	6	2	205	6.51	21	<8	<2	<2	43	<.2	<3	<3	104	.13	.023	<1	21	1.26	37	.28	<3	5.07	.02	.11	<2	<5	<1
5+50NW 1+75SW	2	253	5	192	.3	13	23	936	6.29	85	<8	<2	<2	136	.4	<3	<3	111	.27	.066	6	13	1.36	95	.17	<3	5.14	.03	.19	<2	<5	<1
RE 5+50NW 1+75SW	2	244	6	187	.3	16	24	889	6.11	86	<8	<2	<2	125	.6	<3	<3	107	.26	.065	6	13	1.28	93	.16	<3	4.85	.03	.18	<2	<5	<1
5+50NW 2+00SW	5	161	4	70	<.3	10	9	267	4.35	19	<8	<2	<2	16	<.2	<3	<3	85	.23	.067	2	15	.74	47	.18	<3	2.73	.03	.07	<2	<5	<1
4+50NW 2+00NE	19	39	4	17	2.2	9	<1	92	6.49	9	<8	<2	<2	9	<.2	<3	<3	367	.14	.021	1	82	.21	9	.51	<3	2.20	.01	.02	<2	<5	<1
4+50NW 1+75NE	10	169	4	101	.7	17	5	116	4.59	25	<8	<2	<2	8	<.2	<3	<3	88	.11	.033	3	71	.33	22	.17	<3	7.68	.01	.01	<2	<5	<1
4+50NW 1+50NE	4	204	7	162	3.0	17	23	420	3.38	50	<8	<2	<2	20	1.3	<3	<3	62	.25	.049	3	48	.20	32	.11	<3	5.40	.02	.02	<2	<5	<1
4+50NW 1+25NE	4	106	5	46	.8	13	2	138	5.23	16	<8	<2	<2	9	<.2	<3	<3	129	.18	.034	4	79	.30	20	.31	<3	3.94	.02	.03	<2	<5	<1
4+50NW 1+00NE	3	90	<3	70	1.0	13	2	97	4.04	29	<8	<2	<2	7	<.2	<3	<3	84	.10	.041	3	65	.25	20	.18	<3	6.75	.01	.02	<2	<5	<1
4+50NW 0+75NE	2	155	<3	227	.5	16	13	413	3.67	93	<8	<2	<2	31	1.4	<3	<3	54	.28	.051	8	22	.49	75	.09	<3	3.82	.01	.05	<2	<5	<1
4+50NW 0+50NE	8	243	4	132	1.2	10	2	102	4.25	59	<8	<2	<2	9	.2	<3	<3	77	.06	.050	3	57	.21	27	.14	<3	7.92	.01	.02	<2	<5	<1
4+50NW 0+25NE	9	168	7	101	1.5	6	2	79	3.99	51	<8	<2	<2	11	.5	<3	<3	94	.12	.028	3	36	.15	18	.16	<3	3.05	.01	.01	<2	<5	<1
4+50NW BL	22	391	7	146	.6	14	22	1161	4.71	60	<8	<2	<2	25	.9	<3	<3	92	.26	.032	5	36	.28	28	.16	<3	3.75	.01	.02	<2	<5	<1
4+00NW 2+00NE	17	147	4	92	.3	21	9	479	5.44	19	<8	<2	<2	9	<.2	<3	<3	121	.13	.039	5	64	.53	20	.16	<3	6.18	.01	.02	<2	<5	<1
4+00NW 1+75NE	6	364	<3	171	1.1	20	5	113	3.54	43	<8	<2	<2	12	<.2	<3	<3	71	.09	.057	7	63	.47	35	.15	<3	9.11	.01	.03	<2	<5	<1
4+00NW 1+50NE	3	425	5	276	.4	32	33	1353	4.14	39	<8	<2	<2	34	.7	<3	<3	82	.38	.076	7	42	.92	92	.14	<3	3.43	.03	.12	<2	<5	<1
4+00NW 1+25NE	3	121	4	77	.7	17	5	209	4.23	25	<8	<2	<2	10	<.2	<3	<3	82	.13	.043	3	49	.47	26	.16	<3	4.80	.01	.03	<2	<5	<1
STANDARD C3	25	59	34	155	5.4	32	12	763	3.31	57	22	2	18	27	24.1	14	22	73	.52	.086	17	168	.52	166	.08	17	1.90	.04	.16	14	<5	<1
STANDARD G-2	1	3	<3	45	<.3	9	4	603	2.10	<2	<8	<2	3	69	<.2	<3	<3	42	.70	.092	8	81	.59	253	.12	<3	1.04	.08	.59	2	<5	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ___ FA ___

ACME ANALYTICAL

Max Investment Inc. PROJECT YREKA FILE # 9903345

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm
4+00NW 1+00NE	3	114	4	116	.4	12	6	254	3.79	36	<8	<2	<2	12	<.2	<3	<3	85	.13	.040	6	31	.44	34	.13	3	3.24	.01	.03	<2	<5	<1
4+00NW 0+75NE	3	239	4	250	1.2	14	9	168	3.08	57	<8	<2	<2	9	.5	<3	<3	56	.10	.054	7	25	.50	47	.09	<3	4.95	.01	.03	<2	<5	<1
4+00NW 0+50NE	6	466	7	383	1.1	24	30	535	3.93	87	<8	<2	<2	32	1.1	<3	<3	85	.29	.054	6	34	.81	75	.12	<3	5.04	.02	.05	<2	<5	<1
4+00NW 0+25NE	3	186	3	87	1.7	12	5	160	5.60	41	<8	<2	<2	12	.9	<3	<3	128	.21	.032	5	13	.75	35	.28	<3	3.81	.03	.07	<2	<5	<1
4+00NW BL	2	88	3	43	1.3	5	3	103	6.02	30	<8	<2	<2	9	.8	<3	<3	142	.22	.039	3	16	.42	15	.26	<3	2.47	.02	.04	<2	<5	<1
4+00NW 0+25SW	2	48	5	28	.8	9	2	83	4.39	19	<8	<2	<2	4	<.2	<3	<3	138	.09	.018	4	10	.32	13	.28	<3	1.68	.01	.02	<2	<5	<1
4+00NW 0+50SW	1	55	4	24	.7	7	3	75	4.97	30	<8	<2	<2	4	.3	<3	<3	140	.12	.027	4	12	.26	11	.28	<3	2.02	.01	.04	<2	<5	<1
4+00NW 0+75SW	1	83	5	36	1.0	9	3	92	5.14	35	<8	<2	<2	3	.5	<3	<3	132	.09	.046	4	15	.32	23	.27	<3	3.69	.01	.04	<2	<5	<1
4+00NW 1+00SW	2	156	<3	81	.9	7	4	194	5.46	46	<8	<2	<2	8	.7	<3	<3	116	.11	.114	4	16	.78	25	.23	<3	9.03	.02	.06	<2	<5	<1
4+00NW 1+25SW	1	239	<3	156	.3	17	19	631	4.71	82	<8	<2	<2	20	.5	<3	<3	113	.17	.096	7	15	1.19	79	.16	4	7.28	.04	.15	<2	<5	<1
4+00NW 1+50SW	1	162	<3	175	.6	14	8	274	5.03	90	<8	<2	<2	31	.8	<3	<3	109	.17	.037	5	13	1.77	109	.21	<3	5.57	.02	.08	<2	<5	<1
4+00NW 1+75SW	1	139	5	124	.3	15	9	356	6.13	48	<8	<2	<2	51	1.3	<3	<3	130	.24	.060	4	15	1.16	86	.25	<3	4.57	.03	.11	<2	<5	<1
4+00NW 2+00SW	1	127	<3	144	<.3	37	21	532	5.13	21	<8	<2	<2	20	.9	<3	<3	111	.35	.058	6	24	.81	59	.27	<3	6.38	.03	.08	<2	<5	<1
3+50NW 2+00NE	8	135	5	144	<.3	27	19	1528	4.47	29	<8	<2	<2	45	1.2	<3	<3	103	.76	.063	12	41	1.14	45	.14	3	3.15	.03	.05	<2	<5	<1
3+50NW 1+25NE	<1	85	5	151	<.3	18	21	780	5.20	84	<8	<2	<2	41	1.0	<3	<3	104	.33	.078	4	16	1.13	67	.14	<3	2.71	.04	.08	<2	<5	<1
3+50NW 1+00NE	3	217	5	191	<.3	20	36	897	6.56	228	<8	<2	<2	104	2.0	<3	<3	118	.43	.079	8	19	1.34	91	.08	<3	3.93	.05	.16	<2	<5	<1
RE 3+50NW 1+00NE	3	241	4	196	<.3	21	35	993	6.61	235	<8	<2	<2	117	1.3	<3	<3	127	.47	.075	9	18	1.48	88	.09	<3	4.43	.05	.18	<2	<5	<1
3+50NW 0+75NE	2	167	4	189	.4	18	24	1060	5.34	108	<8	<2	<2	82	1.5	<3	<3	112	.85	.061	7	17	1.53	77	.13	<3	3.70	.06	.17	<2	<5	<1
3+50NW 0+50NE	1	213	4	209	1.2	18	20	953	5.94	64	<8	<2	<2	145	<.2	<3	<3	129	.31	.042	8	10	1.39	88	.17	3	5.49	.05	.15	<2	<5	1
3+50NW 0+25NE	2	124	4	138	.4	15	7	656	5.54	124	<8	<2	<2	45	<.2	<3	<3	133	.28	.039	6	10	1.19	73	.24	<3	3.91	.03	.25	<2	<5	<1
3+50NW BL	1	173	3	153	.3	19	10	574	5.32	97	<8	<2	<2	39	1.2	<3	<3	132	.23	.063	6	14	1.66	104	.25	<3	6.08	.03	.28	<2	<5	<1
3+50NW 0+25SW	1	81	4	72	.4	15	7	273	5.06	88	<8	<2	<2	29	.4	<3	<3	151	.31	.040	5	18	.93	59	.26	5	2.66	.05	.23	<2	<5	<1
3+50NW 0+50SW	<1	129	5	121	.3	17	17	560	4.70	88	<8	<2	<2	48	.6	<3	<3	85	.28	.124	4	14	1.00	72	.08	<3	2.58	.05	.15	<2	<5	<1
3+50NW 0+75SW	<1	116	5	165	<.3	19	31	1557	5.42	154	<8	<2	<2	70	1.5	<3	<3	74	.30	.076	4	15	.93	91	.06	<3	2.26	.04	.14	<2	<5	<1
3+50NW 1+00SW	1	112	8	181	1.6	16	25	508	5.94	73	<8	<2	<2	58	1.5	<3	<3	73	.20	.069	2	18	.91	129	.09	<3	2.66	.03	.07	<2	<5	<1
3+50NW 1+25SW	<1	127	4	141	<.3	18	23	784	5.44	160	<8	<2	<2	85	1.0	<3	<3	101	.43	.072	5	16	1.48	88	.10	<3	3.03	.07	.20	<2	<5	<1
3+50NW 1+50SW	1	73	4	124	.4	12	26	1051	5.04	29	<8	<2	<2	47	.9	<3	<3	118	.53	.057	6	16	1.12	109	.25	<3	4.12	.05	.13	<2	<5	<1
3+50NW 1+75SW	<1	55	<3	91	<.3	19	26	810	5.49	5	<8	<2	<2	20	1.0	<3	<3	135	.42	.062	7	19	.90	34	.33	<3	5.26	.02	.05	<2	<5	<1
3+50NW 2+00SW	1	68	3	83	<.3	16	22	694	5.39	9	<8	<2	<2	13	1.2	<3	<3	124	.28	.068	6	19	1.07	30	.32	<3	4.99	.02	.06	<2	<5	<1
3+00NW 2+00NE	3	45	<3	62	.5	9	4	274	7.45	6	<8	<2	<2	5	1.5	<3	<3	165	.04	.039	6	36	.52	30	.26	<3	8.65	.01	.02	<2	<5	<1
3+00NW 1+75NE	2	37	5	110	.3	16	7	474	6.37	30	<8	<2	<2	10	1.2	<3	<3	144	.07	.036	4	28	.80	31	.24	<3	3.43	.01	.03	<2	<5	<1
3+00NW 1+50NE	2	29	3	90	.4	10	5	469	5.39	26	<8	<2	<2	10	<.2	<3	<3	137	.10	.031	6	21	.73	20	.22	3	3.85	.01	.04	<2	<5	<1
3+00NW 1+25NE	1	33	6	49	.4	14	8	373	6.86	7	<8	<2	<2	7	1.3	<3	<3	187	.10	.025	3	23	.56	16	.33	<3	2.26	.01	.02	<2	<5	<1
3+00NW 1+00NE	2	1	7	30	<.3	3	9	18	6.11	22	<8	<2	<2	<1	2.0	<3	<3	10	<.01	.043	<1	19	.03	16	.01	<3	.10	<.01	<.01	2	<5	<1
3+00NW 0+75NE	1	23	6	54	<.3	12	5	285	7.53	4	<8	<2	<2	8	1.4	<3	<3	217	.09	.018	3	27	.60	16	.45	<3	2.29	.01	.02	<2	<5	<1
STANDARD C3	25	60	34	159	5.8	35	11	757	3.31	59	23	2	19	28	24.2	15	23	77	.56	.087	17	168	.59	163	.08	17	1.90	.04	.17	14	<5	<1
STANDARD G-2	2	5	<3	48	<.3	10	4	595	2.27	<2	<8	<2	4	74	<.2	<3	<3	45	.74	.106	9	87	.67	263	.13	<3	1.09	.08	.54	2	<5	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ___ FA ___

Max Investment Inc. PROJECT YREKA FILE # 9903345

ACME ANALYTICAL

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm
3+00NW 0+50NE	1	54	<3	89	<.3	26	9	496	7.39	12	<8	<2	<2	9	<.2	<3	<3	198	.13	.032	4	38	1.25	21	.37	<3	4.10	.01	.04	<2	<5	<1
3+00NW 0+25NE	2	114	<3	152	<.3	22	17	861	5.82	22	<8	<2	<2	26	<.2	<3	<3	148	.35	.053	6	24	1.37	79	.29	<3	4.75	.02	.05	<2	<5	<1
3+00NW BL	<1	55	<3	98	<.3	18	15	1587	5.24	8	<8	<2	<2	23	<.2	<3	<3	133	.42	.079	6	26	1.13	36	.27	<3	4.90	.03	.06	<2	<5	<1
3+00NW 0+25SW	1	127	<3	190	.4	11	19	1367	4.92	83	<8	<2	<2	63	<.2	<3	<3	107	.85	.081	7	14	1.41	50	.14	<3	3.38	.07	.22	<2	<5	<1
3+00NW 0+50SW	2	79	6	105	.3	12	8	299	6.39	58	<8	<2	<2	43	<.2	<3	<3	142	.17	.041	3	20	.73	77	.23	<3	3.02	.03	.05	<2	<5	<1
3+00NW 0+75SW	<1	174	4	180	.4	15	20	543	6.33	31	<8	<2	<2	202	<.2	<3	<3	128	.31	.066	5	17	1.10	148	.20	<3	5.80	.04	.17	<2	<5	<1
3+00NW 1+00SW	1	235	<3	169	.3	14	26	1016	5.88	182	<8	<2	<2	63	<.2	<3	<3	111	.63	.090	7	14	1.63	67	.12	<3	3.19	.07	.35	<2	<5	1
3+00NW 1+25SW	1	155	4	188	.4	20	28	1425	5.60	157	<8	<2	<2	56	<.2	<3	<3	82	.55	.097	5	15	1.23	74	.08	<3	2.31	.04	.25	<2	<5	<1
3+00NW 1+50SW	<1	110	<3	126	<.3	17	48	1858	5.50	53	<8	<2	<2	31	<.2	<3	<3	121	.30	.095	7	20	1.30	98	.22	<3	5.89	.02	.24	<2	<5	<1
3+00NW 1+75SW	<1	24	5	20	.3	9	4	156	2.36	5	<8	<2	<2	16	<.2	<3	<3	84	.25	.049	8	8	.35	33	.25	<3	2.21	.01	.05	<2	<5	<1
3+00NW 2+00SW	<1	36	<3	33	.3	5	3	295	6.36	9	<8	<2	<2	6	<.2	<3	<3	184	.15	.039	5	18	.50	20	.44	<3	4.18	.02	.06	<2	<5	1
2+50NW 2+00NE	6	44	3	105	<.3	16	7	394	7.02	15	<8	<2	<2	11	<.2	<3	<3	127	.11	.038	4	35	1.03	22	.17	<3	5.84	.01	.02	<2	<5	<1
2+50NW 1+75NE	4	41	<3	80	<.3	9	6	441	7.31	12	<8	<2	<2	5	<.2	<3	<3	144	.05	.044	4	48	.96	17	.21	<3	5.98	.01	.02	<2	<5	<1
2+50NW 1+50NE	<1	51	<3	115	.3	17	11	787	6.26	16	<8	<2	<2	7	<.2	<3	<3	144	.11	.057	4	24	.84	24	.27	<3	6.75	.01	.02	<2	<5	<1
2+50NW 1+25NE	2	28	<3	68	.4	7	5	375	6.40	18	<8	<2	<2	6	<.2	<3	<3	163	.06	.042	4	22	.59	22	.31	<3	4.38	.01	.02	2	<5	<1
2+50NW 1+00NE	1	24	3	57	.4	5	4	265	7.25	13	<8	<2	<2	7	<.2	<3	<3	153	.05	.039	3	21	.42	15	.26	<3	2.77	.01	.02	<2	<5	<1
RE 2+50NW 1+00NE	1	22	4	56	.4	7	4	253	7.35	13	<8	<2	<2	6	<.2	<3	<3	147	.05	.039	3	21	.39	15	.26	<3	2.68	.01	.02	<2	<5	1
2+50NW 0+75NE	1	27	3	107	<.3	12	19	604	5.59	13	<8	<2	<2	7	<.2	<3	<3	136	.15	.048	3	26	.83	18	.27	<3	4.04	.01	.02	<2	<5	<1
2+50NW 0+50NE	1	30	4	65	.3	6	3	299	7.94	13	<8	<2	<2	7	<.2	<3	<3	220	.07	.035	4	35	.36	18	.41	<3	4.45	.01	.02	<2	<5	1
2+50NW 0+25NE	1	25	<3	85	<.3	26	36	4084	5.07	8	<8	<2	<2	19	<.2	<3	<3	146	.44	.053	3	84	.98	21	.23	<3	4.56	.03	.06	<2	<5	1
2+50NW BL	2	37	<3	106	.3	14	20	2036	6.37	35	<8	<2	<2	8	<.2	<3	<3	165	.13	.079	5	38	.62	20	.32	<3	7.58	.01	.02	<2	<5	<1
2+50NW 0+25SW	<1	36	<3	71	.3	10	12	561	6.36	23	<8	<2	<2	9	<.2	<3	<3	141	.14	.049	4	24	.68	32	.31	<3	4.68	.01	.02	<2	<5	<1
2+50NW 0+50SW	1	118	<3	154	<.3	20	20	767	5.57	74	<8	<2	<2	20	<.2	<3	<3	126	.33	.068	7	26	1.26	46	.24	<3	5.28	.02	.06	<2	<5	<1
2+50NW 0+75SW	1	25	3	44	.7	7	3	164	7.08	49	<8	<2	<2	7	<.2	<3	<3	204	.08	.029	3	24	.34	20	.44	<3	3.40	.01	.02	<2	<5	1
2+50NW 1+00SW	3	251	<3	217	.6	6	5	160	5.33	91	<8	<2	<2	13	<.2	<3	<3	77	.11	.043	3	14	1.21	30	.16	<3	5.49	.03	.05	<2	<5	1
2+50NW 1+50SW	<1	18	4	24	<.3	4	1	232	6.01	4	<8	<2	<2	12	<.2	<3	<3	243	.18	.014	3	13	.45	27	.79	<3	1.55	.01	.13	<2	<5	1
2+50NW 1+75SW	<1	32	<3	37	.5	6	4	425	6.09	12	<8	<2	<2	9	<.2	<3	<3	178	.24	.035	4	20	.75	33	.57	<3	4.39	.02	.15	<2	<5	<1
2+50NW 2+00SW	<1	57	<3	52	<.3	5	11	635	6.57	69	<8	<2	<2	23	<.2	<3	<3	174	.19	.033	6	15	.38	41	.34	<3	2.33	.02	.08	<2	<5	<1
2+00NW 2+00NE	3	26	3	67	.3	5	4	288	6.99	13	<8	<2	<2	5	<.2	<3	<3	153	.06	.037	4	28	.63	15	.25	<3	4.59	.01	.02	<2	<5	<1
2+00NW 1+75NE	2	35	<3	72	.4	10	3	249	6.64	9	<8	<2	<2	5	<.2	<3	<3	153	.05	.051	4	29	.45	16	.29	<3	8.73	.01	.01	<2	<5	<1
2+00NW 1+50NE	1	34	<3	81	<.3	9	4	273	6.42	11	<8	<2	<2	6	<.2	<3	<3	164	.06	.047	5	27	.46	15	.33	<3	5.44	.01	.01	<2	<5	<1
2+00NW 1+25NE	1	46	<3	96	<.3	10	6	311	6.55	12	<8	<2	<2	5	<.2	<3	<3	153	.07	.047	4	26	.63	14	.32	<3	6.50	.01	.01	<2	<5	<1
2+00NW 1+00NE	3	24	4	63	<.3	12	6	347	6.01	19	<8	<2	<2	7	<.2	<3	<3	166	.10	.032	3	20	.50	21	.32	<3	3.10	.01	.02	<2	<5	<1
2+00NW 0+75NE	<1	33	<3	66	.3	8	3	237	8.21	15	<8	<2	<2	4	<.2	<3	<3	159	.08	.042	3	25	.55	16	.27	<3	5.24	.01	.02	<2	<5	<1
2+00NW 0+50NE	2	39	<3	109	<.3	10	14	475	5.58	21	<8	<2	<2	5	<.2	<3	<3	120	.10	.057	5	31	.58	20	.26	<3	6.92	.01	.02	<2	<5	<1
STANDARD C3	26	63	31	160	5.8	35	11	776	3.40	59	25	2	20	27	22.9	15	23	77	.60	.096	17	170	.60	148	.08	18	1.97	.04	.18	14	<5	1
STANDARD G-2	2	3	<3	44	<.3	8	4	570	2.14	<2	<8	<2	4	65	<.2	<3	<3	39	.66	.106	7	82	.60	234	.13	<3	.95	.07	.53	2	<5	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ✓ FA ____

Max Investment Inc. PROJECT YREKA FILE # 9903345

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppm
2+00NW 0+25NE	3	9	9	27	<.3	9	<1	124	4.28	<2	<8	<2	<2	14	<.2	<3	<3	338	.16	.023	3	52	.38	10	.88	<3	1.07	.02	.03	<2	5	4
2+00NW BL	2	13	9	45	<.3	13	6	482	6.94	38	<8	<2	<2	14	<.2	<3	<3	269	.27	.026	4	24	.60	15	.52	<3	2.12	.02	.03	<2	<5	1
2+00NW 0+25SW	3	17	5	103	<.3	15	29	3186	5.18	93	<8	<2	<2	30	<.2	<3	<3	183	.77	.062	6	30	.99	22	.20	<3	4.53	.02	.02	<2	<5	<1
2+00NW 0+50SW	1	38	6	147	<.3	22	14	567	5.09	52	<8	<2	<2	24	<.2	<3	<3	152	.58	.041	4	23	1.22	35	.31	<3	4.56	.02	.03	<2	<5	<1
2+00NW 0+75SW	2	39	5	57	.3	14	4	222	5.59	13	<8	<2	<2	8	<.2	<3	<3	168	.09	.043	4	26	.63	14	.38	<3	5.32	.01	.03	<2	<5	<1
2+00NW 1+00SW	<1	23	5	56	<.3	17	6	234	6.47	5	<8	<2	<2	11	<.2	<3	<3	203	.19	.021	4	24	.69	17	.40	<3	3.27	.01	.01	<2	<5	<1
2+00NW 1+25SW	<1	67	<3	88	.5	20	7	385	5.31	52	<8	<2	<2	9	<.2	<3	<3	186	.08	.037	5	36	1.14	26	.43	4	19.25	.01	.02	<2	<5	<1
2+00NW 1+50SW	2	61	4	135	<.3	23	17	1103	4.76	61	<8	<2	<2	48	<.2	<3	<3	153	1.13	.058	8	44	1.89	26	.22	<3	5.94	.03	.07	<2	<5	<1
2+00NW 2+00SW	<1	8	6	16	<.3	5	2	99	3.08	13	<8	<2	<2	13	<.2	<3	<3	135	.13	.016	3	12	.40	22	.35	<3	1.30	.01	.08	<2	<5	1
1+50NW 4+00NE	30	36	9	70	.8	19	4	215	8.43	19	<8	<2	<2	5	<.2	<3	<3	98	.02	.055	4	21	.33	22	.03	<3	4.26	.01	.03	<2	<5	<1
1+50NW 3+75NE	20	55	8	111	1.0	28	14	586	7.58	21	<8	<2	<2	10	<.2	<3	<3	74	.03	.074	9	24	.62	45	.04	<3	7.84	.01	.04	<2	<5	<1
1+50NW 3+50NE	14	49	8	125	.3	21	12	1784	7.78	19	<8	<2	<2	8	<.2	<3	<3	109	.09	.331	5	23	.82	27	.07	<3	8.08	.01	.06	<2	<5	<1
1+50NW 3+25NE	22	42	8	79	.7	12	5	272	6.67	14	<8	<2	<2	7	<.2	<3	<3	98	.04	.067	9	24	.38	30	.04	<3	8.23	.01	.04	<2	<5	<1
RE 1+50NW 3+25NE	21	40	8	73	.7	15	5	248	6.37	13	<8	<2	<2	6	<.2	<3	<3	93	.04	.067	8	24	.36	29	.04	<3	7.95	.01	.03	<2	<5	<1
1+50NW 3+00NE	10	33	13	103	.6	10	12	788	7.09	24	<8	<2	<2	10	<.2	<3	<3	161	.06	.055	6	18	.61	40	.18	<3	4.31	.01	.04	<2	<5	<1
1+50NW 2+75NE	<1	77	10	310	<.3	18	16	670	7.59	36	<8	<2	<2	7	<.2	<3	<3	196	.06	.050	4	28	1.20	70	.34	<3	6.78	.01	.03	<2	<5	<1
1+50NW 2+50NE	<1	51	8	252	<.3	21	12	641	8.37	14	<8	<2	<2	9	<.2	<3	<3	175	.07	.038	5	26	1.19	43	.38	<3	5.63	.01	.03	<2	<5	1
1+50NW 2+25NE	<1	62	8	239	<.3	22	11	518	8.04	21	<8	<2	<2	8	<.2	<3	<3	172	.06	.045	4	33	.94	81	.29	<3	6.28	.01	.02	<2	<5	<1
1+50NW 2+00NE	<1	67	10	229	<.3	20	10	514	8.32	41	<8	<2	<2	8	<.2	<3	<3	178	.07	.036	3	32	1.02	72	.34	<3	5.08	.01	.02	<2	<5	<1
1+50NW 1+75NE	<1	63	7	155	<.3	12	4	463	8.38	15	<8	<2	<2	8	<.2	<3	<3	256	.07	.058	6	32	.55	21	.49	<3	6.54	.01	.03	<2	<5	<1
1+50NW 1+50NE	<1	56	6	234	<.3	16	10	694	7.51	19	<8	<2	<2	11	<.2	<3	<3	154	.10	.043	5	23	1.08	41	.40	<3	6.22	.01	.04	<2	<5	<1
1+50NW 1+25NE	<1	33	5	137	.4	14	7	449	6.97	38	<8	<2	<2	12	<.2	<3	<3	144	.07	.040	5	36	.70	26	.27	<3	6.41	.01	.02	<2	<5	<1
1+50NW 1+00NE	<1	33	6	106	.4	17	8	317	7.27	7	<8	<2	<2	7	<.2	<3	<3	189	.07	.039	3	29	.73	21	.42	<3	5.01	.01	.02	<2	<5	<1
1+50NW 0+75NE	<1	36	6	136	<.3	16	8	330	6.51	20	<8	<2	<2	8	<.2	<3	<3	136	.07	.074	3	28	.55	43	.27	<3	4.71	.01	.02	<2	<5	<1
1+50NW 0+50NE	<1	17	7	72	.4	11	8	272	6.10	19	<8	<2	<2	10	<.2	<3	<3	100	.12	.053	3	26	.40	21	.19	<3	2.21	.01	.02	<2	<5	<1
1+50NW 0+25NE	<1	32	6	111	.5	13	7	393	7.97	30	<8	<2	<2	9	<.2	<3	<3	169	.08	.046	4	37	.81	20	.35	<3	6.59	.01	.02	<2	<5	<1
1+50NW BL	<1	61	5	193	.5	22	7	408	6.74	114	<8	<2	<2	7	<.2	<3	<3	182	.08	.062	3	39	.92	20	.41	<3	10.43	.01	.03	<2	<5	<1
1+00NW 4+00NE	7	33	8	87	.4	15	50	5588	5.74	13	<8	<2	<2	17	<.2	<3	<3	141	.13	.056	8	24	.52	41	.15	<3	5.21	.01	.04	<2	<5	1
1+00NW 3+75NE	3	51	8	142	<.3	14	23	1135	6.91	19	<8	<2	<2	6	<.2	<3	<3	163	.03	.049	6	24	1.28	39	.19	<3	8.09	.01	.04	<2	<5	<1
1+00NW 3+50NE	3	40	9	97	<.3	12	7	493	7.75	23	<8	<2	<2	5	<.2	<3	<3	180	.03	.033	5	24	1.15	30	.22	<3	6.85	.01	.04	<2	<5	<1
1+00NW 3+25NE	2	63	9	172	<.3	17	11	672	6.90	25	<8	<2	<2	6	<.2	<3	<3	157	.05	.043	7	20	2.11	42	.24	<3	9.24	.01	.06	<2	<5	<1
1+00NW 3+00NE	4	65	7	183	.3	19	10	618	6.71	27	<8	<2	<2	6	<.2	<3	<3	131	.05	.048	5	25	1.83	22	.17	<3	8.48	.01	.06	<2	<5	<1
1+00NW 2+75NE	<1	68	7	227	.4	17	9	622	8.32	14	<8	<2	<2	10	<.2	<3	<3	207	.07	.038	5	29	1.14	38	.48	<3	5.93	.01	.03	<2	<5	<1
1+00NW 2+50NE	<1	40	8	106	.4	7	2	303	7.69	8	<8	<2	<2	10	<.2	<3	<3	232	.07	.042	4	20	.43	25	.48	<3	3.36	.01	.02	<2	<5	1
1+00NW 2+25NE	1	35	11	205	.3	13	9	392	8.75	155	<8	<2	<2	7	<.2	<3	<3	164	.06	.039	3	44	.75	22	.31	<3	4.16	.01	.02	<2	<5	<1
STANDARD C3	27	65	35	171	5.9	39	11	751	3.54	60	25	3	20	33	25.5	16	25	81	.57	.093	18	178	.61	161	.08	18	2.00	.04	.21	14	<5	1
STANDARD G-2	2	3	<3	43	<.3	8	4	555	2.14	<2	<8	<2	4	76	<.2	<3	<3	41	.67	.102	7	84	.60	240	.13	<3	.98	.08	.59	2	<5	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ___ FA ___

ACME ANALYTICAL

Max Investment Inc. PROJECT YREKA FILE # 9903345

ACME ANALYTICAL

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm
1+00NW 2+00NE	1	83	<3	269	<.3	21	14	807	7.55	24	<8	<2	<2	8	.6	<3	<3	211	.06	.043	4	29	1.10	52	.32	<3	9.96	.01	.03	<2	<5	1
1+00NW 1+75NE	<1	49	<3	149	<.3	14	5	468	7.40	16	<8	<2	2	8	.6	<3	<3	198	.06	.041	4	25	.63	26	.38	<3	6.13	.01	.03	<2	<5	<1
1+00NW 1+50NE	<1	20	4	73	.4	10	2	347	8.83	23	<8	<2	<2	10	<.2	<3	<3	181	.05	.044	3	28	.30	14	.34	<3	3.28	.01	.02	<2	<5	<1
1+00NW 1+25NE	<1	40	<3	104	<.3	17	4	336	8.02	12	<8	<2	<2	9	<.2	<3	<3	197	.08	.053	3	27	.56	27	.34	<3	4.93	.01	.02	<2	<5	<1
1+00NW 1+00NE	<1	36	4	118	<.3	19	6	440	7.50	13	<8	<2	<2	11	.2	<3	<3	180	.06	.032	4	33	.68	24	.32	<3	5.09	.01	.02	<2	<5	<1
1+00NW 0+75NE	<1	39	4	122	.3	13	6	570	9.37	15	<8	<2	<2	8	<.2	<3	<3	232	.09	.034	3	31	.68	22	.42	<3	4.47	.01	.02	<2	<5	<1
1+00NW 0+50NE	<1	38	6	121	.3	32	17	1211	6.89	52	<8	<2	<2	8	.2	<3	<3	172	.15	.034	3	36	1.17	19	.28	<3	4.90	.01	.03	<2	<5	<1
1+00NW 0+25NE	<1	47	6	149	.3	21	9	443	5.70	106	<8	<2	<2	10	.3	<3	<3	143	.12	.041	2	26	.71	23	.26	<3	4.87	.01	.02	<2	<5	<1
1+00NW BL	<1	18	9	56	.3	10	3	211	6.84	22	<8	<2	<2	9	<.2	<3	<3	179	.05	.029	2	23	.22	13	.32	<3	1.73	.01	.02	<2	<5	<1
0+50SE 4+00NE	3	26	5	47	.3	16	7	486	6.44	13	<8	<2	<2	8	<.2	<3	<3	156	.04	.039	3	70	.63	12	.19	<3	3.79	.01	.02	<2	<5	<1
0+50SE 3+75NE	3	24	7	32	.5	19	4	217	7.41	10	<8	<2	2	10	<.2	<3	<3	255	.04	.034	3	91	.35	9	.20	<3	3.42	.01	.02	<2	<5	<1
0+50SE 3+50NE	4	50	3	87	<.3	28	10	520	7.24	18	<8	<2	<2	6	.4	<3	<3	124	.04	.044	4	48	1.29	36	.08	<3	9.39	.01	.04	<2	<5	<1
0+50SE 3+25NE	3	48	<3	179	<.3	17	112	4528	7.67	13	<8	<2	<2	8	.7	<3	.<3	155	.06	.052	8	24	.85	32	.21	<3	8.10	.01	.03	<2	<5	<1
0+50SE 3+00NE	<1	64	5	252	<.3	17	11	574	7.25	30	<8	<2	<2	8	.6	<3	<3	177	.07	.062	4	26	.90	47	.31	<3	6.58	.01	.03	<2	<5	<1
0+50SE 2+75NE	1	70	6	279	<.3	17	13	682	7.04	28	<8	<2	<2	7	.8	<3	<3	163	.05	.053	6	25	1.19	32	.31	<3	7.44	.01	.03	<2	<5	<1
0+50SE 2+50NE	<1	35	7	116	.3	10	3	225	8.19	19	<8	<2	<2	6	<.2	<3	<3	213	.04	.043	3	25	.28	22	.29	<3	3.05	.01	.02	<2	<5	<1
0+50SE 2+25NE	<1	44	8	170	<.3	15	7	419	9.81	19	<8	<2	<2	9	.6	<3	<3	202	.06	.039	2	32	.64	48	.38	<3	3.94	.01	.02	<2	<5	<1
0+50SE 2+00NE	<1	50	6	160	<.3	19	6	344	8.33	28	<8	<2	2	9	.5	<3	<3	226	.07	.041	3	33	.73	36	.38	<3	5.15	.01	.03	<2	<5	<1
RE 0+50SE 2+00NE	<1	54	6	164	<.3	20	5	364	8.32	25	<8	<2	<2	10	.6	<3	<3	239	.07	.041	3	33	.78	37	.37	<3	5.51	.01	.03	<2	<5	<1
0+50SE 1+75NE	<1	52	<3	174	<.3	19	15	601	6.53	29	<8	<2	2	10	.6	<3	<3	139	.06	.067	6	32	.86	24	.33	<3	9.50	.01	.03	<2	<5	<1
0+50SE 1+50NE	<1	38	<3	196	<.3	22	47	2010	5.25	10	<8	<2	<2	19	.7	<3	<3	142	.24	.058	8	28	.90	61	.21	<3	6.35	.01	.03	<2	<5	1
0+50SE 1+25NE	<1	47	<3	201	<.3	17	17	919	6.22	24	<8	<2	<2	9	.6	<3	<3	145	.06	.056	5	35	.77	28	.24	<3	8.55	.01	.02	<2	<5	<1
0+50SE 1+00NE	<1	49	4	157	.3	15	9	379	6.32	20	<8	<2	2	6	.5	<3	<3	133	.07	.059	3	27	.77	27	.25	<3	6.57	.01	.02	<2	<5	<1
0+50SE 0+75NE	<1	39	4	136	.3	13	6	308	8.64	18	<8	<2	<2	6	.3	<3	<3	170	.04	.049	2	28	.49	29	.24	<3	4.99	.01	.01	<2	<5	<1
0+50SE 0+50NE	<1	34	6	152	<.3	15	12	521	6.59	20	<8	<2	<2	6	.6	<3	<3	119	.06	.046	2	30	.79	23	.22	<3	4.35	<.01	.01	<2	<5	<1
0+50SE 0+25NE	<1	44	<3	122	.3	15	7	442	6.75	19	<8	<2	<2	10	.4	<3	<3	184	.06	.070	5	31	.71	26	.32	<3	7.64	.01	.02	<2	<5	<1
0+50SE BL	<1	28	5	83	.3	13	3	340	7.15	27	<8	<2	2	10	<.2	<3	<3	199	.09	.053	3	26	.51	12	.38	5	2.72	.01	.02	<2	<5	<1
0+00NW 4+00NE	3	60	<3	55	<.3	37	12	542	6.21	13	<8	<2	2	16	.8	<3	<3	221	.07	.045	5	133	1.23	27	.35	10	11.62	.01	.03	<2	<5	<1
0+00NW 3+75NE	3	34	6	35	.7	18	4	205	7.58	15	<8	<2	2	13	.2	<3	<3	277	.05	.029	3	107	.45	15	.27	3	3.99	.01	.02	<2	<5	<1
0+00NW 3+50NE	5	39	8	106	<.3	22	10	363	6.31	21	<8	<2	<2	5	1.1	<3	<3	104	.03	.057	3	36	.97	31	.08	<3	5.70	.01	.03	<2	<5	<1
0+00NW 3+25NE	2	44	8	118	<.3	6	5	345	7.82	32	<8	<2	3	5	<.2	<3	<3	233	.03	.039	5	16	.57	25	.32	<3	4.97	.01	.02	<2	<5	<1
0+00NW 3+00NE	4	76	<3	256	<.3	23	8	702	6.61	38	<8	<2	2	8	<.2	<3	<3	204	.06	.049	7	19	1.68	34	.27	9	9.82	.01	.04	<2	<5	1
0+00NW 2+75NE	<1	49	3	147	<.3	15	5	460	7.20	11	<8	<2	2	10	.3	<3	<3	219	.08	.036	7	23	.77	24	.39	3	5.44	.01	.03	<2	<5	<1
0+00NW 2+50NE	<1	62	7	220	<.3	15	8	527	8.10	22	<8	<2	2	6	.8	<3	<3	186	.04	.045	5	32	.94	38	.35	<3	7.24	.01	.02	<2	<5	<1
0+00NW 2+25NE	<1	81	<3	222	<.3	18	8	493	8.43	31	<8	<2	3	5	.8	<3	<3	208	.03	.057	4	33	.80	32	.35	<3	12.33	.01	.02	<2	<5	<1
STANDARD C3	27	68	36	174	5.9	43	12	809	3.68	57	26	3	23	31	27.9	13	24	86	.60	.101	18	189	.62	146	.08	16	2.11	.04	.18	14	<5	<1
STANDARD G-2	2	2	3	44	<.3	8	4	555	2.13	<2	<8	<2	4	78	<.2	<3	<3	42	.65	.107	7	85	.59	221	.13	<3	.95	.07	.55	2	<5	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data √ FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Max Investment Inc. PROJECT YREKA File # 9903089

3750 West 49th Ave, Vancouver BC V6B 3T8 Submitted by: C. Dyakowski

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
JL99-1	1027	1412	<3	46	1.1	18	46	235	7.17	<2	<8	<2	<2	106	<.2	<3	<3	37	1.07	.077	2	11	.14	74	.11	<3	1.57	.29	.13	2	3
JP99-1	16	1424	93	62	5.6	9	79	969	16.98	17	<8	<2	<2	56	4.0	3	106	64	4.68	.013	<1	15	1.38	4	.01	<3	.87	.01	.01	3	170
RE JP99-1	14	1376	91	60	5.4	9	76	949	16.52	11	<8	<2	<2	56	3.5	<3	104	63	4.80	.013	<1	14	1.34	4	.01	<3	.85	.02	.01	3	170

GROUP 1D - 0.50 GM SAMPLE, 3 MLS 2-2-2 AQUA REGIA, 1 HOUR AT 95 DEG. C, DILUTED TO 10 MLS. UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED. (10 gm)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 25 1999 **DATE REPORT MAILED:** Sept 1/99 **SIGNED BY** C. L........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ✓ FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Max Investment Inc. PROJECT YREKA File # 9903088 Page 1

3750 West 49th Ave, Vancouver BC V6B 3T8 Submitted by: C. Dyakowski

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
0+50S 1+00W	5	128	5	48	2.0	11	7	160	9.16	10	<8	<2	<2	13	<.2	<3	<3	255	.10	.038	3	40	.19	21	.43	<3	4.53	.01	.03	<2	15
0+50S 0+75W	2	497	9	110	1.7	18	13	665	5.14	<2	<8	<2	<2	60	.4	<3	3	133	.99	.043	2	16	.27	14	.19	<3	1.84	.03	.03	<2	27
0+50S 0+50W	3	1124	3	169	18.5	17	27	710	9.39	<2	<8	<2	<2	21	.5	<3	<3	108	.25	.084	2	35	.21	12	.17	<3	6.91	.03	.02	<2	46
0+50S 0+25W	1	144	8	124	1.6	10	6	194	5.20	<2	<8	<2	<2	11	<.2	<3	<3	76	.19	.057	3	36	.11	17	.17	<3	7.94	.01	.02	<2	1
0+50S BL	2	148	6	352	1.5	13	26	953	6.39	<2	<8	<2	<2	18	1.1	<3	3	100	.22	.084	5	36	.20	30	.21	<3	7.71	.01	.01	<2	2
1+50S 1+50W	2	16	9	27	.3	22	5	119	6.83	<2	<8	<2	<2	5	<.2	<3	<3	344	.16	.028	2	137	.44	8	.55	<3	1.59	.01	.01	<2	<1
1+50S 1+25W	1	21	8	58	<.3	52	10	189	5.87	<2	<8	<2	<2	8	<.2	<3	3	202	.30	.029	3	219	1.08	22	.40	<3	3.27	.03	.03	<2	<1
1+50S 1+00W	1	26	7	46	.3	30	6	143	7.52	<2	<8	<2	<2	5	<.2	<3	<3	275	.25	.028	2	258	.65	10	.55	<3	3.53	.02	.02	<2	1
1+50S 0+50W	4	346	9	70	1.0	8	15	411	6.41	<2	<8	<2	<2	15	<.2	<3	<3	129	.45	.061	4	20	.15	15	.18	<3	4.85	.01	.02	2	1
1+50S 0+25W	3	314	7	100	3.1	8	8	251	4.56	3	<8	<2	<2	14	<.2	3	<3	83	.16	.078	4	17	.16	11	.13	<3	4.98	.02	.02	<2	1
1+50S BL	2	186	<3	879	1.0	33	25	3798	6.15	158	<8	<2	<2	52	7.3	3	<3	134	1.05	.072	4	57	.66	53	.16	<3	3.05	.02	.03	<2	1
2+50S 2+00W	2	118	4	51	1.5	30	6	92	7.92	6	<8	<2	<2	35	.2	3	<3	187	.11	.042	3	147	.23	22	.33	<3	5.46	.01	.01	<2	2
2+50S 1+75W	3	187	7	232	1.2	101	19	268	7.69	20	<8	<2	<2	25	.8	<3	<3	193	.21	.038	5	306	1.09	29	.36	<3	7.12	.02	.02	<2	21
2+50S 1+50W	1	152	<3	131	.9	75	14	244	12.12	6	<8	<2	2	4	1.5	<3	4	235	.30	.036	2	579	1.48	9	.57	<3	4.46	.04	.04	<2	<1
2+50S 1+25W	2	53	8	116	.8	28	10	417	7.09	6	<8	<2	<2	10	.7	<3	<3	195	.11	.066	4	92	.58	20	.36	<3	6.15	.01	.03	<2	<1
2+50S 1+00W	2	57	8	146	.6	30	10	313	7.19	<2	<8	<2	2	7	.2	<3	<3	159	.19	.056	4	234	.44	13	.30	3	6.42	.02	.02	<2	<1
2+50S 0+75W	2	45	<3	14	.5	5	3	109	5.97	<2	<8	<2	<2	15	<.2	3	<3	226	.12	.039	3	11	.16	14	.47	<3	2.06	.02	.02	<2	<1
2+50S 0+50W	2	91	<3	140	1.3	11	12	1524	5.85	<2	<8	<2	<2	12	.4	<3	<3	147	.12	.063	6	53	.22	16	.29	<3	5.23	.01	.01	<2	1
2+50S 0+25W	1	226	23	984	1.5	65	23	1640	5.67	361	<8	<2	<2	37	8.5	<3	<3	121	.46	.063	7	122	.93	53	.27	<3	6.90	.03	.03	<2	23
2+50S BL	5	303	17	760	1.0	25	36	852	6.81	64	<8	<2	<2	27	1.5	<3	<3	131	.22	.075	6	85	.55	48	.30	<3	7.60	.02	.03	<2	15
3+50S 1+25W	5	732	3	5745	.4	18	13	2951	6.62	4	<8	<2	<2	23	9.2	<3	<3	80	.58	.126	2	47	5.67	137	.16	<3	6.60	.02	.64	7	<1
3+50S 1+00W	1	721	11	1266	2.0	25	19	3792	4.36	<2	<8	<2	<2	61	11.0	<3	<3	35	.54	.159	4	22	.15	30	.05	4	6.22	.05	.02	<2	1
3+50S 0+50W	1	216	12	867	.8	18	18	3918	4.30	<2	<8	<2	<2	52	5.3	<3	<3	53	.63	.206	5	32	.14	31	.05	<3	4.19	.04	.01	3	<1
3+50S 0+25W	2	68	10	114	3.7	16	9	564	6.04	7	<8	<2	<2	9	.4	<3	3	159	.07	.057	5	71	.35	18	.25	<3	5.08	.01	.01	<2	1
3+50S BL	2	64	5	132	.7	27	12	259	6.10	<2	<8	<2	<2	13	.3	<3	<3	163	.11	.076	4	115	.64	31	.31	<3	6.75	.01	.03	<2	<1
RE 3+50S BL	2	67	9	135	.9	30	13	269	6.28	11	<8	<2	<2	14	.4	6	<3	169	.12	.080	4	121	.66	33	.32	<3	6.98	.01	.03	<2	1
4+50S 1+75W	3	239	7	718	.9	28	12	1105	3.96	5	<8	<2	<2	53	1.2	<3	3	57	.25	.067	6	31	.19	23	.07	<3	3.82	.03	.01	2	<1
4+50S 1+50W	2	83	4	193	1.3	10	7	692	3.25	<2	<8	<2	<2	47	.4	<3	3	63	.42	.036	3	21	.08	13	.07	<3	1.71	.01	.01	<2	1
4+50S 1+25W	3	154	9	250	1.1	38	17	625	5.24	12	<8	<2	<2	12	.6	4	<3	121	.08	.075	5	91	.82	36	.20	<3	6.44	.01	.02	<2	3
4+50S 1+00W	2	54	7	115	.9	14	7	343	4.99	6	<8	<2	<2	10	<.2	<3	<3	115	.05	.053	4	40	.12	17	.19	<3	3.15	.01	.01	<2	<1
4+50S 0+75W	1	70	12	168	.8	37	14	315	5.70	13	<8	<2	<2	11	<.2	<3	<3	137	.07	.053	4	92	.78	29	.24	<3	6.66	.01	.02	<2	2
4+50S 0+50W	3	28	14	50	.4	13	3	117	6.09	2	<8	<2	<2	6	<.2	<3	<3	148	.04	.039	3	46	.14	13	.25	<3	2.32	.01	.01	<2	1
4+50S 0+25W	4	91	16	107	.5	24	15	746	4.22	<2	<8	<2	<2	228	.2	<3	<3	68	.91	.063	3	29	.15	45	.10	<3	3.94	.31	.03	<2	<1
4+50S BL	3	30	126	97	.9	12	3	141	5.10	16	<8	<2	<2	17	<.2	<3	<3	97	.04	.032	4	49	.11	19	.19	<3	3.52	.01	.02	<2	2
5+50S 1+75W	2	451	16	833	.7	92	24	715	6.14	5	<8	<2	<2	32	1.7	<3	<3	111	.18	.040	3	115	1.04	29	.34	<3	7.92	.03	.02	<2	3
STANDARD C3/AU-S	26	65	36	175	6.1	38	12	797	3.43	58	25	2	22	31	24.6	23	25	83	.60	.094	18	173	.61	159	.09	19	1.97	.04	.18	15	50
STANDARD G-2	1	4	3	45	<.3	8	4	552	2.10	<2	<8	<2	4	77	<.2	<3	<3	42	.69	.097	8	78	.61	235	.12	<3	1.00	.08	.50	2	<1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND MASSIVE SULFIDE AND LIMITED FOR NA K AND AL.
- SAMPLE TYPE: SOIL AU* - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED. (10 gm)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 25 1999 **DATE REPORT MAILED:** Sept 1/99 **SIGNED BY** C. L......D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data ✓ FA ____

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
5+50S 1+50W	2	136	13	126	1.5	19	9	217	3.43	2	<8	<2	<2	10	.3	<3	<3	43	.10	.062	4	69	.04	8	.23	<3	9.14	.02	.01	<2	<1
5+50S 1+25W	1	135	12	315	.9	27	9	178	5.28	21	<8	<2	<2	12	.6	3	<3	101	.11	.056	2	72	.20	11	.41	<3	6.05	.01	.02	3	3
5+50S 1+00W	1	99	7	114	<.3	27	11	248	3.94	7	<8	<2	<2	10	<.2	<3	<3	104	.18	.058	3	90	.27	10	.33	<3	6.21	.01	.01	<2	<1
5+50S 0+75W	1	59	9	119	.3	27	11	299	5.63	20	<8	<2	<2	6	<.2	<3	<3	152	.05	.047	4	114	.56	20	.24	<3	6.97	.01	.02	<2	1
5+50S 0+50W	1	44	21	221	<.3	29	12	387	7.41	36	<8	<2	2	13	.3	<3	<3	200	.16	.033	3	120	1.07	21	.37	<3	4.06	.01	.02	<2	8
5+50S 0+25W	4	25	30	150	.6	17	15	1000	4.19	17	<8	<2	<2	28	.6	<3	<3	110	.56	.057	8	41	.37	35	.10	<3	4.14	.01	.01	<2	4
5+50S BL	2	13	8	49	<.3	9	3	163	5.85	4	<8	<2	<2	6	<.2	<3	<3	144	.04	.030	3	52	.15	12	.21	<3	2.74	.01	.01	<2	<1
6+00S 2+00W	1	71	7	46	.5	44	12	161	8.78	6	<8	<2	2	5	.2	<3	<3	356	.15	.040	2	260	.72	9	.70	<3	3.37	.02	.04	<2	<1
6+00S 1+75W	1	83	9	127	.6	26	7	122	5.97	<2	<8	<2	<2	7	<.2	<3	<3	266	.12	.022	3	85	.25	8	.47	<3	1.23	.01	.01	<2	<1
6+00S 1+50W	<1	95	6	298	1.2	55	11	269	5.12	9	<8	<2	2	12	.6	3	<3	125	.28	.046	3	279	1.49	27	.37	<3	7.32	.05	.06	<2	<1
6+00S 1+25W	1	182	34	769	1.8	60	10	269	5.67	165	<8	<2	2	13	.4	4	3	151	.20	.041	3	246	1.51	43	.36	<3	4.68	.02	.07	<2	35
RE 6+00S 1+25W	1	180	32	754	1.7	59	10	264	5.59	165	<8	<2	2	13	.3	6	3	149	.19	.040	3	240	1.48	42	.36	<3	4.62	.02	.06	<2	18
6+00S 1+00W	1	104	23	291	.3	46	10	396	6.21	40	<8	<2	<2	9	.2	<3	<3	132	.11	.040	5	211	1.33	41	.24	<3	6.60	.02	.03	<2	5
6+00S 0+75W	1	89	10	371	<.3	35	13	430	6.25	11	<8	<2	<2	19	.6	<3	<3	198	.17	.054	3	230	1.73	28	.34	<3	6.18	.03	.04	<2	<1
6+00S 0+50W	1	47	6	91	<.3	36	13	450	4.76	<2	<8	<2	<2	21	<.2	3	<3	179	.19	.040	3	253	2.09	37	.33	<3	6.48	.03	.08	<2	<1
6+00S 0+25W	2	60	17	96	.5	30	11	290	6.97	25	<8	<2	<2	9	<.2	4	3	210	.06	.044	5	124	.73	23	.31	<3	6.14	.01	.02	<2	<1
STANDARD C3/AU-S	28	69	38	175	6.3	39	13	854	3.48	57	24	3	23	33	26.3	21	27	88	.64	.100	19	185	.65	167	.09	20	2.07	.04	.18	17	57
STANDARD G-2	2	4	3	42	<.3	8	4	553	2.00	<2	<8	<2	4	78	<.2	<3	<3	42	.67	.098	8	76	.60	239	.12	<3	1.01	.09	.52	2	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Max Investment Inc. PROJECT YREKA File # 9903201 Page 1
3750 West 49th Ave, Vancouver BC V6B 3T8 Submitted by: B. Fitch

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
5+50NW 2+00NE	5	124	10	203	.8	35	6	198	7.46	51	<8	<2	2	17	<.2	<3	4	183	.15	.041	3	137	.38	41	.27	<3	6.12	.02	.06	<2	21
5+50NW 1+75NE	1	99	10	52	.9	12	50	619	2.35	50	<8	<2	<2	31	.6	3	<3	57	.31	.066	4	37	.13	24	.07	6	4.13	.01	.03	13	6
5+50NW 1+50NE	2	67	6	39	.5	10	2	54	1.66	44	<8	<2	<2	52	<.2	<3	<3	60	.30	.061	3	16	.08	51	.09	4	1.26	.02	.03	<2	2
5+50NW 1+25NE	2	31	21	30	.9	<1	<1	15	2.82	248	<8	<2	2	4	<.2	<3	<3	72	.04	.018	4	14	.03	19	.10	<3	1.86	.01	.01	<2	210
5+50NW 1+00NE	8	306	5	500	.4	64	31	595	6.52	229	<8	<2	2	34	.8	<3	<3	143	.37	.064	4	48	.74	194	.24	<3	5.37	.04	.05	<2	8
5+50NW 0+75NE	2	26	8	37	.6	5	1	44	3.15	63	<8	<2	3	4	<.2	<3	<3	74	.03	.018	5	11	.15	31	.14	<3	1.14	.01	.03	<2	7
5+50NW 0+50NE	3	70	10	71	.3	11	3	53	4.67	41	<8	<2	3	8	<.2	<3	<3	114	.08	.026	3	41	.25	24	.26	3	2.63	.02	.04	<2	3
5+50NW 0+25NE	7	268	52	551	2.0	21	41	3374	2.17	131	<8	<2	<2	120	13.0	<3	<3	48	1.41	.134	15	34	.29	64	.05	<3	3.85	.03	.05	<2	7
5+50NW 0+00	51	137	13	29	1.6	7	3	58	4.30	21	<8	<2	<2	12	.2	<3	4	227	.10	.022	1	27	.06	12	.53	<3	1.09	.01	.01	<2	570
5+00NW 2+00NE	10	62	8	52	<.3	14	2	174	8.20	10	<8	<2	<2	7	<.2	<3	7	193	.63	.046	1	67	.16	8	.34	<3	1.79	.01	.02	<2	3
5+00NW 1+75NE	4	45	6	93	.3	11	4	156	6.94	23	<8	<2	<2	11	<.2	<3	<3	180	.31	.021	4	58	.07	16	.15	<3	1.90	<.01	.02	<2	55
5+00NW 1+50NE	4	122	5	108	1.1	19	3	116	4.29	35	<8	<2	<2	18	<.2	<3	4	97	.24	.048	2	84	.34	20	.18	<3	2.46	.03	.03	<2	4
5+00NW 1+25NE	6	109	<3	67	1.1	27	4	81	5.37	18	<8	<2	<2	14	<.2	<3	<3	145	.33	.045	3	125	.38	12	.32	<3	3.99	.04	.03	<2	2
RE 5+00NW 1+25NE	6	103	6	62	1.0	25	5	96	5.11	19	<8	<2	<2	14	.5	<3	4	137	.32	.043	4	118	.36	20	.30	<3	3.75	.03	.03	<2	5
5+00NW 1+00NE	7	78	4	69	1.2	16	3	91	5.36	73	<8	<2	2	6	<.2	<3	3	154	.08	.040	3	102	.27	12	.33	<3	3.14	.01	.03	<2	2
5+00NW 0+75NE	3	67	9	97	1.5	10	4	127	4.41	127	<8	<2	2	4	.3	<3	<3	103	.05	.038	4	50	.16	20	.20	3	2.80	.01	.02	<2	4
5+00NW 0+50NE	7	221	13	178	4.5	12	15	200	3.68	57	<8	<2	2	9	.9	<3	<3	99	.07	.045	8	49	.19	28	.17	<3	4.77	.01	.03	<2	21
5+00NW 0+25NE	10	190	17	145	1.5	13	3	73	4.89	126	<8	<2	2	7	<.2	<3	3	116	.07	.024	3	55	.20	20	.23	<3	4.58	.01	.03	<2	77
5+00NW 0+00	25	202	10	75	2.9	6	2	60	5.35	76	<8	<2	<2	24	.7	<3	<3	166	.26	.024	2	34	.11	16	.40	<3	2.14	.02	.01	<2	8
5+00NW 0+25SW	144	1451	7	100	6.4	18	10	202	7.82	120	<8	<2	2	10	.6	<3	<3	136	.07	.077	5	28	.44	21	.24	<3	6.83	.03	.03	<2	30
5+00NW 0+50SW	97	715	<3	50	2.8	8	1	89	7.13	54	<8	<2	2	6	<.2	<3	6	123	.07	.072	5	28	.17	21	.21	<3	6.52	<.01	.02	<2	11
5+00NW 0+75SW	43	162	9	24	1.2	6	1	55	8.90	13	<8	<2	2	5	<.2	<3	<3	171	.04	.053	3	26	.11	13	.24	<3	2.98	.01	.03	<2	9
5+00NW 1+00SW	6	197	<3	75	.8	10	5	108	5.31	27	<8	<2	2	6	.4	<3	<3	104	.07	.113	4	23	.31	21	.25	<3	9.01	.01	.04	3	12
5+00NW 1+25SW	12	200	5	64	1.6	8	5	117	6.65	25	<8	<2	3	7	<.2	<3	<3	115	.07	.052	6	21	.36	29	.28	<3	7.49	.02	.04	<2	8
5+00NW 1+50SW	2	191	4	259	.6	17	13	189	6.38	80	<8	<2	2	12	<.2	4	3	117	.09	.043	5	18	1.12	95	.21	<3	5.96	.03	.06	<2	10
5+00NW 1+75SW	2	372	7	882	.5	38	52	1658	4.58	66	<8	<2	<2	62	1.0	<3	5	95	1.00	.118	9	17	1.18	62	.10	<3	4.93	.11	.25	<2	7
5+00NW 2+00SW	3	294	13	188	.5	29	25	642	6.47	15	<8	<2	<2	18	.4	<3	3	134	.29	.062	5	22	1.45	111	.26	<3	5.43	.05	.07	<2	16
4+50NW 0+25SW	22	104	3	35	<.3	7	2	82	5.52	21	<8	<2	<2	6	<.2	<3	6	155	.09	.025	3	20	.23	20	.29	<3	1.85	.01	.03	<2	2
4+50NW 0+50SW	74	406	6	49	8.0	8	2	92	7.27	45	<8	<2	2	7	<.2	<3	6	158	.11	.033	5	22	.21	17	.31	<3	2.93	.04	.03	<2	13
4+50NW 0+75SW	3	79	<3	82	2.2	11	5	175	6.05	32	<8	<2	<2	14	<.2	<3	<3	168	.11	.048	6	18	.71	82	.31	<3	6.13	.03	.07	<2	4
4+50NW 1+00SW	3	65	<3	76	1.0	11	5	142	6.41	30	<8	<2	2	13	<.2	<3	<3	186	.12	.040	4	22	.59	78	.32	3	5.15	.04	.06	<2	4
4+50NW 1+25SW	2	93	7	87	1.0	9	4	148	6.81	57	<8	<2	2	7	<.2	<3	<3	171	.08	.049	4	16	.48	33	.26	<3	3.53	.02	.04	<2	4
4+50NW 1+50SW	2	320	4	225	1.1	14	13	235	5.83	88	<8	<2	2	13	.2	<3	<3	159	.12	.061	4	19	.99	70	.21	<3	4.57	.05	.09	<2	9
4+50NW 1+75SW	1	277	7	329	.3	17	59	1548	9.05	50	<8	<2	<2	321	2.3	<3	5	129	.56	.135	13	13	1.15	100	.14	<3	4.68	.05	.32	<2	14
4+50NW 2+00SW	1	325	14	208	.3	29	66	1057	6.72	13	<8	<2	2	81	<.2	<3	28	123	.24	.084	9	21	1.39	174	.19	<3	5.93	.04	.16	<2	14
STANDARD C3/AU-S	26	66	38	170	5.7	35	11	798	3.46	57	23	3	21	30	23.6	17	20	80	.57	.088	17	175	.60	157	.08	22	1.96	.04	.17	13	43
STANDARD G-2	2	4	5	45	<.3	9	4	560	2.13	<2	<8	<2	5	76	<.2	<3	<3	41	.66	.097	7	80	.60	230	.13	<3	1.00	.07	.51	2	<1

GROUP 1D - 0.50 GM SAMPLE, 3 MLS 2-2-2 AQUA REGIA, 1 HOUR AT 95 DEG. C, DILUTED TO 10 MLS, ICP-ES ANALYSIS. LEACH IS PARTIAL FOR SOME MINERALS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SOIL AU* GROUP 3A - 10.00 GM SAMPLE, AQUA-REGIA,MIBK EXTRACT, ANALYSIS BY GF/AA.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 31 1999 **DATE REPORT MAILED:** Sep 3/99 **SIGNED BY** ....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA ____

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
1+50NW 2+00NE	3	50	11	164	.9	26	26	1028	5.88	97	<8	<2	<2	71	.8	<3	<3	166	.80	.069	5	66	.52	33	.24	<3	5.50	.07	.03	<2	<1
1+50NW 1+75NE	2	34	11	87	.7	6	4	255	8.29	16	<8	<2	<2	7	<.2	<3	<3	182	.05	.046	3	27	.38	17	.33	3	3.96	<.01	.03	<2	1
1+50NW 1+50NE	2	60	11	149	.8	8	9	376	7.90	22	<8	<2	<2	6	.2	<3	4	199	.05	.047	3	36	.61	38	.44	<3	5.49	.01	.03	<2	2
1+50NW 1+25NE	7	55	14	147	1.3	22	34	869	7.73	28	<8	<2	<2	11	.4	<3	<3	178	.10	.054	7	63	.63	46	.33	3	6.29	.02	.04	<2	1
1+50NW 1+00NE	4	49	3	85	.9	15	12	394	7.79	34	<8	<2	<2	13	.4	<3	6	181	.10	.046	4	46	.58	46	.38	<3	6.83	.02	.02	<2	26
1+50NW 0+75NE	7	56	6	88	.7	7	9	365	10.03	18	<8	<2	2	13	.2	<3	<3	212	.09	.036	4	56	.58	42	.50	<3	5.98	.02	.02	<2	<1
1+50NW 0+50NE	4	63	13	150	.5	9	12	381	7.55	42	<8	<2	<2	8	.3	<3	<3	184	.07	.037	4	29	1.03	46	.28	<3	5.63	.02	.03	<2	11
1+50NW 0+25NE	4	23	10	92	1.0	9	15	539	7.74	8	<8	<2	<2	7	<.2	<3	6	234	.10	.042	4	35	.62	21	.52	<3	4.48	.01	.03	<2	4
1+50NW BL	7	21	13	99	1.0	5	20	1117	6.83	111	<8	<2	<2	15	<.2	<3	<3	241	.25	.051	5	35	.51	29	.34	<3	3.09	.02	.03	<2	1
1+50NW 0+25SW	2	32	14	69	.5	10	7	343	7.59	223	<8	<2	<2	9	<.2	<3	<3	211	.13	.051	4	46	.55	13	.46	4	3.69	.02	.03	<2	<1
1+50NW 0+50SW	2	28	7	87	1.0	14	13	542	6.50	22	<8	<2	<2	10	<.2	<3	<3	187	.13	.043	4	35	.74	17	.46	<3	4.89	.01	.02	<2	2
RE 1+50NW 0+75SW	2	51	9	95	1.5	16	12	438	7.05	3	<8	<2	<2	6	.5	<3	3	170	.07	.064	5	38	.80	22	.48	5	10.21	.01	.02	<2	1
1+50NW 0+75SW	2	51	9	94	1.5	13	12	432	6.90	2	<8	<2	<2	6	.3	<3	<3	168	.07	.058	5	38	.80	18	.47	<3	9.91	.02	.02	<2	2
1+50NW 1+00SW	2	45	9	86	1.4	16	13	393	7.82	81	<8	<2	<2	8	.3	<3	<3	223	.11	.038	4	51	.83	30	.52	<3	8.72	.02	.02	2	3
1+50NW 1+25SW	1	41	9	80	.8	13	10	528	6.54	149	<8	<2	<2	8	<.2	<3	<3	178	.09	.032	4	53	1.27	21	.32	<3	5.46	.01	.03	<2	<1
1+50NW 1+50SW	1	62	7	114	1.1	21	25	1639	6.14	24	<8	<2	<2	18	<.2	<3	<3	221	.20	.042	5	35	2.28	66	.28	3	4.69	.03	.08	<2	2
1+50NW 1+75SW	1	41	11	85	.9	13	18	961	6.22	14	<8	<2	<2	26	<.2	3	<3	249	.25	.036	4	22	1.69	70	.32	<3	3.53	.04	.11	<2	1
1+50NW 2+00SW	3	31	<3	69	1.3	8	9	834	8.54	37	<8	<2	<2	9	<.2	<3	<3	201	.09	.047	5	37	.65	25	.53	<3	4.54	.01	.03	<2	4
1+00NW 2+00NE	2	55	12	142	1.5	71	11	306	6.78	68	<8	<2	<2	7	<.2	<3	<3	158	.08	.044	3	293	.99	17	.36	4	9.07	.01	.04	<2	1
1+00NW 1+75NE	12	46	13	183	1.2	16	15	407	7.64	15	<8	<2	<2	10	.9	<3	<3	148	.07	.043	5	45	.69	34	.27	8	7.23	.01	.03	<2	2
1+00NW 1+50NE	3	44	14	132	.5	11	11	671	7.69	25	<8	<2	<2	7	<.2	<3	<3	144	.06	.028	3	31	1.77	41	.21	<3	4.62	.01	.04	<2	2
1+00NW 1+25NE	6	52	11	134	.9	10	11	424	8.11	20	<8	<2	<2	15	.5	<3	3	206	.11	.033	6	38	.75	50	.32	<3	4.80	.01	.03	<2	6
1+00NW 1+00NE	11	73	8	88	1.1	8	6	242	6.61	28	<8	<2	<2	11	<.2	<3	<3	105	.08	.052	9	25	.27	33	.20	<3	6.22	.01	.02	<2	<1
1+00NW 0+75NE	5	28	5	60	<.3	1	3	114	7.40	4	<8	<2	<2	6	<.2	<3	5	223	.04	.021	3	16	.10	8	.40	<3	1.71	<.01	.01	<2	<1
1+00NW 0+50NE	4	71	9	194	.7	15	24	939	7.39	42	<8	<2	<2	50	1.0	<3	<3	152	.85	.043	5	26	1.74	54	.28	4	4.82	.01	.04	<2	5
1+00NW 0+25NE	2	35	7	58	.6	17	8	252	6.98	3	<8	<2	<2	10	<.2	3	4	206	.09	.029	3	36	.73	21	.39	<3	4.26	.01	.02	<2	1
1+00NW BL	2	42	4	103	.7	10	8	431	7.18	14	<8	<2	<2	6	.3	<3	3	198	.07	.051	5	36	.68	17	.47	<3	6.12	.01	.01	<2	<1
1+00NW 0+25SW	1	89	8	203	1.4	23	20	789	6.39	14	<8	<2	<2	14	1.1	<3	<3	149	.30	.055	6	27	1.61	62	.34	<3	6.01	.02	.02	2	2
1+00NW 0+50SW	1	51	<3	111	.7	22	18	537	5.56	28	<8	<2	<2	12	.6	<3	<3	132	.18	.056	6	30	.94	37	.34	<3	6.02	.02	.04	<2	2
1+00NW 0+75SW	2	48	6	106	2.2	18	18	2014	4.84	118	<8	<2	<2	70	.4	4	<3	132	2.20	.061	13	87	1.23	21	.24	<3	3.52	.03	.05	<2	<1
1+00NW 1+00SW	2	28	8	43	.3	8	5	232	5.79	<2	<8	<2	<2	6	<.2	<3	3	151	.08	.040	4	27	.41	17	.32	<3	4.51	.01	.02	<2	1
1+00NW 1+25SW	1	63	11	120	.6	20	19	960	5.92	6	<8	<2	<2	24	.3	3	4	194	.22	.040	5	29	1.94	82	.28	<3	4.72	.04	.10	<2	3
1+00NW 1+50SW	1	40	8	65	.6	12	13	888	5.67	<2	<8	<2	<2	7	.3	<3	<3	147	.09	.083	5	26	.58	21	.40	<3	6.03	.01	.03	2	6
1+00NW 1+75SW	1	38	4	76	.5	10	12	659	7.90	9	<8	<2	<2	10	<.2	<3	4	206	.15	.025	5	30	1.01	33	.52	<3	3.09	.01	.07	<2	<1
1+00NW 2+00SW	1	21	10	42	.3	7	5	367	6.99	5	<8	<2	<2	9	<.2	<3	3	222	.08	.022	4	24	.40	20	.52	<3	2.12	.01	.03	<2	<1
STANDARD C3/AU-S	26	64	35	169	5.8	39	10	803	3.45	58	21	3	20	30	23.6	17	24	81	.58	.091	18	175	.60	153	.09	21	1.94	.04	.17	15	44
STANDARD G-2	2	3	<3	46	<.3	7	4	594	2.21	5	<8	<2	4	79	<.2	<3	<3	44	.71	.106	8	86	.64	246	.15	3	1.05	.07	.52	2	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data___ FA ____

ACME ANALYTICAL

Max Investment Inc. PROJECT YREKA FILE # 9903201

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
0+50NW 2+00NE	1	54	<3	90	.6	36	12	299	6.53	22	<8	<2	<2	33	<.2	<3	4	161	.15	.035	2	130	1.11	25	.36	<3	4.31	.03	.04	<2	1
0+50NW 1+75NE	13	24	11	66	.8	2	1	154	8.61	18	<8	<2	<2	9	.3	3	8	135	.03	.042	3	19	.21	22	.24	5	4.32	.01	.02	<2	1
0+50NW 1+50NE	10	30	3	79	.7	5	2	202	9.91	29	<8	<2	<2	16	<.2	<3	9	217	.10	.044	2	27	.28	18	.30	8	2.46	.02	.03	<2	2
0+50NW 1+25NE	20	34	17	90	.7	11	5	188	7.50	32	<8	<2	<2	7	<.2	<3	3	196	.04	.033	8	30	.28	14	.23	4	3.49	.03	.03	<2	2
0+50NW 1+00NE	6	44	10	81	.6	13	6	348	6.16	28	<8	<2	<2	7	.3	<3	8	160	.05	.034	3	39	1.26	38	.18	<3	4.24	.02	.04	<2	1
0+50NW 0+75NE	12	28	8	74	.4	6	3	239	7.62	26	<8	<2	<2	8	<.2	3	10	195	.07	.036	2	25	.54	22	.27	<3	2.17	.02	.04	<2	2
0+50NW 0+50NE	7	50	5	196	.5	18	14	780	7.83	44	<8	<2	<2	10	.5	<3	<3	189	.10	.032	4	31	1.15	87	.29	6	3.89	.02	.03	<2	3
0+50NW 0+25NE	1	25	8	48	.5	5	6	259	7.62	10	<8	<2	<2	8	<.2	<3	3	226	.09	.028	2	25	.49	12	.43	<3	2.76	.02	.01	<2	14
0+50NW BL	3	24	10	130	.7	8	16	426	7.15	31	<8	<2	<2	11	.4	<3	4	207	.15	.045	4	25	.28	12	.37	<3	3.46	.03	.02	<2	<1
0+50NW 0+25SW	2	41	<3	88	1.1	15	14	478	6.30	20	<8	<2	<2	8	<.2	<3	<3	164	.08	.057	3	37	.84	16	.33	<3	5.82	.02	.01	<2	2
0+50NW 0+50SW	2	27	5	37	.8	7	4	170	7.56	16	<8	<2	<2	6	.3	<3	6	226	.04	.044	2	31	.25	9	.43	<3	3.25	.02	.01	<2	2
RE 0+50NW 0+50SW	2	28	12	38	1.0	5	4	184	7.95	17	<8	<2	<2	6	<.2	<3	<3	238	.05	.048	2	34	.26	5	.45	<3	3.37	.01	.01	<2	2
0+50NW 0+75SW	1	41	5	51	.9	11	6	334	7.31	5	<8	<2	<2	6	.3	<3	9	149	.07	.058	3	38	.56	14	.39	<3	6.27	.01	.01	<2	1
0+50NW 1+00SW	1	58	7	72	1.1	15	18	770	6.09	11	<8	<2	<2	9	.4	<3	4	155	.17	.080	5	28	.90	21	.41	<3	6.45	.01	.02	<2	1
0+50NW 1+25SW	1	31	8	45	.7	6	6	323	5.43	9	<8	<2	<2	8	<.2	<3	<3	143	.08	.048	4	22	.49	10	.37	<3	4.24	.02	.03	<2	1
0+50NW 1+50SW	2	32	5	61	.8	10	8	361	7.22	9	<8	<2	<2	7	<.2	<3	<3	169	.11	.046	4	29	.73	14	.45	<3	4.50	.01	.03	<2	1
0+50NW 1+75SW	1	29	8	69	.9	16	12	671	6.89	16	<8	<2	<2	9	<.2	<3	<3	171	.10	.034	4	33	.90	14	.35	<3	3.68	.02	.02	<2	1
0+50NW 2+00SW	2	46	5	83	.7	13	10	415	5.81	12	<8	<2	<2	7	<.2	<3	<3	149	.08	.055	6	28	.71	11	.29	<3	5.40	.02	.03	<2	4
0+00 2+00NE	8	69	8	250	1.1	21	14	453	8.43	37	<8	<2	<2	8	.3	<3	3	202	.05	.045	5	35	.82	52	.31	3	6.06	.01	.03	<2	4
0+00 1+75NE	6	32	17	120	1.3	7	8	272	8.33	27	<8	<2	<2	8	<.2	<3	7	196	.05	.033	4	30	.32	24	.34	4	4.48	.02	.02	<2	1
0+00 1+50NE	2	15	6	73	<.3	3	2	178	7.03	23	<8	<2	<2	6	<.2	<3	3	170	.03	.030	6	17	.16	31	.17	<3	2.44	.02	.02	<2	54
0+00 1+25NE	2	56	9	251	1.0	20	14	710	7.69	32	<8	<2	<2	9	<.2	<3	<3	175	.05	.029	6	36	1.03	65	.28	<3	5.64	.03	.04	<2	2
0+00 1+00NE	1	32	4	86	.6	10	5	258	6.16	8	<8	<2	<2	8	.3	<3	6	218	.07	.021	4	23	.33	12	.37	<3	1.94	.01	.02	<2	1
0+00 0+75NE	1	63	9	164	.9	19	12	598	6.92	27	<8	<2	<2	8	.8	<3	3	130	.10	.055	3	34	.95	53	.30	<3	5.81	.02	.02	<2	1
0+00 0+50NE	2	34	14	137	1.0	17	29	2500	7.44	51	<8	<2	<2	10	.5	<3	<3	159	.12	.045	7	34	.80	17	.25	<3	3.99	.02	.02	<2	1
0+00 0+25NE	3	36	8	110	1.3	7	7	409	9.40	23	<8	<2	2	6	1.0	3	3	179	.04	.073	4	41	.56	17	.38	<3	5.77	.01	.02	<2	1
0+00 BL	1	15	10	40	<.3	7	4	135	5.28	24	<8	<2	<2	8	<.2	<3	5	260	.07	.016	3	17	.28	13	.47	<3	1.24	.01	.01	<2	2
0+00 0+25SW	1	25	9	45	.3	2	4	235	8.15	7	<8	<2	<2	6	.3	<3	<3	267	.04	.035	3	23	.17	6	.49	<3	1.83	.02	.01	<2	1
0+00 0+50SW	2	38	8	82	1.1	22	20	879	6.90	20	<8	<2	<2	9	<.2	<3	5	181	.08	.076	6	41	.75	22	.30	<3	7.14	.01	.01	<2	2
0+00 0+75SW	1	41	10	80	1.3	12	13	789	7.28	21	<8	<2	<2	8	<.2	<3	<3	191	.07	.082	6	37	.66	18	.39	<3	6.42	.03	.02	<2	2
0+00 1+00SW	1	17	6	31	.6	7	5	247	8.45	11	<8	<2	<2	9	<.2	<3	6	241	.07	.042	3	31	.26	10	.44	3	2.24	.02	.02	<2	<1
0+00 1+25SW	1	24	8	40	.9	12	9	387	7.64	9	<8	<2	<2	9	<.2	<3	<3	203	.10	.035	3	29	.58	19	.47	<3	2.52	.03	.03	<2	<1
0+00 1+50SW	1	29	9	57	.7	7	15	1576	5.28	6	<8	<2	<2	7	<.2	<3	3	132	.12	.048	4	21	.51	7	.25	<3	3.99	.02	.02	<2	6
0+00 1+75SW	<1	21	5	42	<.3	7	6	437	6.29	16	<8	<2	<2	11	<.2	<3	<3	203	.10	.030	3	25	.35	23	.38	<3	2.12	.02	.03	<2	1
0+00 2+00SW	1	39	5	137	.9	14	26	2849	6.25	49	<8	<2	<2	12	.6	<3	<3	140	.13	.064	7	29	.65	28	.24	<3	4.28	.03	.02	<2	2
STANDARD C3/AU-S	27	64	36	161	5.6	34	11	803	3.42	57	19	3	20	29	23.3	18	25	79	.57	.091	17	170	.61	155	.08	23	1.88	.05	.17	14	49
STANDARD G-2	2	3	5	41	<.3	7	3	559	2.07	<2	<8	<2	3	94	<.2	<3	<3	40	.72	.097	7	79	.61	255	.13	<3	1.18	.16	.59	2	<1

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

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GEOCHEMICAL ANALYSIS CERTIFICATE

Max Investment Inc. PROJECT YREKA File # 9903560 Page 1
3750 West 49th Ave, Vancouver BC V6B 3T8

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
T 0+00S 4+00W	2	62	<3	91	<.3	27	17	1244	5.28	26	<8	<2	<2	268	1.6	<3	<3	74	.60	.068	17	48	.96	77	.06	3	6.96	.07	.03	2
T 0+00S 3+75W	3	61	3	70	.4	26	10	380	4.75	26	<8	<2	<2	31	.9	<3	<3	69	.12	.073	6	40	.73	51	.04	3	6.84	.02	.02	<2
T 0+00S 3+50W	2	57	4	67	.3	15	7	353	4.55	101	<8	<2	<2	19	1.1	<3	<3	113	.15	.061	6	38	1.74	29	.13	3	5.33	.01	.03	2
T 0+00S 3+25W	5	47	5	86	.3	17	11	1210	5.13	807	<8	<2	<2	81	1.2	<3	<3	121	1.12	.059	10	85	.89	20	.06	3	4.01	.02	.04	3
T 0+00S 3+00W	3	242	10	175	.8	28	10	335	4.01	973	8	<2	<2	88	1.7	<3	<3	85	1.91	.067	11	97	.84	20	.11	5	6.98	.03	.05	2
T 0+00S 2+75W	3	131	9	138	.4	33	17	585	3.91	539	<8	<2	<2	75	1.5	<3	<3	79	1.17	.067	11	63	.90	25	.08	3	4.75	.04	.04	3
T 0+00S 2+50W	3	290	43	226	.4	32	28	822	4.43	261	<8	<2	<2	129	1.8	<3	<3	93	.69	.064	8	67	1.31	63	.11	3	4.20	.11	.08	3
T 0+00S 2+25W	2	283	28	189	.6	31	15	513	3.45	129	<8	<2	<2	52	1.3	<3	<3	79	.44	.069	8	66	.86	46	.13	<3	6.44	.03	.05	3
T 0+00S 2+00W	2	88	23	47	.7	10	3	107	6.03	180	<8	<2	<2	13	<.2	<3	<3	171	.13	.029	4	49	.25	14	.16	<3	2.46	.01	.02	5
T 0+00S 1+75W	2	34	9	34	.6	8	3	161	3.97	38	<8	<2	<2	10	<.2	<3	<3	169	.16	.027	3	24	.20	11	.15	<3	1.12	.01	.01	4
T 0+00S 1+50W	6	253	13	458	.9	34	15	8184	3.29	64	<8	<2	<2	75	16.3	<3	<3	85	1.35	.162	20	49	.80	117	.05	5	5.77	.04	.04	2
T 1+00S 3+75W	1	99	<3	52	.3	45	35	1629	4.26	22	<8	<2	<2	92	1.2	<3	<3	101	.24	.122	7	117	1.05	41	.12	3	7.18	.03	.07	2
T 1+00S 3+50W	2	69	12	88	<.3	18	12	475	5.78	23	<8	<2	<2	12	1.1	<3	<3	90	.09	.048	10	38	1.19	42	.07	3	4.57	.01	.04	<2
T 1+00S 3+25W	1	81	13	130	1.2	21	21	2076	6.49	27	<8	<2	<2	101	2.0	<3	<3	113	.90	.105	13	32	3.41	41	.07	3	5.49	.10	.09	<2
T 1+00S 3+00W	1	151	5	231	1.0	15	24	1614	5.12	6	<8	<2	<2	48	2.4	<3	<3	120	.37	.117	6	23	1.22	22	.07	3	6.14	.08	.02	2
T 1+00S 2+50W	3	270	5	246	.3	9	10	275	5.72	16	<8	<2	<2	9	1.6	<3	<3	91	.07	.071	5	39	.22	8	.16	3	7.45	.01	.01	3
T 1+00S 2+25W	1	77	4	123	<.3	11	18	1182	5.66	7	<8	<2	<2	100	1.4	<3	<3	137	.67	.119	9	29	1.44	52	.13	<3	6.69	.18	.04	4
T 1+00S 2+00W	3	93	8	72	<.3	8	4	338	8.16	33	<8	<2	<2	8	.8	<3	<3	170	.09	.041	4	52	.71	18	.28	<3	5.43	.01	.02	3
T 1+00S 1+75W	3	59	5	56	<.3	12	4	213	4.55	13	<8	<2	<2	8	1.0	<3	<3	136	.05	.047	4	32	.64	11	.19	<3	7.57	.01	.01	3
T 2+00S 4+00W	3	291	7	138	.5	35	13	267	4.22	51	<8	<2	<2	26	1.0	<3	<3	117	.24	.048	6	68	1.05	30	.18	<3	7.07	.03	.05	4
T 2+00S 3+75W	5	190	10	61	.5	9	3	80	4.97	41	<8	<2	<2	22	.9	<3	<3	166	.12	.030	4	49	.27	10	.24	4	4.56	.01	.01	5
T 2+00S 3+50W	1	31	5	42	.3	13	12	612	2.78	36	<8	<2	<2	152	.5	<3	<3	74	.49	.083	6	44	.64	15	.06	<3	5.89	.12	.01	<2
T 2+00S 3+25W	4	51	3	74	.5	24	8	186	3.81	16	<8	<2	<2	24	.9	<3	<3	120	.07	.050	4	62	1.10	62	.12	<3	9.49	.01	.02	2
RE T 2+00S 3+25W	4	47	3	74	.5	22	8	170	3.76	16	<8	<2	<2	21	.9	<3	<3	112	.07	.049	4	61	1.03	53	.12	<3	8.80	.01	.02	2
T 2+00S 3+00W	2	178	8	106	.7	20	8	172	4.02	32	<8	<2	<2	7	.8	<3	<3	84	.08	.054	4	67	.51	10	.14	<3	6.93	.01	.01	2
T 2+00S 2+75W	1	57	<3	161	.7	26	10	190	4.22	41	<8	<2	<2	22	.9	<3	<3	104	.26	.044	5	69	.67	15	.18	<3	8.92	.02	.02	3
T 2+00S 2+50W	2	167	7	132	.3	22	16	463	4.50	96	<8	<2	<2	50	1.7	<3	<3	102	1.18	.057	14	62	.98	20	.15	<3	8.66	.02	.03	3
T 2+00S 2+25W	1	38	5	47	.7	11	3	254	5.68	13	<8	<2	<2	7	.4	<3	<3	182	.05	.024	4	45	.95	15	.26	<3	5.10	.01	.01	4
T 2+00S 2+00W	2	21	7	70	.7	6	5	255	6.26	16	<8	<2	<2	4	.7	<3	<3	116	.07	.025	5	35	1.09	42	.13	<3	5.58	.01	.02	3
T 2+00S 1+75W	2	113	5	70	.5	14	7	261	6.30	31	<8	<2	<2	40	.8	<3	<3	120	.83	.040	7	45	.65	28	.08	<3	6.52	.01	.03	4
T 3+00S 3+75W	12	79	8	25	.7	3	1	50	5.34	30	<8	<2	<2	7	.4	<3	<3	228	.12	.021	4	40	.15	7	.32	<3	2.66	.01	.01	4
T 3+00S 3+50W	6	101	10	77	.9	10	2	36	4.41	22	<8	<2	<2	7	.6	<3	<3	127	.03	.024	3	44	.13	9	.17	<3	4.64	.01	.01	5
T 3+00S 3+25W	2	530	14	242	.9	38	26	843	4.59	121	<8	<2	<2	29	1.4	<3	<3	67	.25	.051	7	34	.55	47	.06	3	5.10	.02	.03	4
T 3+00S 3+00W	3	482	17	235	.9	30	17	715	4.25	64	<8	<2	<2	118	2.3	<3	<3	85	.94	.049	8	59	.80	50	.11	<3	3.80	.08	.05	5
T 3+00S 2+75W	4	125	14	48	1.2	7	2	80	5.76	39	<8	<2	<2	6	.4	<3	3	191	.09	.028	4	29	.09	9	.28	<3	1.83	.01	.01	6
STANDARD C3	27	61	35	166	5.1	35	12	717	3.40	53	22	<2	15	28	26.4	13	24	74	.59	.098	17	173	.58	138	.07	21	1.82	.03	.14	15
STANDARD G-2	2	3	3	45	<.3	7	4	601	2.12	5	<8	<2	3	79	<.2	<3	<3	46	.67	.111	11	82	.61	252	.12	<3	1.11	.08	.54	5

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SOIL <u>Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.</u>

DATE RECEIVED: SEP 20 1999 **DATE REPORT MAILED:** Sept 27/99 **SIGNED BY** .... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ✓ FA ____

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
T 3+00S 2+50W	1	781	15	241	1.8	26	23	735	4.85	82	<8	<2	<2	47	.9	<3	<3	84	.50	.050	10	52	.65	37	.15	4	4.64	.05	.04	5
T 3+00S 2+25W	2	429	11	163	1.6	20	9	191	4.69	75	<8	<2	<2	20	.8	<3	<3	108	.15	.035	6	44	.47	33	.19	4	4.14	.02	.02	3
T 3+00S 2+00W	1	163	8	273	2.1	24	14	1183	3.88	51	<8	<2	<2	49	2.1	<3	<3	78	.51	.053	10	45	.53	23	.13	4	4.62	.04	.03	<2
T 3+00S 1+75W	<1	216	4	142	.7	14	14	750	4.95	101	<8	<2	<2	33	1.5	<3	<3	109	.70	.041	10	49	1.07	23	.12	3	3.85	.01	.03	2
T 4+00S 4+00W	<1	131	5	43	2.7	5	<1	73	6.15	42	<8	<2	<2	7	.8	<3	<3	100	.09	.043	4	59	.07	17	.20	4	4.82	.01	.01	4
T 4+00S 3+75W	<1	689	6	192	<.3	29	9	162	3.94	94	<8	<2	<2	19	1.1	<3	<3	69	.23	.033	6	58	.88	37	.17	3	6.90	.02	.04	2
T 4+00S 3+50W	1	44	11	93	<.3	20	6	148	2.93	71	<8	<2	<2	29	.9	<3	<3	56	.32	.040	7	28	.22	24	.10	3	2.25	.01	.01	5
T 4+00S 3+25W	1	84	15	40	.3	12	4	130	4.80	99	<8	<2	<2	15	.8	<3	21	99	.13	.052	6	65	.19	10	.21	3	2.94	.01	.01	54
T 4+00S 3+00W	<1	98	9	44	.3	26	16	397	5.90	121	<8	<2	<2	15	.2	<3	<3	125	.20	.063	6	159	.74	9	.35	3	5.11	.02	.04	4
T 4+00S 2+75W	2	71	60	251	.5	41	18	1807	3.83	130	<8	<2	<2	152	1.5	<3	<3	58	1.16	.100	11	43	.42	27	.05	4	4.25	.09	.03	3
T 4+00S 2+50W	1	38	27	155	.4	31	16	750	3.49	117	<8	<2	<2	169	1.4	<3	<3	66	.69	.062	12	40	.64	27	.07	<3	4.53	.14	.02	<2
T 4+00S 2+25W	1	38	14	78	.3	18	14	731	3.88	80	<8	<2	<2	92	1.2	<3	<3	81	.23	.063	7	51	.47	29	.07	<3	4.90	.07	.02	<2
T 4+00S 2+00W	1	18	11	84	.5	13	9	774	3.17	18	<8	<2	<2	137	.9	<3	<3	70	.43	.086	11	44	.53	26	.06	3	4.64	.13	.02	<2
T 4+00S 1+75W	<1	26	7	79	.7	15	11	802	3.60	18	<8	<2	<2	210	1.3	<3	<3	95	.97	.063	10	38	1.25	29	.10	3	4.98	.34	.04	<2
T 4+00S 1+50W	<1	24	43	93	.8	20	10	235	4.71	30	<8	<2	<2	23	1.0	<3	<3	110	.13	.036	5	59	.89	15	.15	3	4.50	.02	.02	2
T 5+00S 4+00W	<1	114	10	110	.7	45	16	939	3.46	217	<8	<2	<2	67	2.1	<3	<3	74	1.87	.056	10	123	1.08	29	.13	5	3.28	.06	.05	2
T 5+00S 3+50W	<1	46	97	106	<.3	26	79	5021	6.39	645	<8	<2	<2	108	1.4	<3	<3	114	.25	.071	5	94	.28	117	.14	3	2.64	.01	.02	2
T 5+00S 3+25W	<1	233	15	135	<.3	56	57	12049	4.67	72	<8	<2	<2	41	2.0	<3	<3	99	.46	.115	7	94	.59	100	.07	3	3.62	.03	.04	2
T 5+00S 3+00W	<1	127	3	45	.5	43	40	1135	5.20	13	<8	<2	<2	18	1.0	<3	<3	120	.19	.083	5	170	1.05	31	.24	4	6.68	.02	.06	4
T 5+00S 2+75W	1	48	11	36	.4	8	3	165	4.10	19	<8	<2	<2	4	.6	<3	<3	77	.05	.053	4	47	.13	6	.14	<3	3.67	.01	.01	3
RE T 5+00S 2+75W	1	47	10	33	.4	8	3	157	4.24	18	<8	<2	<2	4	.5	<3	<3	74	.04	.054	4	47	.12	6	.14	3	3.56	.01	.01	3
T 5+00S 2+50W	2	22	7	73	<.3	32	8	1323	2.38	15	<8	<2	<2	180	1.0	<3	<3	31	.76	.078	9	22	.15	29	.03	<3	1.94	.12	.02	<2
T 5+00S 2+25W	8	37	12	89	.6	49	7	852	3.43	27	<8	<2	<2	176	2.3	<3	<3	86	.70	.094	19	71	.59	36	.04	7	3.41	.13	.05	<2
T 5+00S 2+00W	1	15	3	86	<.3	14	26	862	9.40	17	<8	<2	<2	485	2.6	<3	<3	110	2.87	.192	19	19	2.08	36	.07	6	4.57	.43	.08	2
T 5+00S 1+75W	<1	16	13	41	1.2	13	10	849	3.61	26	<8	<2	<2	107	1.5	<3	<3	59	.99	.058	12	37	.68	15	.04	3	3.33	.10	.02	2
T 6+00S 4+00W	2	238	<3	238	<.3	12	22	2101	15.33	13	<8	<2	<2	23	.7	<3	<3	83	1.56	.094	12	74	.11	12	.16	3	3.46	.01	.01	5
T 6+00S 3+75W	<1	169	<3	207	<.3	81	15	1969	4.13	6	<8	<2	<2	107	1.1	<3	<3	122	1.29	.039	9	200	2.83	34	.33	<3	7.08	.22	.13	2
T 6+00S 3+50W	<1	46	<3	54	.3	62	13	408	4.81	6	<8	<2	<2	53	.9	<3	<3	144	.56	.040	6	193	2.62	45	.36	<3	4.18	.09	.26	<2
T 6+00S 3+25W	<1	48	<3	25	.4	43	7	162	7.22	4	<8	<2	<2	13	.6	<3	<3	206	.17	.038	4	239	1.82	35	.47	<3	5.10	.02	.15	2
T 6+00S 3+00W	<1	49	<3	39	<.3	102	27	137	5.90	4	<8	<2	<2	22	1.2	<3	<3	185	.21	.023	4	304	3.64	43	.39	<3	8.29	.05	.18	<2
T 6+00S 2+50W	<1	79	5	50	<.3	32	52	1142	6.81	33	<8	<2	<2	43	.6	<3	<3	166	.28	.063	5	157	1.08	27	.34	<3	3.19	.02	.05	3
T 6+00S 2+00W	<1	127	<3	33	.4	45	12	117	7.35	8	<8	<2	<2	22	1.3	<3	<3	220	.25	.028	5	265	1.58	22	.60	<3	7.90	.04	.07	2
T 6+00S 1+75W	<1	100	<3	46	<.3	47	29	655	3.93	11	<8	<2	<2	103	.8	<3	<3	53	.66	.071	7	63	.45	30	.10	<3	2.92	.11	.02	3
0+00SE 5+25NE	<1	46	27	71	.7	32	9	354	9.68	24	<8	<2	<2	8	1.2	3	<3	189	.04	.040	3	167	1.38	15	.20	3	4.04	.01	.01	2
0+00SE 5+00NE	<1	55	11	51	.5	54	12	377	6.98	12	<8	<2	<2	7	1.0	<3	<3	180	.05	.066	3	192	1.98	14	.29	<3	4.87	.01	.01	2
STANDARD C3	26	67	36	167	5.9	38	11	803	3.52	58	26	2	21	32	26.2	16	23	82	.60	.098	22	172	.64	168	.09	21	1.96	.04	.18	14
STANDARD G-2	<1	3	<3	42	<.3	9	4	499	2.10	4	<8	<2	3	70	<.2	<3	<3	37	.64	.112	11	84	.59	223	.12	<3	.87	.07	.47	5

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data d FA ____

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
0+00SE 4+50NE	1	65	5	56	<.3	31	9	457	6.88	13	<8	<2	2	9	.2	<3	<3	187	.06	.057	6	137	1.38	20	.34	<3	7.31	.01	.02	<2
0+00SE 4+25NE	<1	62	3	52	.4	39	12	543	7.26	13	<8	<2	<2	15	.4	<3	<3	189	.11	.050	5	162	1.31	18	.28	<3	6.51	.02	.03	<2
0+50SE 5+25NE	<1	24	15	25	.3	29	4	404	8.18	7	<8	<2	<2	9	<.2	<3	<3	281	.04	.047	2	246	1.23	19	.54	<3	2.34	.01	.01	<2
0+50SE 5+00NE	<1	37	22	43	<.3	53	12	405	8.74	9	<8	<2	<2	7	<.2	<3	<3	438	.03	.027	2	182	.64	12	.60	<3	1.47	.01	.01	2
0+50SE 4+75NE	6	65	7	91	<.3	36	33	1614	8.57	12	<8	<2	<2	10	.7	<3	<3	121	.04	.053	5	123	1.28	48	.07	<3	5.90	.01	.03	<2
0+50SE 4+50NE	2	28	9	42	.8	8	3	241	10.23	12	<8	<2	<2	5	<.2	<3	<3	209	.04	.041	3	45	.46	18	.31	<3	2.92	.01	.02	<2
0+50SE 4+25NE	3	26	10	52	<.3	11	9	549	6.77	14	<8	<2	<2	12	.7	<3	<3	150	.12	.036	6	45	.73	25	.18	<3	3.09	.02	.03	2
1+00SE 5+25NE	<1	44	4	35	<.3	41	11	621	9.08	6	<8	<2	2	7	.5	<3	<3	179	.05	.061	3	248	1.29	13	.37	<3	5.11	.01	.01	3
1+00SE 5+00NE	<1	39	7	38	<.3	18	8	508	7.09	8	<8	<2	<2	17	<.2	<3	<3	223	.11	.029	4	164	1.27	18	.31	<3	2.99	.01	.02	2
1+00SE 4+75NE	1	20	9	39	<.3	8	3	225	6.72	7	<8	<2	<2	19	<.2	<3	<3	225	.08	.019	5	77	.84	18	.27	<3	2.61	.01	.03	<2
1+00SE 4+50NE	1	29	5	27	.3	9	4	257	5.32	9	<8	<2	<2	29	.5	<3	<3	157	.11	.039	5	52	.56	23	.24	<3	3.77	.02	.03	<2
1+00SE 4+25NE	12	53	11	72	.4	13	31	1754	7.33	20	<8	<2	<2	12	.2	<3	<3	119	.05	.081	5	37	.80	36	.04	<3	3.18	.01	.03	<2
1+50SE 4+75NE	<1	41	14	54	.8	24	8	374	8.28	16	<8	<2	<2	21	.7	<3	<3	254	.45	.030	6	124	1.06	21	.23	<3	4.66	.01	.02	<2
1+50SE 4+50NE	1	73	8	83	<.3	63	21	671	7.00	17	<8	<2	<2	13	.6	<3	<3	147	.07	.074	7	151	1.49	38	.14	<3	8.14	.01	.02	<2
1+50SE 4+25NE	<1	46	8	42	<.3	25	25	1307	6.40	19	<8	<2	<2	12	.8	<3	<3	192	.07	.049	4	99	.81	28	.12	<3	4.01	.01	.03	2
2+00SE 4+75NE	<1	54	8	71	<.3	47	20	515	7.56	13	<8	<2	<2	29	1.1	<3	<3	193	.06	.056	4	151	.99	43	.15	<3	5.87	.01	.02	<2
2+00SE 4+25NE	6	22	8	44	<.3	15	7	284	7.42	9	<8	<2	<2	9	.2	<3	<3	144	.04	.029	2	43	.46	11	.06	<3	1.73	.01	.03	3
2+00SE 4+00NE	20	13	10	30	<.3	4	2	137	5.62	11	<8	<2	<2	5	<.2	<3	<3	134	.02	.019	3	20	.31	16	.05	<3	2.06	.01	.02	<2
2+00SE 3+75NE	40	20	9	28	.3	4	1	144	7.60	17	<8	<2	<2	3	<.2	<3	<3	145	.01	.034	3	16	.13	26	.05	<3	2.89	.01	.03	<2
2+00SE 3+50NE	55	22	9	39	.3	6	1	237	7.77	13	<8	<2	<2	6	<.2	<3	<3	111	.02	.081	4	22	.31	42	.02	<3	3.89	.01	.04	<2
2+00SE 3+25NE	3	30	8	75	<.3	7	17	1903	9.59	20	<8	<2	<2	4	.3	<3	<3	147	.03	.043	4	24	1.27	23	.10	<3	4.08	.01	.04	2
2+00SE 3+00NE	20	28	7	89	<.3	6	5	248	8.84	23	<8	<2	<2	5	<.2	<3	<3	81	.02	.064	4	21	.43	20	.02	<3	5.56	.01	.03	<2
2+00SE 2+75NE	1	54	8	159	.3	11	12	772	7.45	36	<8	<2	<2	6	1.2	<3	<3	117	.03	.064	5	29	1.25	28	.11	<3	6.53	.01	.03	<2
2+00SE 2+50NE	<1	64	12	242	<.3	21	16	808	9.08	32	<8	<2	<2	7	1.2	<3	<3	133	.07	.059	6	27	1.33	42	.22	<3	4.62	.01	.03	2
RE 2+00SE 2+50NE	<1	56	13	235	<.3	19	17	707	8.88	31	<8	<2	<2	6	1.3	<3	<3	117	.05	.058	5	27	1.18	36	.20	<3	4.03	.01	.03	3
2+00SE 2+25NE	<1	72	7	204	.3	14	9	806	10.33	31	<8	<2	<2	9	.6	<3	<3	199	.06	.030	5	30	1.46	44	.33	<3	4.89	.01	.03	2
2+00SE 2+00NE	<1	56	5	166	<.3	12	7	494	6.69	25	<8	<2	<2	12	1.0	<3	<3	155	.12	.063	5	26	1.05	25	.42	<3	[illegible].21	.01	.02	<2
2+00SE 1+75NE	<1	49	4	119	<.3	4	1	424	13.04	18	<8	<2	<2	6	<.2	3	<3	273	.06	.046	5	33	.56	17	.59	<3	5.31	.01	.02	2
2+00SE 1+50NE	<1	97	4	196	<.3	18	15	1026	7.30	21	<8	<2	<2	10	1.4	<3	<3	158	.12	.049	6	31	1.27	42	.34	<3	6.51	.01	.02	<2
2+00SE 1+25NE	<1	37	4	128	<.3	19	9	750	9.77	52	<8	<2	<2	22	.6	<3	<3	154	.10	.044	4	35	1.04	35	.29	<3	4.44	.01	.02	<2
2+00SE 1+00NE	<1	42	10	182	<.3	12	7	667	7.94	31	<8	<2	<2	12	.8	<3	<3	105	.07	.041	7	27	.83	71	.13	<3	3.75	.01	.04	<2
2+00SE 0+75NE	<1	55	4	184	<.3	27	22	1981	7.10	21	<8	<2	<2	18	1.1	<3	<3	134	.15	.072	6	26	1.51	99	.24	<3	4.54	.02	.04	3
2+00SE 0+50NE	<1	21	5	76	<.3	6	3	368	9.24	18	<8	<2	<2	10	.4	<3	<3	116	.05	.041	5	29	.44	19	.22	<3	3.54	.01	.02	2
2+00SE 0+25NE	<1	41	8	117	.5	9	6	463	10.77	59	<8	<2	<2	7	.5	<3	<3	151	.05	.055	4	40	.74	19	.29	<3	5.22	.01	.03	<2
2+00SE BL	<1	41	6	158	<.3	13	9	538	8.70	39	<8	<2	<2	11	.9	<3	<3	156	.08	.041	5	35	.89	39	.24	<3	5.26	.01	.03	<2
STANDARD C3	26	62	36	160	5.5	32	12	754	3.46	56	25	3	17	28	24.3	15	25	71	.60	.101	19	180	.63	141	.08	18	1.84	.04	.15	15
STANDARD G-2	<1	3	4	42	<.3	7	4	626	2.04	4	<8	<2	2	82	<.2	<3	<3	45	.75	.107	13	82	.69	255	.14	<3	1.10	.09	.57	3

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ___ FA ___

APPENDIX III:
ROCK SAMPLE DESCRIPTIONS

Yreka Property - 1999 Rock Sample Descriptions

Sample	Type	UTM East	UTM North	Area	Description	Cu ppm	Mo ppm	Zn ppm	Ag ppm	Au ppb
JDW090999-1	grab	601809	5591029	Tuscarora	Med- lt grey silicified lmst Patches of massive sulphides, mainly SP lesser cpy. Diss po to 3%	1552	2	99591	4.1	14
JDW090999-2	grab	601742	5591005	Tuscarora	Calc-silicate/hornfels with abdt sulphides Po>Sp>>cpy	915	<1	99999	2.8	4
JDW090999-3	grab	601791	5591093	Tuscarora	Site of 1998 samples 1014, 1015, 1016 Strongly frac silicified lmst, patchy sulphides of Sp and Cpy	2902	2	7792	7.3	5
STN 32	grab	601742	5591005	Tuscarora	Rusty wea calc-silicate/silicified lmst Po>Sp>>Cpy	943	2	40660	2.3	9
STN 55	grab	602536	5590516	Lower Blue Grouse	Silicifed lmst, fractured and abdt iron oxides Po>Cpy>Sp	10095	1	765	32.7	140
STN 40	grab			Extension Lower Skarn	Rusty wea breccia and calc-silicate with minor patches of Sp	253	2	167	<0.3	8
KH080999-1	grab	602199	5589900	Blue Grouse	Silicifed lmst and calc-silicate Abdt diss Po>Py. Qtz vein with Py and minor Sp	291	<1	866	0.3	<1
KH080999-2	grab	602199	5589900	Blue Grouse	Rusty wea silicified lmst. Chlorite in fracs Diss Po and patchy sp	433	2	76	<0.3	1
KH080999-3	grab	602250	5589853	Blue Grouse	Rusty wea strongly fractured silicified lmst up to 5% diss Po and minor Cpy	473	1	126	0.3	1
KH080999-4	grab	602243	5589850	Blue Grouse	Rusty calc-silicate/ silicified lmst Diss sulphides Po.Py, minor Cpy	417	1	827	1.1	<1

Yreka Property - 1999 Rock Sample Descriptions

Sample	Type	UTM East	UTM North	Area	Description	Cu ppm	Mo ppm	Zn ppm	Ag ppm	Au ppb
KH080999-5	grab	602190	5589464	Blue Grouse	Rusty wea, strongly frac silicified lmst. At contact with intrusive dyke. Diss and blebs of Po, minor py. Slightly graphitic	46	30	81	0.5	<1
KH080999-6	grab	602190	5589464	Blue Grouse	as above	51	14	49	0.4	3
KH080999-7	grab	602190	5589464	Blue Grouse	as above	17	76	12	<0.3	<1
JDW080999-1	grab	602117	5589447	Tuscarora	Intrusive float with fine diss Py Traces of Po and Cpy	15	2	33	<0.3	1
KH090999-1	grab	601809	5591029	Tuscarora	Cliff-forming Mn-rich calc-silicate Patches of massive Sp with minor Cpy	2627	2	36610	6.8	8
KH090999-2	grab	601809	5591029	Tuscarora	As above	443	5	189	0.4	4
KH140999-1	grab			Lower Blue Grouse	Rusty wea calc-silicate with Po>Sp>Cpy	456	1	332	0.9	4
KH140999-2	grab	602351	5589972	Upper Blue Grouse	Rusty wea, silicified lmst Patchy sp with silicification, minor Cpy	1136	6	1207	3.5	4
KH140999-3	grab	602226	5589895	Upper Blue Grouse	Rusty wea calc-silicate Patchy massive Sp and lesser Cpy	5732	<1	19408	21.0	26
KH150999-1	grab	602518	5590630	Gold Adit	Quart vein float in lower Canyon Creek Heavy massive Sp and Aspy. Lesser Cpy and Bornite	995	35	46942	21.9	3680

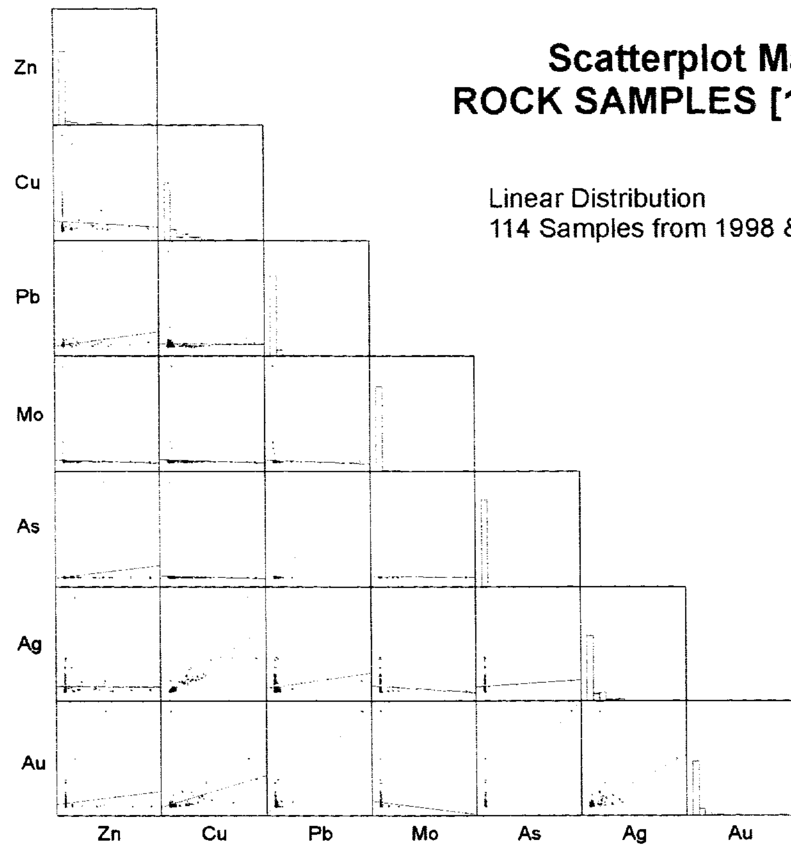
Yreka Property - 1999 Rock Sample Descriptions

Sample	Type	UTM East	UTM North	Area	Description	Cu ppm	Mo ppm	Zn ppm	Ag ppm	Au ppb
WP62	grab	601653	5589671	Upper Blue Grouse	Rusty wea calc-silicate with patchy massive Sp and minor Cpy	3507	6	170	2.3	2
RS-L300N-032W	grab			Canyon Creek	Silicified lmst with diss Po	254	3	58	0.3	1
KH060999-1	float	601330	5590216	North Arm Ck	Fine grained calc-silicate	777	4	35	1.5	3
KH060999-2	grab	601145	5590386	Upper North Arm Ck	Patchy massive sulphides in calc-silicate Py>10%, lesser Po and Cpy	2312	3	25	0.9	<1
KH070999-1	grab	601983	5589782	Upper Blue Grouse	Silicified lmst with blebs of Py and Po	10	3	18	<0.3	2
Upper Showing	grab	601310	5589777	North Arm Ck	Rusty wea calc-silicate	244	11	27	0.3	1
T & P Showing	grab	601363	5589635	North Arm Ck	Rusty wea calc-silicate	946	11	58	2.5	201
RS-400N-160W	grab	601486	5589775		Silicified lmst with diss Po	26	1	27	<0.3	2
0509A	grab	601408	5589763	North Arm Ck	Rusty wea calc-silicate	100	4	34	<0.3	1
JL99-1	grab			Canyon Grid Coords 5+50NW, 0+23SW Outcrop with visible moly		1412	1027	46	1.1	3
JP99-1	grab			North Arm creek, gossanous outcrop in new slide area abundant sulphides in silicifiedzone		1424	16	62	5.6	170

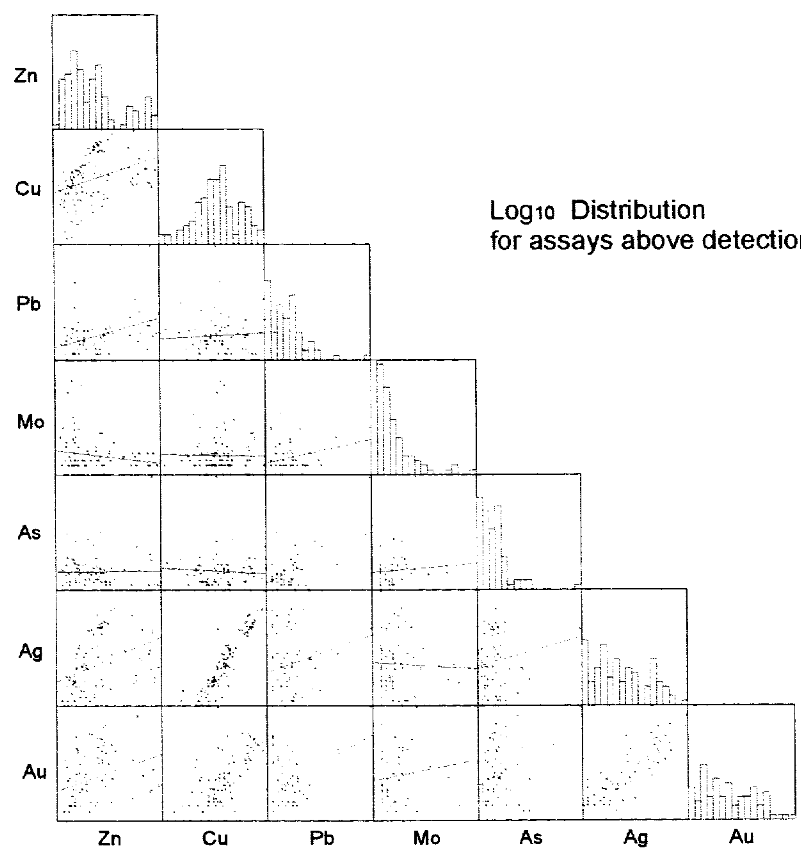
APPENDIX IV:
GEOCHEMICAL STATISTICS

Scatterplot Matrix of ROCK SAMPLES [1998 & 1999]

Linear Distribution
114 Samples from 1998 & 1999

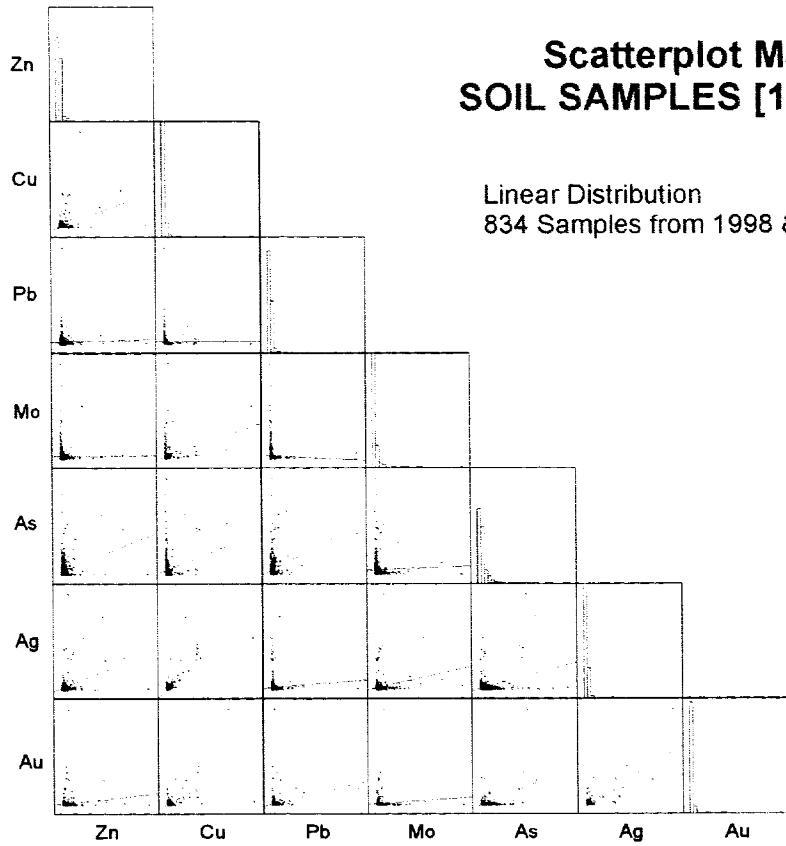


Log10 Distribution
for assays above detection limit

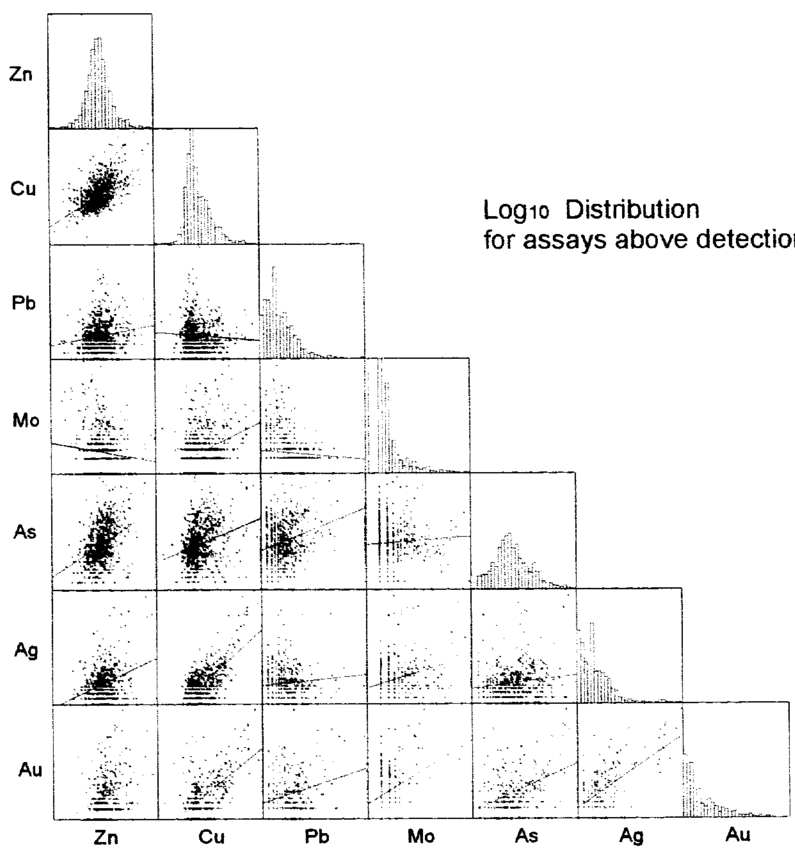


Scatterplot Matrix of SOIL SAMPLES [1998 & 1999]

Linear Distribution
834 Samples from 1998 & 1999



Log_{10} Distribution
for assays above detection limit



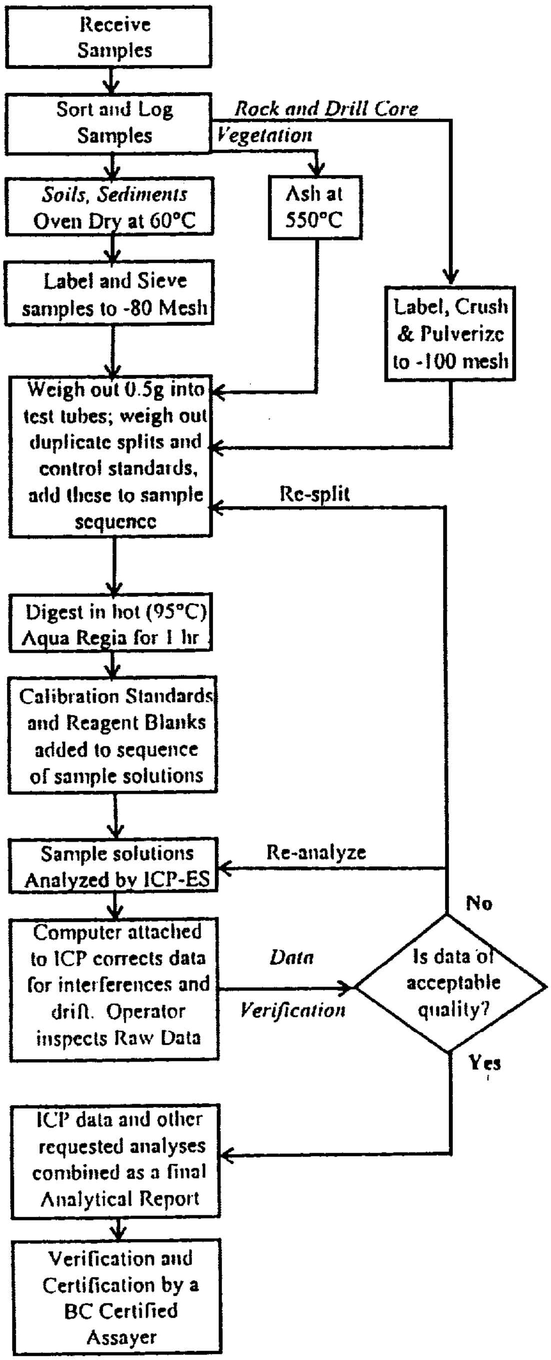
APPENDIX V:
ANALYTICAL PROCEDURES – ACME LABS

ACME
Analytical Laboratories Ltd.

852 East Hastings Street, Vancouver, British Columbia, Canada V6A 1R6
Telephone: (604) 253-3158 · Facsimile: (604) 253-1716 · Toll free: 1-800-990-ACME (2263) · e-mail: acme_labs@mindlink.bc.ca

METHODS AND SPECIFICATIONS FOR ANALYTICAL PACKAGE
GROUP 1D - 30 ELEMENT ICP BY AQUA REGIA

Analytical Process



Comments

Sample Preparation

Soils and sediments are dried (60°C) and sieved to -80 mesh (-177 microns), rocks and drill core are crushed and pulverized to -100 mesh (-150 microns). Plant samples are dried (60°C) and pulverized or dry ashed (550°C). Moss-mat samples are dried (60°C), pounded to loosen trapped sediment then sieved to -80 mesh. At the clients request, moss mats can be ashed at 550°C then sieved to -80 mesh although this can result in the potential loss by volatilization of Hg, As, Sb, Bi and Cr. A 0.5 g split from each sample is placed in a test tube. A duplicate split is taken from 1 sample in each batch of 34 samples for monitoring precision. A sample standard is added to each batch of samples to monitor accuracy.

Sample Digestion

Aqua Regia is a 3:1:2 mixture of ACS grade conc. HCl, conc. HNO_3 and demineralized H_2O. Aqua Regia is added to each sample and to the empty reagent blank test tube in each batch of samples. Sample solutions are heated for 1 hr in a boiling hot water bath (95°C).

Sample Analysis

Sample solutions are aspirated into and ICP emission spectrograph (Jarrel Ash AtomComp model 800 or 975) for the determination of 30 elements comprising: Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, U, V, W, Zn.

Data Evaluation

Raw and final data from the ICP-ES undergoes a final verification by a British Columbia Certified Assayer who then signs the Analytical Report before it is released to the client. Chief Assayer is Clarence Leong, other certified assayers are Dean Toye and Jacky Wang.

Document: ICP30M&S.doc	Date: November 15, 1995	Prepared By: J. Gravel

ACME
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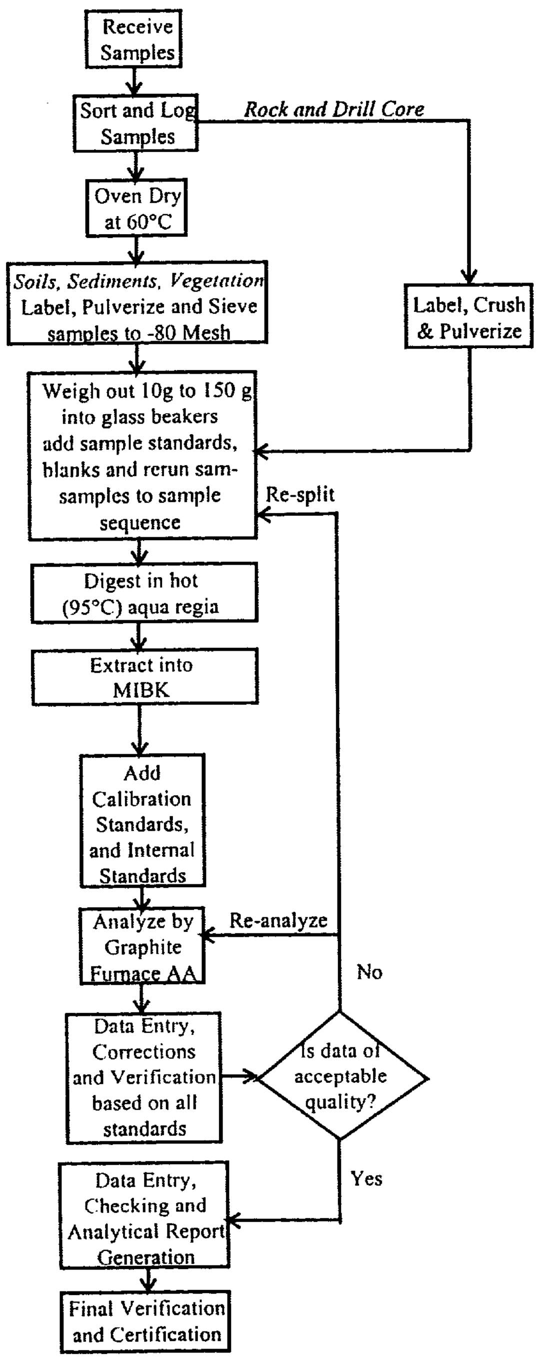
METHODS AND SPECIFICATIONS FOR ANALYTICAL PACKAGE
GROUP 3A - AU BY WET EXTRACTION

Analytical Process



Comments

Sample Preparation

Soils and sediments are dried (60°C) and sieved to -80 mesh (-177 microns), rocks and drill core are crushed and pulverized to -100 mesh (-150 microns). Plant samples are dried (60°C) and pulverized or ashed (550°C). Sediment in moss mats is recovered by disaggregation then sieved to -80 mesh. A precise quantity of the fine fraction (client may select from 10 g to 150 g sample weights) is weighed. In every analytical batch (34 samples) a duplicate split is added from a randomly selected sample to monitor precision. Reference materials (in-house control standards) are also added to each batch to monitor accuracy.

Sample Digestion and Extraction

Aqua Regia is a 3:1:2 mixture of ACS grade conc. HCl, conc. HNO_3 and demineralized H_2O. Aqua Regia is added to each sample and to the empty reagent blank test tube in each batch of samples. Sample solutions are heated for 1 hr in a boiling hot water bath (95°C). After cooling, MIBK is added and the samples are shaken to extract Au into the MIBK phase.

Sample Analysis

Sample extracts are aspirated into a graphite furnace AAS (Varian model SpectrAA 10Plus) for the determination of Au.

Data Evaluation

Raw and final data from the undergoes a final verification by a British Columbia Certified Assayer who then signs the Analytical Report before it is released to the client. Chief Assayer is Clarence Leong, other certified assayers are Dean Toye and Jacky Wang.

Document: meth3A.doc	Date: January 31, 1997	Prepared By: J. Gravel

ACME
Analytical Laboratories Ltd.

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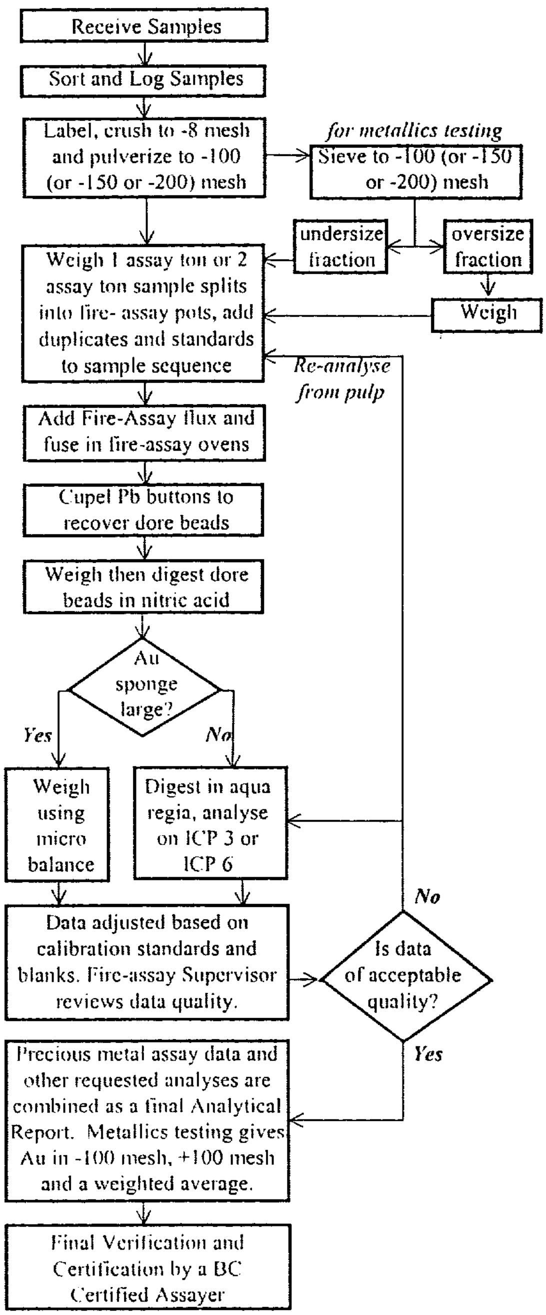
METHODS AND SPECIFICATIONS FOR ANALYTICAL PACKAGE
GROUP 6 - PRECIOUS METAL ASSAY

Analytical Process



Comments

Sample Preparation

Rocks and drill core are crushed to -8 mesh (-0.25 cm), riffle split to 250 g splits then pulverized to -100 mesh (-150 or -200 at client's request). Duplicates of crushed (rejects) and pulverized (pulp) material are added in each analytical batch (34 samples) to monitor sample inhomogeniety and analytical precision, respectively. One assay ton (29.2 ±0.01g) or two assay ton (58.4 ±0.01g) splits are weighed. High-grade gold standard STD Au-1 (Ag-2 if Ag assay requested) and a blank are added to each analytical batch to monitor accuracy. Results are reported in imperial (oz/t) or metric (gm/tonne) measure. For metallics testing, a 1Kg (or larger) split is pulverized and sieved to -100 mesh (-150 or -200 mesh at client's request). A representative 1 or 2 assay ton split of the undersize (-100, -150 or -200 mesh) fraction is assayed. Material remaining in the sieve (oversize fraction) is collected, weighed and assayed in total.

Sample Digestion

Fusing at 1000°C for 1 hour with fire-assay fluxes containing a PbO litharge and Ag inquart liberates all Au, Pt and Pd. After cooling, lead buttons are recovered and cupelled at 950°C to render Ag ±Au ±Pt ±Pd dore beads. Beads are weighed then leached in 1 mL of conc. HNO_3 at >95°C to dissolve Ag leaving Au sponges.

Sample Analysis

Large Au sponges >2 mm weighed by micro-balance (gravimetric determination). Small flakes are digested by adding 6 mL of 50% HCl to the HNO_3 solution then determined by ICP-ES (Jarrel Ash Atom-Comp model 800 or 975). Pt and Pd are also determined by ICP-ES. Every Ag fire assay is accompanied by a wet assay. Ag concentrations <10 oz/t are reported from the wet assay, results >10 oz/t are from the fire assay. Au metallics testing reports concentrations of Au in the -100 mesh fraction, the +100 mesh fraction and the calculated weighted average of these fractions.

Data Evaluation

Raw and final data undergoes a final verification by a British Columbia Certified Assayer who then signs the Analytical Report before it is released to the client. Chief Assayer is Clarence Leong, other certified assayers are Dean Toye and Jacky Wang.

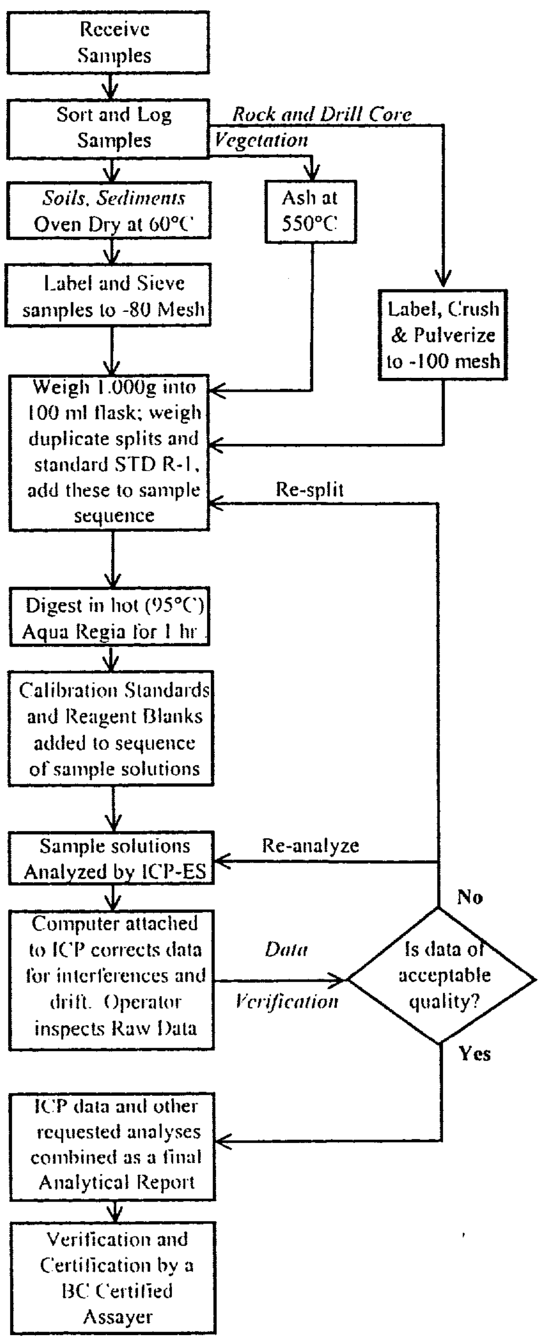
Document: AssayAu.doc	Date: March 5, 1997	Prepared By: J. Gravel

ACME
Analytical Laboratories Ltd.

852 East Hastings Street, Vancouver, British Columbia, Canada V6A 1R6 Acme_lab@iSTAR.ca
Telephone: (604) 253-3158 • Facsimile: (604) 253-1716 • Toll free: 1-800-990-ACME (2263) • e-mail: ~~acme_labs@mindlink.bc.ca~~

METHODS AND SPECIFICATIONS FOR ANALYTICAL PACKAGE
GROUP 8 - WET ASSAY FOR COPPER, Lead, Zinc, Co, Ni.

Analytical Process



Comments

Sample Preparation

Soils and sediment samples are rarely assayed, however the procedure is provided for completeness. Assaying is recommended for rocks and drill core where concentrations exceed 5000 ppm. Rocks are crushed to -8 mesh (-0.25 cm) prior to riffle splitting. 250 g splits are pulverized to -100 mesh. A reject duplicate split and pulp duplicate split is taken from one sample in every 34. These measure the subsampling error due to sample inhomogeniety (reject split) and precision of the analysis (pulp split). Precisely 1.000 ±0.002g of pulp are added to 100 ml volumetric flasks. Standard STD R-1 and a blank are added to each batch of 34 samples during weighing to monitor accuracy.

Sample Digestion

30 ml of Aqua Regia (3:1:2 ACS grade conc. HCl, conc. HNO_3 and demineralized H_2O) is added to each flask. Sample solutions are heated for 1 hr in a boiling water bath (95°C) then cooled for 3 hrs. Demineralized H_2O is added to bring the volume to the 100 ml mark.

Sample Analysis

Sample solutions are aspirated into and ICP emission spectrograph (Jarrel Ash AtomComp model 800 or 975) for the determination of Cu. A concentrated Cu solution standard is analysed together with the samples to monitor accuracy.

Data Evaluation

Raw and final data from the ICP-ES undergoes a final verification by a British Columbia Certified Assayer who then signs the Analytical Report before it is released to the client. Chief Assayer is Clarence Leong, other certified assayers are Dean Toye and Jacky Wang.

APPENDIX VI:
VLF FIELD READINGS

VLF SURVEY FIELD DATA

CANYON GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	J.David Williams, Pat Poissant, Milton Grace
Date:	August & September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
200S	0	-8	-11	
	25E	-7	-12	
	50E	-5	-12	
	75E	-9	-16	
	100E	-9	-18	
	125E	-12	-21	
	150E	-10	-19	
	175E	-10	-16	
	200E	-17	-21	
	225E	-15	-20	
	250E	-12	-17	
	275E	-12	-6	
	300E	-17	0	
	312E	-23	+6	
	325E	-78	+13	creek gully at 324E
	337E	-120	+8	
	350E	-130	+6	
	375E	-96	+10	
	400E	-68	+14	
	425E	-57	+10	edge of slope
	450E	-49	+10	down-slope
	475E	-48	+10	down-slope
	487E	-54	+6	down-slope
150S	0	-4	-10	
	25E	-6	-14	
	50E	-3	-14	
	75E	-6	-14	
	100E	-5	-14	
	125E	-12	-21	
	150E	-5	-24	
	175E	-7	-19	
	200E	-8	-18	
	225E	-12	-12	
	250E	-20	+2	
	275E	-57	+8	
	287E	-90	+2	
	300E	-103	+7	
	325E	-82	+14	
	350E	-65	+12	
	375E	-52	+10	
	400E	-48	+10	

VLF SURVEY FIELD DATA

CANYON GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	J.David Williams, Pat Poissant, Milton Grace
Date:	August & September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
100S	0	-5	-12	
	25E	-6	-12	
	50E	-3	-12	
	75E	0	-9	
	100E	-8	-16	
	125E	-7	-16	
	150E	-5	-14	
	175E	-12	-6	
	200E	-29	+1	
	225E	-45	+4	
	250E	-62	+12	
	275E	-80	+12	
	287E	-59	+19	
	300E	-44	+26	
	325E	-44	+12	
	350E	-49	+6	
	375E	-51	+4	
	400E	-45	+8	
050S	0	-3	-16	
	25E	-3	-16	
	50E	-2	-12	
	75E	0	-9	
	100E	-2	-9	
	125E	-4	-6	
	137E	-10	-4	
	150E	-9	+12	
	175E	-32	+1	
	200E	-44	+3	creek at 212E
	225E	-79	+16	
	250E	-69	+12	creek at 250E
	275E	-51	+16	
	300E	-53	+4	creek at 327E
	325E	-38	+6	
	350E	-36	+6	
	375E	-64	-2	
	400E	-67	-2	

VLF SURVEY FIELD DATA

CANYON GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	J.David Williams, Pat Poissant, Milton Grace
Date:	August & September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
00N	225W	+3	-10	
	200W	+8	-9	
	175W	+8	-9	
	150W	+8	-4	
	125W	+10	-6	
	100W	+12	-3	
	75W	+8	-5	
	50W	+3	-13	
	25W	0	-15	
	0	-1	-12	
	25E	+6	-13	
	50E	+7	-9	bottom shallow ravine
	62E	+6	-5	
	75E	-3	-3	top of local ridge
	87E	-16	+1	
	100E	-31	+5	
	112E	-28	+3	
	125E	-30	-1	
	137E	-30	0	
	150E	-34	-2	
	162E	-50	+4	small ravine
	175E	-85	+8	
	187E	-170	-1	In-phase est'd - reading off-scale
	200E	-125	+2	small creek at 203E
	212E	-106	+14	
	225E	-83	+13	
	250E	-54	+6	
	275E	-42	+4	
	300E	-31	+8	creek at 295E
	325E	-33	+9	
	350E	-57	-2	
	375E	-55	-5	
	400E	-45	0	
	425E	-32	+4	
	450E	-34	+4	
	475E	-35	+2	
	500E	-30	0	
	525E	-28	+2	
	537E	-32	0	brow of slope to canyon to East

VLF SURVEY FIELD DATA

CANYON GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	J.David Williams, Pat Poissant, Milton Grace
Date:	August & September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
050N	200W	+7	-13	
	175W	+7	-8	
	150W	+16	-7	
	125W	+16	-6	
	100W	+13	-10	
	75W	+9	-7	
	50W	+10	-9	
	25W	+5	-6	
	0	0	-3	
	25E	0	-1	large eroded spring/scour north of stn
	37E	0	-1	
	50E	-14	+1	
	62E	-84	0	small creek at ~58E
	75E	-68	+6	
	87E	-64	+6	
	100E	-72	+4	
	112E	-60	+9	
	125E	-55	+10	
	137E	-98	-4	
	150E	-82	0	at 160E, drk gry lst? dipping into slope
	162E	-80	-5	
	175E	-68	-2	
	187E	-54	0	
	200E	-47	+4	small creek at 197E
	212E	-42	+6	
	225E	-38	+8	base small bluff of lamellar tuff?
100N	212W	-3	-20	Canyon Creek 25-30m further W
	200W	0	-23	
	175W	+14	-13	
	150W	+11	-8	
	125W	+12	-10	
	100W	+14	-8	
	75W	+10	-6	
	50W	+4	+2	small creek ~55W
	25W	-6	+8	
	0	-20	+10	
	25E	-30	+12	
	50E	-23	+11	creek at 40E & m.g. grn-gry lst? o/c
	62E	-58	-5	
	75E	-100	-6	
	100E	-75	-12	at creek w/ med-drk gry f.g. lst o/c
	112E	-56	-2	
	125E	-47	0	
	150E	-38	+1	
	175E	-33	-1	
	200E	-25	+3	
	225E	-24	+6	ravine w/ small creek

VLF SURVEY FIELD DATA

CANYON GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	J.David Williams, Pat Poissant, Milton Grace
Date:	August & September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
150N	225W	-12	-22	Canyon Creek at ~215W
	200W	+2	-24	
	175W	+9	-12	
	150W	+7	-6	
	125W	+5	+1	
	100W	-5	+18	creek at 98W
	75W	-23	+16	
	50W	-34	+24	
	25W	-45	+20	creek at 35W
	0	-28	+18	
	25E	-43	+6	
	50E	-64	-7	creek at 53E
	75E	-50	-7	
	100E	-27	+3	small creek at 95E
	125E	-24	0	
	150E	-18	+4	
	175E	-19	+3	
	200E	-16	+6	shallow nearly dry ravine
	225E	-28	+2	large ravine, nearly dry
200N	225W	-12	-13	
	200W	-7	-8	
	175W	0	0	east bank of Canyon Creek
	150W	0	0	
	125W	-21	+12	small creek at 115W
	100W	-48	+16	
	75W	-50	+22	
	50W	-46	+14	small creek at 60W
	25W	-48	+10	
	0	-47	+4	
	25E	-39	+3	
	50E	-30	+5	
	75E	-27	-1	creek with steep sides at 70E
	100E	-22	-2	
	125E	-17	+2	deep ravine w/ small creek at 110E
	150E	-16	+2	
	175E	-21	+3	ravine w/ v.small creek at 158E
	200E	-36	-2	
	225E	-42	+1	overgrown ravine w/ small creek ~230E

VLF SURVEY FIELD DATA

CANYON GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	J.David Williams, Pat Poissant, Milton Grace
Date:	August & September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate Line	Station	Seattle, WA - NLK InPhase	Quadrature	Remarks
250N	225W	-16	-9	
	200W	-16	-6	
	175W	-29	+3	
	150W	-52	+7	
	125W	-78	+4	stn in Canyon Creek w/ steep banks
	100W	-45	+14	narrow ravine w/ small creek at 90W
	75W	-34	+14	
	50W	-35	+12	
	25W	-34	+6	
	0	-26	+8	
	25E	-19	+8	small bluff 10&15m S of stn of bed'd tuff? w/ po
	50E	-19	0	
	75E	-13	-2	creek w/ cemented bed near 80E
	100E	-14	-1	
	125E	-14	-1	shallow ravine w/ small creek at 120E
	150E	-19	0	small ravine near 180E
	175E	-23	+4	
	200E	-38	+1	deep overgrown ravine w/ small cr ~220E
300N	225W	-17	-10	
	200W	-18	-3	
	175W	-29	+4	
	150W	-58	+7	
	125W	-45	+14	
	100W	-31	+13	creek 8m grid-N
	75W	-14	+22	stn in Canyon Creek; confluence of creeks ~60W
	50W	-3	+11	Canyon Creek 8m grid-N
	25W	-1	+9	station in Canyon Creek
	0	-7	+3	station in Canyon Creek
	25E	-6	+4	Canyon Creek 10m grid-N
	50E	-7	0	old flume crosses line ~30E; ~6m grid-S at stn.
	75E	-7	-2	
	100E	-7	0	
	125E	-8	-2	
	150E	-12	+3	ravine w/ small creek at 155E
	175E	-26	+1	
	200E	-30	+6	nearly dry ravine at 182E
	225E	-36	+8	

VLF SURVEY FIELD DATA

CANYON GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	J.David Williams, Pat Poissant, Milton Grace
Date:	August & September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
350N	225W	-18	-11	
	200W	-24	-3	
	175W	-42	+3	
	150W	-36	+9	creek crosses line ~142W
	125W	-24	+16	
	100W	-22	+14	
	75W	-11	+14	
	50W	-8	+10	
	25W	-6	+6	
	0	-5	+4	
	25E	-3	+2	
	50E	+2	0	Canyon Creek 12m grid-S
	75E	-3	-5	Canyon Creek 10m grid-S
	100E	0	-7	Canyon Creek 4m grid-S
	125E	+2	+1	Canyon Creek 3m grid-N
	150E	-2	0	Canyon Creek 2m grid-S
	175E	-23	+10	Canyon Creek 4m grid-S
	200E	-28	+16	
	225E	-35	+13	
400N	225W	-15	-11	
	200W	-18	-4	
	175W	-18	+11	Creek w/ washout 173-145mW
	150W	-37	+7	
	125W	-28	+13	
	100W	-19	+14	
	75W	-20	+12	
	50W	-18	+10	
	25W	-16	+7	
	0	-14	+7	
	25E	-12	+3	
	50E	-10	+4	
	75E	-6	+5	
	100E	-4	+8	
	125E	-10	+7	
	150E	-15	+16	shallow dry ravine
	175E	-17	+16	
	200E	-21	+18	
	225E	-27	+15	
	250E	-48	+4	
	275E	-42	+7	

VLF SURVEY FIELD DATA

CANYON GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	J.David Williams, Pat Poissant, Milton Grace
Date:	August & September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
450N	215W	-14	-10	
	200W	-21	+3	wide washout & strongly flowing cr 195-210E
	175W	-29	+7	small creek 170E
	150W	-23	+9	
	125W	-23	+12	
	100W	-18	+11	
	75W	-18	+11	
	50W	-15	+9	
	25W	-16	+8	
	0	-16	+9	
	25E	-16	+8	
	50E	-16	+8	
	75E	-11	+10	
	100E	-10	+12	
	125E	-10	+13	
	150E	-16	+13	
	175E	-22	+12	
	200E	-25	+4	
	225E	-29	+10	
500N	262W	0	-10	slope begins to face E, near cr parallel grid, 4m grid-S
	250W	+3	-6	
	237W	+7	-4	slide area w/ small creek 238-260W
	225W	+6	0	slope facing west
	212W	0	0	crest of local ridge
	200W	+3	-2	
	187W	-2	-3	
	175W	+5	+2	steep E-facing slope 179-205W
	162W	+10	+4	steep W-facing slope 158-178W, creek at 178W
	150W	+13	+6	
	137W	+11	+6	drill setup or camp ruins
	125W	-27	+6	
	100W	-14	+12	
	75W	-16	+12	
	50W	-15	+10	
	25W	-18	+11	
	0	-16	+10	
	25E	-15	+10	
	50E	-11	+10	
	75E	-5	+12	
	100E	-3	+14	
	125E	-3	+16	
	150E	-2	+13	
	175E	-13	+12	
	200E	-14	+12	
	220E	-12	+10	

VLF SURVEY FIELD DATA

CANYON GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	J.David Williams, Pat Poissant, Milton Grace
Date:	August & September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
550N	215W	+2	-4	
	200W	-1	-6	
	175W	-6	-6	very steep 175-200W, creek at 170W
	150W	+15	+11	
	137W	+17	+8	steep from stn to creek at 170W
	125W	+23	+10	
	112W	+12	+8	
	100W	-14	+5	
	75W	-8	+14	
	50W	-4	+16	
	25W	-15	+12	
	0	-13	+12	
	25E	-12	+11	
	50E	-7	+11	
	75E	-5	+14	
	100E	-8	+16	
	125E	-1	+15	
	150E	0	+15	
	175E	-2	+14	
	200E	-3	+13	
	225E	-7	+11	andesite/melano-rhyolite o/c
600N	260W	+3	-7	West edge of washout
	235W	+5	-5	East edge of washout
	210W	+5	-7	edge of steep slope falling to E
	200W	+1	-10	
	187W	+2	-8	steep E-facing slope 200-175W
	175W	+9	-4	
	162W	+15	+4	bottom of steep ravine w/ creek; maroon fragmental o/c?
	150W	+29	+11	
	125W	+35	+17	steep W-facing slope 162-87W
	100W	+17	+14	
	87W	+12	+13	brow of W-facing slope
	75W	+2	+11	
	62W	-6	+7	
	50W	-14	+4	
	25W	-20	+7	~32W banded buff & lit-gry f.g. lst?
	0	-19	+10	
	25E	-13	+13	
	50E	-9	+12	
	75E	-7	+14	
	87E	+2	+15	
	100E	+3	+16	
	112E	+3	+16	
	125E	+6	+23	
	137E	+5	+16	
	150E	+2	+15	in shallow ravine & dry creek-bed
	162E	-3	+13	
	175E	-3	+15	on cliff w/ buff alt'd andesite & abund. garnet skarn
	200E	-4	+10	
	225E	-7	+11	

VLF SURVEY FIELD DATA

CANYON GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	J.David Williams, Pat Poissant, Milton Grace
Date:	August & September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
650N	250W	+9	-5	West edge of slide
	225W	+15	-5	East edge of slide
	200W	+15	-5	on edge of large o/c of drk maroon f.g. tuff?
	175W	+10	-12	steep E-facing slope 150-205W
	150W	+23	-12	creek at 147W; v.strong silicification & upto 30% po,py in o/c
	137W	+45	0	
	125W	+50	+6	
	112W	+37	+15	
	100W	+25	+21	
	87W	+23	+23	
	75W	+15	+21	brow of steep W-facing slopes from stn to 147W
	62W	+7	+17	
	50W	-1	+12	
	25W	-21	+1	
	0	-11	+6	
	25E	-6	+12	
	50E	0	+11	
	75E	+4	+15	
	100E	+6	+15	
	125E	+7	+15	dry ravine 142E
	150E	-1	+13	med-lit gry-grn f.g. bedded? tuff? 152E
	175E	-3	+13	
	200E	-5	+10	base bluff med gry-grn tuff?; shallow ravine 212E
	225E	-13	+8	base bluff med gry-grn f.g. tuff?, local silicification
700N	200W	+15	-2	middle of slide; edges of slide 190 & 210W
	187W	+20	-4	near vert rock bluff 175-187W
	175W	+27	-4	
	162W	+25	-2	steep E-facing slope 125-175W
	150W	+24	-1	
	137W	+23	+2	
	125W	+70	+13	in small cr., mod skarnified o/c
	112W	+27	+8	at 1998 samples 1079 & 1080, skarn & drk maroon tuff?
	100W	+23	+20	
	87W	+24	+24	steep W-facing slope 50-125W
	75W	+21	+24	
	62W	+15	+19	
	50W	+5	+16	brow of steep W-facing slope
	25W	0	+11	
	0	-6	+10	
	25E	-3	+9	
	50E	+1	+12	
	75E	+7	+13	
	100E	+11	+16	
	125E	+11	+15	in shallow dry ravine
	150E	+4	+14	
	175E	-1	+14	
	200E	-6	+9	
	225E	-7	+10	

VLF SURVEY FIELD DATA

CANYON GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	J.David Williams, Pat Poissant, Milton Grace
Date:	August & September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
750N	225W	+23	-5	brow steep E-facing slope & near top E corner of washout
	200W	+22	-5	
	175W	+27	-1	steep E-facing slope 225-116W
	150W	+37	-2	
	125W	+26	-5	creek near 116W
	112W	+34	+4	
	100W	+42	+11	large o/c immed N of line 75-100W
	87W	+33	+20	of silicified leuco & melano mat'l
	75W	+36	+24	sometimes nearly cherty & locally strongly sheared
	50W	+37	+23	line offset around bluff of bleach'd rusty wx'g sheared mat'l
	37W	+23	+14	steep W-facing slope 45-116W
	25W	+12	+8	
	0	+8	+6	
	12E	+2	+9	
	25E	+1	+10	
	37E	+2	+10	
	50E	+5	+12	
	75E	+10	+15	
	100E	+15	+18	
	125E	+13	+19	
	150E	+4	+15	
	175E	0	+16	
	200E	-5	+12	
	225E	-11	+4	
800N	200W	+12	-10	
	175W	+17	-6	steep E-facing slope 137-200W
	150W	+18	+2	
	137W	+14	+1	small creek near 130W
	125W	+18	+8	
	112W	+25	+17	
	100W	+34	+21	
	87W	+45	+26	
	75W	+64	+31	steep W-facing slope 37-130W
	62W	+85	+31	
	50W	+82	+27	
	37W	+43	+8	brow of steep W-facing slope
	25W	+32	+9	
	12W	+8	+10	o/c of banded buff colored rusty wx'g tuff? 175°/45° at 8W
	0	-20	0	
	25E	-10	+9	
	50E	+1	+10	
	75E	+10	+13	
	100E	+11	+17	
	125E	+13	+18	
	150E	+10	+16	
	175E	-2	+8	scattered large & small o/c 150-225E
	200E	-5	+8	of dense drk red-brn silicified tuff?
	225E	-16	+6	& drk grn rhyodacite-andesite

VLF SURVEY FIELD DATA

TUSCARORA GRID

Machine: Geonics EM16 s/n:13678A
Operator: Pat Poissant, Milton Grace
Date: 10-13 September 1999
Readings: measured in percent[%]
Direction: readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
000S	0	-40	+4	
	25W	-38	+4	
	50W	-46	-3	
	75W	-35	+3	
	100W	-28	+4	line offset 10m south for stations 100 to 150W
	125W	-22	+7	
	150W	-27	+5	
	175W	-22	+10	
	200W	-28	+6	
	225W	-35	+4	
	250W	-39	+3	
	275W	-40	+5	
	300W	-32	+10	
	325W	-32	+8	
	350W	-36	+8	
	375W	-46	+4	
	400W	-60	+2	
100S	0	-46	+3	
	25W	-58	-1	creek at 30W
	50W	-45	-1	
	62W	-32	+6	
	75W	-29	+7	
	100W	-26	+8	
	125W	-28	+4	
	150W	-30	+1	
	175W	-33	-2	
	200W	-30	+2	
	225W	-34	0	
	250W	-35	0	
	275W	-39	+1	
	300W	-45	-4	
	325W	-50	-4	
	350W	-47	+2	creek at 362W
	375W	-42	+8	
	400W	-47	+9	

VLF SURVEY FIELD DATA

TUSCARORA GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	Pat Poissant, Milton Grace
Date:	10-13 September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
200S	0	-19	+8	
	25W	-29	+2	
	50W	-39	-2	
	75W	-47	-5	
	100W	-33	-1	
	125W	-26	+2	
	150W	-13	+8	creek
	175W	-14	+8	
	200W	-17	+8	
	225W	-21	+8	
	250W	-27	+8	
	275W	-29	+11	
	300W	-30	+14	
	325W	-41	+11	
	350W	-56	+6	
	375W	-59	+4	
	400W	-75	0	
300S	0	-23	+8	
	25W	-27	+7	
	50W	-25	+8	
	75W	-24	+4	
	100W	-20	+2	
	125W	-18	+1	
	150W	-17	+2	creek at 140W
	175W	-20	+5	
	200W	-25	+5	
	225W	-29	+8	
	250W	-38	+9	
	275W	-46	+9	creek parallel to line 275 to 320W
	300W	-58	+8	
	325W	-60	+7	
	350W	-68	+5	
	375W	-34	+3	
	400W	-17	-1	

VLF SURVEY FIELD DATA

TUSCARORA GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	Pat Poissant, Milton Grace
Date:	10-13 September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
400S	0	-23	+2	
	25W	-26	-1	
	50W	-33	-5	
	75W	-27	-4	
	100W	-16	+6	
	125W	-12	+10	
	150W	-24	+8	
	175W	-33	+4	
	200W	-44	+2	
	225W	-60	0	
	250W	-78	-4	
	275W	-74	-3	cpy & sphal in place at 260W
	287W	-42	-7	
	300W	-22	-6	
	325W	-29	-17	
	350W	-37	-16	
	375W	-34	-14	
	400W	-24	-10	creek at 410W
500S	0	-14	+10	
	25W	-16	+7	
	50W	-28	+3	
	75W	-22	+3	
	100W	-18	+9	
	125W	-26	+9	
	150W	-37	+6	
	175W	-52	+1	
	200W	-71	+4	showing found at 495S, 210W followed for more than 50m
	225W	-28	+6	towards south side of hill and slightly up
	250W	-25	0	
	275W	-26	-4	
	300W	-22	-5	
	325W	-20	-6	
	350W	-26	-8	
	375W	-46	-12	
	400W	-56	-16	

VLF SURVEY FIELD DATA

TUSCARORA GRID

Machine:	Geonics EM16 s/n:13678A
Operator:	Pat Poissant, Milton Grace
Date:	10-13 September 1999
Readings:	measured in percent[%]
Direction:	readings taken facing east

Grid Coordinate		Seattle, WA - NLK		
Line	Station	InPhase	Quadrature	Remarks
600S	0	-4	+14	
	25W	-26	+18	
	50W	-43	+14	
	75W	-55	+11	
	100W	-63	+8	
	125W	-82	+10	
	137W	-37	+18	
	150W	-23	+19	
	175W	-1	+20	
	200W	-24	+12	
	225W	-39	+8	
	250W	-34	-8	
	275W	-45	-14	
	300W	-25	-2	
	325W	-32	-3	
	350W	-32	-2	
	375W	-34	-3	
	400W	-37	-4	

APPENDIX VII:
GEONICS EM16 VLF OPERATING

GEONICS LIMITED
1745 Meyerside Dr. Unit 8 Mississauga, Ontario Canada L5T 1C5
Tel. (416) 676-9580
Telex 06-968688
Cables: Geonics

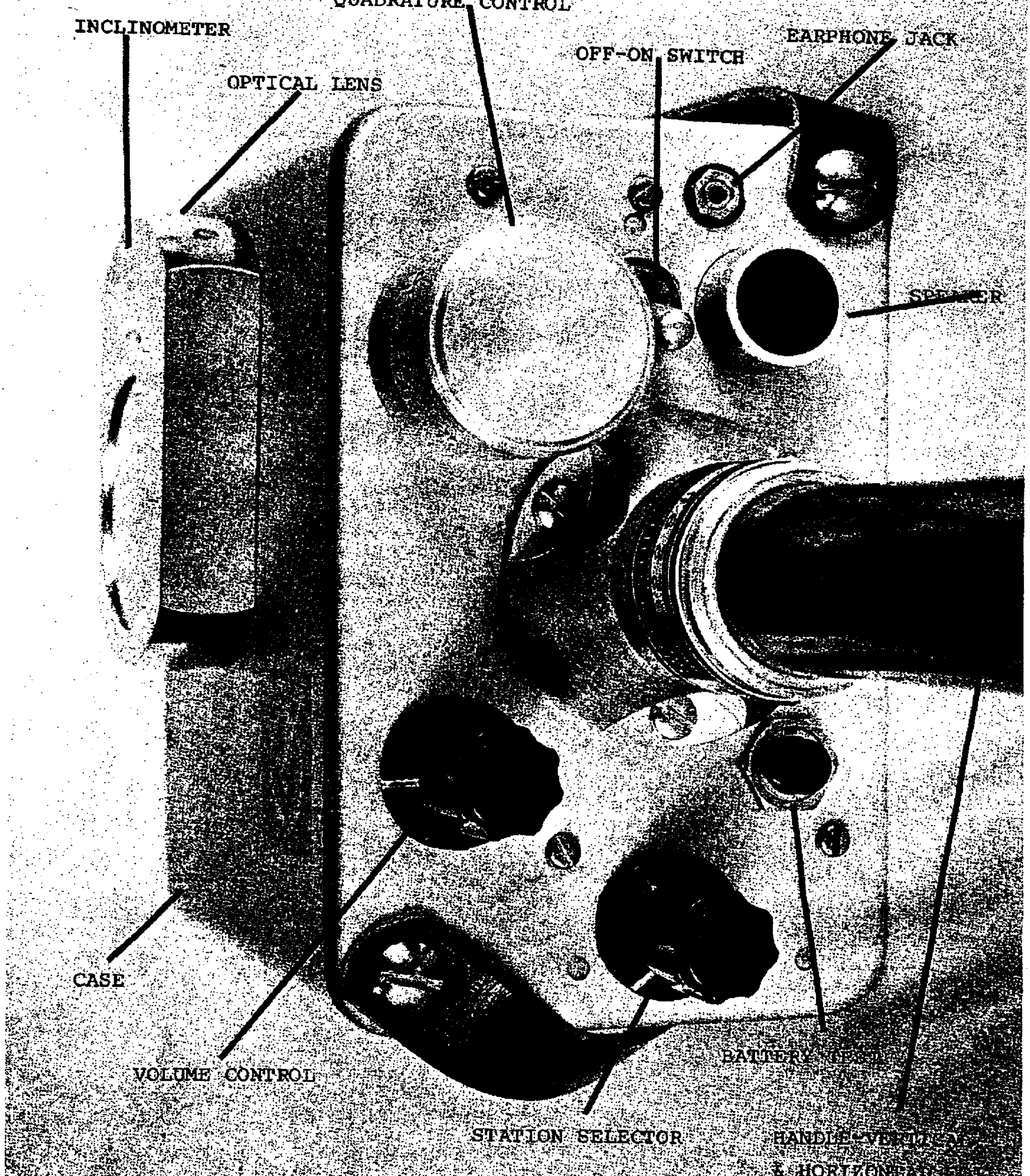
OPERATING MANUAL
for
EM16 VLF-EM

Revised June,1983

EM16 SPECIFICATIONS

MEASURED QUANTITY	Inphase and quad-phase components of vertical magnetic field as a percentage of horizontal primary field. (i.e. tangent of the tilt angle and ellipticity).
SENSITIVITY	Inphase: ±150% Quad-phase: ± 40%
RESOLUTION	±1%
OUTPUT	Nulling by audio tone. Inphase indication from mechanical inclinometer and quad-phase from a graduated dial.
OPERATING FREQUENCY	15-25 kHz VLF Radio Band. Station selection done by means of plug-in units.
OPERATOR CONTROLS	ON/OFF switch, battery test push button, station selector switch, audio volume control, quadrature dial, inclinometer.
POWER SUPPLY	6 disposable 'AA' cells.
DIMENSIONS	42 x 14 x 9cm
WEIGHT	Instrument: 1.6 kg Shipping: 5.5 kg

FIG. I EM 16


QUADRATURE CONTROL
INCLINOMETER
OPTICAL LENS
OFF-ON SWITCH
EARPHONE JACK
CASE
VOLUME CONTROL
STATION SELECTOR

PRINCIPLES OF OPERATION

The VLF-transmitting stations operating for communications with submarines have a vertical antenna. The Antenna current is thus vertical, creating a concentric horizontal magnetic field around them. When these magnetic fields meet conductive bodies in the ground, there will be secondary fields radiating from these bodies. (See Figures 3 & 4). This equipment measures the vertical components of these secondary fields.

The EM16 is simply a sensitive receiver covering the frequency band of the VLF-transmitting stations with means of measuring the vertical field components.

The receiver has two inputs, with two receiving coils built into the instrument. One coil has normally vertical axis and the other is horizontal.

The signal from one of the coils (vertical axis) is first minimized by tilting the instrument. The tilt-angle is calibrated in percentage. The remaining signal in this coil is finally balanced out by a measured percentage of a signal from the other coil, after being shifted by 90^{o}. This coil is normally parallel to the primary field,(See instrument Block Diagram - Figure 2).

Thus, if the secondary signals are small compared to the primary horizontal field, the mechanical tilt-angle is an accurate measure of the vertical real-component, and the compensation $\pi/2$-signal from the horizontal coil is a measure of the quadrature vertical signal.

SELECTION OF THE STATION

The magnetic field lines from the station are at right angles to the direction of the station. Always select a station which gives the field approximately at right angles to the main strike of the ore bodies or geological structure of the area you are presently working on. In other words, the strike of geology should point to the transmitter. (See Figure 3). Of course, $\pm 45^{\circ}$ variations are tolerable in practice.

Tuning of the EM16 to the proper transmitting station is done by means of plug-in units inside the receiver. The instrument takes two selector-units simultaneously. A switch is provided for quick switching between these two stations.

To change a plug-in unit, open the cover on top of the instrument, and insert the proper plug. (Figure 10) Close the cover and set the selector switch to the desired plug-in.

On the following pages is a variety of information on the most commonly used (i.e. reliable) VLF Transmitters including transmission frequency, geographical location and their scheduled maintenance periods.

Fig.10

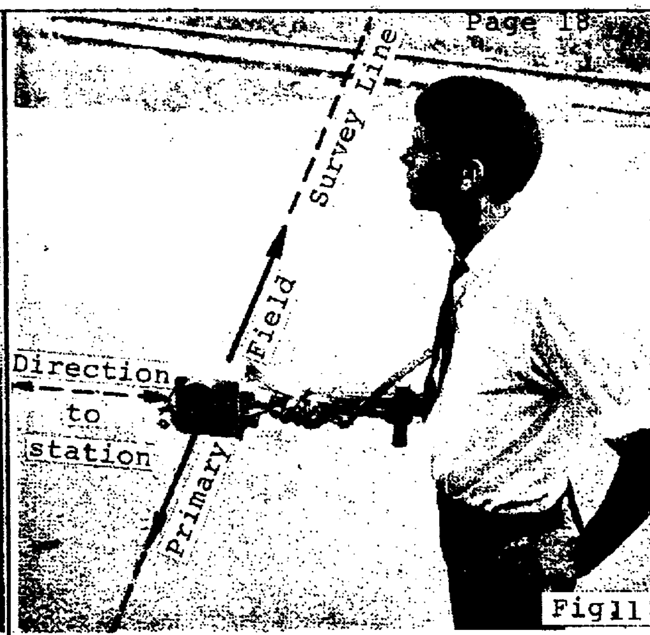


Fig11

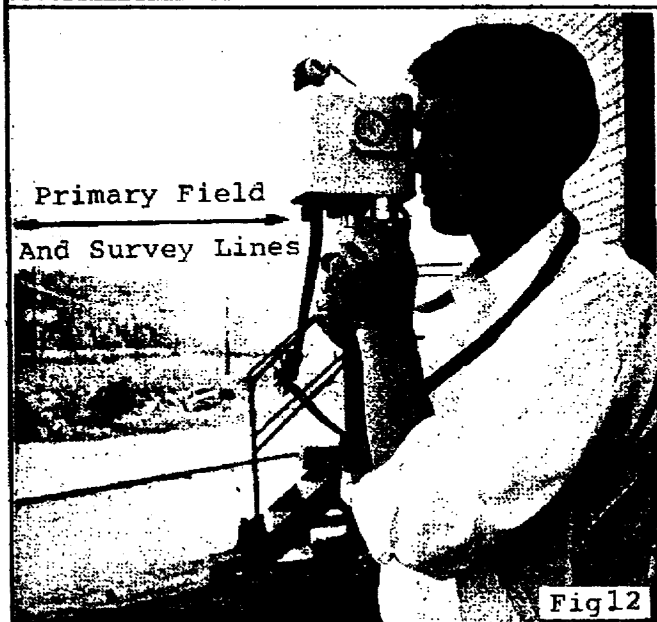


Fig12

Fig.13

Fig.14

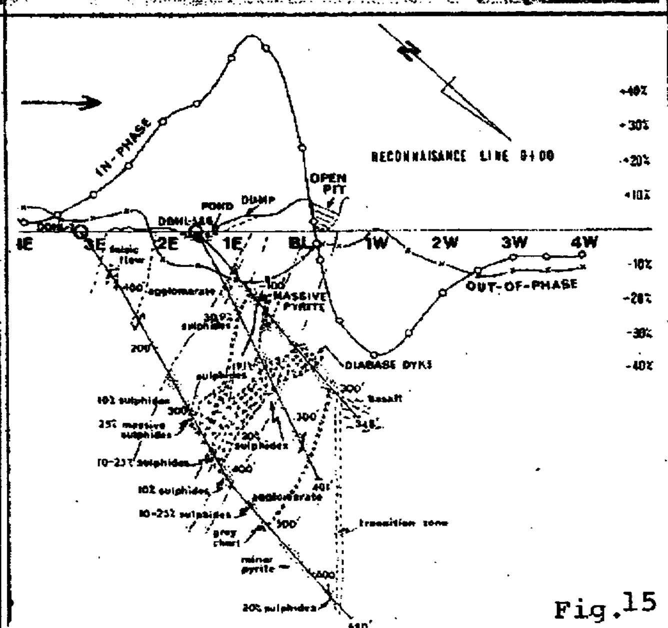


Fig.15

FIELD PROCEDURE

Orientation & Taking a Reading

The direction of the survey lines should be selected approximately along the lines of the primary magnetic field, at right angles to the direction to the station being used. Before starting the survey, the instrument can be used to orient oneself in that respect. By turning the instrument sideways, the signal is minimum when the instrument is pointing towards the station, thus indicating that the magnetic field is at right angles to the receiving coil inside the handle. (Fig.11).

To take a reading, first orient the reference coil (in the lower end of the handle) along the magnetic lines. (Fig.12) Swing the instrument back and forth for minimum sound intensity in the speaker. Use the volume control to set the sound level for comfortable listening. Then use your left hand to adjust the quadrature component dial on the front left corner of the instrument to further minimize the sound. After finding the minimum signal strength on both adjustments, read the inclinometer by looking into the small lens. Also, mark down the quadrature reading.

While travelling to the next location you can, if you wish, keep the instrument in operating position. If fast changes in the readings occur, you might take extra stations to pinpoint accurately the details of anomaly.

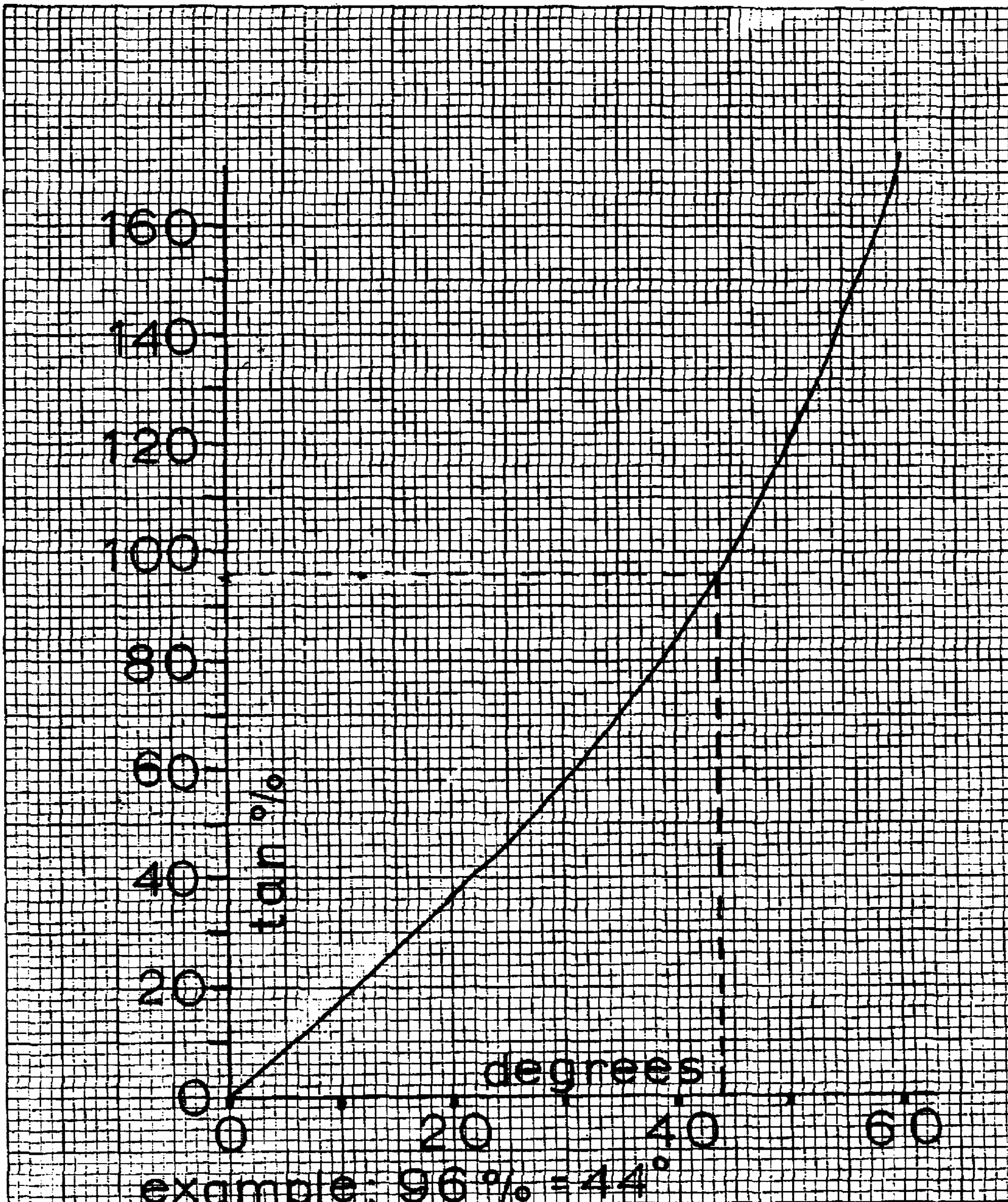
The dials inside the inclinometer are calibrated in positive and negative percentages. If the instrument is facing 180° from the original direction of travel, the polarities of the readings will be reversed. Therefore, in the same area take the readings always facing in the same direction even when travelling in opposite way along the lines.

The lower end of the handle, will as a rule, point towards the conductor. (Figs.13 & 14) The instrument is so calibrated that when approaching the conductor, the angles are positive in the in-phase component. Turn always in the same direction for readings and mark all this on your notes, maps, etc.

THE INCLINOMETER DIALS

The right-hand scale is the in-phase percentage(ie. Hs/Hp as a percentage). This percentage is in fact the tangent of the dip angle. To compute the dip angle simply take the arctangent of the percentage reading divided by 100. See the conversion graph on the following page.

The left-hand scale is the secant of the slope of the ground surface. You can use it to "calculate" your distance to the next station along the slope of the terrain.



EM16 in-phase, % to degrees

(1) Open both eyes.

(2) Aim the hairline along the slope to the next station to about your eye level height above ground.

(3) Read on the left scale directly the distance necessary to measure along the slope to advance 100 (ft) horizontally.

We feel that this will make your reconnaissance work easier. The outside scale on the inclinometer is calibrated in degrees just in case you have use for it.

PLOTTING THE RESULTS

For easy interpretation of the results, it is good practice to plot the actual curves directly on the survey line map using suitable scales for the percentage readings. (Fig.15) The horizontal scale should be the same as your other maps on the area for convenience.

A more convenient form of this data is easily achieved by transforming the zero-crossings into peaks by means of a simple numerical filtering technique. This technique is described by D.C. Fraser in his paper "Contouring of VLF-EM Data", Geophysics, Vol. 34, No. 6. (December 1969)pp958-967. A reprint of this paper is included in this manual for the convenience of the user.

This simple data manipulation procedure which can be implemented in the field produces VLF-EM data which can be contoured and as such provides a significant advantage in the evaluation of this data.

INTERPRETATION

The VLF primary field's magnetic component is horizontal. Local conductivity inhomogeneities will add vertical components. The total field is then tilted locally on both sides of a local conductor. This local vertical field is not always in the same phase as the primary field on the ground surface. The EM16 measures the in-phase and quadrature components of the vertical field.

When the primary field penetrates the conductive ground and rock, the wave length of the wave becomes very short, maybe only few tens of meters, depending on conductivity and frequency. At the same time the wave travels practically directly downwards. The amplitude of the field also decreases very fast, completely disappearing within one wavelength. The magnetic field remains, however, horizontal.

Figure 16 shows graphically the length and phase angle of the primary field penetrating into a conductive material.

The phase shift in radians per meter and the attenuation in nepers per meter (1/e) is:

$$\beta = \alpha = \left[\frac{\omega \mu \sigma}{2}\right]^{1/2}$$

where

$\omega = 2\pi f$

$\mu = \mu_o \mu_r = 4\pi x 10^{-7}$

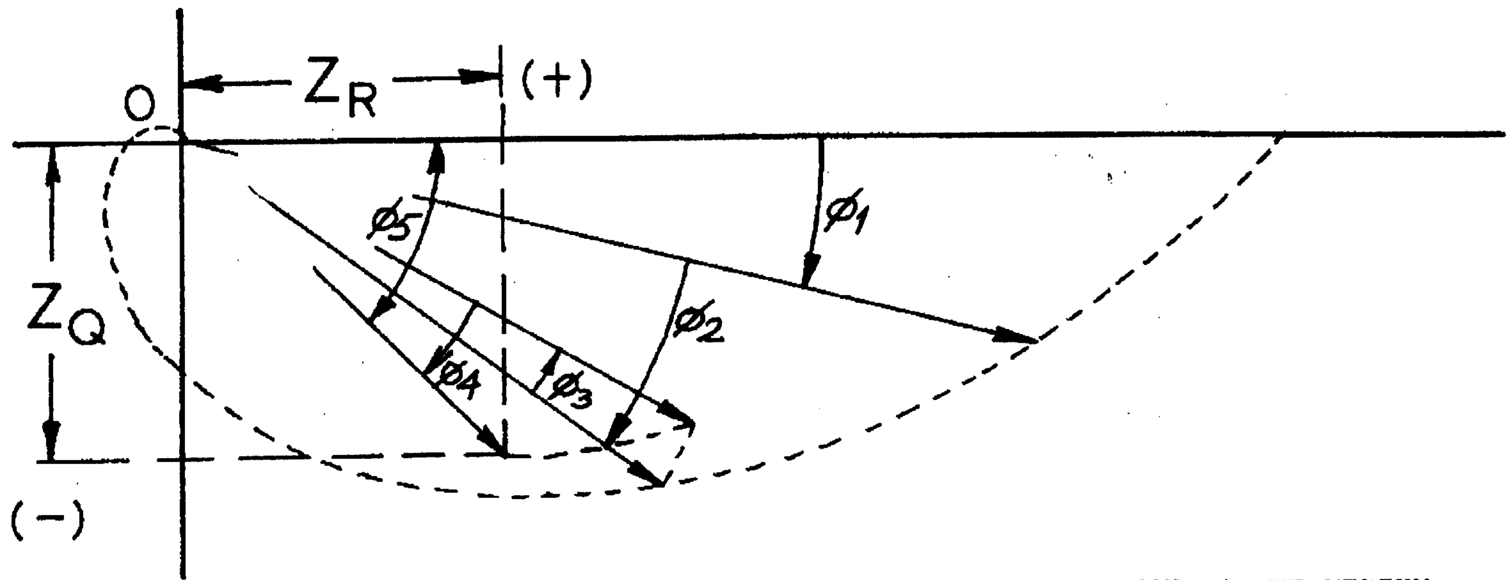
σ = conductivity mho/m

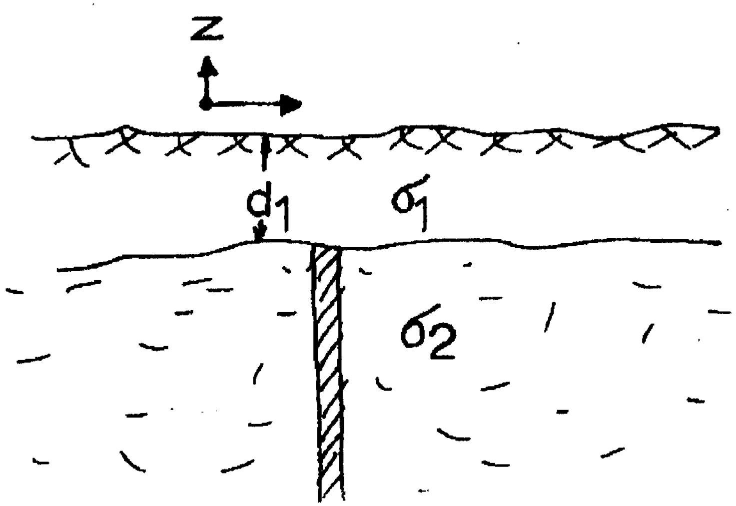
Figure 16 also reminds us of the fact that all secondary fields have a small (or large in poor conductors) positive phase shift in the target itself due to its resistive component, and that the secondary fields have another negative phase shift while penetrating back to surface from the upper edge of the target.

The targets are located somewhere in the depth scale (phase shift scale in this case). Suppose we have a semi-infinite vertical sheet target starting from the surface. Figure 17 shows that the total integrated primary field inphase and quadrature flux has a value of + 0.5 and - 0.5 respectively.

These two charts can be used to analyze the inphase and quadrature readings taken on both sides of the target. If one knows the actual conductivity of the overburden and the rock, the task is easier. Because of the many variables involved the precise analysis is usually impossible.

The most frequently encountered and easily solved problem is, however, the separation of surface conductors from the more interesting ones at depth. This is easily done by observing the negative quadrature signals compared to the usually positive or zero ones from the surface targets. See the sample profiles in Figures 18 and 19. This way we can often tell if we have a more interesting sulfide target under a swamp for example.





PHASE SHIFTS IN CONDUCTIVE MEDIUM

- $\emptyset_1$ OVERBURDEN, DOWNWARD TRAVEL
- $\emptyset_2$ ROCK FROM OVERBURDEN TO THE CENTER OF TARGET
- $\emptyset_3$ SHIFT IN TARGET, FINITE CONDUCTIVITY
- $\emptyset_4$ SECONDARY FIELD IN OVERBURDEN AND SOME ROCK
- $\emptyset_5$ TOTAL OF ALL $\emptyset_1$ TO $\emptyset_4$

Fig. 16

Another use for the quadrature polarity is in the tracing of a fault or a shear zone. Normally these weak conductors give a fair amount of positive (the quadrature follows the in-phase polarity) quadrature. When we have a local sulfide concentration in these structures, we get a negative quadrature response.

All the interpretation is made easier by other indications of the depth to the target. The horizontal distance between the maximum positive and negative readings is about the same as the actual depth from the ground surface to the centre of the effective area of the conductive body. This point is not the centre of the body, but somewhat closer to the upper edge.

Theoretically, the depth 'h' of a spherical conductor with radius 'a' equals ΔX where ΔX is the horizontal distance between the maximum points of the vertical field H_z (Fig. 20a). The radius of the sphere is given by

$$a = 1.3\ h\ \sqrt[3]{H_z(max)}.$$

For a cylindrical conductor the depth 'h' equals $0.86\Delta X$ and the radius of the cylinder is given by

$$a = 1.22\ h \quad H_z(max).$$

In these equations $H_z = 1$ means 100% on the instrument dial.

The determination of the depth is generally more reliable than the estimation of the actual dimension a. The real component of H_z, which we should use in these calculations, decreases proportionally for a poorer conductor and with the depth in conductive material.

One can also draw some conclusions about the dip and shape of the upper area of the conductor by observing the smaller details of the profile. See the modelling curves.

A vertical sheet type conductor, if it comes close to the surface, gives a sharp gradient of large amplitude and slow roll-off on both sides. (Fig. 20b & 20c).

Horizontal sheets should give a single polarity on the edge of it, and again the opposite way on the other edge. (Fig.20f)

When looking at the plotted curves, one notices that two adjacent conductors may modify the shape of the anomalies for each one. In cases like this, one has to look for the steepest gradients of the vertical (plotted) field, rather than for the actual zero-crossings. Forget the word "cross-over". Look for the centres of slopes on the in-phase for location of targets. See Figures 20d and 20e.

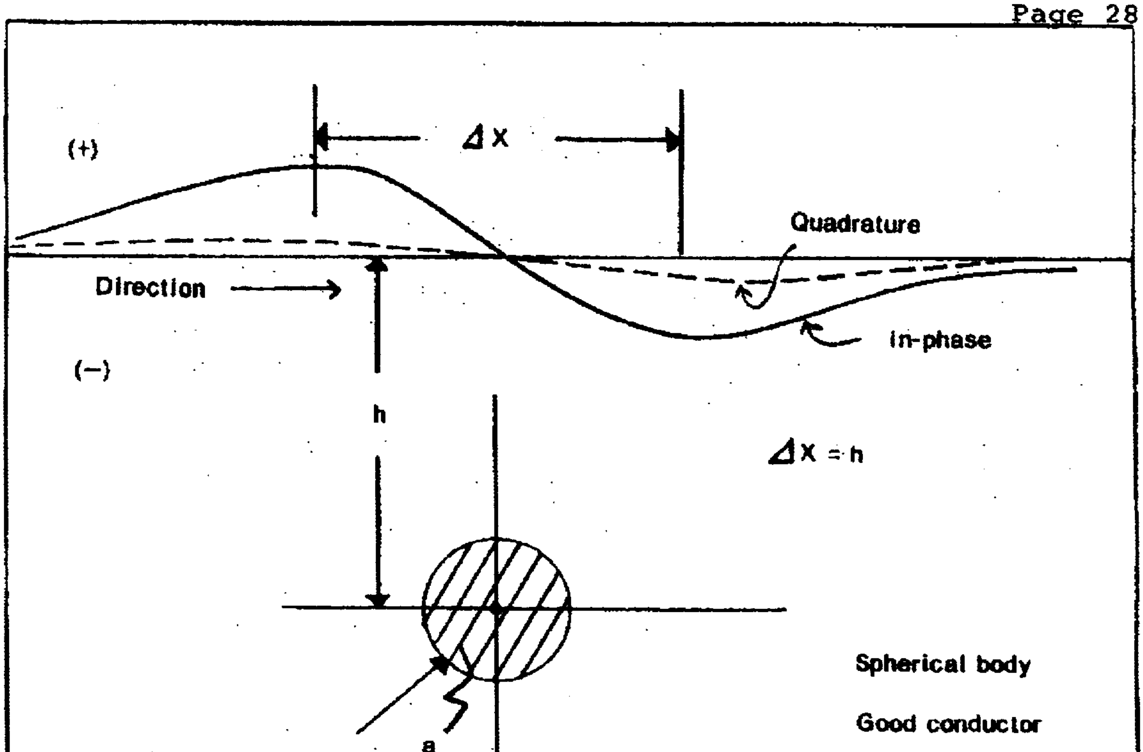


Fig. 20a

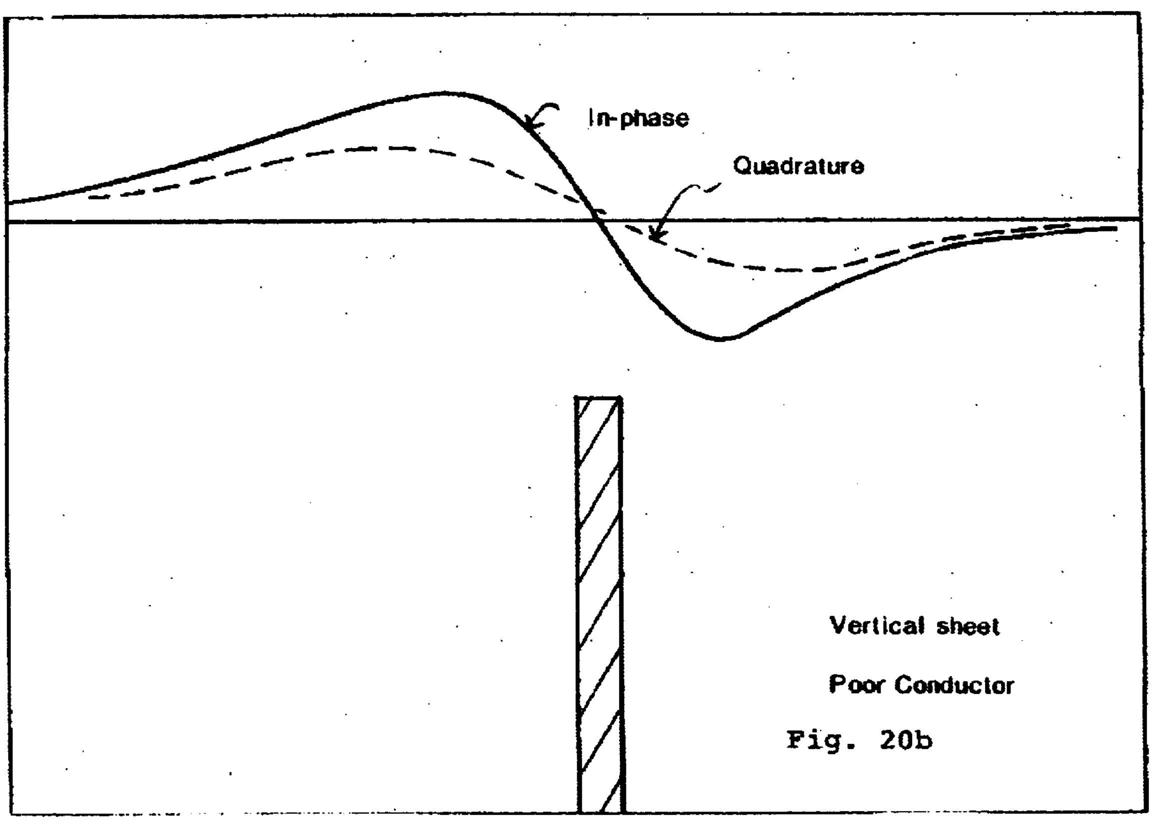


Fig. 20b

As with any EM, the largest and best conductors give the highest ratio of in-phase to quadrature components. In VLF however, the surrounding conductive material influences the results so much that it is almost an irrelevant statement except in a few cases. Also in practice most of the ore bodies are composed of different individual sections, and therefore one cannot use the in-phase/quadrature ratio as the sole indicator of the conductivity-size factor. In other words the characteristic response curves are flat, much flatter than with modelling.

MISCELLANEOUS NOTES

1) It has been shown in practice that this instrument can be used (in proper areas) also underground in mines. The rails and pipes may cause background variations. It was found in one mine even at 1400 foot level, that the signal strength was good. By taking readings at two directions at each station, one could obtain a very good indication about the location of the ore pockets in otherwise difficult geology.

2) On the other hand a thick layer of conductive clay can suppress the secondary field to a negligibly small value.

3) In mountainous areas one can expect a smooth rolling background variation. However, the actual sharper anomalies induced by conductive mineral zones can be usually easily recognized. Background variations can be effectively removed by standard numerical filtering procedures to emphasize local anomalies. +

4) Faults and shear-zones can give anomalies,* but not without a reason. There must be conductivity associated with them. Reverse quadrature may indicate sulfide deposits in these structures.

SERVICING

Changing the batteries is done by removing the cover and changing the penlight batteries one by one. Please notice the polarities marked on each individual cell. To test the condition of the batteries, turn the instrument on, press the push-button on the front panel. There should be a whistling sound in the loudspeaker if the batteries are in useable condition. If the sound is not heard, the battery voltage may be low, or the battery holders may be dirty or faulty.

* Telford, King and Becker, "VLF Mapping of Geological Structure".

\+ D.C. Fraser, "Contouring of VLF-EM Data".

It may be occasionally necessary to clean the contacts of the plug-in unit. For this, use a clean rag that is very slightly moistened with oil. The oily rag is good also for the battery terminals.

If any repairs are necessary, we recommend that the instrument be shipped to Geonics Limited for a thorough check-up and testing with proper measuring instruments.