MOBILE METAL ION (MMI) GEOCHEMICAL SOIL SURVEY

on the

Chaco Bear Group Mineral Claims

NTS 94D
OMINECA MINING DIVISION

LATITUDE: 56° 10' NORTH
LONGITUDE: 126° 58' WEST

OWNER: Sitka Holdings Limited

OPERATORS: J. M. Ashton & Associates Ltd.
Houston Minerals Inc.

AUTHOR: J.M. ASHTON, P. Eng.

GEOPHYSICIST: D.G. MARK, P. Geo.

CONTRACTOR: GEOTRONICS CONSULTING INC.

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SECTION 1.0 — INTRODUCTION

The Chaco Bear Project is located about 160 km due north of Smithers, British Columbia in the Skeena Mountains about 4 km west of the north end of Bear Lake. The property consists of seven contiguous mineral claims including four 4-post claims consisting of a total of 80 units and three cell claims consisting of a total of 68 cells.

The earliest work publicly recorded on the Chaco Bear claim group appears to be by Hamilton et al, in 1968. Apparently a number of quartz-carbonate veins with significant chalcopyrite mineralization were discovered near the head of the creek which forms the headwaters of the Driftwood River west of Bear Lake, British Columbia. Anomalous stream sediment geochemistry was the reason given that lead to interest in the area and discovery of the copper veins. As seen from the air, a large colour anomaly, indicative of hydrothermal alteration, clearly defines the areas prospectivity.

The first work recorded over the target area was an ABEM Minigun horizontal loop electromagnetic survey by Hartley, 1968 while employed by Cominco Ltd. The EM survey was unsuccessful in locating any electrical conductors; and Hartley provided a plausible reason why the EM survey failed to do so.

Hartley stated that the heavily mineralized chalcopyrite veins contained significant specularite which is an electrical insulator. Additionally, myriads of hairline fractures containing limonite, also an electrical insulator, were present. The specularite and limonite in sufficient quantities, would act as an insulator around the chalcopyrite and preclude conduction.

Grains, blebs, and semi-massive amounts of conductive material consistently isolated by the effects insulating materials such as limonite, hematite, and specularite will not allow a continuous electrical pathway to develop which is the enabling mechanism to create the electromagnetic induction effect; hence no EM effect. This insulating effect was confirmed with an ohmmeter on several typical specimens. Notwithstanding, there are many chronicled cases where massive sulphide bodies have not produced EM anomalies.

In 1984 Suncor Inc. staked four 20-unit claims over the area. This was followed by a geological reconnaissance of the claims by Donnelly et al. The reconnaissance consisted of a program of stream sediment sampling and prospecting. Assays from the stream sediment sampling produced several anomalous copper and gold samples from Driftwood Creek and the prospecting discovered several quartz–carbonate veins containing high values in copper, gold and silver from the surrounding area.

The following summer of 1985, Hartley conducted an exploration program over the target area consisting of prospecting, geological mapping, a 6-element geochemical soil survey, rock sampling, a VLF-EM survey, and a total field magnetometer survey.

A review of the Hartley data showed encouraging exploration results. The prospecting program showed that veins of several types are ubiquitous throughout the area with many containing significant copper, gold and silver minerals. Some veins were reported to be up to 1.5 metres in width. Assays returned results up to 16.5% Cu, 0.255 oz/ton Au and 13.44 oz/ton Ag. The geological mapping resulted in the discovery of a breccia pipe in the present target area, which much later was identified as probably the milled-matrix fluidised-breccia type which are often ore-related hydrothermal breccias. This type of breccia is created by phreatomagmatic processes and is typically associated with high-level porphyry intrusions.

A large part of the present target area was found to be anomalous in copper and gold. One large copper, zinc, and lead in-soils anomaly with a contiguous gold anomaly was delineated in the northwest quadrant of Chaco Bear 4 mineral claim and stands out as a potential drill target. This anomaly has 1,200 metres of strike length and occupies and area estimated at 100 hectares. It contains a coincident VLF-EM anomaly. A two line reconnaissance induced polarization survey by Ashton, 1992, over these coincidental anomalies showed high chargeability which indicates this anomaly contains significant sulphides; possibly semi-massive to massive sulphides. The associated low resistivity anomaly in the range between 488 ohm-metres to 1,000 ohm-metres is high enough to possibly indicate this body contains some silicification. This IP anomaly is open to depth and to the south and would appear to be a future drill target following detailed geophysical definition.

Several VLF-EM (electromagnetic) anomalies were identified by Suncor yet nd notwithstanding the above coincident VLF-EM/geochemical/induced-polarization anomalies (eg, VLF-EM1, VLF-EM2 and VLF-EM3 shown in Figure 23), VLF-EM4 anomaly of particular interest is positioned en-echelon to the south of the above coincident anomalies. This electromagnetic anomaly, the strongest of all the EM anomalies, strikes 325° azimuth, is 1 km in strike length, and displays the classic waveform which is diagnostic of semi-massive or massive sulphides. The classic waveform has a high amplitude positive in-phase waveform with a corresponding high amplitude negative quadrature which crosses over to a high amplitude negative in-phase waveform and corresponding high amplitude positive quadrature. The crossover point defines the axis of the sulphide body. The 320°-340° structural break direction is considered the most important as most of the better mineralization on the property is contained within veins oriented along this trend. A conventional geochemical response is not expected over this target because it is overlain by a 3-4 metre thick ferricrete. The highly acidic solutions which have percolated through the entire ferricrete zone would remove any metal present. This anomaly, virtually untested, is considered to be a major target.

And finally the total field ground magnetometer survey resulted in the discovery of a strong magnetic anomaly, up to 2,000 gammas in amplitude, which occupies the central part of the Driftwood Creek valley west of the creek. The magnetic anomaly coincides with one of the most heavily altered areas in the valley and is interpreted to be the central core zone of the classical magnetite-rich potassium-silicate alteration zone of a concealed porphyry copper deposit. It is these potassium-silicate alteration zones that carry the higher grade gold and copper of an alkalic porphyry copper deposit. Supporting this idea are several, albeit narrow, mineralized felsic dikes found nearby. The dikes carry chalcopyrite, specularite and magnetite and assay up to 3% copper and 0.10 oz/ton Au. This anomaly, virtually untested, is considered to be a major target.

In 1996, Imperial Metals Corporation optioned the claims, now re-staked as the Chaco Bear claims. That year Imperial conducted two small exploration programs under the direction of Wesley Raven, P. Geo. The first program consisted of rock and soil geochemical sampling. The rock sampling confirmed the presence of anomalous gold and copper mineralization from areas previously sampled by Suncor Inc. in 1984 and 1985. Results included a high of 22.16 grams/t Au and 6.81% Cu from one sample. A small grid was soil sampled over what is now known as the Bearnx Zone with inconclusive results.

The second program in 1996 consisted of prospecting, geological mapping, and rock sampling throughout the property. A small horizontal-loop max-min electromagnetic survey and some drilling was completed on the Bearnx Zone. The prospecting and sampling program was successful in outlining numerous areas throughout the claims that contained narrow brecciated quartz-carbonate veins that were anomalous in gold, copper and silver. Values from grab samples assayed as high as 0.744 ounces/t Au, 307 ounces/t Ag and 36.9% Cu.

Five exploratory holes were drilled into a fault bounded quartz-carbonate vein system on the Bearnx Zone. The results from a max-min electromagnetic survey aided choice of location for the final drill hole. All of the holes contained copper, gold, and silver mineralization but assays showed the zone was not economic.

Imperial Metal's 1997 exploration program consisted of claim staking, prospecting and rock sampling, reconnaissance and detailed geological mapping, a limited amount of VLF-EM geophysical surveying and a limited amount of diamond drilling. The bulk of the work focused on the Bearnx, Coccola, Dave/Ron, Ferruginate, and Gossan Zones. Only the outlier Bearnx, Coccola and Dave/Ron Zones were drill tested but widths and grades encountered were uneconomic.

Assays from altered and brecciated rhyolite dike material and andesite wall rock found in drill core from the Coccola shear zone showed sub-economic gold content. However the assays returned an anomalous gold content that shows these rhyolite dikes are part of a conduit system that probably transported gold from a magmatic hydrothermal system at depth. The bulk gold content over the total drill penetrated 73 metre (239 feet) integral-interval of mineralized and altered rhyolite dike-andesite wall rock encountered in all of the drilling at this location, averaged 0.724 grams/t gold which is considered significant.

Exposed vein systems on the Ferruginate and Gossan Zones were sampled and mapped but no locations were found where the veins were considered to constitute a viable target; notwithstanding bedrock is mostly covered in these areas and other vein systems in the bedrock would be hidden from view. The heavily altered area on both sides of Driftwood Creek were not explored in any organized way; yet this area of the Driftwood Creek valley from west to east down to Driftwood Creek and part way up the side of the valley to the east is pervasively hydrothermally altered. It is within just such classic hydrothermal alteration environments that hydrothermal mineral deposits are found yet the area has yet to be robustly explored.

However, by far, one of the most important tasks to be completed in the 1997 exploration program was the geological mapping of the property by Dr. Peter Read, under contract with Imperial Metals Corporation. Dr. Read completed a detailed property scale map of the Chaco Bear Claims, in the summer of 1997, which included some regional scale mapping. Dr. Read's mapping now forms the basis of the current understanding of the property geology.

The geological mapping shows the central part of the property to be made up of a volcanic succession composed mostly of andesites with the top of the succession composed of a thick sequence of rhyolites. The rhyolites sit unconformably on the andesites and this unconformity, which is altered and mineralized in places, represents a major exploration target for epithermal mineralization. At the unconformity in the Saddle Zone, float boulders with vuggy-quartz veins containing bornite and chalcopyrite assayed up to 10.6% copper, 0.57 oz/t gold, and 42 oz/t silver. At several other locations along the unconformity vuggy quartz-carbonate veins also contain significant gold, silver, and copper mineralization.

In the meadows southeast of Cigar Lake, Dr. Read mentions a vein exposure in the creek with vuggy quartz-specularite veins cutting the bedded tuffs. Here the tuffs are hydrothermally altered with disseminated pyrite-quartz ± sericite. Suncor, 1986, mentions vuggy quartz-specularite veins in this vicinity and elsewhere which contain massive chalcopyrite and specularite where the massive chalcopyrite occurs locally with the specular hematite both adjacent to the hematite and as open space vug filling within the hematite. Assays from several occurrences showed significant copper with gold and silver. Thin section analyses (Suncor Inc.) showed that gold in the specularite occurs as free gold in quartz. According to Thompson et al, 1996, in the "Atlas of Alteration" *in the epithermal environment* , specular *hematite may be important in vuggy quartz in high-sulphidation systems.*

The vuggy quartz vein/breccia with vein of grey massive specular hematite with free gold in quartz in the hematite is one of the main diagnostic features of the top of a fully preserved high-sulphidation epithermal mineralizing system.

SECTION 2.0 — SUMMARY & RECOMMENDATIONS

2.1 Summary

The Mobile Metal Ion Geochemical Survey over the heavily altered Main Zone at the Chaco Bear Project has resulted in the discovery of four, or more, potential gold bearing zones at depth below each gold anomaly. As each gold anomaly occurs with an associated lead anomaly, these two anomalous features could be indicative of a boiling event resulting in the potential for discovery of bonanza type epithermal gold deposits at depth as described by Buchanan in 1981. In the Buchanan model, gold precipitates at and above the boiling zone and the associated base-metal sulphides precipitate at and below the boiling zone.

Put succinctly, by Reed and Spycher, 1985: "When a homogenous aqueous phase rises in a hydrothermal system, it experiences a decrease in pressure resulting in boiling. Boiling induces a temperature decrease and a pH increase which causes minerals to precipitate. Thus the initially homogeneous aqueous phase separates into several phases including gas, liquid and minerals.

For now, until more information becomes available from advanced exploration, the "boiling mechanism" was in all probability the cause for the precipitation and concentration of gold at depth in this system. Although this is the simple approach, it fits Occam's razor where the simplest of competing theories be preferred to the more complex until new information becomes available.

According to the geoscientists who developed the MMI technique and whom are most knowledgeable about its implications, the anomalous MMI gold Response-Ratios along with supporting MMI silver Response-Ratios, shown in the enclosed Histograms for these elements, are indicative of primary gold mineralization in place, at an unknown depth, precisely below each respective gold anomaly.

Corroboration that the MMI technique is an effective method for detecting concealed, near surface, epithermal style mineralization was recently published by Cook, S., and Dunn, C. in 2007 in their British Columbia Geoscience Paper 2007-7. They found that the MMI technique provides a superior level of base metals **contrast** over known gold mineralization and the MMI technique showed positive responses for gold as well as several relevant base metals such as Pb, Zn, and Cd in near surface soils over the concealed veins.

The objective of the Mobile Metal Ion (MMI) survey conducted at the Chaco Bear Project in the Fall of 2007 was to test two alteration zones for their economic gold potential. Both zones exhibit epithermal alteration character at surface and mineralised vein structures found widespread in both areas have both low-sulphidation and high-sulphidaton epithermal character.

The Bearnx Zone and the Main Zone were tested using the MMI technique. The Bearnx Zone MMI results were disappointing. However the Main Zone MMI results are encouraging and indicate the probable presence of 3 or 4 epithermal gold zones.

The Main Zone MMI survey was a reconnaissance traverse from West to East over intensely altered andesitic and felsic volcanics shown in **Figure 23**. The felsic volcanics are so extensively hydrothermally altered that the protolith is destroyed and replaced by a porous assemblage of finely disseminated pyrite, quartz, and sericite alteration. It was this zone that was of interest because both low-sulphidation and high-sulphidation epithermal gold deposits are known to be associated with such alteration.

On the east ridge above the unconformity an extrusive rhyolite up to 300 metres thick is exposed. It is on the east slope of this ridge that the Geological Survey of Canada, G. S. Lord, 1948, cited "Many small veinlets of chalcopyrite, pyrite, galena sphalerite, specularite, crustified quartz and calcite fragments were seen in talus fragments... Some of these occurrences are reported to contain appreciable amounts of gold." The crustified quartz is diagnostic of a low sulphidation epithermal vein system.

Although outcrop is relatively sparse over the Main Zone; where there is outcrop, and where the surface ferruginate zone has been eroded, numerous narrow gold-copper-silver bearing veins pervade the area; although mineralised veins up to 1.5 metres in width are occasionally encountered. So far the veins are too widely spaced to be economic. The veins assay up to 16.5% Cu, 0.82 oz/t Au and 13.4 oz/t Ag. Where exposed in the Gossan Zone, Ferruginate Zone, and the Core Zone of altered felsic volcanics at several locations the narrow veins are clustered together and it is speculated that these veins at some locations could coalesce into larger veins or a stockworks zone at depth.

On the western slope of the East Ridge which converges at the valley bottom with Driftwood Creek; the higher elevations are mostly bare outcrop.

One of the most interesting mineralised veins encountered to date was found in the meadow area southwest of Rusty Lake where it had intruded the altered felsic unit. It is a vuggy quartz-breccia vein containing hematite, with quartz in the hematite, with the quartz containing free gold. The vein is diagnosed as the top part of a high-sulphidation epithermal mineralising system which should be fully preserved to depth. Hence the potential for the discovery of gold deposits from near surface to a considerable depth below surface is considered to be highly probable.

The largest and strongest gold anomaly discovered by the MMI geochemical survey is Gold Anomaly 1 which is located at the edge of the Core Zone of intensely altered felsic volcanics shown in **Figures 20 and 23**. Above this contact zone to the west is a large gossan zone. Other notable local geological features are a heavily altered milled matrix fluidised breccia pipe and a heavily pyritized eruption breccia both of which contain gold pathfinder elements and indicating the potential for epithermal gold mineralization in these structure at depth.

MMI Gold Anomaly 1 is categorized as extremely anomalous and is accompanied by an extremely anomalous MMI lead anomaly. The zone is close to 300 metres (1,000 feet) in width and averages 51 MMI gold Response-Ratio units which could be economically significant. The coincident MMI lead anomaly is 200 metres in width and averages 155 MMI lead Response-Ratio units. The gold accompanied by lead is a classic bonanza gold signature. This large zone could be lithologically controlled. See **Figure 20** and **Figure 23.**

MMI Gold Anomaly 2, is categorized as extremely anomalous. It is an estimated 80 metres in width and is accompanied by extremely anomalous MMI lead anomalies contiguous with the gold along its east and west contact zones. This MMI gold-lead system is coincident with VLF-EM7 anomaly hence in terms of probabilities this electromagnetic anomaly contains significant sulphides. This zone is believed to be structurally controlled. See **Figure 20** and **Figure 23.**

MMI Gold Anomaly 3, categorized as extremely anomalous, is immediately east of Driftwood Creek. It consists of two parallel zones. The one closest to the creek has a maximum MMI gold Response-Ratio of 30 units and is estimated at 25 metres in width. It coincides with an MMI lead anomaly about 50 metres in width which averages 26 MMI Response-Ratio units. Total width of the combined anomalies could exceed 100 metres. See **Figure 21** and **Figure 23**. It is coincident with the largest and strongest VLF electromagnetic anomaly on the project with a strike length of 1.0 km. It is the classic electromagnetic response indicative of massive sulphides. It is characterized as having a positive strong in-phase waveform and at the crossover point (the axis of the massive sulphide body) the in-phase waveform goes strongly negative. Correspondingly; the strongly negative out-of-phase waveform goes strongly positive after passing through the crossover point.

MMI Gold Anomaly 4, categorized as very anomalous to extremely anomalous is found at the north end of MMI Survey Line 9600 East. It has an approximate width of 120 metres (400 feet). It is accompanied by a coincident MMI lead anomaly that could be between 80 to 160 metres in width. This is the projected location of the pre-mineral Upper Driftwood Fault mapped by P. B. Read, 1997, in which case the fault may be mineralised at this location or acted as the conduit to bring mineral solutions to this deposit site. This is a new area and requires geological and geophysical evaluation along with the other discoveries.

VLF-EM3, see **Figure 23**, may be significant because this electromagnetic anomaly coincides with the strongest MMI **Zinc** Anomaly of the entire MMI survey. The MMI zinc

Response-Ratio is 174 Response-Ratio units. Two "**Very Anomalous**" gold Response-Ratio anomalies are contiguous with the zinc on its east flank. Width is estimated at 75 metres. See Histograms 12 & 13.

Only one MMI gold anomaly was found in the Bearnx Zone but at this time it is not believed to be significant; but should be checked by field personnel.

All of the above MMI Gold Anomalies could be economically significant and accordingly a robust geoscientific exploration program is warranted to evaluate these obvious targets.

The anomalous gold and lead mobile metal ion mineralization detected in the surface soils of the Main Zone at the Chaco Bear Project had response levels that were considerably elevated over background and were both considered extremely anomalous. Accordingly the source of this mineralization as attested to by the developers of the MMI technique will be found directly below the coincidental gold and lead anomalies. In contrast, conventional geochemistry cannot with the same certainty and confidence predict the likely location of the mineralization that caused the anomaly with the same degree of confidence as the MMI technique.

One additional significant factor that supports the epithermal gold system model at the Chaco Bear Project is the stream sediment geochemical signature. A 1997 regional stream sediment sampling program over the entire 5,400 square mile NTS 94D Map Sheet, by the British Columbia Geological Survey showed that both drainages from the Chaco Bear Project had the largest and strongest integral Au+Sb+As+Ag+Hg (epithermal gold signature) and Cu+Pb+Zn+Ag+Ba (base metal signature) in the entire map sheet which indicates that the property is very highly prospective for near surface epithermal gold and related base metal deposit types.

2.2 Recommendations

The following recommendations are made:

1. Complete a Mobile Metal Ion (MMI) Geochemical Survey over the entire hydrothermally altered area (Main Zone) at the Chaco Bear Project. There are several other epithermal gold targets on the property some of which are identified by their surface structural and geological features and which showed the presence of gold pathfinder elements upon assay. Examples include the heavily altered milled-matrix fluidized breccia pipe, the heavily pyritized flow breccia, numerous vein structures within the heavily altered felsic volcanics. The survey should be designed accordingly to account for the size of each target.

2. Complete a detailed deep-probe induced polarization survey with lines spaced 50 metres apart and stations at every 50 metres down to 12 levels of surveying. The area between the West Ridge and East Ridge, an estimated line length of 3.5 km should be covered. Survey strike length should be at least 2.5 km which will cover area of intensely altered felsic volcanics. A gold rich porphyry deposit is thought to underly the southern part of the alteration zone with the strong magnetic signature as shown in Figure 23 thought to be classic magnetite rich potassium silicate alteration zone containing high grade copper and gold part of the porphyry.

   Given the probability that this intensely altered area could host a porphyry related low-sulphidation epithermal gold system and high-sulphidation epithermal gold system, the IP method is also suited to assessing epithermal deposits by identification of high-resistivity zones characteristic of silicification and quartz vein development. Similarly if the system includes high-sulphidation mineralization in the form of vuggy quartz veins/silicic cores or massive sulphides, resistivity and chargeability anomalies, respectively, may identify these structures. Similarly clay alteration zones which are found proximal to both high and low suphidation mineralization have characteristic low resistivity signatures.

   Detailed exploration to depth is warranted over all VLF electromagnet anomalies, the breccia pipe and the root zone of the heavily pyritized flow breccia.

3. Complete a total field magnetic survey and a self–potential survey over the Main Zone.

4. Complete the geological mapping program at the top of the extrusive rhyolite and the overlying geology.

SECTION 3.0 LOCATION & ACCESS

The centre of the original claim block which comprises the Chaco Bear 1, 2, 3 and 4 Mineral Claims is located about 4 kilometres West of Bear Lake, British Columbia, at Longitude 126°50'00" West and Latitude 56°10'00 North.

Bear Lake is located about 100 miles due north of Smithers and about 220 miles north-northwest from Prince George. The Kemess Mine is located about 60 miles north-northeast from Chaco Bear, and the deep-sea seaport town of Stewart is located about 140 miles west of Chaco Bear.

The Canadian National Railway (formerly the British Columbia Railway) has operating track up to the east side of Bear Lake. Similarly logging road along the east side of Bear Lake provides access from Fort St. James to the south east. From "Big Lake" at the centre of the Chaco Bear property, to the railroad and truck-road is about 3 miles easterly as the crow flies. Construction of a road from Bear Lake to the property should not be difficult. A bridge across the Bear River would be required.

The British Columbia government has plans for the construction of the Stewart-Omineca Road that will connect the deep sea port of Stewart with the Kemess Mine and other promising mineral prospects throughout the region. This road will pass by the Chaco Bear property about 11 miles to the north and will connect to existing logging road that extends northward from the east side of Bear Lake.

Access to the vicinity of the property is presently by any of the following alternatives to Bear Lake, thence by helicopter to the property.

- road or railroad to Bear Lake
- fixed wing float aircraft to Bear Lake.
- fixed wing wheeled aircraft to the Bear Lake dirt strip

Alternatively direct helicopter access can be provided from Smithers, Prince George, Fraser Lake, or Takla Lake, to name a few.

Various alternatives are recommended to gain access to the property in a cost effective manner depending upon the amount of freight and equipment that is required for advanced exploration work.

SECTION 4.0 — PROPERTY AND OWNERSHIP

The Chaco Bear Group is comprised of the following mineral claims with expiry dates as shown. Expiry dates shown are subject to acceptance of this report.

All mineral claims are held by record in the name of Sitka Holdings Limited, of Vancouver, British Columbia.

Mineral Claim	Tenure No.	Area in Hectares	Approximate Cells (C) or Units (U)	Expiry Date
Chaco Bear 1	312051	500	20U	17 Oct 2009
Chaco Bear 2	312052	500	20U	17 Oct 2009
Chaco Bear 3	312053	500	20U	17 Oct 2009
Chaco Bear 4	312054	500	20U	17 Oct 2010
Chaco Bear 11; Cell Tenure	561258	450.4757	25C	26 June 2011
Chaco Bear 12; Cell Tenure	561260	342.494	19C	26 June 2011
Chaco Bear 13; Cell Tenure	561261	432.4052	24C	26 June 2011
	Total -	3,725.3749		

SECTION 5.0 EXPLORATION HISTORY

In terms of mineral exploration data acquired and subsequently published by the Geological Survey of British Columbia; the exploration work carried out by Suncor Inc. in 1985 and 1986, and by Imperial Metals Corporation in 1996 and 1997; stands out as being the most meaningful exploration work thus far conducted on the Chaco Bear property.

However from personal communication with others it is known that Cominco, Noranda Exploration, and Canadian Superior Exploration prospected the area of the claims. Their work was not published or made public.

There are numerous showings that show signs of early trenches and test pits dug by the old-timers possibly as early as the 1930's whom are unknown. Subsequently the known work and the operators include but may not be limited to the following:

Years 1930's or 1940's? A large area measuring about 1.5 miles north-south by 1 mile east-west at the north end of the Chaco Bear 1 to 4 mineral claims contained 14 mineral claims that had been surveyed for the purpose of having them Crown Granted. For whatever reason they did not achieve crown granted status. These claims are shown on NTS Map 94 D/2, Salix Creek south of Mount Coccola east of the north end of Bear Lake.

Year 1948 The area was mapped as part of a regional geological survey by C.S. Lord, McConnell Creek Area; Geological Survey of Canada; Memoir 251.

Year 1968 Cominco staked the Dave Claims at the south end of "Big Lake" and completed 7.8 line-miles of horizontal loop electromagnetic survey. The survey was unsuccessful in locating any conductors. It was concluded that the highly oxidized nature of the sulphides in the limited area of the survey insulated the sulphide grains from their contiguous neighbours and accordingly would not respond well to EM induction effects. Cominco abandoned the claims thereafter.

Year 1984 Suncor Inc. of Calgary Alberta, staked the Peteka 1-4 claims and completed stream sediment sampling, prospecting, and rock sampling. Their survey results identified highly anomalous gold and copper values in the stream sediments and from intensely altered rock samples.

Year 1985 Suncor Inc. completed follow up prospecting, a limited amount of geological mapping, geochemical soils sampling, rock sampling, a VLF-EM survey, and a total field magnetic survey over the large >1 square mile intensely altered area bisected by the Driftwood Valley. The results showed several anomalous features from all the survey programs in this central area of interest and in particular they mapped and sampled many quartz veins, quartz-carbonate veins, carbonate veins, and specularite veins; many of which contained high values in copper, gold and silver. They identified a breccia pipe within the intensely altered area.

Suncor Inc. abandoned the property after ceasing to operate their mineral exploration division.

Year 1992 J. M. Ashton acquired the property by staking; and completed a shallow-probe reconnaissance, induced-polarization survey over the northeastern part of the alteration zone. A high-chargeability, low-resistivity anomaly striking north-northwest was found which coincided with a strong linear VLF-EM anomaly, and the strongest copper-zinc-lead-gold geochemical anomaly known on the property. The target structure identified by the three coincidental anomalies has a strike length of about 1,200 metres (4,000 feet).

A geological examination of the property by a specialist geologist working with Ashton confirmed the extensive zone of alteration and identified classic alteration facies and zonation symmetry of a transitional geological environment with the potential for discovery of mineralization from epithermal to a high level porphyry system. Potential economic minerals include gold-rich porphyry copper, high sulphidation copper-gold lodes and low sulphidation gold lodes.

Year 1996 Imperials Metals Corporation optioned the property and completed prospecting and sampling, geochemical soils surveying, a small horizontal –loop EM survey. Their results confirmed the anomalous character of the property identified by previous operators and outlined several additional areas of interest. In the fall of 1996 Imperial completed a weather-limited diamond drilling program on the Bearnx shear zone in the north part of the claims. Five holes totaling 455.8 metres were drilled. The best hole, CB96-1, returned assays of 0.45 g/t Au, 5.61 g/t Ag, and 0.6% Cu over a width of 6.8metres.

Year 1997 Imperial Metals completed extensive geological mapping of the property and confirmed the large zone of alteration in the central southern section of the property. Late in the exploration program as a result of drilling shear hosted copper-gold-silver mineralization in the north part of the property heavily altered rhyolite dikes with similarly altered andesitic wall rocks were discovered. These lithological intersections which were fractured and brecciated contained geochemically anomalous gold values throughout.

Geological mapping showed altered dacitic and rhyolitic flows extruded at the top of an andesitic succession. The volcanic succession is interpreted to be Hazelton Series lithology. Rock geochemistry shows shoshonitic or potassic composition.

In addition to geological mapping, extensive prospecting and rock sampling was undertaken over several prospective areas of the property. Two small VLF-EM surveys totalling about 6.5 line-km were conducted. Four target areas were tested by diamond drilling with eleven holes drilled from seven sites for a total length of 1,382.2 metres.

A study completed by the Geological Survey of Canada in 2004 showed that "Uppermost Hazelton Group strata in north McConnell Creek map area (the area partly occupied by the Chaco Bear Minerals Claims) although Callovian age, are lithologically similar to (and in the same stratigraphic position as) strata which host the Eskay Creek Au-Ag deposit on the west side of the Bowser Basin

Geological mapping of the Chaco Bear Mineral Claims by Dr. Peter Read showed that the lower section of volcanics is made up of an incomplete sequence of the Hazelton Series consisting of a **restricted** Telkwa Formation which is unconformably overlain by a sequence of felsic extrusives consisting of andesites, dacites, and rhyolites up to 600 metres thick named the "Unnamed Formation" by Dr. Read.

Imperial Metals Corporation relinquished their option on the property in 1997 probably to conserve working capital. Imperial had just put the Mount Polley copper-gold porphyry deposit into production and falling gold and copper prices had reduced their cash flow substantially.

SECTION 6.0 — PHYSIOGRAPHY AND OUTCROP

The claim area at the headwaters of the Driftwood Valley is mountainous. West of the Driftwood Valley the elevations range from a high about 2,200 m along the high, most ragged, serrated and knife edge ridges and peaks whereas east of the Driftwood Valley the ridge line is somewhat rounded with the highest elevation at 1,800 m. The immature Driftwood Valley bottom at its lowest is about 1,400 m. The East Ridge slopes continually downward until it reaches Bear Lake at an elevation of about 800 metres.

Tree–line is located at about 1,500 m and the majority of the claim area in the Driftwood River bottom is above this level where stable slopes support vegetation of mostly grasses and small entanglements of conifers. Much of the area above tree-line is composed of talus slopes.

The area below tree-line is for the most part that area which straddles the headwaters of the Driftwood River and contains abundant yet small alpine fir, white and black spruce, and lodgepole pine.

Rock outcrop predominates along the ridge areas and those steeply incised drainage features which drain the ridges. Outcrop is found alongside the headwaters of the Driftwood River along the valley bottom and where the river has carved itself into the bedrock. The valley bottom on both sides of the Driftwood River is obscured by a combination of ferricrete, talus, and organic soil. Rock outcrop is estimated to represent not more than 5 to 10 percent of the property area.

According to Lord, 1948, the best evidence for the direction of movement of the ice-sheet was found only in the northeast half of the map area, NTS 94D. Here the ice moved generally from west to east and to the southeast. He suggests that those U-shaped valleys, which includes the headwaters of the Driftwood River where the Chaco Bear 4 Mineral Claim is located was eroded by glaciers flowing along them to the southeast.

SECTION 7.0 —GEOLOGY

INTRODUCTION

The first evidence of geological mapping which covered the Chaco Bear 1 to 4 mineral claims was by Suncor Inc. in the summer of 1985, who completed some mapping of their counterpart Peteka 1 to 4, inclusive claims. The Suncor mapping covered only part of the exposed outcrop.

However, by far, the most thorough mapping effort was by Dr. Peter Read, 1997, under contract with Imperials Metals Corporation, who completed a detailed property scale map of the Chaco Bear Claims, in the summer of 1997, which included some regional scale mapping. Read's mapping forms the basis of the current understanding of the property geology. The following abbreviated geological information and rock unit descriptions are based upon Read's work. The abbreviated salient aspects, as presented, have been extracted from both Read's report and the report prepared by Mr. Wes Raven, P. Geo., 1997. Information sources also include Mr. Charles Hartley, 1986, of Suncor Inc and this writer.

REGIONAL GEOLOGY

The area as first mapped by C. S. Lord between 1941 to 1945. The results of that work were published in 1948 in Geological Survey of Canada Memoir 251. Lord classified the rocks in the area as belonging to the Upper Jurassic division of the Takla Group volcanics. He further subdivided the units into a lower section of predominantly volcanic rocks and an upper section of mostly sedimentary, with lesser intercalated volcanic units. Richards, 1976, has re-classified the rocks as forming part of the Hazelton Group volcanics.

The Lower to Middle Jurassic aged Hazelton Group, in the McConnell Creek map area is further subdivided into an upper unit of mostly sedimentary rocks and a lower unit of mostly volcanic rocks. The Chaco Bear claims are underlain primarily by lower members of the Hazelton Group volcanics.

PROPERTY GEOLOGY

The bulk of the property is underlain by a thick succession of intermediate to basic metavolcanic rocks of the Telkwa Formation, the lowest member of the Hazelton Group which occupy the western and central portions of the property. Most of the units mapped are of andesitic composition and are comprised of red and green coloured aphyric andesite flows, fine and coarser grained plagiophyric andesite flows, grey and maroon coloured basaltic flows and andesitic lithic ash tuffs, and flow breccias.

The eastern portion of the claims is underlain by felsic metavolcanic rocks comprised of flow layered rhyolite flows, rhyolite welded and unwelded lapilli ash tuffs, as well as porphyritic dacite flows and tuffs and lesser aphyric andesite flows.

The only exposed intrusive unit of any extent was located on the western portion of the claims, a leucogranite to leucosyenite body that extends beyond the western property boundary. All of these units are cut by a variety of both mafic and felsite dikes, primarily volcanic in appearance and texture with minor diabase intrusive dikes.The felsite dikes are fine grained, white to greenish-white, and are commonly flow banded, particularly at the margins. They are likely rhyolitic in composition and may be related to the thicker felsic volcanics on the east ridge, or possibly the Kastberg intrusions; the parent source of the dikes is uncertain. Mafic dikes are found throughout the property and are compositionally similar but show a variety of textures, from massive coarse grained, to layered feldspar phyric.

The youngest units mapped are found on the east ridge in an unnamed formation of the Hazelton Group and are comprised of light to medium grey dacite flows with fine plagioclase laths, This unit is underlain by grey-green aphyric andesite flows of undetermined thickness which overlie, and form flows up to 50 metres thick, within a thick succession of rhyolitic flows and tuffs. The rhyolite assemblage is up to 300 metres thick and comprised of tuff, lapilli tuff, and local spherulitic flows with coarse grained spherules up to 3-4 cm in cross section. This unit extends throughout the length of the property and forms a prominent marker horizon. It overlies porphyritic dacite flows and tuffs which were distinguished in the northern portion of the property. These flows appear to disappear to the southeast.

The majority of units mapped are of andesitic composition in a northwest trending belt that extends throughout the length of the property. The youngest of these, underlying the felsic assemblage in the southeast portion of the property is comprised of grey-green to green aphyric to fine grained plagioclase-bearing andesite flows and minor lapilli tuff. These rocks are fairly extensive to the south and are unsubdivided due to the loss of marker horizons and more extensive drift cover. Elsewhere on the property the upper green andesite is the unit most commonly underlying the felsic assemblage at what appears to be an unconformable contact. It is a crowded andesite porphyry containing 15-30%, 1-2 mm plagioclase crystals. This unit is underlain by a distinctive marker unit termed the "plagiophyric andesite". It is a medium grey to green unit with 1—20% plagioclase phenocrysts that are 2-8 mm in length. This unit is quite prominent in the northern portion of the property but thins to the south. Near the southern limit of the mapped area it reappears with intercalated beds up to 15 metres thick of maroon andesite tuff and lapilli tuff.

The plagiophyric andesite is underlain by the lower green andesite only in the northern part of the property. This unit is the typical grey-green aphyric to fine grained plagioclase-bearing andesite flows with some lapilli tuffs. Thick grey and maroon coloured basaltic unit outcrops extensively in the western part of the property before being truncated against the Big Lake Fault just south of "Big Lake". This is underlain by a thin, but very distinctive rhyodacite breccia. The characteristic feature of this unit is differentially weathered clasts of rhyodacitic composition set in a felsic matrix. As the unit thins to the southeast the clasts become more andesitic in composition; it then thickens just north of Cigar Lake, with rhyodacitic clasts prominent once again and also rare leucogranite. South of Cigar Lake the unit truncates against the Big Lake Fault. Underlying this unit is a thick succession of green and maroon coloured andesite flows that underlie most of the west ridge. Within these flows are minor lapilli tuff, and in the area of Cigar Lake, there is a well bedded sequence of andesite ash tuff that could not be traced southeast of the Cigar Lake Fault.

INTRUSIONS

Within the map area, mainly thin, up to 5 metres; and rarely thick, up to 30 metres dikes intrude all stratified units. Most dips range from subvertical to moderate southwest to west, but some, especially those east of "Big Lake dip southeast to south. The dikes are either aphyric, porphyritic with an aphanitic matrix or fine grained (1 mm or less) with plutonic rocks absent

Intrusive rocks are confined mainly to the leucogranite to leucosyenite body located on the west side of the ridge. The unit was mapped out over a length of 1500 metres, the full width was not determined as the unit extends westerly beyond the western property boundary into the drift covered Squingila River valley. The intrusive is a white to pink colour with medium grained orthoclase feldspar and has virtually no mafic minerals. It appears to be virtually unaltered with the exception of very minor specularite veinlets. It is not known if this unit is part of the Eocene Kastberg intrusions or the Cretaceous Bulkley intrusions. The lack of mafic minerals makes it difficult to age date the unit and relative age relationships with the Kastberg intrusions to the south are undetermined. The only other evidence of nearby plutonic rocks is the presence of rare leucogranite clasts in the rhyodacite breccia and rhyolite lapilli tuff units.

DIKES

Mafic Dikes

Aphanitic andesite dikes, which are regionally altered by subgreenschist metamorphism are common particularly in the volcanic rocks of the restricted Telkwa Formation. Because they are distinguished with difficulty from the andesite flows characteristic of the Telkwa, they may be much more common than mapped.

Plagiophyric Meta-andesite Dikes

Plagiophyric phenocryst-bearing andesite dikes cut all the rock units stratigraphically beneath the plagiophyric andesite.

Metadiorite Dikes

These are chloritized, fine-grained diorite or gabbro dikes. They occur exclusively in the restricted Telkwa Formation.

Felsite Dikes

These are white aphanitic to sparse fine feldspar-bearing dikes which are marginally flow layered. They cut all the volcanic rock units.

Breccia Pipe

A breccia pipe is located east of the north extremity of the Gossan Zone and is shown in Figure 23. The pipe appears elliptical in plan with exposed dimensions of about 250 metres by 110 metres. It is heavily altered and contains intensely milled polymictic clasts in a dacitic matrix. Intense hydrothermal alteration in the form of epidote, hematite and carbonate pervades the milled clasts and flour like dacitic matrix. The clasts and matrix have been flooded with silica. When close to the breccia it stands out clearly with its brilliant pistachio-green epidote colour. The breccia pipe appears to be the "milled-matrix fluidised-breccia type" caused by "phreato-magmatic" (water converted to steam) eruptions. They are normally found in association with high level porphyry intrusions.

FAULTING & GENERAL STRUCTURE

General

Shear zones and faults are widespread in the rock units beneath the rhyolite on the east ridge. The shears and faults offset all intrusions except possibly the leucogranite along Tsaytut Spur. The offsets of dike contacts and closely positioned rock unit boundaries indicate northwesterly and northerly striking faults. Both are subvertical or have a westerly component of dip, are probably pre-vein in age, and provided channelways and open space for the vein mineralization on the claims.

Bearnx Fault

This main fault follows the creek bed of the Upper Driftwood Creek above Big Lake. This fault is of interest as it hosts the Bearnx Zone which was drill tested in both 1996 and 1997.

Upper Driftwood Fault

This fault has been traced for 6 km southeasterly across the width of the property from the head of Upper Driftwood Creek, across the north end of "Big Lake" to the ridge on the east side of the property. It is also a normal fault, the southwest side having been down dropped with hundreds of metres of dip slip movement.

"Big Lake Fault"

A strong north-striking lineament trends north from "Big Lake" for 2.5 km through "Coccola Lake. The gulley immediately north of Big Lake exposes northerly striking subvertical faults filled with carbonate.

Shear Zones and Fractures

Shear zones and fractures mimic the trend of the major faulting and the strike of the stratigraphy. The most prominent joint sets strike about 320° to 340° with dips 50° to 60° southwest. Another strong fracture pattern is oriented 040° to 050° with dips 60° to 70° northwest. The 320° to 340° is considered the most important as most of the better mineralization is contained within veins oriented along this trend.

MINERALIZATION

Disseminated Mineralization

Large areas, measuring up to hundreds of metres on the Chaco Bear 3 and 4 claims are so extensively hydrothermally altered that the protolith is destroyed and replaced by a porous assemblage of finely disseminated pyrite and quatrtz ± sericite. Four such areas in order of increasing intensity of alteration are:

1. Base of Rhyolite Unit

Along an exposed contact on the east ridge southeasterly dipping rhyolite lapilli tuff overlies a bumpy surface of an upper green andesite flow of uncertain orientation. At the base of the rhyolite unit weakly disseminated pyrite lies within a few metres of its base and yields a gossanous zone which extends into the upper green andesite along its contact. This zone is interpreted as an unconformity.

2. Driftwood River

A 600 metre long canyon in the Driftwood River north and south of Rusty Lake exposes zones of strongly disseminated pyrite-quartz±sericite alteration in the undivided volcanics.

3. East Side of Tsaytut Spur, South of Cigar Lake (Gossan Zone)

The mineralization in the Cigar Lake Area is comprised mainly of disseminated pyrite in felsic dikes and andesitic volcanics. This area borders the Gossan Zone upslope to the ridge top to the west (Tsaytut Spur) and the Ferruginate zones downslope to the Driftwood Creek valley.

The **Gossan Zone** to the west is manifested by three prominent limonite altered gossanous knobs aligned northwesterly over a length of 1.3 kilometres. Geologically this area is complex due to the presence of mafic and felsic dikes crosscutting andesitic flows and tuffs. Pink leucogranite to leucosyentite dikes intrude the area. The felsic dikes are found mostly as white to pale green coloured variably flow layered units that crosscut the volcanic stratigraphy.

The **Ferruginate Zone** is comprised of a series of prominent gossans consisting of rusty weathering agglomerate located both in the Driftwood River and tributaries that drain easterly off of the Gossan Zone into the Driftwood River. The host unit is either a tuffaceous dacite or quartz-sericite altered andesite tuff with widespread disseminated pyrite up to 10%. The characteristic feature of this zone is the development of a thick cap of ferricrete which outcrops both sporadically and prominently in the creek beds down to the Driftwood River itself and partway up the eastern side of the valley. On the west side of the Driftwood River it appears as a cap up to 4 metres thick on a less iron altered andesitic agglomerate. In other outcrops beside the Driftwood River it appears to be at least 30 metres thick.

4. Meadows Southeast of Cigar Lake

The streams cutting the meadowed bench southeast of Cigar Lake expose very strongly altered plagiophyric meta-andesite dikes and rocks of unknown protolith. Intense pyrite-quartz ± sericite alteration accompanies these closely fractured rocks.

Vein Mineralization

Vein mineralization is ubiquitous. It occupies joints, shears, fractures, and faults throughout the property. Veins, albeit narrow, can contain significant amounts of copper, gold, and silver assaying from trace up to 16.8% Cu, 0.82 ounces/t Au and 13.4 ounces/t Ag.

Several mineralized vein types are found throughout the area and include but are not limited to:

- quartz-carbonate veins
- carbonate veins
- specularite-carbonate veins
- specular hematite veins
- vuggy silica specularite veins
- massive specularite veins
- massive sulphide veins

Vein mineralization consists of specularite, chalcopyrite, pyrite, bornite, chalcocite, argentite? galena, sphalerite, quartz, calcite and ferroan dolomite, form veins ranging from a few centimetres to 0.5 metres in width with some specularite veins ranging up to 1.5 metres in width.

In the area around the breccia pipe and widespread throughout the area within an estimated 1.5 km radius of the core alteration zone and within the propylitic zone beyond the core alteration zone are mineralized quartz-veins, quartz-carbonate veins, carbonate veins, specularite veins and vuggy silica specularite veins which occupy shear, joint and fault structures. Assays from these veins ranged up to 16.8% copper, 0.82 ounces gold per tonne and 4.67 ounces silver per tonne.

In the meadows southeast of Cigar Lake an exposure in the creek shows vuggy quartz-specularite veins cutting the bedded tuffs. Here the tuffs are hydrothermally altered with disseminated pyrite-quartz ± sericite.

As reported by Hartley, 1986, generally massive chalcopyrite occurs locally with specular hematite both adjacent to the hematite and as open space vug filling within the hematite. Through petrographical examination the gold in the hematite veins apparently occurs as free-gold in quartz with no preference for association with sulphides, either pyrite or chalcopyrite. Free gold in quartz in high-sulphidation vein systems is commonly diagnostic of the top of the high-sulphidation mineralizing system; hence in terms of probabilities the system is fully preserved.

Mineralization Associated with Rhyolite Dikes

Drilling the mineralized shear zone of the Coccola Zone, resulted in the interception of several altered and mineralized rhyolite dikes. All of the dikes carry anomalous gold.

The rhyolites pre-date the mineralizing event and because of their brittle nature were subsequently brecciated and fractured by the mineralizing event. Their brittle nature performs two functions; the rhyolites act as conduit for the transport of magmatic-hydrothermal fluids from their source to deposit sites and enables the rhyolites to act as a preferable host to the mineralization. Because the rhyolites are anomalous in gold the system of rhyolite dikes are worthy of further exploration.

SECTION 8.0 – MMI GEOCHEMICAL SOIL SURVEY

8.1 Introduction

The following four personnel from Geotronics Consulting Inc. under the supervision of D. G. Mark, P. Geo. carried out a Mobile Metal Ion (MMI) Geochemical Survey on the Chaco Bear Mineral Claims from the 19th of September to the 24th of September 2007. Field work was temporarily suspended for one day in this period due to bad weather.

The four-man survey crew operated in two groups of 2 men each. They were air-lifted by an Interior Helicopters Ltd. helicopter daily from and back to a base camp at Silver Creek. Silver Creek is located about 20 km east of Takla Landing. Takla Landing, located on the east side of Takla Lake is about 96 km (60 miles) southeast of the Chaco Bear Property.

The crew was mobilized by truck from Vancouver to Silver Creek and demobilized from Silver Creek to Vanderhoof.

The following personnel conducted the field survey:

Personnel	Job Description
1. J. M. Ashton, P. Eng.	Project Principal (did not attend the Field)
2. D. G. Mark, P. Geo.	Project Manager & Consultant
3. Kevin Graber	Crew Chief & Exploration Technician
4. Peter Hope	Sub-Crew Chief & Exploration Technician
5. Gavin Rose	Exploration Technician
6. Jahan Jahanshahi	Exploration Technician

8.2 Target Background & Objectives

8.2.1 General

The fundamental purpose of the MMI geochemical survey was to provide a preliminary assessment of the gold potential of the Chaco Bear Project over two areas of interest, the Bearnx Zone and the Main Zone.

The first objective was to re-survey a manganese anomaly discovered by Imperial Metals Corporation in 1996. This anomaly is located immediately north of "Big Lake" and straddles the "Upper Driftwood Fault" as shown in **Figure 16** titled "Bearnx Zone

Manganese in Soil Geochemistry". Manganese in soil exceeds 10,000 ppm and is accompanied by anomalous silver. Small veins of limited extent containing gold, silver and copper are known to occupy the central portion of the manganese anomaly.

The second objective was a single line MMI geochemical survey reconnaissance traverse across what is believed to be a concealed, near surface, magmatic centre located in the central part of the Driftwood Creek valley. Hydrothermal alteration exposed at surface in the central part of the valley consists of heavily altered felsic volcanics that are so extensively hydrothermally altered that the protolith is destroyed and replaced by a porous assemblage of finely disseminated pyrite and quartz ± sericite. Targets in this area include a gold-rich porphyry copper deposit, and high-sulphidation and low sulphidation gold deposits. This Main Zone is very complex.

According to Sillitoe, 1993, "A first-order division of epithermal deposits distinguishes high-sulphidation (HS) or acid sulphate, and low-sulphidation (LS) or adularia-sericite types. The LS category may be subdivided into three subtypes: sulphide–poor associated with subalkalic rhyolitic rocks; sulphide-poor associated with alkalic rocks; and sulphide (and base-metal–rich) associated with subalkalic andesitic to rhyodacitic rocks.

8.2.2 Target 1 Background

In plotting the anomalous manganese assays from the 1996 Imperial Metals Corporation geochemical soil survey on the Bearnx Zone the writer was struck by the size and strength of the anomaly including coincident silver and barium anomalies. The manganese could be a zoning feature to a Carbonate-Base Metal Epithermal Gold System and indicative of a hydrothermal fluid outflow zone from the hanging wall of such a deposit.

According to Corbett and Leach, 1996, manganese anomalies are known to develop as zoning features around porphyry-related epithermal gold deposits formed outside the porphyry environment; specifically that class of epithermal gold deposits known as carbonate-base metal gold systems which form in response to the mixing of upwelling magmatic-hydrothermal fluids with descending bicarbonate–sulphate fluids. Such gold deposits may form close to the surface. There are significant gold orebodies at Porgera which have formed due to this mineralizing mechanism.

Three other features would indicate that the manganese anomaly could represent a carbonate-base metal gold system pathfinder.

1. Gold and silver bearing quartz-carbonate veins containing silver and gold are found within the central part of the anomaly.

2. A major fault, the "Upper Driftwood Fault" passes through the central part of the anomaly. According to Read and abbreviated for this discussion "northerly striking

faults are subvertical or have a westerly component of dip, are probably pre-vein in age, and provided channelways and open space for the vein mineralization on the claims". Also what appears to be of significance with this fault is that it appears to be interconnected with the magmatic centre that is postulated to be buried in the central part of the Driftwood Valley immediately south of Rusty Lake. This magmatic centre is the major gold-rich porphyry copper target for this project. In other words this fault could be part of the major conduit system which transported upwelling magmatic-hydrothermal fluids from the magmatic center to distal deposit sites.

3. NTS 94D/2 "Salix Creek" shows this location north of "Big Lake" as the focus of Crown Granted Mineral Claims that were believed to have been surveyed in the 1940's yet never formally "Crown Granted". There was a good Prospector's reason for placing these claims at this location.

8.2.3 Target 2 Background

Target Objective 2 is over the main target area above the diagnosed gold-rich porphyry copper deposit believed to underlie the Core Alteration zone at depth. See Figure 23. The target for this survey is a suspected overlying epithermal gold zone or zones.

Within the central part of this hydrothermally altered zone where stream erosion has exposed bedrock are found altered and mineralized felsic dikes containing both copper and gold minerals; quartz-carbonate veins containing copper, gold and silver; and vuggy quartz-specularite veins containing gold within hydrothermally altered bedded tuffs.

About 1 km to the west of this zone is a large contiguous Gossan Zone. The greater part of this part of this target area to the east of the Gossan Zone is covered with a rusty weathering agglomerate identified as the Ferruginate Zone. It is well exposed on the slope up from Driftwood Creek to the west to the vicinity of the Gossan Zone where it is 3 to 4 metres thick and part way up the eastern side of the valley from Driftwood Creek where it has been observed to be as much as 30 metres thick in places

A conventional geochemical soils survey was conducted over this area by Suncor Inc. in 1986 and produced some anomalous results in copper, gold, lead and zinc. The geochemical anomalies in the ferruginate zone are suspected as representing transported material. Yet geochemical anomalies not in the ferruginate zone; e.g., the very large copper, lead, zinc and gold that cover VLF-EM1, VLF-EM2 and VLF-EM3 appear to be real; see Hartley, 1985.

The reason for applying the Mobile Metal Ion (MMI) geochemical survey over this area is that the MMI assaying will only sample those mineral resources found in place vertically below each respective sample site. It is also believed that the MMI technique is superior to the conventional assay technique particularly where the gold mineralization sought is concealed at depth.

The breccia pipe shown in **Figure 23** has been identified as a milled matrix fluidised breccia pipe which is the phreatomagmatic type which falls into the probable ore-related hydrothermal type thus probably related to a high level porphyry intrusion. It could contain an epithermal gold deposit at depth and should be evaluated for this potential.

8.3 Grid-Line Preparation

8.3.1 Preparation of Bearnx Zone Grid Lines 3 North, 5 North, and 7 North

3.05 km of new gridline over the old Bearnx Zone geochemical survey grid was prepared. Lines refurbished with new pickets and stations were Line 100-North, 300-North and 500-North. Line spacing was 200 metres and sampling was undertaken every 50 metres along each line.

MMI sampling took place simultaneously as each grid line station picket was fixed in place.

8.3.2

3.35 km of reconnaissance gridline was completed over the "Core Alteration" zone beginning about 350 metres south of the breccia pipe and finishing near the projected location of the Upper Driftwood Fault on the eastern slope of the East Ridge above the rhyolite. There are three component parts to this line. Part 1 of Line 3100 North begins at Station 81+00East and finishes at 90+00East. Part 2 of Line 3100 North begins at Station 90+00East and finishes at Station 105+75. This line has and east-west strike. Part 3, Line 9600 East has a north strike and starts at Station 34+00North and finishes at Station 42+75 North. Much of the latter two lines traversed bare outcrop so precluded gathering MMI samples.

MMI sampling took place simultaneously as each grid line station picket was fixed in place.

8.4 Mobile Metal Ion (MMI) Geochemical Theory & Fundamentals

8.4.1 The Mobile Metal Ion (MMI) Geochemical Theory

Notwithstanding the modern conventional multi-element assaying techniques used to analyze soil for its metal content, use of the Mobile Metal Ion (MMI) survey technique appears to offer significant advances in being able to locate the locus of more deeply buried gold and other mineralization including the associated metal zoning which often accompanies gold. This is the attestation by the developers of the new technology. It would appear that this new technique when used in concert with other corroborating data could serve as an additional vector for the identification of an epithermal gold deposit which is the target sought in this survey.

Referring to the MMI Technical Bulletins provided by the developers of the MMI process, MMI Technology, a Division of Wamtech Pty. Ltd. of Australia, this unique method of analysis MMI is used to describe ions which have moved in the weathering zone that are only **weakly or loosely attached to surface soil particles**. Also according to the developers of the technique it has been proven using radioactive isotope geochemistry that these Mobile Metal Ions are transported from deeply buried mineral deposits to the surface. Geoscientists from around the world have been studying this phenomenon for many years. Research and case studies over known ore-bodies have shown that mobile metal ions accumulate in surface soils **above** mineralization indicating that the metals are derived from oxidation of the mineralization source.

Generally as the Mobile Metal Ions reach the surface they attach themselves weakly to the soil particles, and these specific ions are the ones measured by the MMI technique to find mineralization at depth. They are at very low concentrations and because the ions have recently arrived at surface they provide a **precise** "signal" of the location of underlying concentrations of minerals that could prove to be economically significant. Their lifetime in the ionic state at surface is very limited because they are subject to degradation and molecular binding or fixation into molecular forms by weathering but as long as the flow of ions is maintained, are detectable. Their limited lifetime precludes their detection by lateral circulation; accordingly they do not move away from the source of mineralization.

Hence *by **only** measuring the mobile metal ions in the surface soils, the MMI geochemistry is attested to produce very sharp anomalous responses **directly over the source of the mobile ions**.* The source would be diagnosed as mineralization at depth which emit metal ions characteristic of that mineralization.

8.4.2 Fundamentals

Testimonials from the originators of the MMI technique and those whom have had practical experience, and from the results of several case studies, attest to the **preciseness** of the technique; e.g., anomalous MMI responses of the responding elements are indicative of the of the presence of that element directly below the sample site location.

To explain the significance of silver responses accompanying gold responses Walter Grondin, Ph.D., (personal communication, 6 September, 2006) consultant to SGS Minerals, Toronto, explained that gold anomalies accompanied by silver are indicative of primary gold mineralization whereas gold anomalies only, in the absence of silver, are representative of remobilisation. Supergene enriched gold deposits provide case study examples of gold anomalies that are not accompanied by silver.

8.4.3 British Columbia Geoscience Paper 2007-7

According to Stephen Cook and Colin Dunn in their "Executive Summary" of British Columbia Geoscience Paper 2007-7, "A Comparative Assessment of Soil Geochemical Methods for Detecting Buried Mineral Deposits", the Mobile Metal Ion (MMI) assay method was shown to be successful in detecting concealed near surface epithermal style mineralization.

The geochemical data obtained from the study area also indicated that of all the methods evaluated, Enzyme Leach (EL) and MMI provide superior levels of base metals **contrast** over known gold mineralization and MMI showed **positive responses** for gold as well as several relevant base metals such as Zn, Pb, and Cd in near surface soils over the concealed gold veins.

Without limiting the generality of the foregoing, the MMI method also appears to offer several other positive diagnostic features that are mentioned in Geoscience Paper 2007-7 that may aid in the discovery of concealed mineral deposits; but which are beyond the scope of this report. The essential endorsement here is that MMI method can successfully locate concealed gold mineralization below overburden cover.

8.5 Survey Procedure

Grid Lines Line 100N, Line 300N and Line 500N of the 1996 Imperial Metals Survey were re-surveyed between Stations 500West and 1200 East as shown in Figure 7. These old lines were refurbished by compass and chain survey with stations marked every 50 metres with 60 cm wooden pickets with an aluminium tag stapled to each picket with the line coordinates marked thereon.

Survey sampling lines were run out on an east-west or west-east compass line and marked by blazing trees and attaching red flagging at appropriate intervals. Survey lines were placed simultaneously as soil sampling was being carried out. Sampling stations occurred at 50 metre intervals along each survey line. At each sampling Station 60 cm wood pickets were driven into the ground with an aluminium tag stapled to it with the Line and Station coordinates marked on the tag.

Periodically, global position coordinates were read at identified Sampling Stations by means of a hand-held Garmin GPSMAP 76 and the position coordinates recorded.

Similarly for the reconnaissance traverse across the Main Zone or Core Alteration Zone.

The following two tables summarize the sampling line statistics and the number of samples gathered on each line:

Table 8.4.1 Line & Sample Statistics, Target 1

Line Number	Stations Surveyed From-To	Line Length (m etres)	Number of Samples Dug	Comments
Line100 North	500 West – 1,200 East	1,200	16	See Figures17 & 19
Line 300 North	450 West – 550 East	1,000	21	See Figures 17 & 19
Line 500 North	400 West – 450 East	850	15	See Figures 17 & 19
	Totals -	**3,050**	**52**	

Table 8.4.2 Line & Sample Statistics, Main Target Zone

Line Number	Stations Surveyed From-To	Line Length (metres)	Number of Samples Dug & Assayed	Comments
Line 3100 North	81 + 00 East to 90 +00 East	900	17	Sample Spacing = 50 metres See Figures 18 & 20
Line 3100 North	90 + 00 East to 105 +75 East	1,575	28	Sample Spacing = 25 metres See Figure 18 & 21
Line 9600 East	34 + 00 North to 42+75 North	875	16	Sample Spacing = 25 metres See Figures 18 & 22
	Totals -	**3,350**	**61**	
	GRAND TOTAL	**6,400**	**113**	

Tables of GPS Readings

Table 8.4.3 GPS Readings
Line 100 North
UTM Zone: 09

Station	GPS Easting	GPS Northing
500 W	0627035	6625290
400 W	0622529	6625286
200 W	0627571	6625286
50 E	0627809	6625288
350 E	0628141	6625286
500 E	0628288	6625281
700 E	0628471	6625278

Table 8.4.4 GPS Readings
Line 300 North
UTM Zone: 09

Station	GPS Easting	GPS Northing
450 W	0627283	6625500
250 W	0627485	6625488
150 E	0627916	6625478
350 E	0628129	6625485
600 E	0628363	6625474
700 E	0628461	6625474

Table 8.4 5 GPS Readings
Line 500 North
UTM Zone: 09

Station	GPS Easting	GPS Northing
450 W	0627311	6625712
200 W	0627588	6625701
50 E	0627854	6625670
200 E	0627996	6625677
300 E	0628094	6625664
450 E	0628239	6625633

Table 8.4.6 GPS Readings
Line 3100 North
UTM Zone 09

Station	GPS Easting	GPS Northing
80 + 50 E	0628050	6223100
83 + 50 E	0628320	6223111
86 + 50 E	0628577	6223165
90 + 00 E	0628917	6223262
92 + 50 E	0629098	6223407
94 + 75 E	0629313	6223430
105 +50E	0629572	6223482

Table 8.4.7 GPS Readings
Line 9600 East
UTM Zone 09

Station	GPS Easting	GPS Northing
34 + 00 N	0629613	6223985
36 + 00 N	0629662	6223656
38 + 00 N	0629713	6223833
40 + 00 N	0629767	6224019
42 + 00 N	0629826	6224207

8.6 Sampling Procedures

Soil sampling was carried out by experienced geotechnicians familiar with the sampling specifications set out by the Developers of the Mobile Metal Ion assaying technique.

At each sampling site the field procedure was to first remove the organic material from the surface (A_0 Layer) followed by digging a pit over 25 cm deep using a shovel. Sample material was then scraped from the sides of the pit over a measured depth interval varying between 10 centimetres to 25 centimetres. About 250 grams of sample was collected and placed into a plastic Zip-loc sandwich bag with the sample coordinates marked thereon.

Upon completion of the soil sampling survey, samples were packaged and sent to SGS Minerals at 1885 Leslie Street, Don Mills, Ontario. SGS Minerals is one of the two laboratories in the world licenced to assay samples in accordance the proprietary MMI assay technique. The other laboratory, who developed the MMI method, is ALS-CHEMEX located in Perth, Australia.

8.7 MMI Assaying

Details of the MMI Assaying technique are propriety, and accordingly, full details as to the assaying process cannot be given. However a general description of procedures is provided.

At SGS Minerals in Toronto the assaying procedure begins by weighing a 50 gram sample into a plastic vial fitted with a screw cap. A 50 ml aliquot of MMI-M solution is added to the sample and the vial is closed. Groups of vials are then placed in trays which are placed into a mechanical shaker and shaken for 20 minutes. There are eight MMI leachants currently available of which the MMI-M leachant represents the 42-element extraction.

The MMI-M solution is a neutral mixture of leachant solutions which have been specially developed to selectively release adsorbed ions from the soil substrate without attacking or influencing the natural mineralization of the soil or specific substrates. The leachate solution is applied to the sample for a 20 minute retention time which effectively collects loosely bound ions of any of the 42 elements on the soil substrate and holds the ions in solution. The ion-pregnant solution is allowed to sit overnight and subsequently centrifuged for 10minutes. The solution is then diluted to 20 times by volume which represents an overall dilution factor 200 times. This diluted solution is then transferred to plastic test tubes from which aliquots are taken for analyses on Inductively Coupled Plasma-Mass Spectrograph (ICP-MS) instrumentation.

Results from the ICP-MS instrumentation is processed automatically with the recovered assay data loaded into the Laboratory Information Management System (LIMS). Following quality control analysis the data results are available in software format or hardcopy.

8.8 Data Preparation

Data was prepared for interpretation purposes in accordance with the recommendations made in Wamtech Pty. Ltd's Version 5.04 of the MMI Manual for Mobile Metal Ion Geochemical Soils Surveys.

Two key sets of data are utilized for interpretation purposes. The first is determination of **"Background Value"** followed by determination of **"Response Ratio".**

Background Value is defined as the arithmetical average of the lowest quartile (25%) population of assays of the element being assessed as to its probable significance.

Once the Background Value is known then each assay for that element is normalized in relationship to the Background Value to arrive at a **"Response Ratio"**
Response-Ratio is defined by dividing the assay value of each element by the

Background Value to arrive at a mixed number (an integer and a decimal component). Mixed numbers were rounded off to the nearest whole integer. Anomalous character was determined by the relative magnitude of **Response-Ratios** as shown in **Table 9.9-1.** An isopleth plot of Response Ratios for MMI Gold shows areas of anomalous interest at a glance. Of the 46 elements assayed 9 elements only are shown in coloured Histogram format. The assay results are shown in two groups at each sample point along each line. Au and Pb, elements of major interest, were plotted in contour format. The two groups are:

Group 1: **Cu, Ag, Au**, and **Co.**
Group 2: **Pb, Zn, Ce, Ni,** and **U.**

Whereas conventional geochemical assaying of soils will include metal content accumulated in the soils from both complex mechanical and chemical concentration from beyond the sample site, the MMI method measures only the upward dispersion of metal ions directly from the subcropping primary source of the metal.

The best indicator for a gold resource is still a gold anomaly hence this MMI survey is particularly focused on the gold assay results.

Response-Ratio isopleth boundaries were plotted based upon the rule of geometric progression with the isopleths separating the various anomalous categories.

8.9 MMI Survey Results

The following Background values are shown for the Chaco Bear Project. The Background values were determined by arithmetically averaging the lower quartile (25%) of the assay values for each of the respective elements.

Table 8.8.1; Background Assays of Selected MMI Elements

Item	Element	Chaco Bear Project Average Assay Value of Lower Quartile (Background) of Sample Population (ppb)
1.	Ag	4.4
2.	As	5.0
3.	Au	0.05
4.	Cd	5.1
5.	Ce	20.7
6.	Co	8.4
7.	Cu	186
8.	Mo	2.5
9.	Ni	11.5
10.	Pb	50
11.	U	4.9
12.	Zn	98

* Generally rounded off. Personal communication, D. G. Mark, P. Geo.

1- Population = 117 s amples

8.10 Defining Anomalous Classes & Plotting Results

Defining anomalous character is a relative issue. A high **Response-Ratio** under one set of geological and hydrothermal alteration conditions can be anomalous and warrants detailed follow-up as to the cause of the anomaly just as a low **Response-Ratio** under another set of geological and alteration conditions can be anomalous and warrants detailed follow-up as to the cause of the anomaly. However where an anomaly coincides with another anomaly, or several anomalies including but not limited to well defined geophysical, geochemical, geological, and alteration features, the MMI method essentially becomes another supporting vector as to the likelihood or probability that the target is highly prospective for the commodity sought.

The following, with minor modifications to facilitate contouring, is generally in accordance with the Wamtech Pty. Ltd's (Wamtech) 2004, Version 5.04 MMI Manual.

After determining the Response-Ratio of each target element a sample with a Response-Ratio of 2.5 units or less was arbitrarily chosen as background. Whereas the MMI Manual chooses 1.0 units as background.

Samples within the Response-Ratio range from 2.5 units to 5.0 units are considered to be within the anomalous threshold; but this selection was made only for contouring purposes. Samples with response ratios greater than 5 units could be considered significant depending upon the regolith/landform characteristics of the area and the sample spacing used for the survey. Wamtech cautions: *that due to the greater contrast inherent in the MMI technique Response Ratios in general need to be greater than 2 to 5 times background before being considered "anomalous".* If composite sampling has been employed **then Response-Ratios greater than 5.0 may be highly significant**. Obviously, this may change depending upon the overall distribution and magnitude of Response-Ratios in an area. For example some areas may have anomalous Au values at 10 whereas for another area the anomalous Au values may be those samples with a Response-Ratio greater than 20.

The above is not too different to the ideas of Robert Boyle, 1979, where he cited average specific Background values in soils, weathered residiuum and glacial materials as Au, (5ppb); Ag, (0.1 to 0.5 ppm); Cu, (20ppm); As, (7ppm); plus a host of other elements. He stated that values above 10 ppb Au and 0.7 ppm Ag are generally anomalous and should prompt the prospector to investigate the cause. Anomalous values of the indicator elements cannot be stated with any assurance since the dispersion and enrichments characteristics of the various elements vary so widely. However, **consistent values of 2 or 3 times the average abundance of the figures given above should receive attention.**

Therefore, as a first step to evaluate the results of the MMI survey the primary element of interest, Au was chosen and after inspecting the data Pb, was chosen because in some epithermal systems there is a correspondence between these two elements. Nine (9) separate elements were plotted in Histogram format.

Isopleth plotting intervals to define anomalous levels were chosen using the method of **geometrical progression** which best fits Boyle's idea and the ideas given in the MMI Manual. Geometrical progression is a sequence of numbers in which the ratio of a term to its predecessor is always the same. In this case a succeeding group of numbers which defines an anomalous interval is always nominally twice the preceding interval according to the following table. All anomalous intervals were plotted on the basis of this table.

Table 8.9.1; Table of Anomalous MMI Classes & Frequencies for Au, Pb, & Ce

Item	"Response Ratio" Class Boundaries	Anomalous Class	Frequency of Gold Assays	Frequency of Lead Assays	Frequency Of Cerium Assays
1.	0 – 2.5	Background	53	34	48
2.	2.6 – 5.0	Anomalous Threshold	29	24	22
3.	5.1 – 10.0	Anomalous	15	20	14
4.	10.1 – 20.0	Very Anomalous	17	15	18
5.	>20.1	Extremely Anomalous	9	20	11
		TOTALS -	**113**	**113**	**113**

As shown on the data sheets, all Response-Ratios are reported to the nearest second decimal place. For plotting purposes Response-Ratios were rounded off to the nearest whole integer.

Included in Table 9.9-1 are the frequencies of element populations for **Au, Pb** and **Ce.** Gold is of primary interest for this survey. The purpose of the table is to provide, at a glance, the frequency distribution of anomalous gold along with two elements that may be of interest, Pb and Ce. Because Backgrounds have been raised from a 1.0 Response Ratio unit to 2.5 Response Ratio unit there is an increases in the anomalous threshold area and a relative reduction in the population of each anomalous class.

Figures 6, 7 and **8,** inclusive, are histogram plots of calculated Response-Ratios for **Cu**, **Ag**, **Au** and **Co** for the three MMI survey lines at the Bearnx Zone. Similarly **Figures 9, 10**, and **11** are histogram plots of calculated Response-Ratios for **Pb**, **Zn**, **Ce**, **Ni** and **U** for the three survey lines at the Bearnx Zone.

Figures 12, and **14** are histogram plots of calculated Response-Ratios for **Cu**, **Ag**, **Au** and **Co** for the reconnaissance traverse across the Main Zone. Similarly **Figures 13** and **15** are histogram plots of calculated Response-Ratios for **Pb**, **Zn**, **Ce**, **Ni** and **U** for the reconnaissance traverse across the Main Zone.

The histogram plots provide easily recognizable patterns of the relative magnitudes of Response-Ratios for families of diagnostic elements and provide at a glance the areas of interest.

Figure **19** is an isopleth plot of gold only in the Bearnx Zone. It is in black and white and in colour.

Figures **20**, **21** & **22** are isopleth plots of Response-Ratios of each of gold, lead and cerium to demonstrate the extent and magnitude of the Au anomalous areas over the Main Zone and the visual relationship between gold, lead and cerium. The Main Zone has a large core area of intense hydrothermal alteration as shown in Figure **23**.

Figure 20 Gold, Cerium & Lead Assay Plans, Main Zone Reconnaissance Line 3100 North, MMI Geochemical Survey

Figure 21 Gold, Lead & Cerium Assay Plans, Main Zone, Part of Line 3100 North, MMI Geochemical Survey

Figure 22 Gold, Cerium & Lead Assay Plans, Reconnaissance Line 9600 East, MMI Geochemical Survey

Figure 23 Gold Anomalies with Coincident Lead Anomalies Discovered by Mobile Metal Ion (MMI) over Large Hydrothermally Altered Area (Main Zone) at the Chaco Bear Project

8.11 Discussion of Results

8.11.1 Response–Ratio Histograms

The following are Response-Ratio histograms produced as a result of the Mobile Metal Ion Geochemical Survey at the Chaco Bear Project:

Figure 6 MMI Soil Sampling, Line 100 North, Response-Ratio Histogram for Cu, Ag, Au, Co

Figure 7 MMI Soil Sampling, Line 300 North
Response-Ratio Histogram for Cu, Ag, Au, Co

Figure 8 MMI Soil Sampling, Line 500 North
Response-Ratio Histogram for Cu, Ag, Au, Co

Figure 9 MMI Soil Sampling, Line 100 North
Response-Ratio Histogram for Pb, Zn, Ce, Ni, U

Figure 10 MMI Soil Sampling, Line 300 North
Response-Ratio Histogram for Pb, Zn, Ce, Ni, U

Figure 11 MMI Soil Sampling, Line 500 North
Response-Ratio Histogram for Pb, Zn, Ce, Ni, U

Figure 12 MMI Soil Sampling, Line 3100 North
Response-Ratio Histogram for Cu, Ag, Au, Co

Figure 13 MMI Soil Sampling, Line 3100 North
Response-Ratio Histogram for Pb, Zn, Ce, Ni, U

Figure 14 MMI Soil Sampling, Line 9600 East
Response-Ratio Histogram for Cu, Ag, Au, Co

Figure 15 MMI Soil Sampling, Line 9600 East
Response-Ratio Histogram for Cu, Ag, Au, Co

General consensus appears to support the MMI theory that mobile metal ions accumulate in surface soils above mineralization with mobile metal ions migrating vertically and accumulating in the surface soils and accordingly as stated in the MMI technical literature: *"Because the ions have recently arrived to the surface they provide a precise 'signal' on where ore-bodies are."* The writer would modify this sentence to read: ***"Because the ions have recently arrived to the surface they provide a precise 'signal' on where mineralization in place will be found at depth".***

By only measuring the mobile metal ions in the surface soils, MMI geochemistry will produce very sharp responses (anomalies) ***directly over the source of mobile metal ions.*** *The source is mineralization at depth which emit metal ions which make up that mineralised body.*

8.11.2 Gold Response-Ratios

As all of the **gold** MMI Response-Ratio results are accompanied by **silver** MMI responses the source of the subcropping gold is diagnosed as primary.

8.11.3 MMI Gold Anomalies

Gold is anomalous almost over the entire Core Alteration Area (Main Zone) west of Driftwood Creek and for at least 200 metres east of Driftwood Creek. The high amplitude gold anomalies within this zone include MMI Gold Anomalies 1, 2 & 3. A fourth gold anomaly, MMI Gold Anomaly 4 was discovered at the end of the traverse. See **Figures 20, 21, 22,** and **23.**

8.11.4 MMI Lead Anomalies

By inspection there is a positive correspondence of lead with gold over all of the extremely anomalous gold zones identified in the Main Zone. Anomalous lead either corresponds directly with anomalous gold or is contiguous with the anomalous gold on either one or both sides.

Acording to Boyle, 1979, lead is a common associate of gold in many types of its deposits, especially in epithermal deposits. In Boyle's publication "the Geochemistry of Gold and It's Deposits", Schwartz, p141, is quoted "that galena is a particularly good indicator of high grade gold shoots in a relatively large number of gold-quartz and other types of auriferous deposits. This is attributed to the fact that galena and gold are frequently the last minerals in the paragenetic sequence and hence the two often occur together or in close relationship.

According to Henley et al, 1984, p121, the solubility of lead at 280°C after boiling is 100 times less than the solubility of the original 300°C solution; consequently boiling has been shown to be the most efficient process known for depositing lead compared with other much less efficient processes. Accordingly as lead often accompanies gold in the paragenetic sequence in epithermal systems (as well as other systems) its presence in direct association with gold in an epithermal environment should be indicative of bonanza gold potential but is found at and below the boiling zone associated with the base metal portion of the epithermal system consistent with the epithermal gold model of Buchanan.

8.11.5 MMI Cerium Anomalies

Cerium is anomalous throughout the Main Zone and by inspection of the Histograms appears to have a positive correlation with anomalous gold.

Cerium, Atomic Number 58, is a rare earth element considered as a non-compatible element which is expelled from the magmatic melt during the fractionation process. In this case, at Chaco Bear, it is in all probability derived from a highly fractionated felsic magmatic system which is consistent with the complex magmatic system observed at Chaco Bear.

This MMI survey shows that an empirical relationship exists between cerium and gold in this magmatic system. Geochemists consider a number of economic metals including base and precious metals to be non-compatible elements.

8.11.6 MMI Response Ratios & MMI Anomalies

For the purposes of this report, MMI **gold**, and **lead** are the target elements of interest because they forecast the probability or possibility of epithermal bonanza gold deposits as being an integral part of this large alteration system.

Hence the following isopleth maps were plotted to show the relationship of the gold, lead and cerium over the Main Zone

Figure 20	Gold, Cerium & Lead Assay Plans Main Zone, Reconnaissance Line 3100 North, MMI Geochemical Survey
[Figure 20-Colour]	Gold, Cerium & Lead Assay Plans Main Zone, Reconnaissance Line 3100 North, MMI Geochemical Survey
Figure 21	Gold, Lead & Cerium Assay Plans, Main Zone Part of Line 3100 North MMI Geochemical Survey
[Figure 21-Colour]	Gold, Lead & Cerium Assay Plans, Main Zone Part of Line 3100 North MMI Geochemical Survey
Figure 22	Gold, Cerium & Lead Assay Plans, Reconnaissance Line 9600 East MMI Geochemical Survey
[Figure 22-Colour]	Gold, Cerium & Lead Assay Plans, Reconnaissance Line 9600 East MMI Geochemical Survey
Figure 23	Gold Anomalies with Coincident Lead Anomalies Discovered by Mobile Metal Ion (MMI) Geochemical Survey Over Large Hydrothermally Altered Area (Main Zone) at the Chaco Bear Project

8.11.8 Silver MMI Response Ratios

As shown in the histograms, silver response-ratios accompany and correspond with **all** gold Response-Ratios. Accordingly the source of the gold is diagnosed as primary.

8.11.9 Other Elements within the MMI Assay Data Set

The other elements assayed by the MMI technique but not reviewed in this report, will be of use for an in-house study as to their possible/probable significance.

8.11.10 Observations

According to the geoscientists who developed the MMI technique and whom are most knowledgeable about its anomalous implications, the anomalous MMI gold Response Ratios along with supporting silver MMI Response Ratios as are shown in the enclosed Response Ratio Histograms for these elements, are indicative of primary gold mineralization in place, at an unknown depth, precisely below each respective gold anomaly.

Corroboration that the MMI technique is an effective method for detecting concealed, near surface, epithermal style mineralization was recently published by Cook, S., and Dunn, C. in 2007 in their British Columbia Geoscience Paper 2007-7. They found that the MMI technique provides a superior level of base metals **contrast** over known gold mineralization and the MMI technique showed positive responses for gold as well as several relevant base metals such as Pb, Zn, and Cd in near surface soils over the concealed veins.

The Mobile Metal Ion (MMI) survey conducted at the Chaco Bear Project in the Fall of 2007 tested two targets both of which exhibit epithermal gold character at surface. Target 1 was the Bearnx Zone and Target 2 was the Main Zone. The Bearnx Zone MMI results were disappointing. However the Main Zone MMI results are most encouraging.

The Main Zone MMI survey was a reconnaissance traverse from west to east over intensely altered andesitic and felsic volcanics. The start point of the survey was the western contact zone of an intensely altered felsic volcanic which occupies a large part of the valley as shown in **Figure 23**. Other notable geological features in the area include a hydrothermally altered milled matrix fluidised breccia pipe approximately 350 metres (1,100 feet) north of the start point of the survey and a heavily pyritized volcanic flow breccia which is coincident with VLF-EM7 Anomaly. There are large areas of felsic volcanics within the altered zone that are so extensively hydrothermally altered that the protolith is destroyed and replaced by a porous assemblage of finely disseminated pyrite, quartz, and sericite alteration.

All of the VLF Electromagnetic (EM) anomalies discovered by Suncor in 1986 were replotted and correlated with the gold and lead anomalies discovered by this MMI survey. Most all of the VLF-EM anomalies traversed by the MMI geochemical survey were found to be anomalous in gold and lead. An exception was VLF-EM3 as it was anomalous in gold and zinc.

On the East Ridge above the unconformity or contact zone between the upper rhyolite and the lower andesite, the extrusive rhyolite is up to 300 metres thick. This is shown in **Figure 23**.

It was on the east slope of the East Ridge that the Geological Survey of Canada, G. S. Lord, 1948, reported that "Many small veinlets of chalcopyrite, pyrite, galena sphalerite, specularite, crustified quartz and calcite fragments were seen in talus fragments… Some of these occurrences are reported to contain appreciable amounts of gold." The crustified quartz would indicate that these veins are the low-sulphidation epithermal type.

Although outcrop is relatively sparse over the Main Zone, where there is outcrop numerous narrow gold-copper-silver bearing veins pervade the area. Similarly where the ferricrete is eroded to expose the underlying altered felsic volcanics veins have intruded the felsics. Veins up to 1.5 metres in width are occasionally encountered but their strike lengths are short. So far the veins are too widely spaced to be economic. Many of the veins are brecciated and contain chalcopyrite, specularite and malachite. These veins have assayed up to 16.5% Cu, 0.82 oz/t Au and 13.4 oz/t Ag.

Where exposed in the Gossan Zone, in rock exposed below the Ferruginate Zone by erosion, and within the altered felsic volcanics where exposed, narrow mineralised veins are are found separately and clustered together. Accordingly it is speculated that the veins at some locations could coalesce into larger veins or a stockworks zone at depth

On the western slope of the East Ridge which converges at the valley bottom with Driftwood Creek; the higher elevations are mostly bare outcrop.

One of the more interesting vein structures encountered to date was found in the meadow area southwest of Rusty Lake. It is a vuggy quartz-breccia vein containing specular hematite with quartz in the hematite with the quartz containing free gold. The vein is diagnosed as the top of a high-sulphidation epithermal mineralizing system which should be fully preserved to depth.

The MMI Survey over the Main Zone showed the presence of four strong MMI gold anomalies which indicates gold deposits will be found at depth immediately below each respective gold anomaly.

The largest and strongest is Gold Anomaly 1 which is located at the westernmost edge of the Core Zone of intensely altered felsic volcanics. MMI Gold Anomaly 1 is categorized as extremely anomalous and is accompanied by an extremely anomalous MMI lead anomaly. The zone is close to 300 metres (1,000 feet) in width and averages 51 MMI gold Response Ratio units which could be economically significant at depth. A coincident MMI lead anomaly is 200 metres in width and averages 155 MMI lead Response Units. The combined anomaly is found at Line 3100 North between Stations 81+50E and 83+50E.

Gold accompanied by lead is a classic bonanza gold signature where boiling has occurred. In the simplest case, the bonanza gold precipitates at and above the boiling zone and the accompanying base metal sulphides precipitate at and below the boiling zone as shown by the Buchanan Model in 1981.

MMI gold Anomaly 2, categorized as extremely anomalous, is an estimated 80 metres (250 feet) in width and is accompanied by extremely anomalous MMI lead anomalies contiguous with the gold along its east and west contact zones. This MMI gold-lead system is coincident with VLF-EM7 anomaly hence in terms of probabilities this Electromagnetic Anomaly contains significant sulphides. VLF-EM7 anomaly is coincident with a heavily pyritized volcanic flow breccia at its north end. The gold anomaly occupies a single station at 87+50E with two strong contiguous lead anomalies located at Station 87+00E and 88+00E.

MMI Gold Anomaly 3, categorized as extremely anomalous, is immediately east of Driftwood Creek. It consists of two parallel zones; one at Station 92+25E and one at 92+75E. The one closest to the creek has a maximum MMI gold Response Ratio of 30 units and is estimated at 25 metres in width. It coincides with an MMI lead anomaly about 50 metres in width which averages 26 MMI lead Response Ratio units. The gold anomaly furthest east of the creek at Station 92+75E coincides with an MMI lead anomaly estimated at 25 metres in width and averages 36 MMI lead Response Ratio units.

MMI Gold Anomaly 4, categorized as very anomalous to extremely anomalous is found at the north end of MMI Survey Line 9600 East. It has an approximate width of 120 metres (400 feet). It is accompanied by a coincident MMI lead anomaly that could be between 80 and 160 metres in width. This location at the end of Line 9600 East is the projected location of the pre-mineral Upper Driftwood Fault mapped by P. B. Read in 1997 in which case the fault could be either mineralised at this location or was the conduit that focused mineral bearing fluid flow into a deposit site below the MMI gold anomaly.

VLF-EM3 electromagnetic anomaly deserves some attention. It coincides with the strongest MMI Zinc Anomaly of the entire MMI survey. The zinc Response-Ratio here is 174 units. Two very anomalous gold Response-Ratio anomalies are contiguous with the zinc on its east flank. Combined width is estimated at 75 m. See Histograms 12 & 13 and Figure 23.It is worth mentioning that the writer conducted a reconnaissance induced polarization survey over VLF-EM1 anomaly in 1992. Here the southern end of the survey discovered a high chargeability zone growing in chargeability strength with depth which indicates that this anomaly contains either semi-massive of massive sulphides at depth.

Bearnx Zone. There are gold bearing veins in the Bearnx Zone but they are narrow and have short strike lengths. One narrow vein grab-sampled by Suncor in 1986 assayed 0.23 ounces per ton gold and 3 ounces per ton silver. This MMI survey identified three gold anomalies on the west half of the survey grid which have no correlation with the manganese in soil anomaly. The only gold anomaly that stands out is found between the base-line and Station 0+50E on Line 100 north and this anomaly has a strong copper association. This location is a mineralised shear zone shown in Figure 16 that was drilled, without success, by Imperial Metals Corporation. Eight diamond drill holes tested the shear zone with Hole CB96-1 providing the best assay of 6,78 m of 0.45 g/t Au, 5.61 g/tAg and 0.60% Cu.

The only gold anomaly in the Bearnx Zone that has a significant lead association is at the western-most Station 5+00 West of Line 100 North. The only recommendation that can be made is that these gold anomalies be prospected when personnel are available in the field to determine their significance.

8.11.11 Porphyry Related Low Sulphidation Gold Systems

In terms of probabilities the gold anomalies at the Chaco Bear Project are low sulphidation epithermal and that the epithermal gold is porphyry related.

Corbett and Leach summarized it aptly in their description, abbreviated by the writer, of "Porphyry-Related Low-Sulphidation Systems":

"During the upsurge of gold exploration in the 1980's it became difficult to place many southwest Pacific gold deposits types in the existing classification with the result that the group of gold deposits formerly described as epithermal were subdivided as porphyry-related low-sulphidation gold deposits according to crustal level of formation and relationship to the porphyry resource. The deposit types varied from the deepest porphyry levels to intermediate or mesothermal depths. Telescoping is common, and overprinting of alteration zonations may locally obscure the boundaries."

Essentially, diagnosing epithermal gold deposits is a complex issue and much geoscientific work remains to be done at the Chaco Bear Project before this apparent complex gold mineralizing system can be both classified and understood.

8.11.12 Summary

According to Mutschler and Mooney, 1993, local rock anomalous in gold in the ppb level is the only universal geochemical guide to gold ore. Correspondingly, anomalous MMI gold anomalies with accompanying silver are indirect indicators of gold deposit sites at depth vertically below the respective anomalies according to the technical experts who developed the MMI assaying detection technique.

SGS Minerals of Toronto who developed the MMI technology, provide the following interpretation of the Mobile Metal Ion mechanism: ***By only measuring the mobile metal ions in the surface soils, MMI geochemistry will produce very sharp responses (anomalies) directly over the source of mobile metal ions. The source is mineralization at depth which emit metal ions which make up that mineralised body.***

Of the approximately 1.05 km of MMI sampling on Line 3100 North from the start location about 350 metres south of the breccia pipe and continuing from there down to Driftwood Creek; 800 linear metres (2,600 feet) of this zone is anomalous in gold. The gold anomaly has a nearly one to one correspondence in anomalous lead. Hence along the section sampled almost the entire alteration zone is anomalous in gold and represents primary gold in place at depth. The MMI gold zone extends approximately another 200 metres (650 feet) east of Driftwood Creek; hence the potential gold bearing zone is at least 1,000 metres (3,280 feet) in length and could. Accordingly there could be room enough in this area for several productive gold deposits to be found.

A large part of the core alteration zone is covered by a 3 to 4 metre thick section of ferricrete. The acidity of this material would be expected to be such that any metals either transported to the ferricrete site or percolate upwards from a bedrock deposit site below the ferricrete would be carried away from the area in acidic solution. This explains why conventional geochemistry was not effective in identifying base metal anomalies as did the MMI geochemical survey in that part of the ferricrete zone that overlies the altered felsic volcanics. One good example was the absence of a conventional geochemical anomaly over the classic VLF-EM4 Anomaly which is covered by a thick layer of ferricrete; whereas it appears that this MMI survey has identified a coincident gold and lead anomaly where the MMI traverse crossed VLF-EM4 electromagnetic anomaly next to Driftwood Creek.

The fact that the MMI survey was capable of detecting several elements in the ferruginate zone above the Main Zone (the altered felsic volcanics) and that the MMI high amplitude responses show anomalous continuity and anomalous correspondence between more than one element and between anomalous elements and VLF electromagnetic anomalies is simple confirmation that the MMI method is a viable procedure for exploration for concealed mineralization within underlying geology when covered by ferruginate.

Generally, the MMI technique has produced significant anomalies on the Chaco Bear Project where earlier geochemical work was only partially successful at identifying potentially significant anomalies.

A large part of the core alteration zone shown in Figure 23 has been subject to an intense and prolonged period of hydrothermal activity described by Read, 1997 as "so extensively hydrothermally altered that the protolith is destroyed and replaced by a porous alteration assemblge of quartz+sericite+ finely disseminated pyrite. This alteration zone is reminiscent of the top level, or acid leached zone of a potentially productive epithermal or mesothermal precious metals mineralising event. **In a few places the acid leached zone has been eroded sufficiently to reveal intensely silicified andesites**. Strata-bound zones of silicification are known to underlie acid leached zones found at the top of **high-sulphidation** and **low-sulphidation** epithermal gold producing systems; especially where permeable and porous host rocks such as volcaniclastics and tuffs form part of the lithology.

In reiteration several mineralised vein styles have been found in the core alteration zone but perhaps the most prominent vein system are the vuggy quartz veins with grey massive specular-hematite containing free gold in quartz in the specularite. These veins are diagnostic of high-level high-sulphidation epithermal magmatic hydrothermal activity which indicates that the high sulphidation epithermal system encountered here is fully preserved. Similarly, but somewhat more speculatively, the probable low sulphidation epithermal gold system identified by this MMI survey over the Main Zone is concealed below the surface which would also indicate that the low sulphidation gold system is fully preserved. There are several examples within the circum-Pacific area where both high-sulphidation and low sulphidation gold deposits are found in close proximity.

Fully preserved epithermal gold systems of both styles can often extend to great depths and be highly productive.

The discovery of the MMI gold anomalies in the Main Zone at the Chaco Bear Project has resulted in a significant increase in the prospectivity for the discovery of epithermal gold deposits within this large hydrothermal mineralising system.

SECTION 9.0 — EXPLORATION POTENTIAL

The tectonic environment is within the Stikinia Terrane and is comprised of an alkalic volcanic succession which geological data indicates is highly potassic, or shoshonitic. The succession is probably coeval with an identified magmatic centre in the central part of the property.

The local environment is fully transitional. At surface, veins containing gold, silver, and copper mineralization show characteristics of both low-sulphidation and high sulphidation origin; mineralized felsic dikes and pink leucogranite clasts in rhyolite tuffs and flows belie the presence of an underlying porphyry intrusive. In terms of probabilities there is the likelihood of the discovery of three distinct ore types in close proximity and part of the same mineralizing system, and includes: a low-sulphidation epithermal gold deposit; a high-sulphidation epithermal copper-gold deposit and a gold-rich porphyry copper deposit.

Perhaps the most notable gold-rich alkalic porphyry copper deposit in Stikinia, discovered in the early 1960's, is the Galore Creek gold-rich alkalic porphyry copper deposit.

Notwithstanding, in January 2004, at the "Cordilleran Roundup", the Geological Survey of Canada (GSC) poster session announced new research results for the Chaco Bear area. In summary, the GSC stated: ***"Uppermost Hazelton Group strata in North McConnell Creek map area although Callovian age are lithologically similar to (and in the same stratigraphic position as) strata which host the Eskay Creek Au, Ag deposit on the west side of the Bowser Basin."***

<u>**Galore Creek**</u>

The Galore Creek alkalic gold rich porphyry copper deposit is located about 100 miles northwest of Smithers, British Columbia. Discovered in 1955 it was only in recent years that the project was re-evaluated for its copper and gold potential. A feasibility study completed in 2006 showed proven and probable reserves at 540.7 million tonnes grading 0.557% Cu, 0.303 grams/tonne Au and 5.32 grams/tonne Ag. Today's in-the-ground value of this mineral inventory is estimated at more than US$23 billion.

Production was planned to begin in 2009 with a 65,000 tonne per day processing facility with annual production forecast at 432 million pounds of copper and 400,000 ounces gold. However, recent capital cost projections show the cost of project development to be extremely high resulting in putting the project on hold.

Eskay Creek

At the Eskay Creek Au, Ag deposit the mine's 21B Zone precious metals deposit, prior to production, had a mineral inventory of 1.19 million tons grading 1.91 ounces Au per ton and 85.5 ounces Ag per ton which represented 2.27 million ounces of gold and approximately 102 million ounces of silver. It is one of the world's richest gold and silver deposits ever discovered that is presently being mined. The pre-mining in the ground value of Eskay Creek, at today's prices, would exceed US$2.5 billion. It is one of the world's richest gold and silver deposits ever discovered that is presently being mined.

SECTION 10.0 — COST STATEMENT

10.1 Summary

1.	Project Planning & Field Drawings		910.00
2.	Mobilization/Demobilization		3,120.00
3.	Field Personnel Wages & Room and Board		8,500.00
4.	Helicopter Support		13,288.00
5.	Assaying		4,285.00
6.	Data Reduction & Preparation		840.00
7.	Report & Drawing Preparation		9,990.00
	TOTAL	**$**	**40,933.00**

10.2 Project Planning & Field Drawings

1.	Project Planning & Discussions with D. G. Mark, P. Geo. of Geotronics Consulting Inc. 28 July 2007; J. M. Ashton , P. Eng. 7 hours @ $70 -	490.00
2.	Drawings, E.B. Catapia 7 hours @ $60 -	420.00
	Sub-Total	**910.00**

10.3 Mobilization/Demobilization

Mobilization/Demobilization of Field Crew;
18th & 25th September 2007
Kevin Graber, Peter Hope, Gavin Rose, and
Jahan Jahanshahi from Vancouver to Silver Creek
& Silver Creek to Vanderhoof

1.	Wages	1,700.00
2.	Room & Board	480.00
3.	Truck Rental and Gasoline	940.00
	Sub-Total	**3,120.00**

10.4 Field Personnel

MMI Geochemical Survey & Grid
Emplacement Crew
19th, 20th, 21st, 22nd, 23rd, & 24th September 2007
Kevin Graber, Peter Hope
Gavin Rose, Jahan Jahanshahi
Wages & Room & Board

5 days @ $1,700 per day -	8,500.00
Sub-Total	**8,500.00**

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10.5 Helicopter Support

Interior Helicopters Ltd.		
Helicopter, Fuel & Oil		
12 Hours @ $925.00 per hour -		11,100.00
Fuel & Oil -		2,188.00
	Sub-Total	**13,288.00**

10.6 Assaying

Shipping of Samples -		190.00
Multi-element MMI assaying of soil samples		
117 samples @ $35.00 per sample -		4,095.00
	Sub-Total	**4,285.00**

10.7 Data Reduction, Preparation & Interpretation

D.G. Mark, P. Geo.		
12 hours @ $70.00 -	**Sub-Total**	**840.00**

10.8 Report Preparation

1.	Jun, July, Aug, Sept, Dec 2007	
	January, 2008	
	J.M. Ashton, P. Eng.	
	11 days @ $560 per day -	6,160.00
	T. Hronsky	
	1 day @ $560 per day	560.00
	A. Juhas, Ph.D. 4 hours @$100	400.00
2.	CAD Drawing & Data Tables	
	E.B. Catapia, C. Tech	
	24 hours @ $60.00	1,440.00
3.	Word Processing, Collation	
	S. Apchkrum: 24 hours @ $45.00 -	1,080.00
4.	CAD Processing & Report Reproduction	
	CAD Processing, Drafts, & Report & Drawing Reproduction	350.00
	Sub-Total	**9,990.00**

SECTION 11.0 — CERTIFICATION OF J. M. ASHTON, P. Eng

I, J. M. Ashton, of Suite 1750, 1177 West Hastings Street, Vancouver, British Columbia, hereby certify that:

1. I am a Consulting Electrical Engineer and principal in J. M. Ashton & Associates Ltd., Consulting Electrical Engineers. I also provide professional services in mineral exploration as a Mineral Explorationist.

2. I am a graduate of the University of British Columbia with a B. A. Sc. in Electrical Engineering (1966).

3. I am a member in good standing, as a Professional Engineer, in the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

4. I am a member of the Canadian Institute of Mining and Metallurgy.

5. I have practised as: a Mineral Explorationist, performing significant work related to all aspects of mineral exploration with a focus on geophysics; and as consulting electrical engineer; since 1969.

6. This report was prepared by me.

J. M. Ashton, P. Eng.

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — J. M. ASHTON

Dated this 29th day of January 2008
Vancouver, British Columbia

SECTION 12.0 – CERTIFICATION OF D. G. MARK, P. Geo.

I, David G. Mark, of the City of Surrey, in the Province of British Columbia, do hereby certify:

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

2. I am a graduate of the University of British Columbia with a Bachelor of Science in Geophysics (1968).

3. I am a member in good standing, as a Professional Geoscientist, in the Association of Professional Engineers and Geoscientists of British Columbia.

4. I have been practising my profession for the past 39 years and have been active in the mining industry for the past 42 years.

5. The field work for the gridline preparation and Mobile Metal Ion (MMI) geochemical survey described in this report was carried out by qualified Geotronics Consulting Inc. personnel under my supervision as Project Manager.

6. I provided data preparation services and technical consulting services to J. M. Ashton, P. Eng., pursuant to the preparation of this report.

7. I concur with the MMI geochemistry and conventional geochemistry conclusions in this report.

David G. Mark, P. Geo.

Dated this 29th day of January 2008
Vancouver, British Columbia

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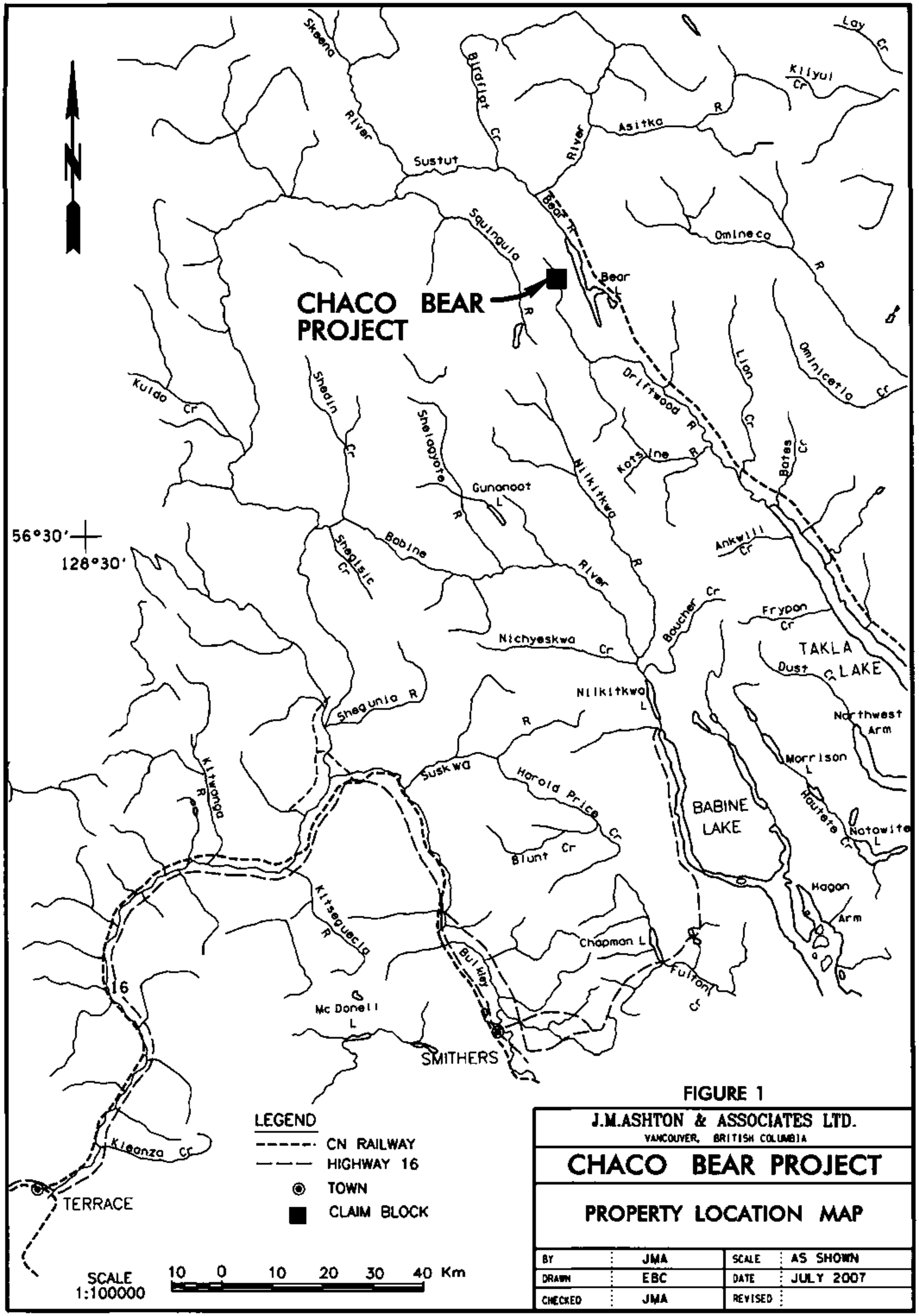
Figures


CHACO BEAR PROJECT
Skeena River
Sustut
Birdflat Cr
Asitka R
Kliyul Cr
Lay Cr
River
Bear R
Squingula R
Bear L
Omineca R
Ominicetla Cr
Lion Cr
Driftwood R
Kuldo Cr
Shedin Cr
Sheloayote R
Gunanoot L
Nilkitkwa R
Kotsine R
Bates Cr
Ankwill Cr
56°30′
128°30′
Babine River
Sheglsic Cr
Boucher Cr
Frypan Cr
TAKLA LAKE
Dust Cr
Nichyeskwa Cr
Nilkitkwa L
Shegunia R
Northwest Arm
R
Suskwa
Harold Price Cr
Morrison L
Kitwanga R
BABINE LAKE
Hautete Cr
Natowite L
Blunt Cr
Hagan Arm
Kitseguecla R
Chapman L
Bulkley
Fulton Cr
16
Mc Donell L
SMITHERS
Kleanza Cr
TERRACE
LEGEND
CN RAILWAY
HIGHWAY 16
TOWN
CLAIM BLOCK
SCALE 1:100000
10 0 10 20 30 40 Km
FIGURE 1
J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA
CHACO BEAR PROJECT
PROPERTY LOCATION MAP
BY : JMA
DRAWN : EBC
CHECKED : JMA
SCALE : AS SHOWN
DATE : JULY 2007
REVISED :

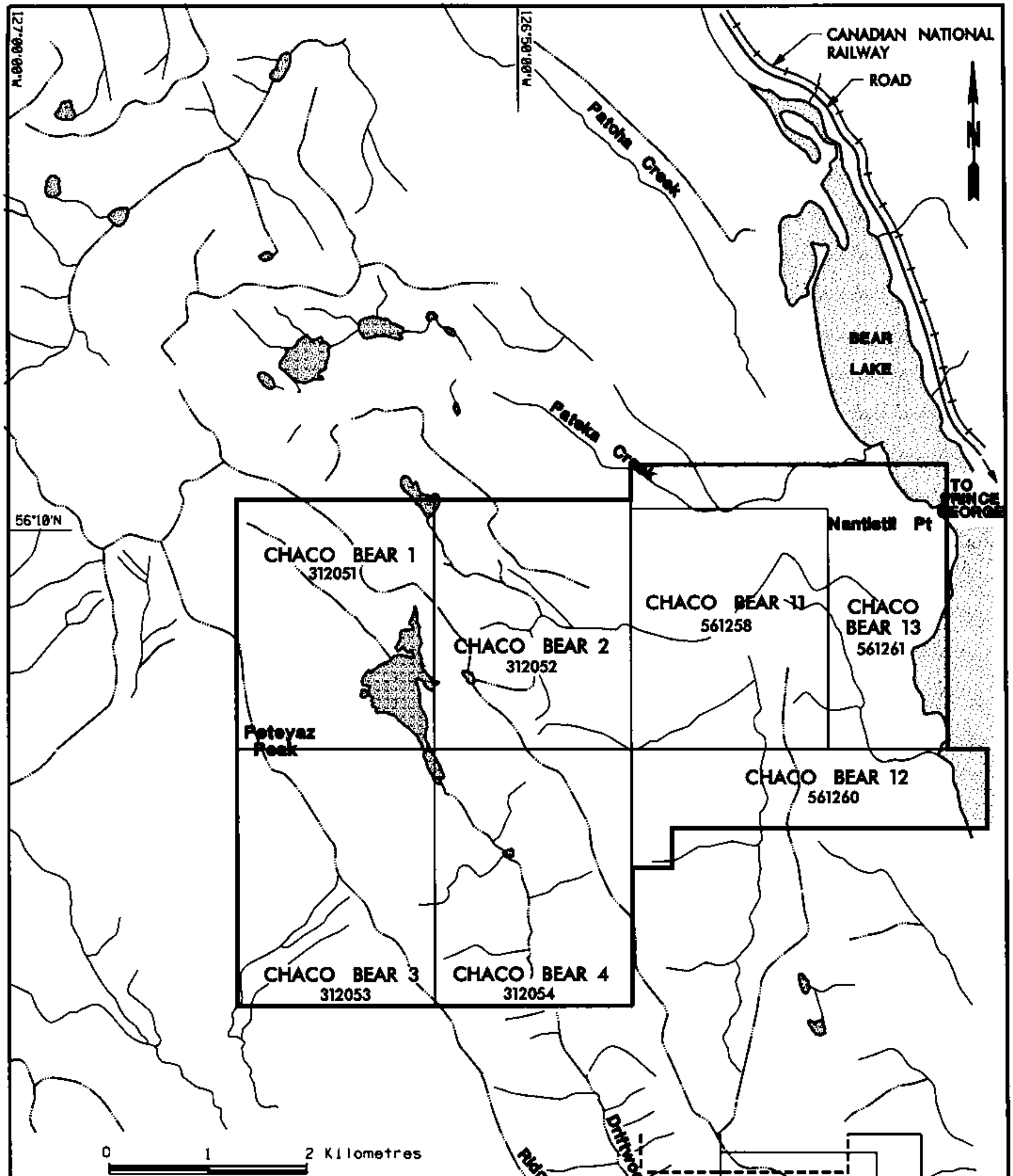


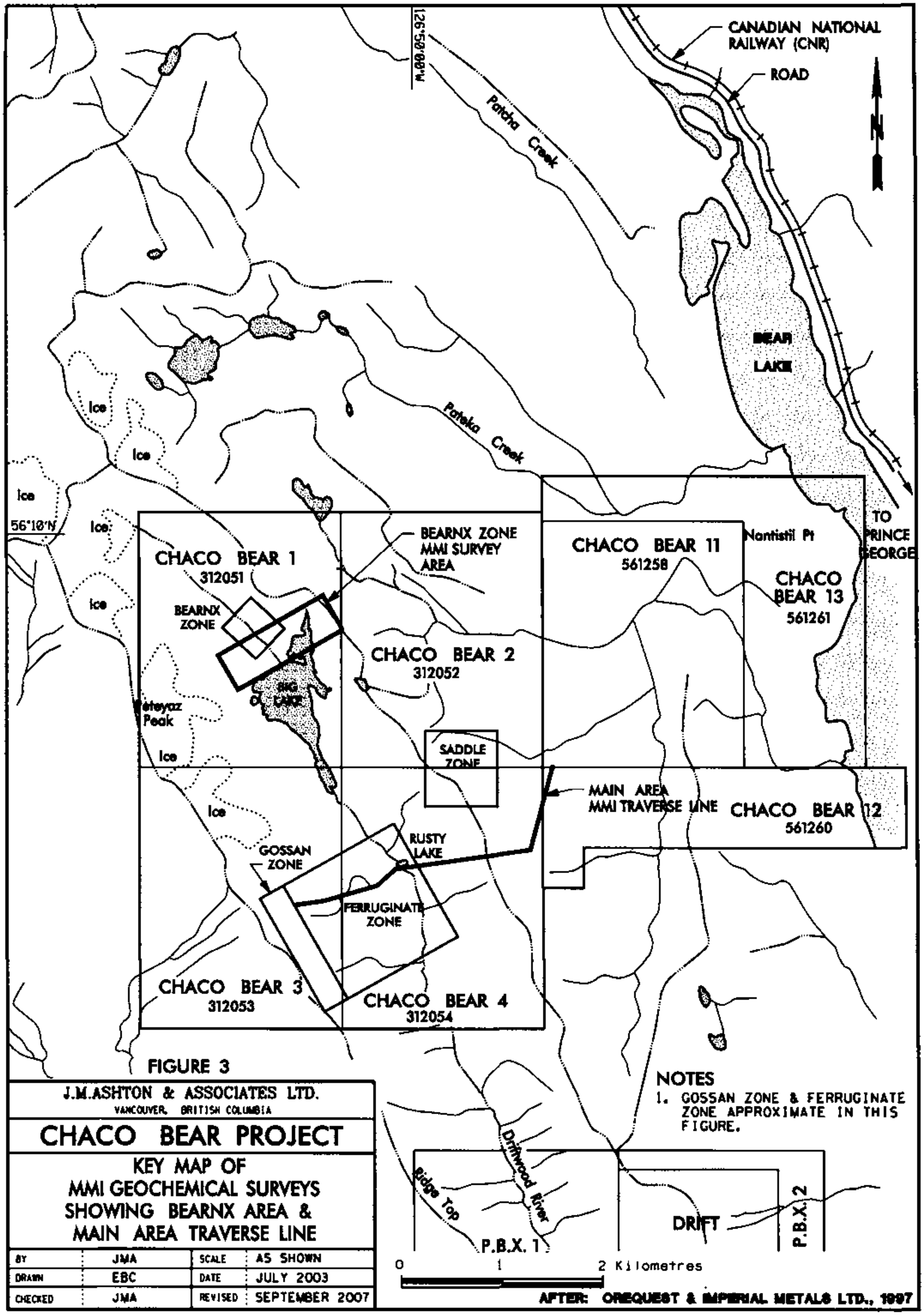
FIGURE 2

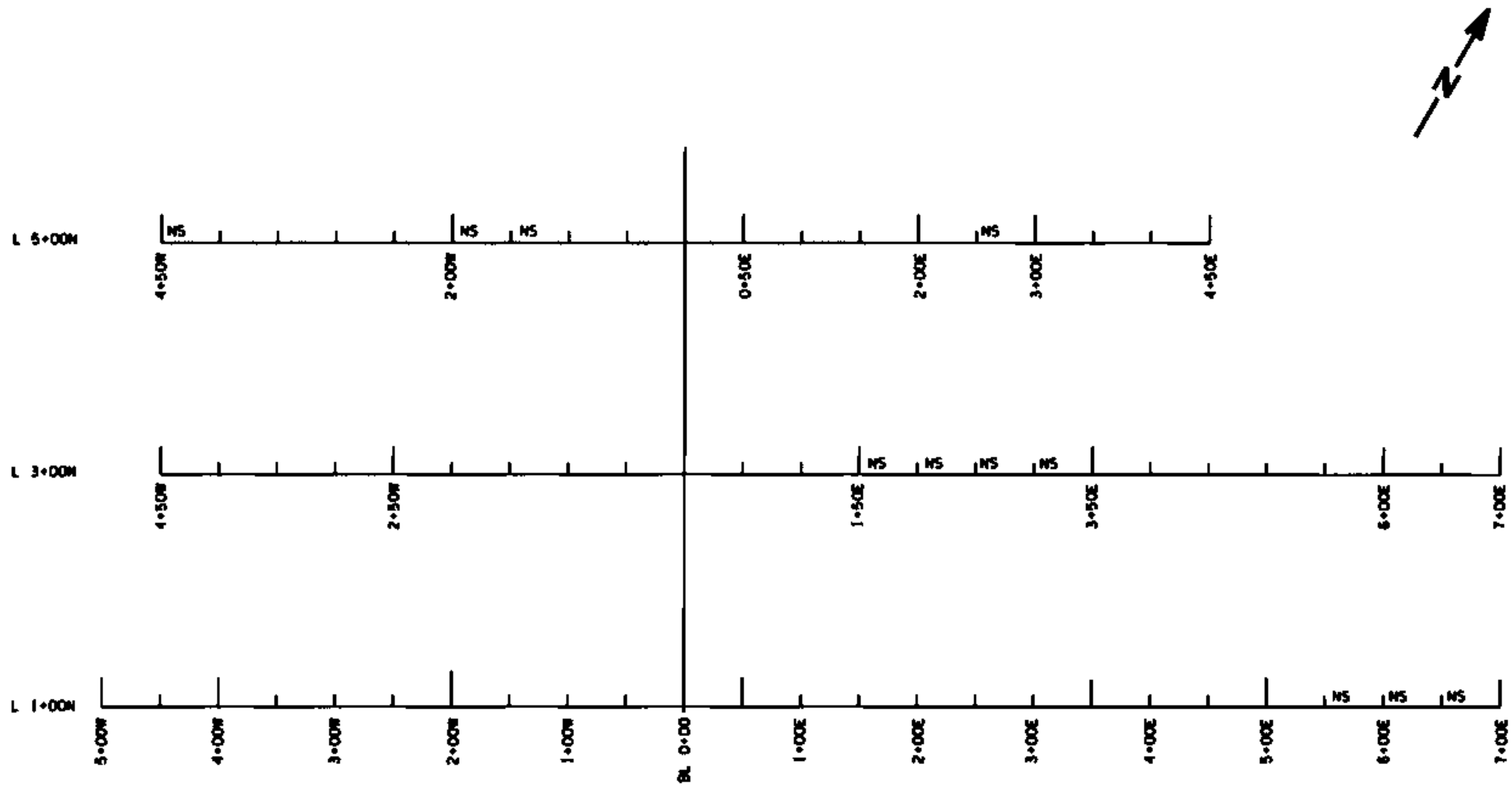
J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

CHACO BEAR PROJECT

CLAIM MAP

BY	JMA	SCALE	AS SHOWN
DRAWN	EBC	DATE	JULY 2007
CHECKED	JMA	REVISED	


CANADIAN NATIONAL RAILWAY (CNR)
ROAD
N
126°50'00"W
Patcha Creek
Pateka Creek
BEAR LAKE
Ice
Ice
Ice
Ice
Ice
Ice
Ice
56°10'N
TO PRINCE GEORGE
Nontistil Pt
CHACO BEAR 1
312051
BEARNX ZONE MMI SURVEY AREA
BEARNX ZONE
CHACO BEAR 2
312052
CHACO BEAR 11
561258
CHACO BEAR 13
561261
BIG LAKE
Peak
SADDLE ZONE
MAIN AREA MMI TRAVERSE LINE
CHACO BEAR 12
561260
RUSTY LAKE
GOSSAN ZONE
FERRUGINATE ZONE
CHACO BEAR 3
312053
CHACO BEAR 4
312054
FIGURE 3
J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA
CHACO BEAR PROJECT
KEY MAP OF
MMI GEOCHEMICAL SURVEYS
SHOWING BEARNX AREA &
MAIN AREA TRAVERSE LINE
BY : JMA
SCALE : AS SHOWN
DRAWN : EBC
DATE : JULY 2003
CHECKED : JMA
REVISED : SEPTEMBER 2007
NOTES
1. GOSSAN ZONE & FERRUGINATE ZONE APPROXIMATE IN THIS FIGURE.
Driftwood River
Ridge Top
P.B.X. 1
P.B.X. 2
DRIFT
0
1
2 Kilometres
AFTER: OREQUEST & IMPERIAL METALS LTD., 1997



SCALE 1:4,000 40 0 40 80 120 160 METRES

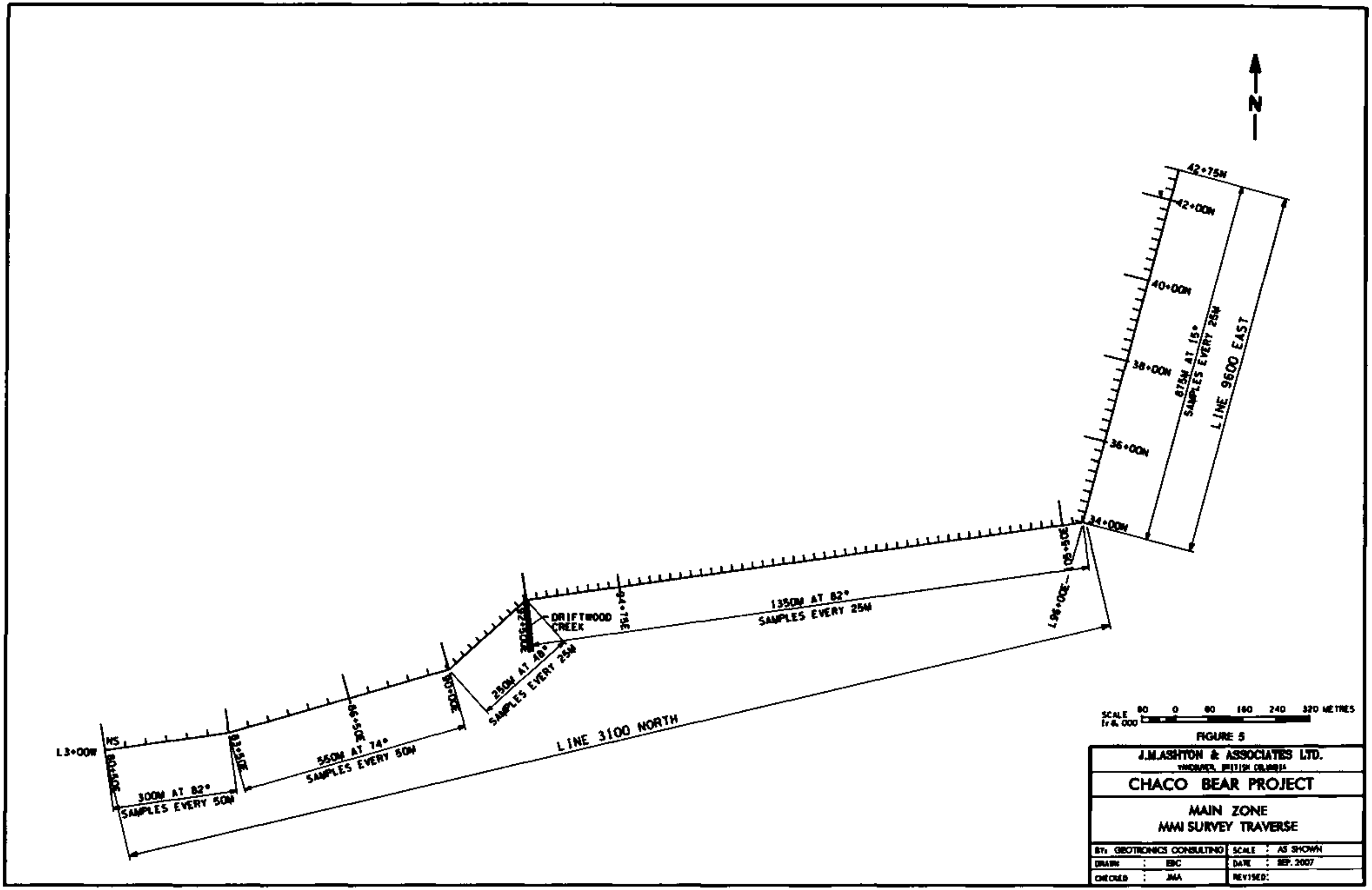
FIGURE 4

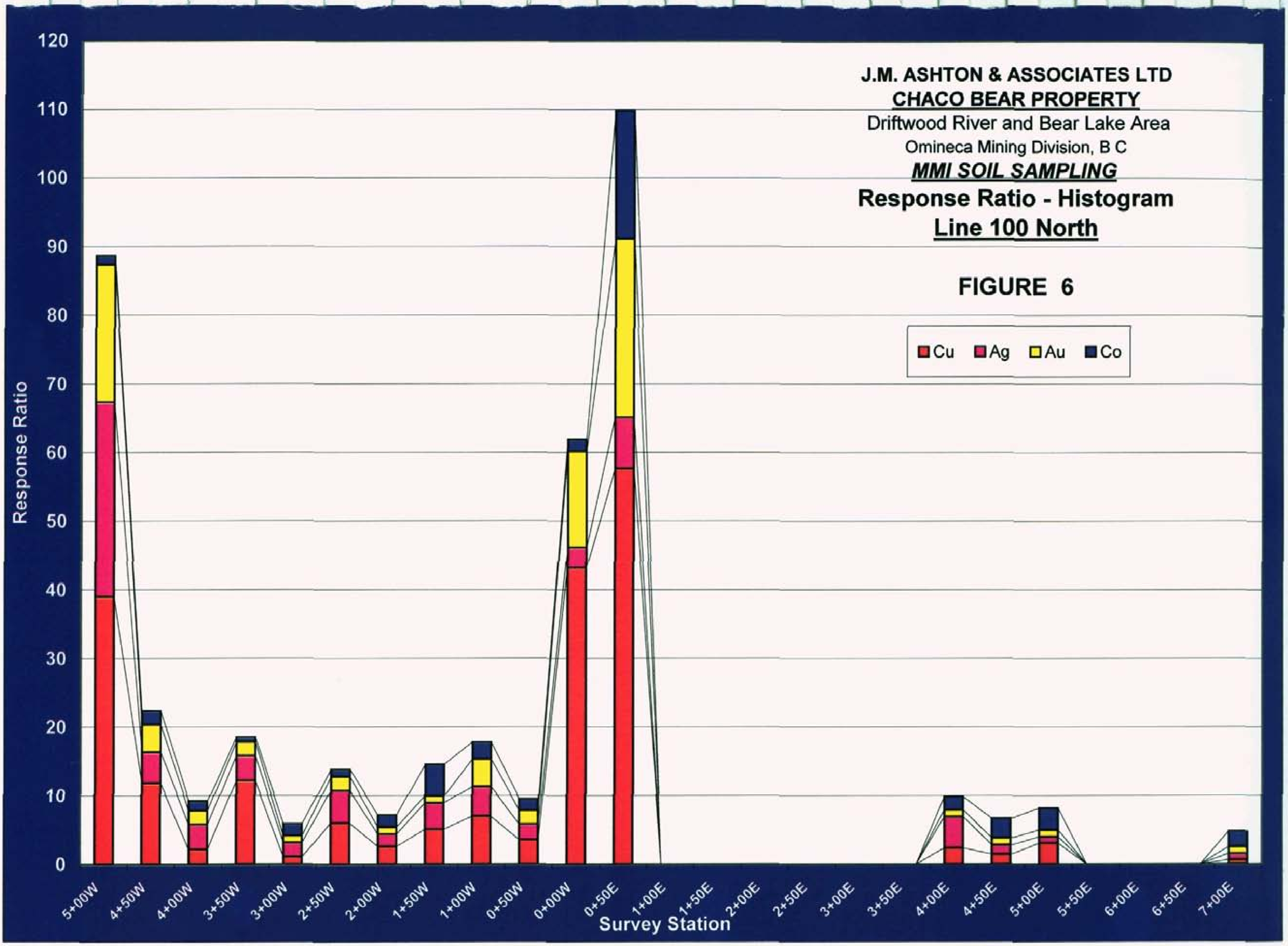
J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

CHACO BEAR PROJECT

BEARNX ZONE
MMI SURVEY GRID

BY:	GEOTRONICS CONSULTING	SCALE:	AS SHOWN
DRAWN:	EBC	DATE:	SEP. 2007
CHECKED:	JMA	REVISED:	


N
42+75N
42+00N
40+00N
38+00N
36+00N
34+00N
875M AT 15°
SAMPLES EVERY 25M
LINE 9600 EAST
1350M AT 82°
SAMPLES EVERY 25M
DRIFTWOOD
CREEK
250M AT 48°
SAMPLES EVERY 25M
550M AT 74°
SAMPLES EVERY 50M
300M AT 82°
SAMPLES EVERY 50M
LINE 3100 NORTH
L3+00W
NS
SCALE
1:8,000
80 0 80 160 240 320 METRES
FIGURE 5
J.M.ASHTON & ASSOCIATES LTD.
CHACO BEAR PROJECT
MAIN ZONE
MMI SURVEY TRAVERSE
BY: GEOTRONICS CONSULTING
SCALE : AS SHOWN
DRAWN : EBC
DATE : SEP. 2007
CHECKED : JMA
REVISED:



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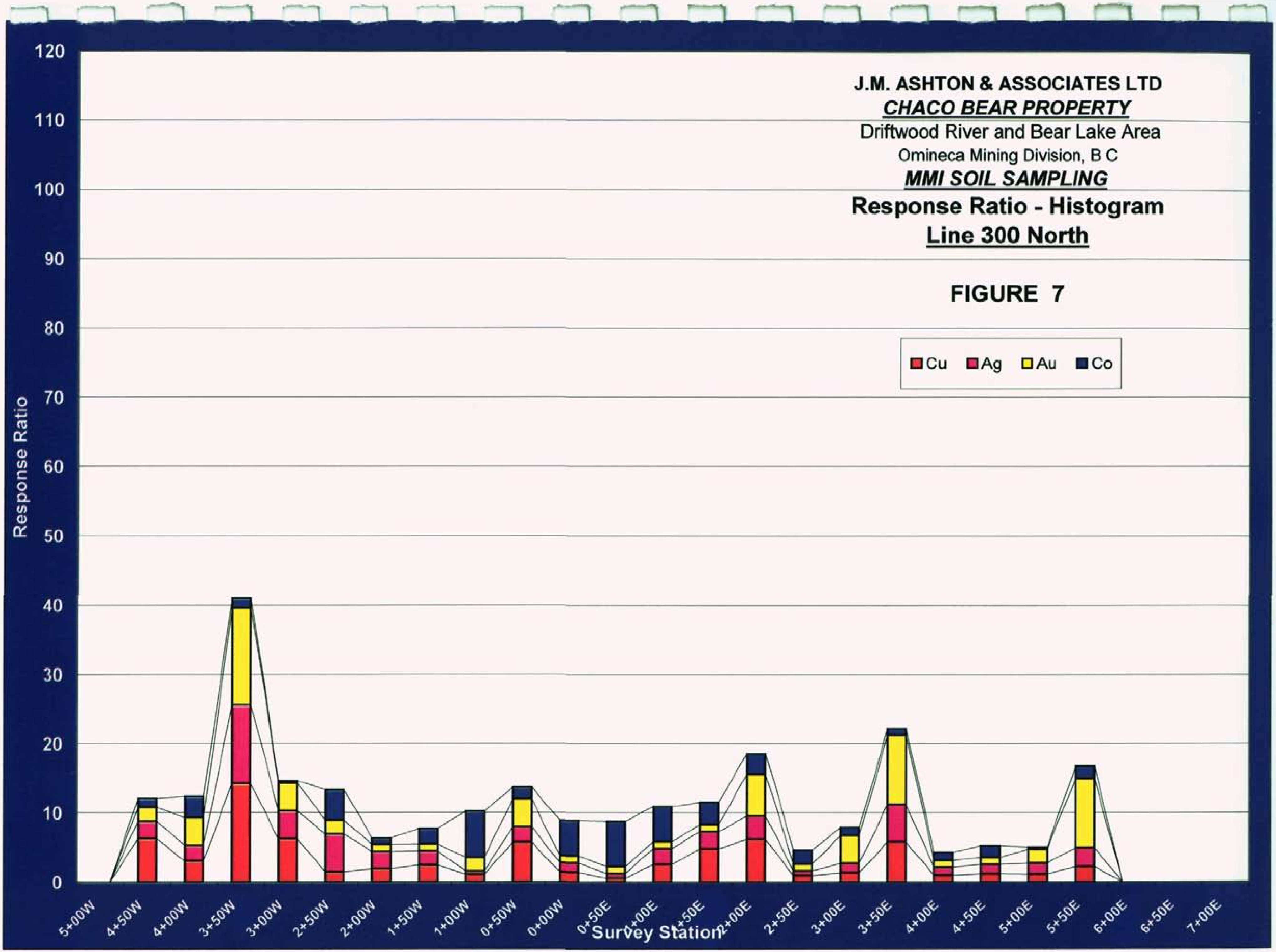

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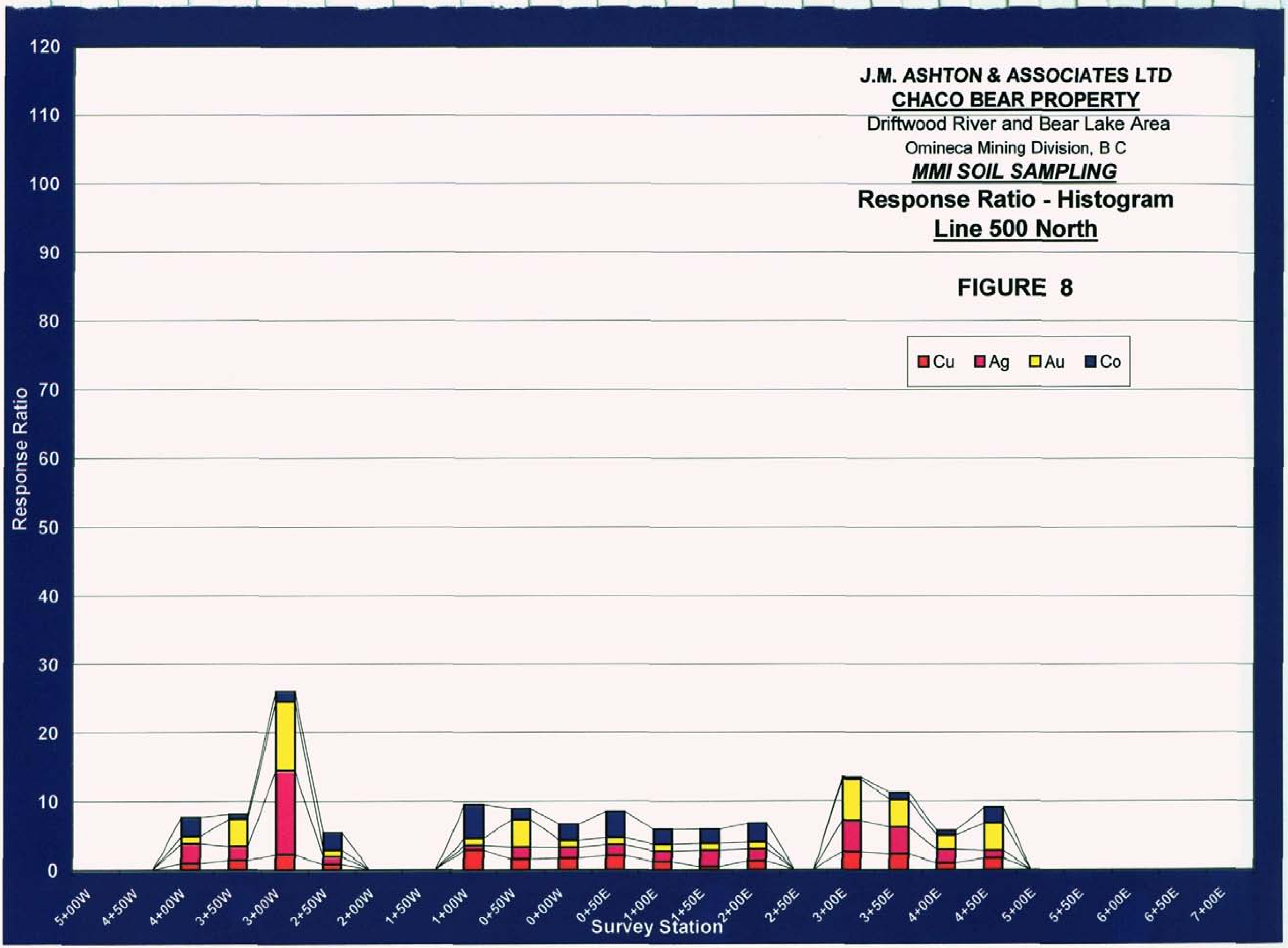

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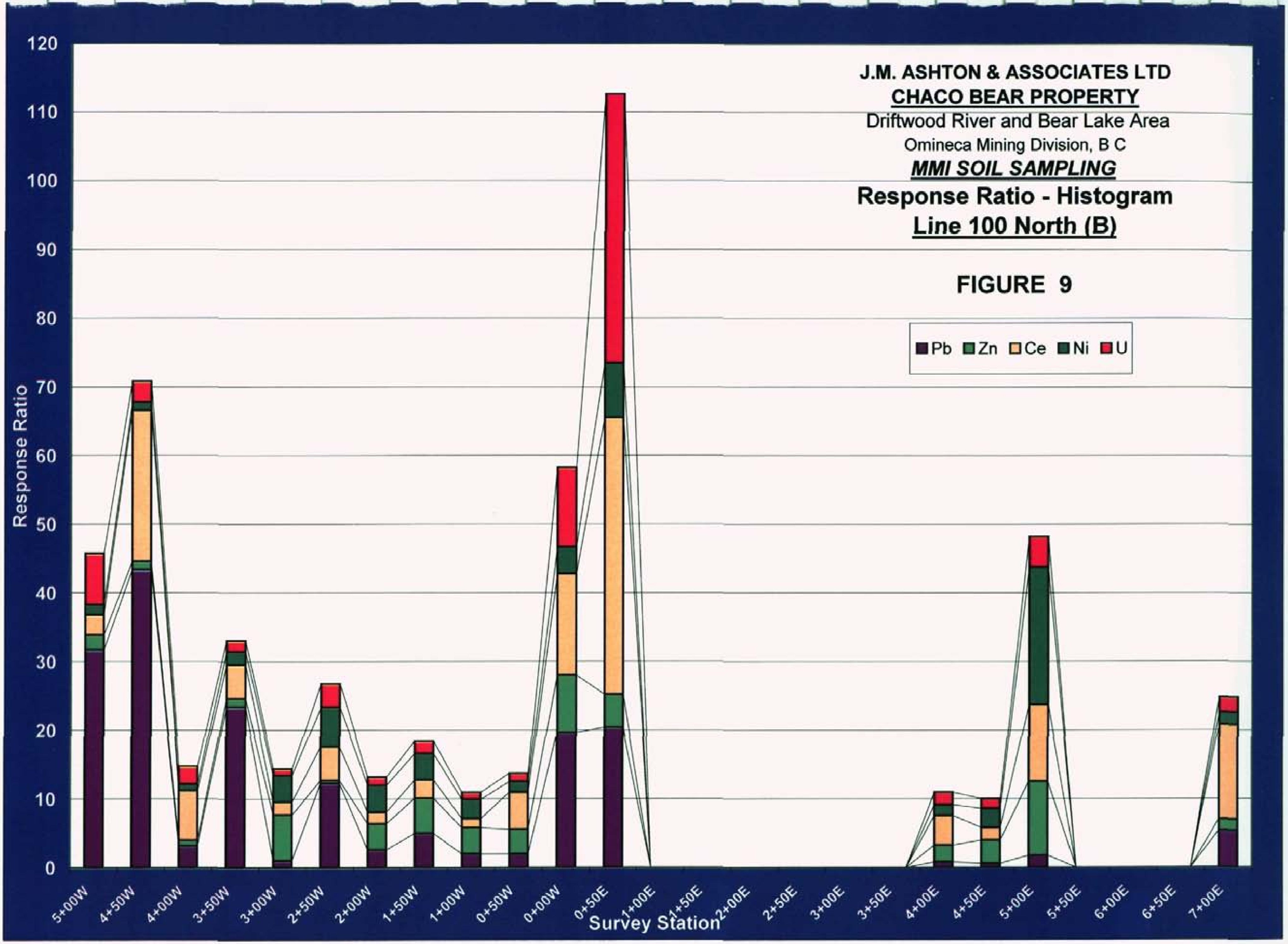

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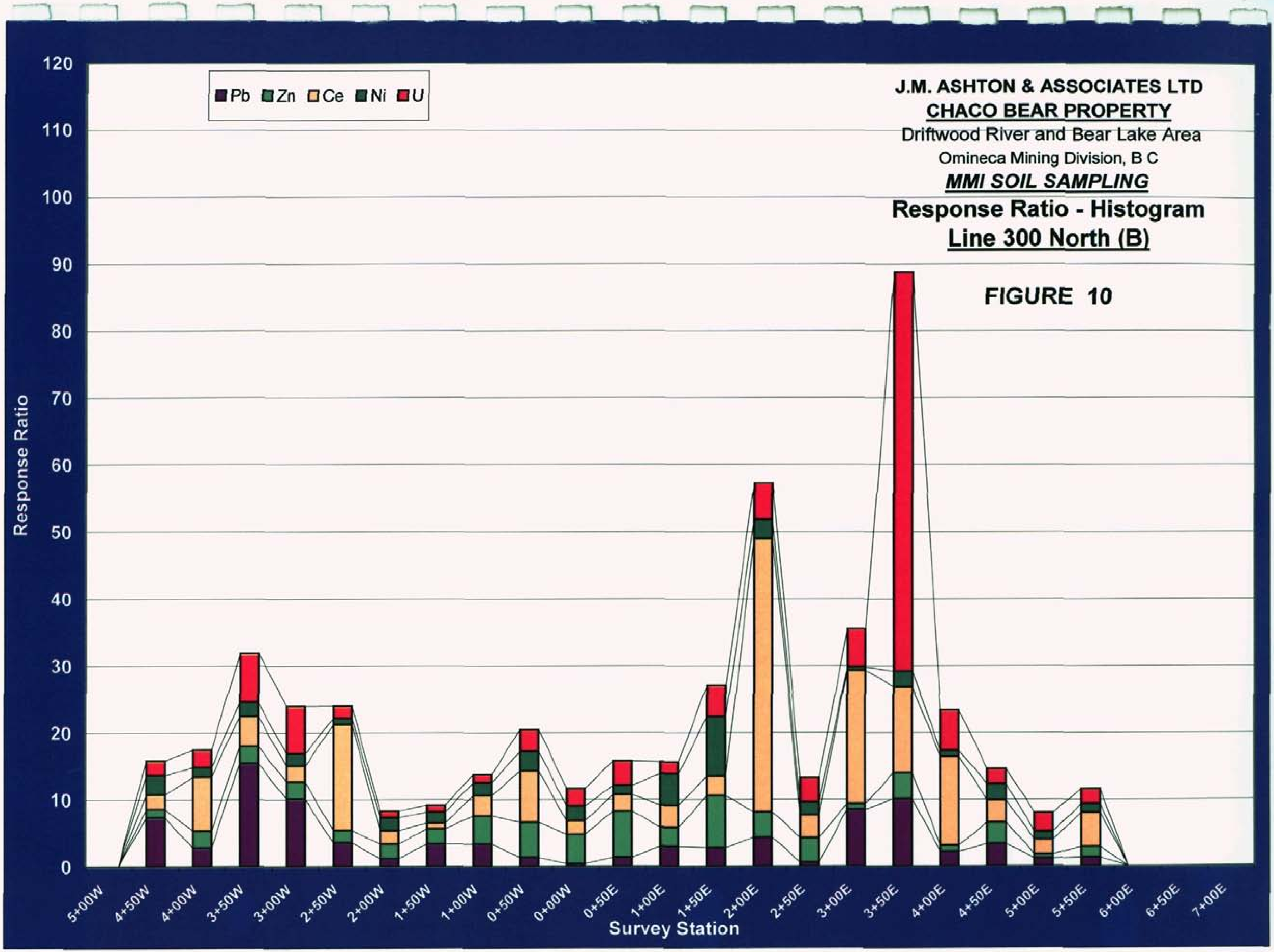

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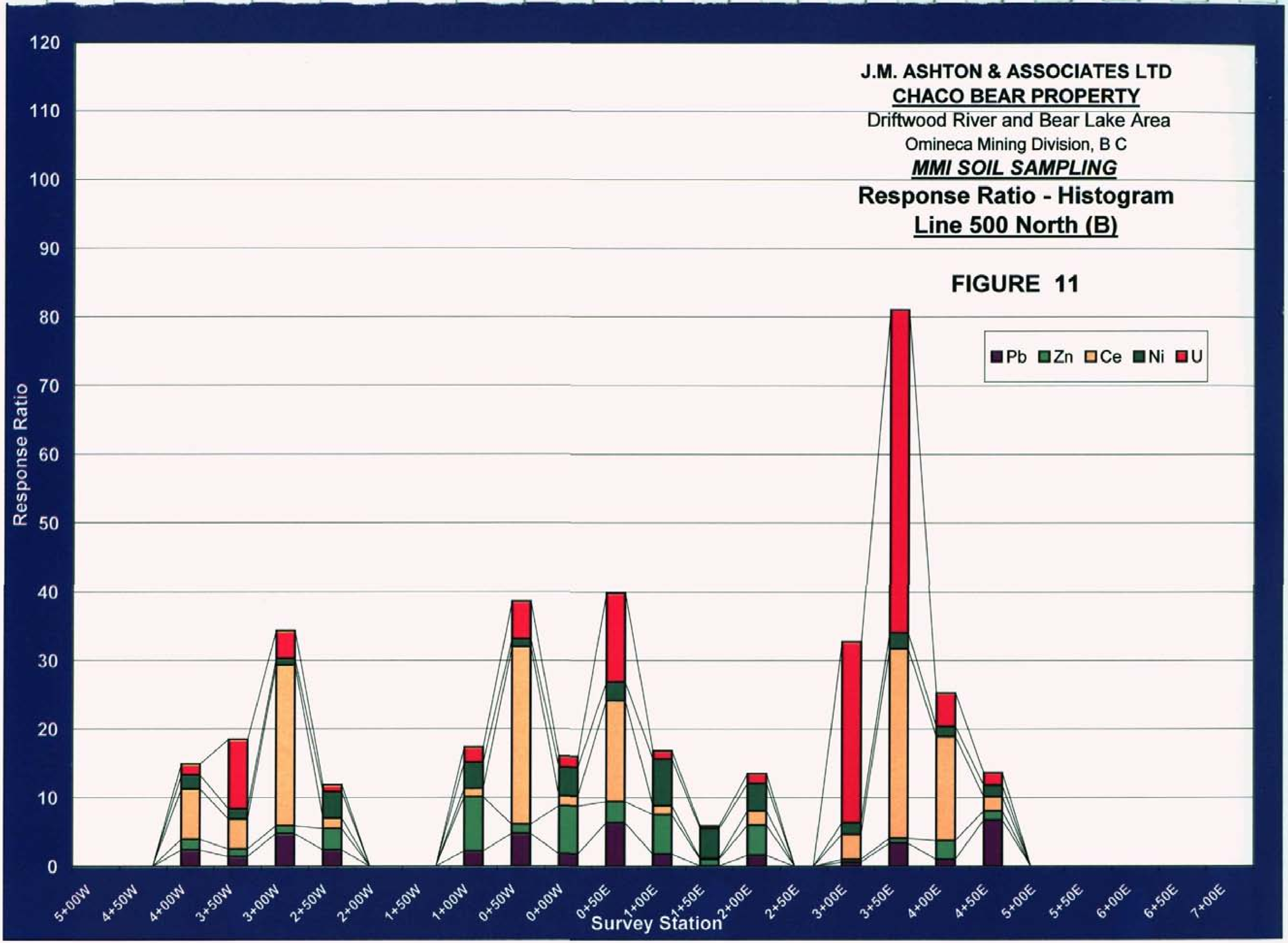

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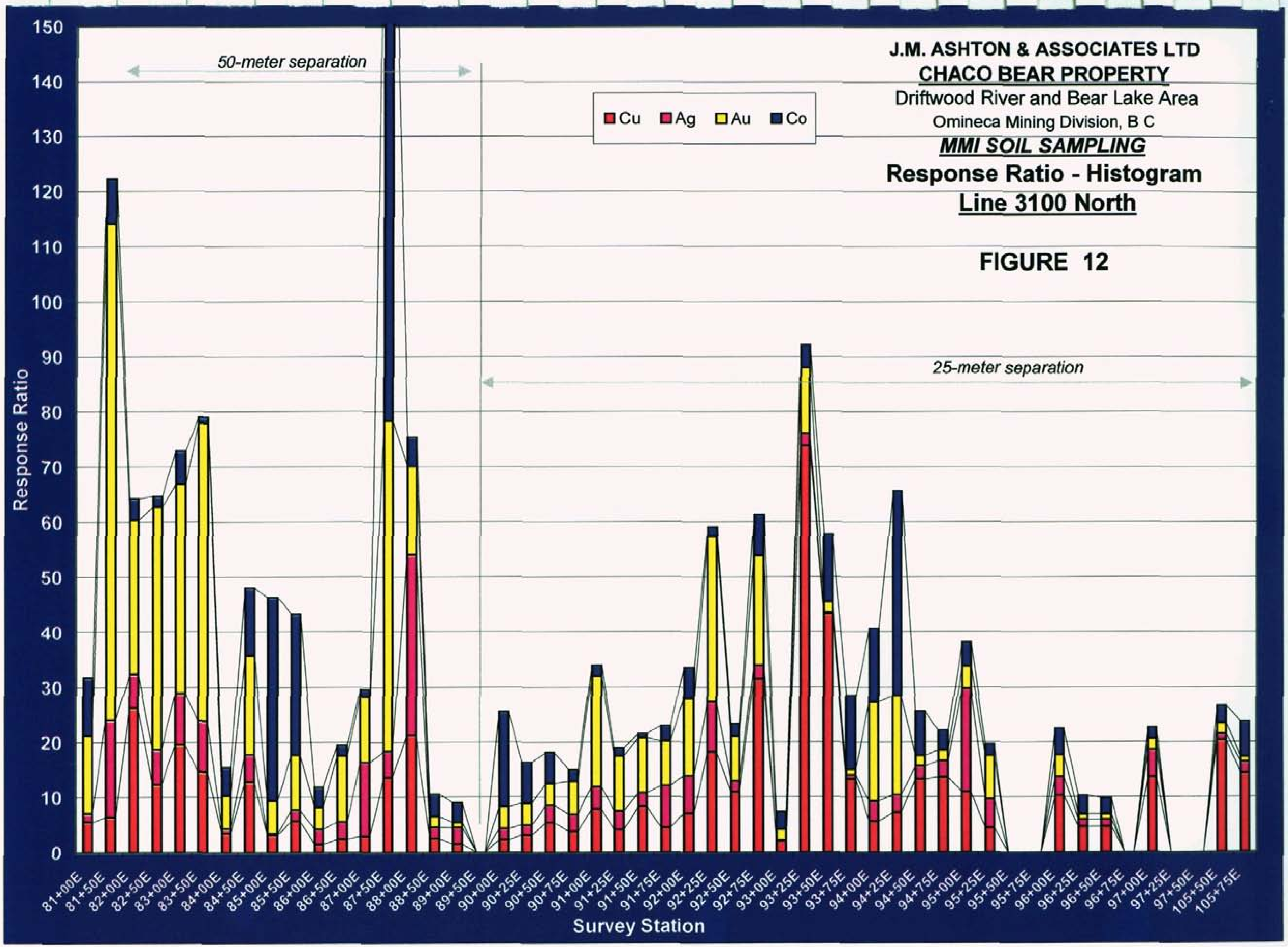

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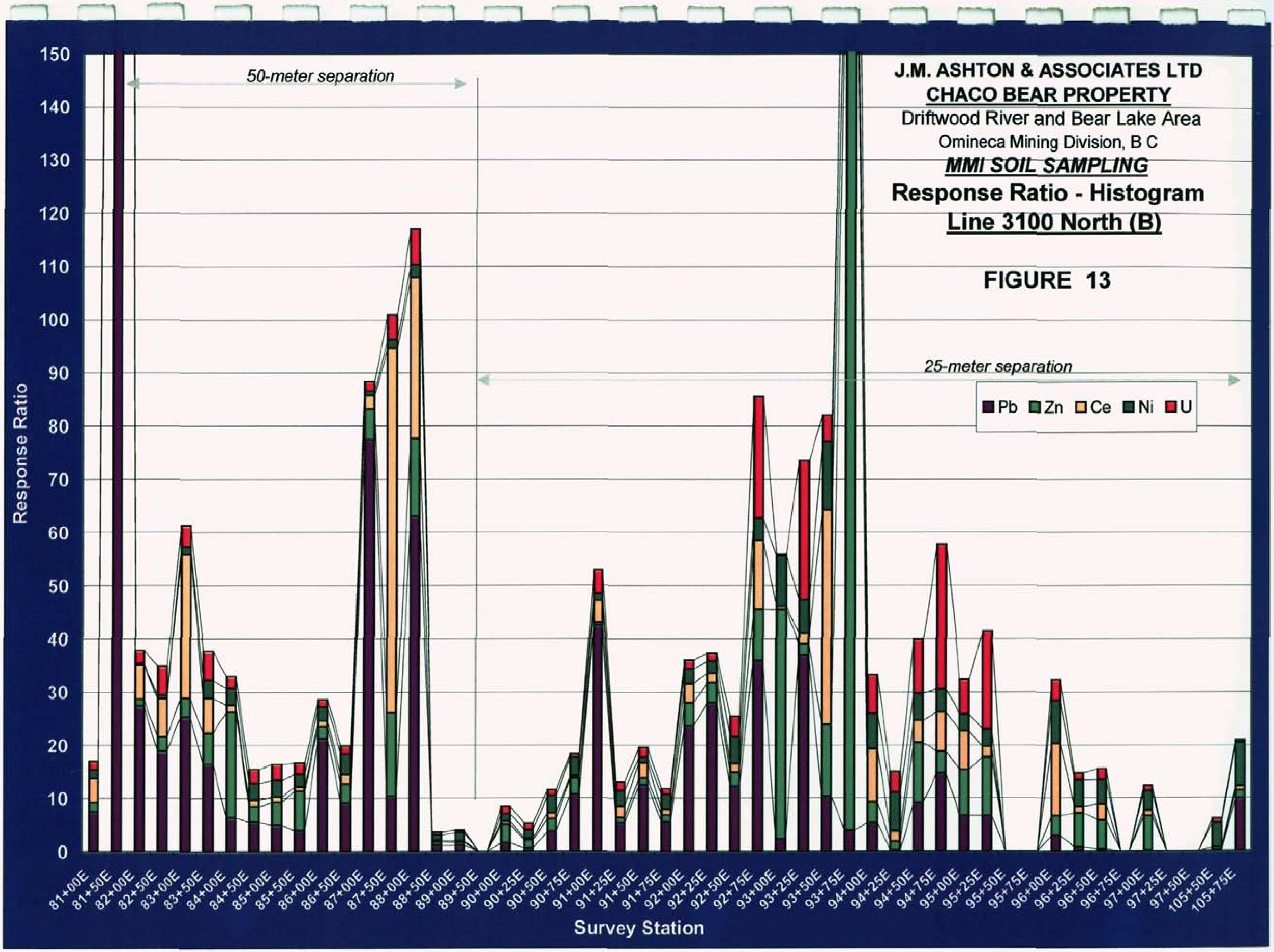

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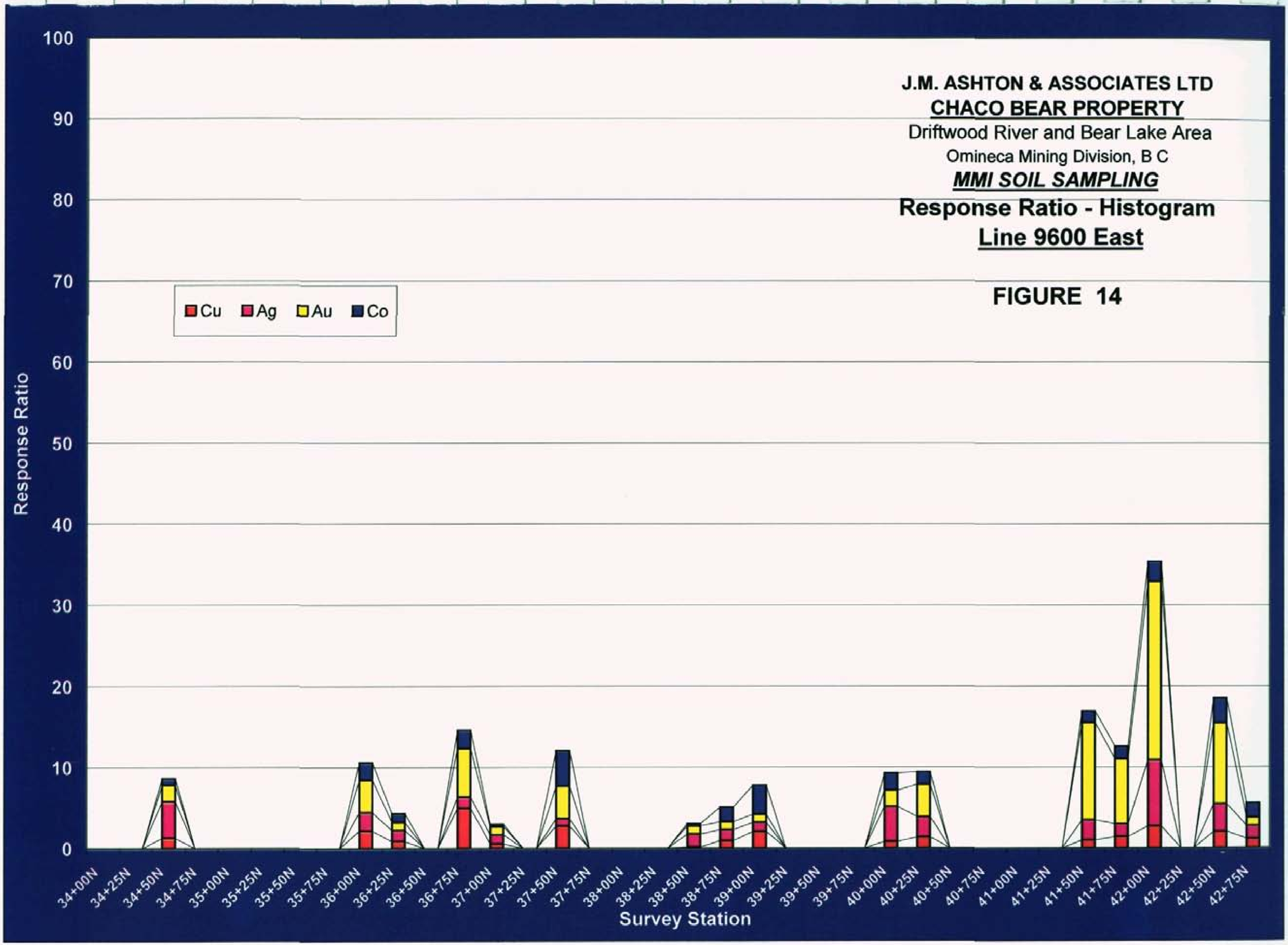

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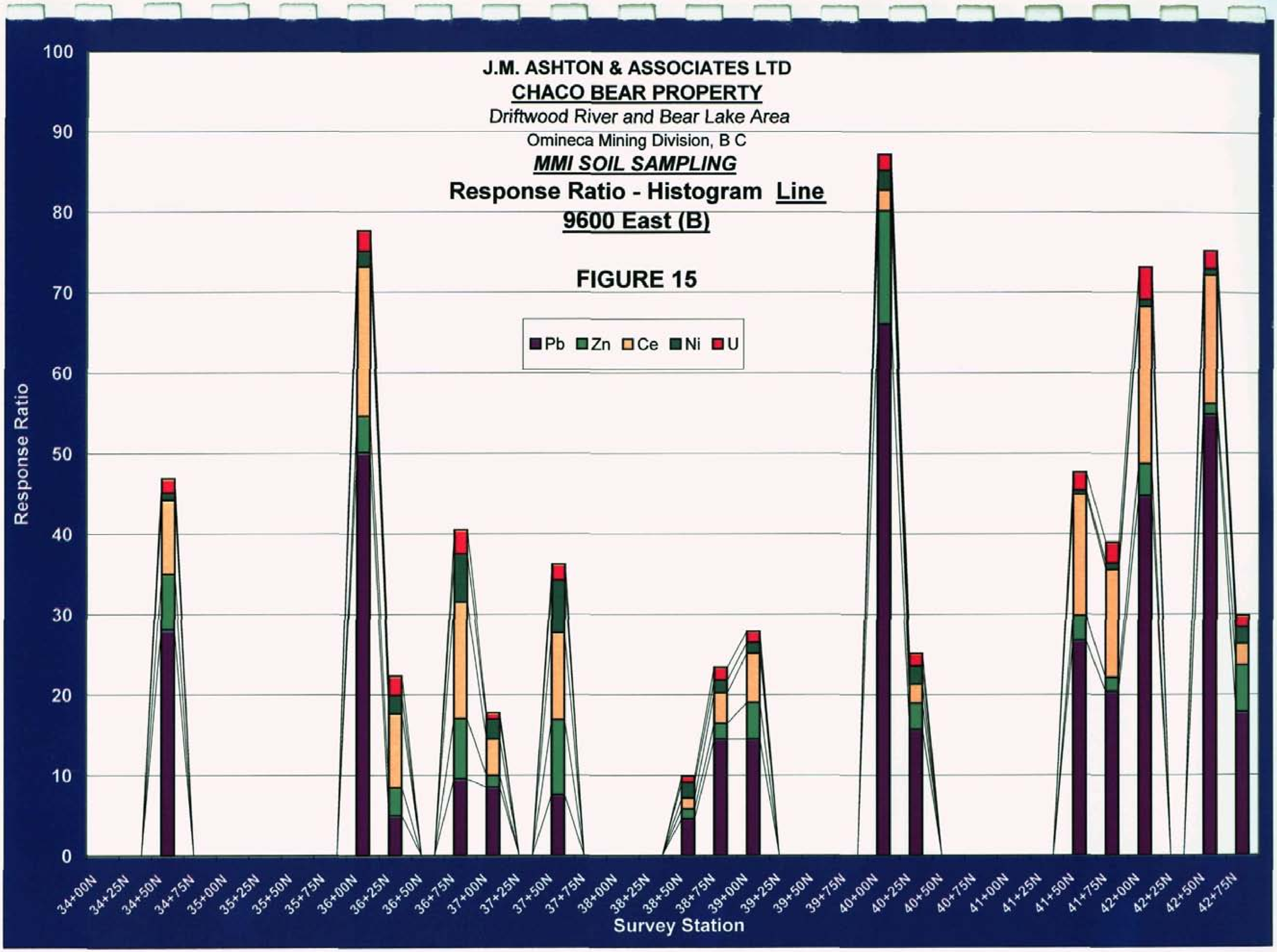

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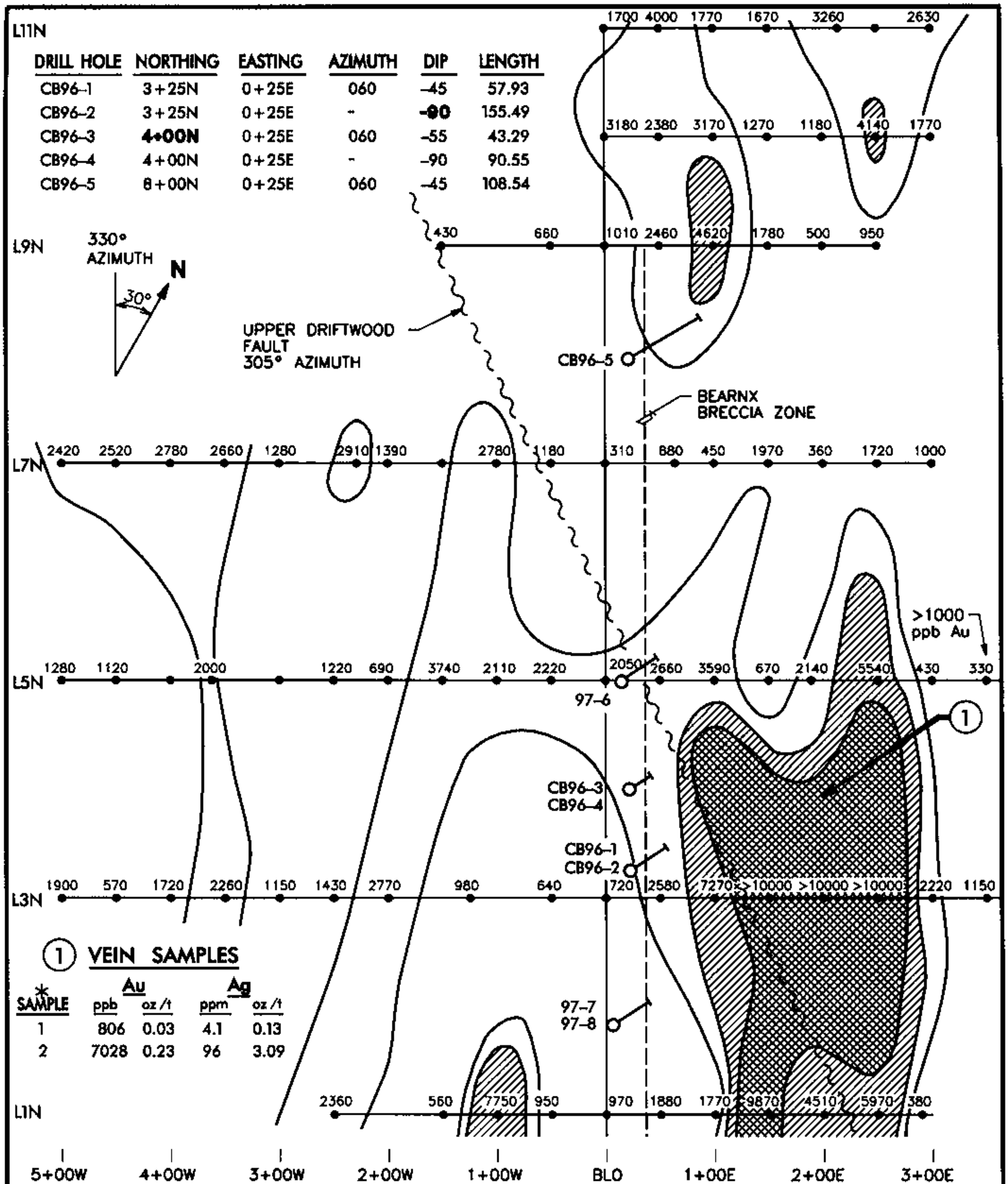


DRILL HOLE	NORTHING	EASTING	AZIMUTH	DIP	LENGTH
CB96-1	3+25N	0+25E	060	-45	57.93
CB96-2	3+25N	0+25E	-	-90	155.49
CB96-3	4+00N	0+25E	060	-55	43.29
CB96-4	4+00N	0+25E	-	-90	90.55
CB96-5	8+00N	0+25E	060	-45	108.54

① VEIN SAMPLES

SAMPLE*	Au ppb	Au oz/t	Ag ppm	Ag oz/t
1	806	0.03	4.1	0.13
2	7028	0.23	96	3.09

FIGURE 16

LEGEND

Mn ppm
- <2000 THRESHOLD
- 2001–4000 ANOMALOUS
- 4001–8000 VERY ANOMALOUS
- >8000 EXTREMELY ANOMALOUS

NOTES

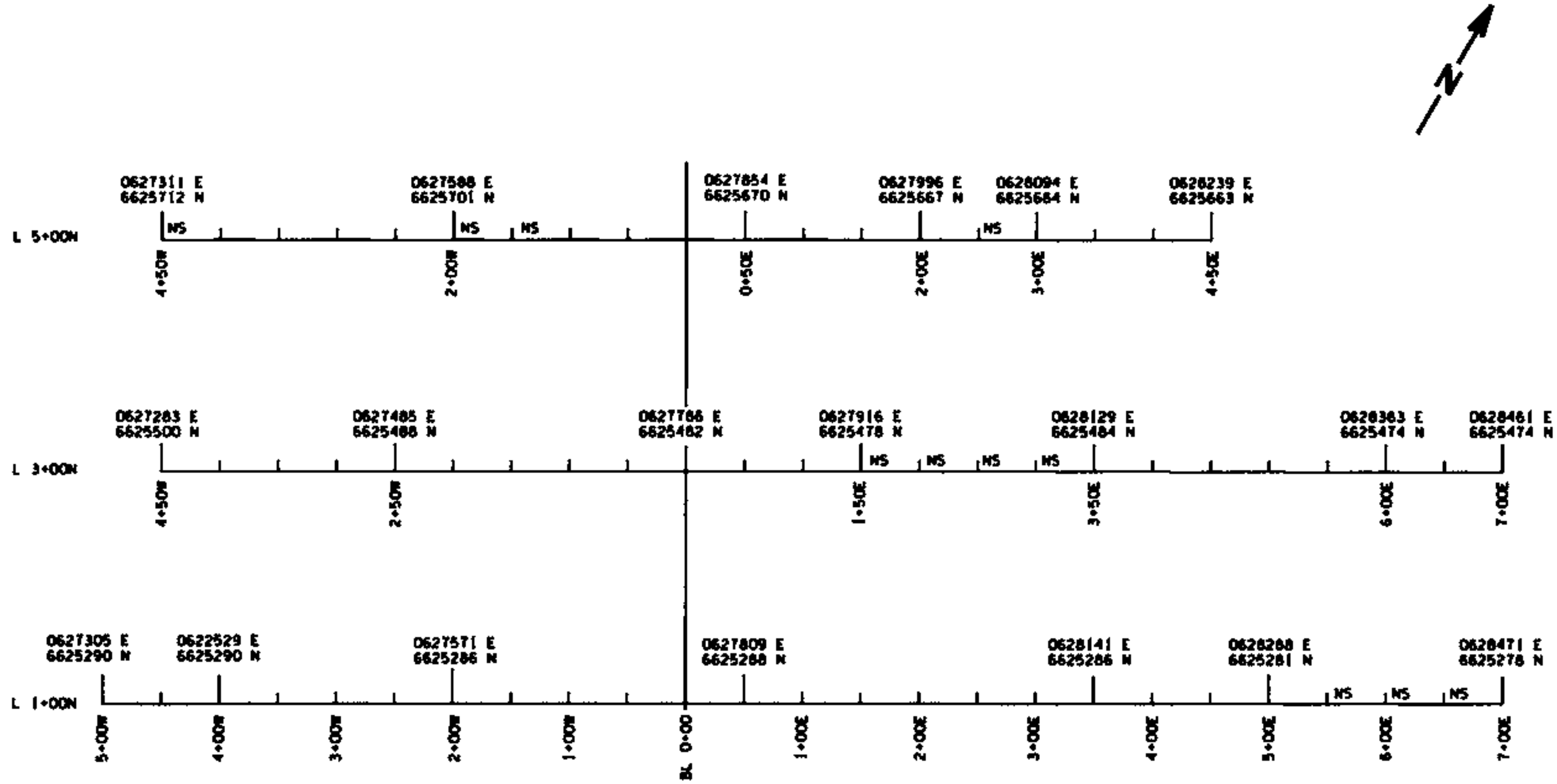
1. DRILL HOLES & SOIL SURVEY BY IMPERIAL METALS CORPORATION.
2. AVERAGE Mn IN EARTH SOILS 850 ppm.
3. * AFTER SUNCOR.

0 50 100 150 200 m
BAR SCALE 1:5000

CHACO BEAR PROJECT

BEARNX ZONE MANGANESE IN SOIL CONVENTIONAL GEOCHEMISTRY

BY	J.M. Ashton	SCALE	AS SHOWN
DRAWN	E.B. Catapia	DATE	SEPT 2007
CHECKED	J.M. Ashton	REVISED	



LEGEND

E - EASTING

N - NORTHING

NOTES

1. UTM (UNIVERSAL TRANSVERSE MERCATOR) COORDINATES SHOWN ARE ALL ZONE 09.
2. UTM COORDINATES READ BY HAND-HELD GARMIN GPSMAP76.

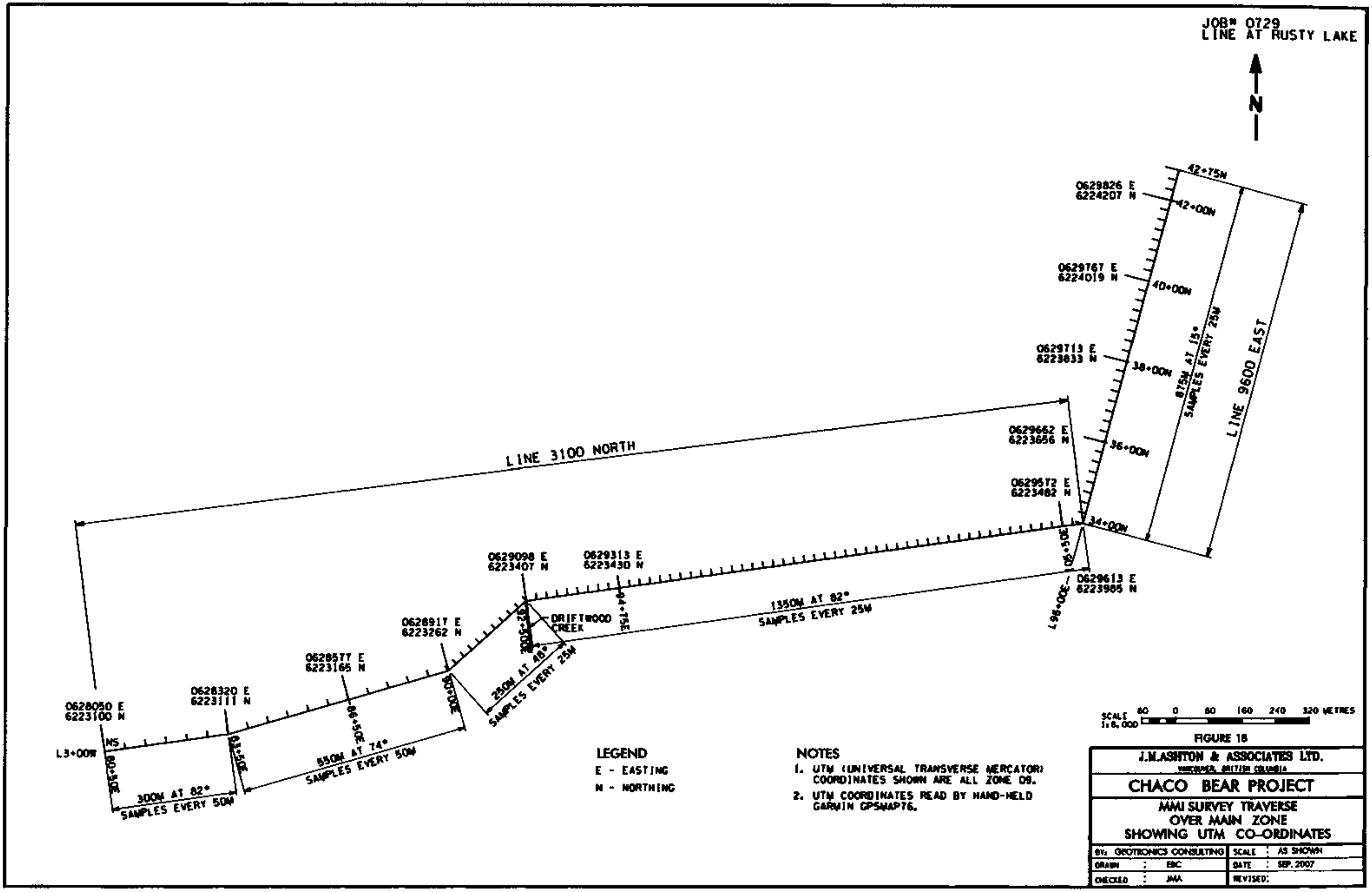
FIGURE 17

J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

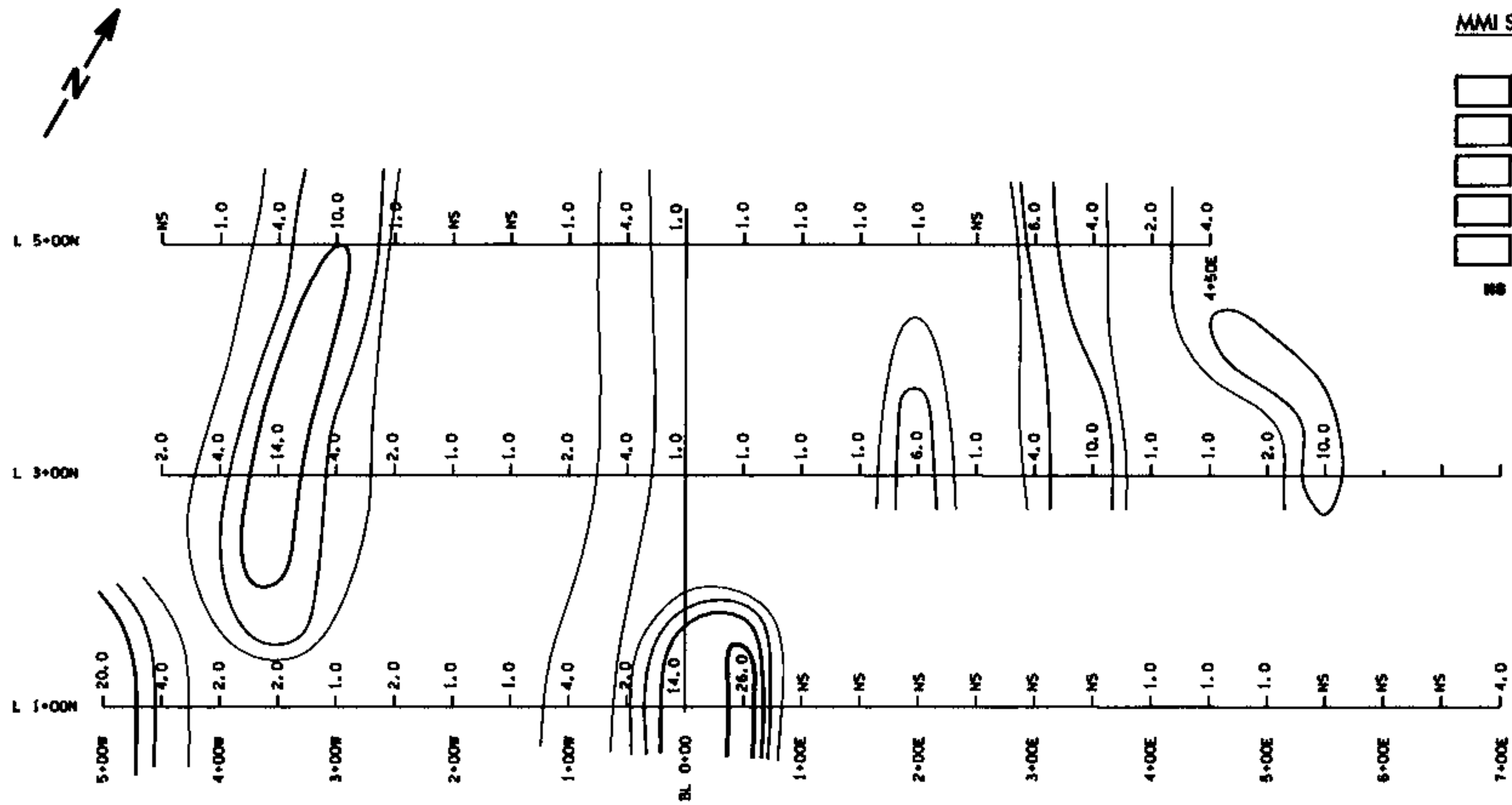
CHACO BEAR PROJECT

MMI SURVEY GRID
OVER BEARNX ZONE
SHOWING UTM CO-ORDINATES

BY: GEOTRONICS CONSULTING	SCALE : AS SHOWN
DRAWN : BBC	DATE : SEP. 2007
CHECKED : JMA	REVISED:


JOB# 0729
LINE AT RUSTY LAKE
N
LINE 3100 NORTH
LINE 9600 EAST
875M AT 15°
SAMPLES EVERY 25M
42+75N
42+00N
40+00N
38+00N
36+00N
34+00N
0629826 E
6224207 N
0629767 E
6224019 N
0629713 E
6223833 N
0629662 E
6223656 N
0629572 E
6223482 N
0629613 E
6223985 N
0629098 E
6223407 N
0629313 E
6223430 N
0628917 E
6223262 N
0628577 E
6223165 N
0628320 E
6223111 N
0628050 E
6223100 N
DRIFTWOOD
CREEK
1350M AT 82°
SAMPLES EVERY 25M
250M AT 48°
SAMPLES EVERY 25M
550M AT 74°
SAMPLES EVERY 50M
300M AT 82°
SAMPLES EVERY 50M
L3+00W
NS
80+50E
83+50E
86+50E
90+00E
92+50E
94+75E
98+00E
98+50E
LEGEND
E - EASTING
N - NORTHING
NOTES
1. UTM (UNIVERSAL TRANSVERSE MERCATOR) COORDINATES SHOWN ARE ALL ZONE 09.
2. UTM COORDINATES READ BY HAND-HELD GARMIN GPSMAP76.
SCALE 1:8,000
80 0 80 160 240 320 METRES
FIGURE 18
J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA
CHACO BEAR PROJECT
MMI SURVEY TRAVERSE
OVER MAIN ZONE
SHOWING UTM CO-ORDINATES
BY: GEOTRONICS CONSULTING
SCALE : AS SHOWN
DRAWN : EBC
DATE : SEP. 2007
CHECKED : JMA
REVISED:

A5-8000



MMI SOILS LEGEND

'RESPONSE RATIO' CLASS BOUNDARIES	ANOMALOUS CLASS
0 – 2.5	BACKGROUND
2.6 – 5.0	ANOMALOUS THRESHOLD
5.1 – 10.0	ANOMALOUS
10.1 – 20.0	VERY ANOMALOUS
> 20.1	EXTREMELY ANOMALOUS

NS - NO SAMPLE

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — J. M. ASHTON

SCALE 1:4,000 — 40 0 40 80 120 160 METRES

NOTES

1. LOWER QUARTILE Au BACKGROUND REFERENCE = 5 ppb
2. ACTUAL BACKGROUND DEFINED BY MMI GEOCHEMISTS AS 0 – 1.0 RESPONSE – RATIO.
3. FOR PLOTTING PURPOSES ONLY, BACKGROUND = 0 – 2.5 UNITS. FACILITATES IDENTIFICATION OF ANOMALOUS CLASSES BY GEOMETRIC PROGRESSION.

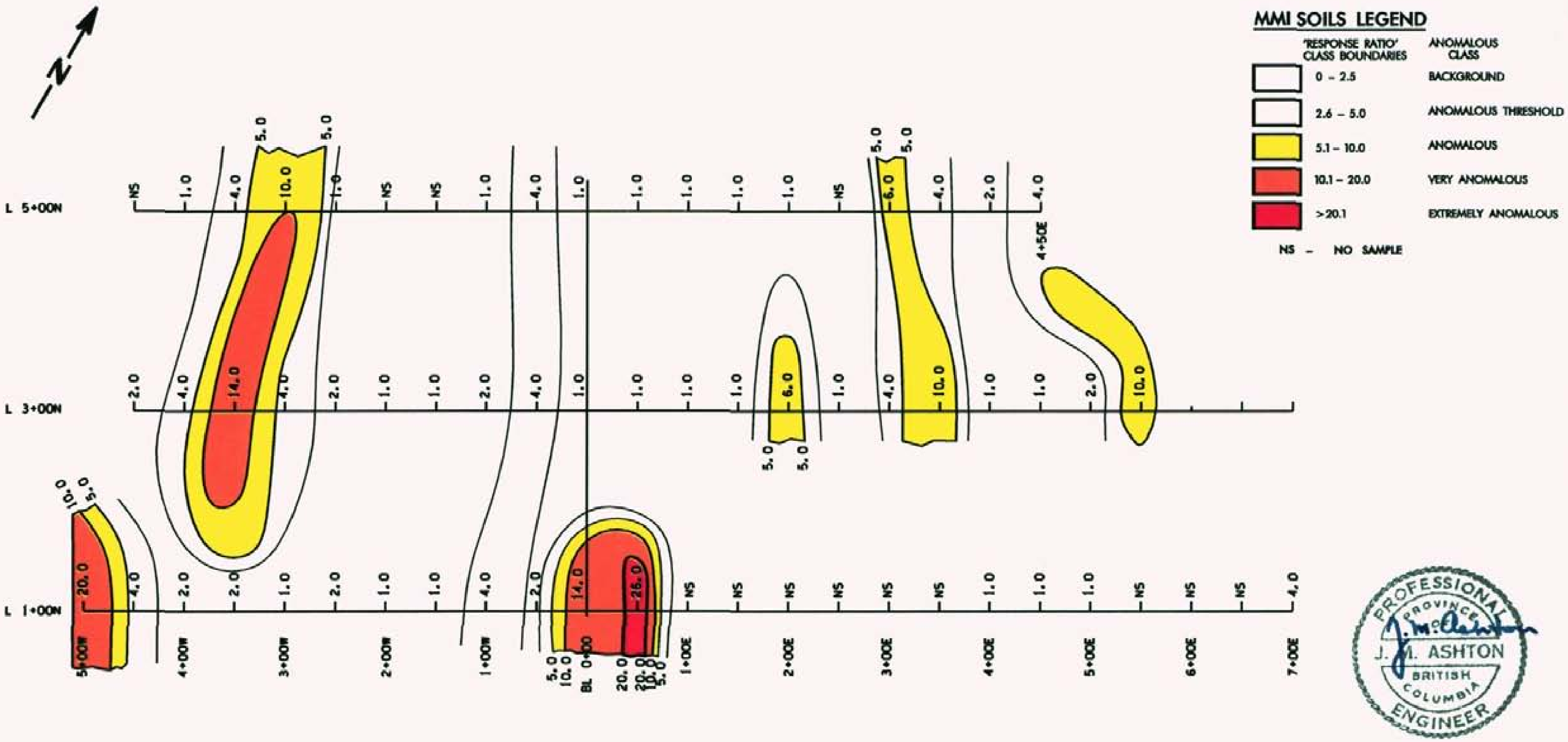
FIGURE 19

J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

CHACO BEAR PROJECT

GOLD ASSAY
BEARNX ZONE
MMI GEOCHEMICAL SURVEY

BY: GEOTRONICS CONSULTING	SCALE : AS SHOWN
DRAWN : EBC	DATE : JAN 2008
CHECKED : JMA	REVISED:



SCALE 1:4,000 40 0 40 80 120 160 METRES

FIGURE 19

NOTES

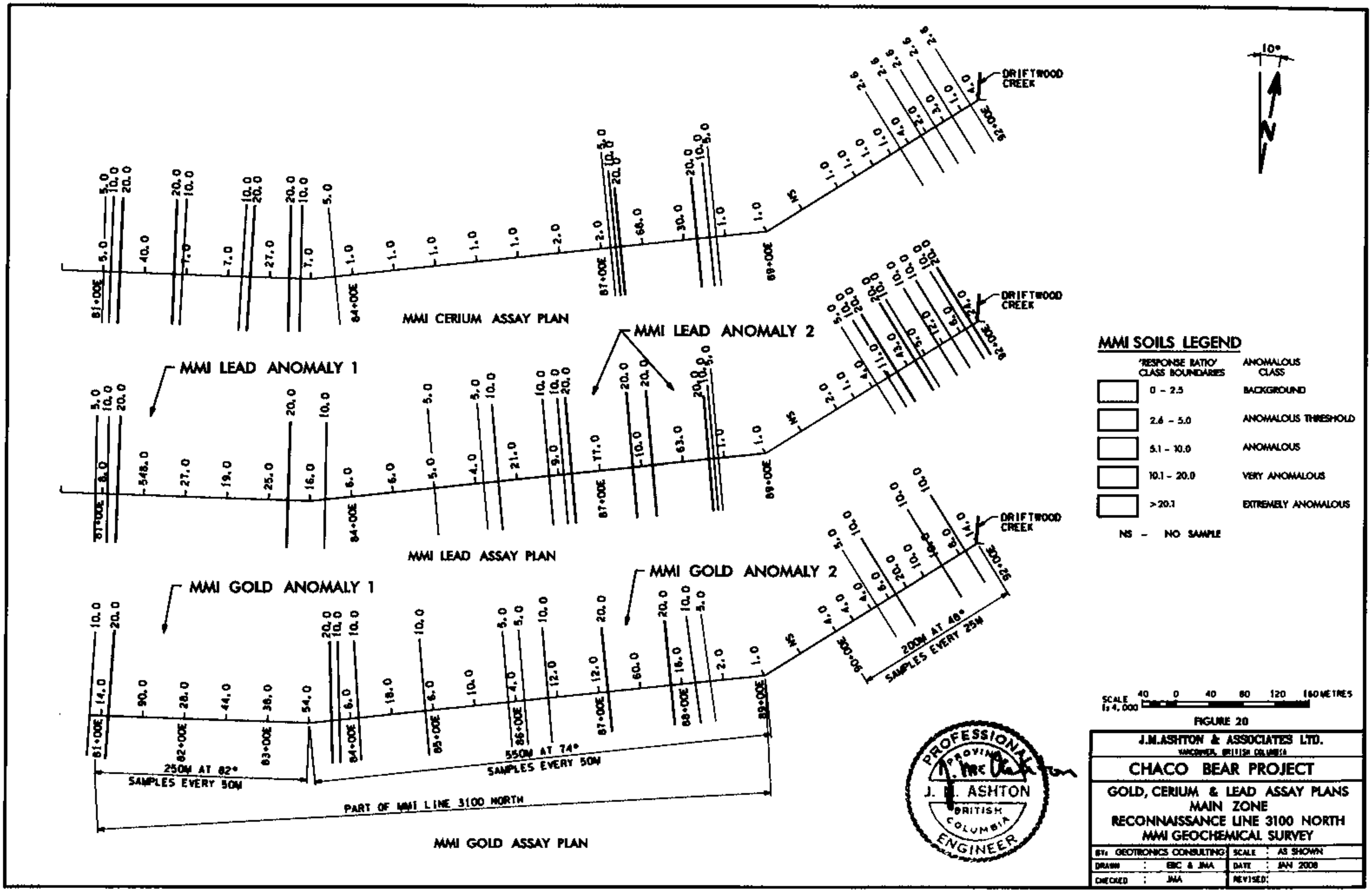
1. LOWER QUARTILE Au BACKGROUND REFERENCE = 5 ppb
2. ACTUAL BACKGROUND DEFINED BY MMI GEOCHEMISTS AS 0 - 1.0 RESPONSE - RATIO.
3. FOR PLOTTING PURPOSES ONLY, BACKGROUND = 0 - 2.5 UNITS. FACILITATES IDENTIFICATION OF ANOMALOUS CLASSES BY GEOMETRIC PROGRESSION.

J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

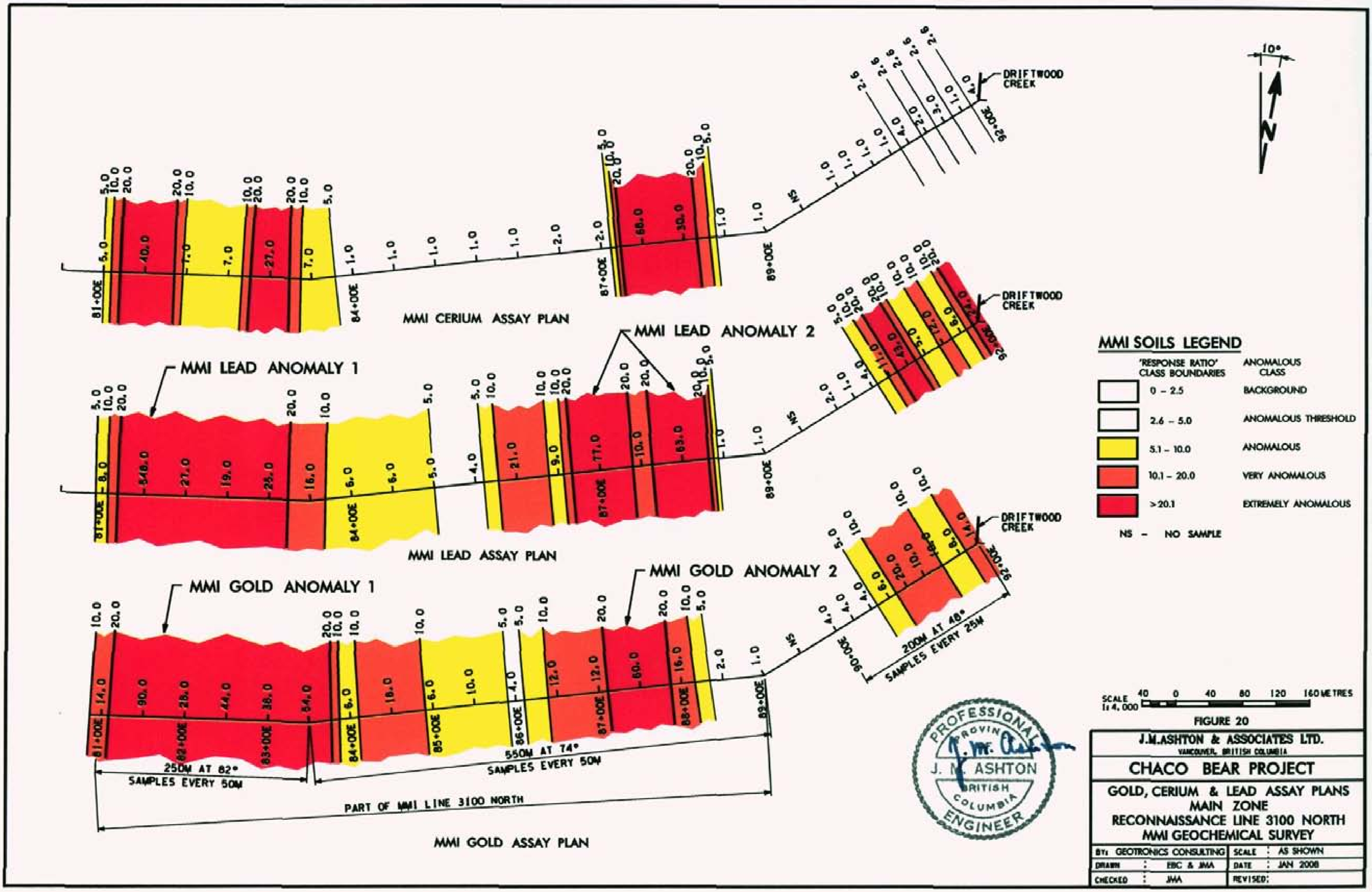
CHACO BEAR PROJECT

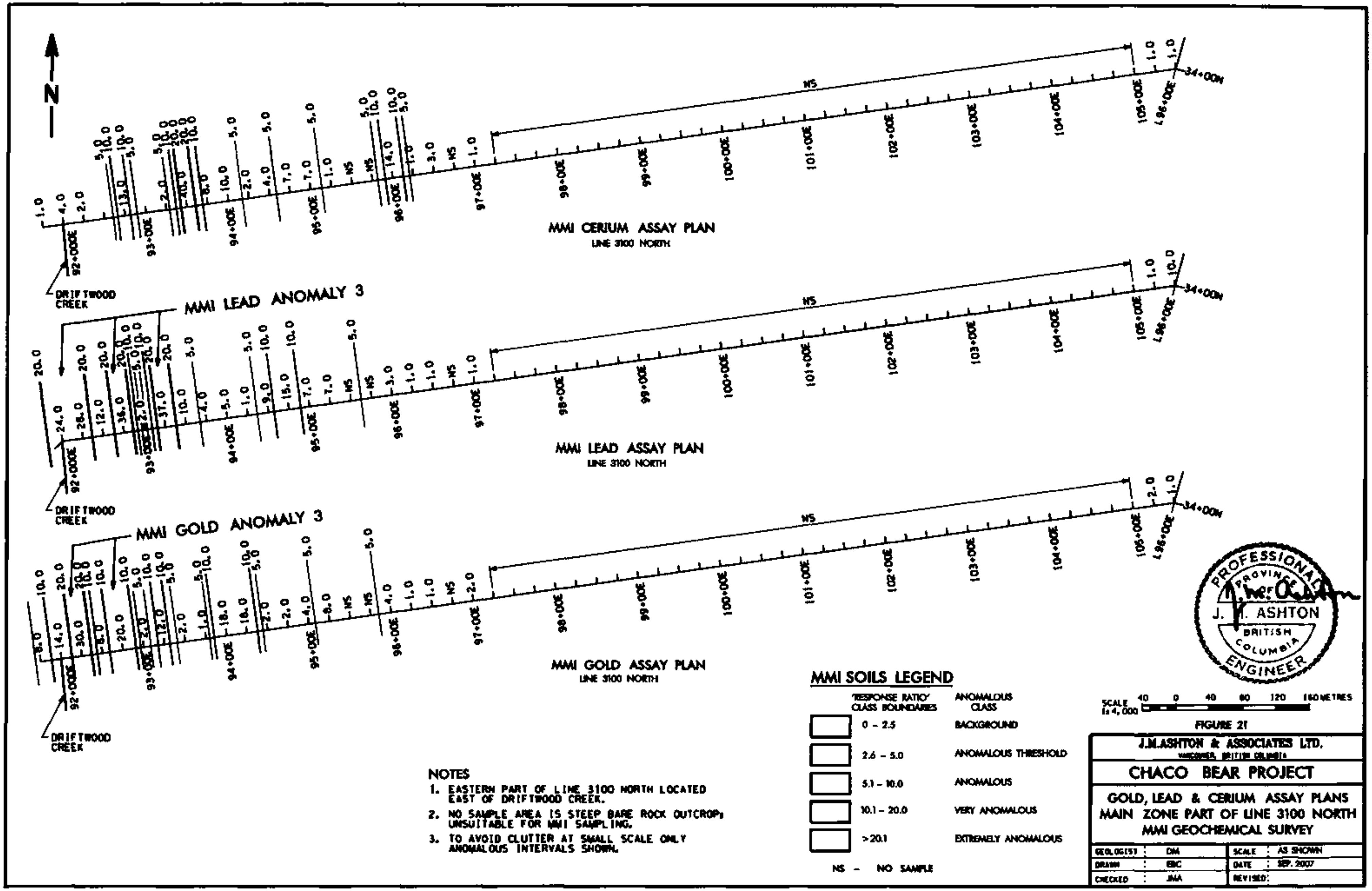
GOLD ASSAY
BEARNX ZONE
MMI GEOCHEMICAL SURVEY

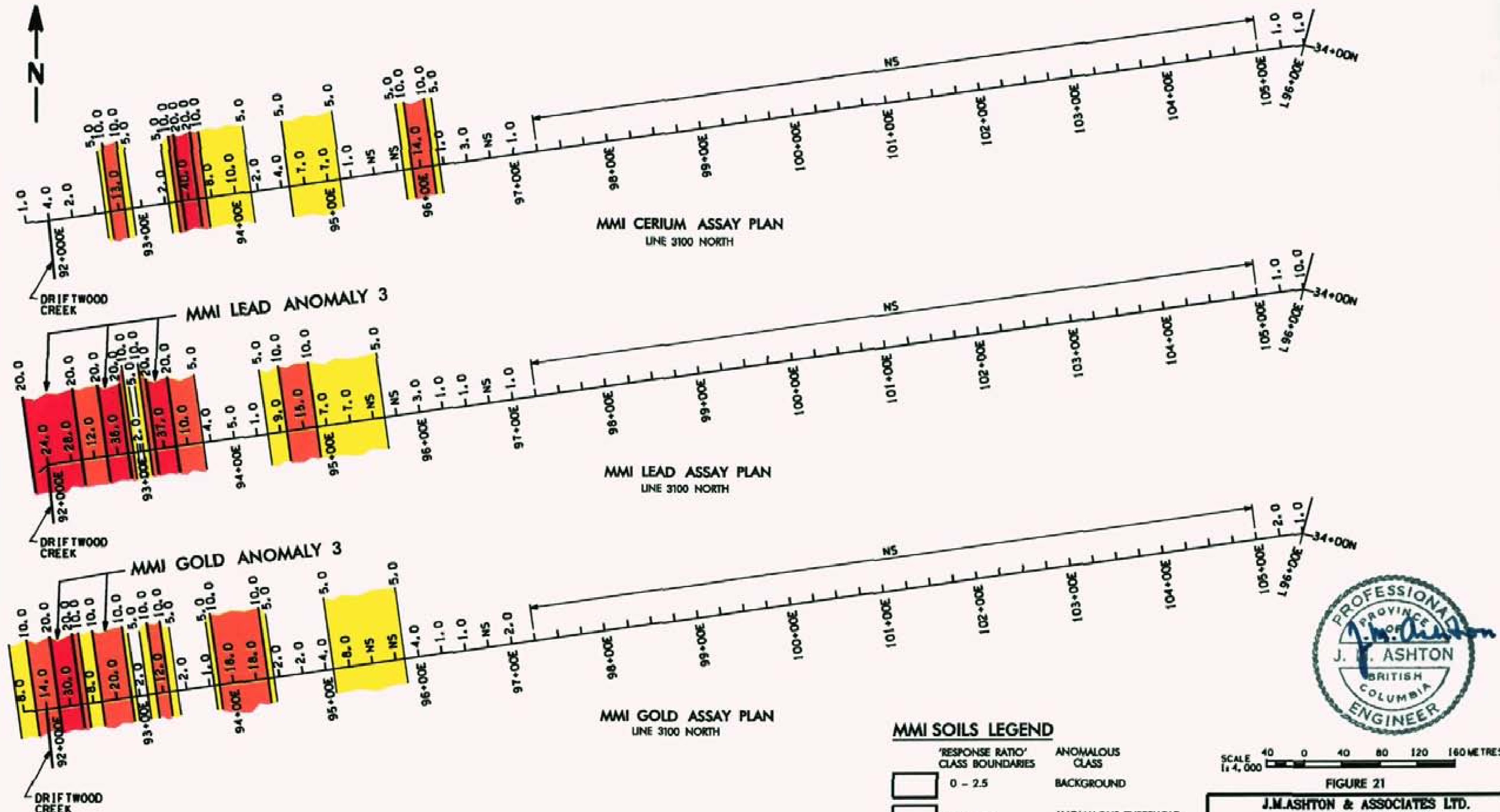
BY: GEOTRONICS CONSULTING		SCALE	AS SHOWN
DRAWN	EBC	DATE	JAN 2008
CHECKED	JMA	REVISED:	



MMI CERIUM ASSAY PLAN
MMI LEAD ASSAY PLAN
MMI GOLD ASSAY PLAN
MMI LEAD ANOMALY 1
MMI LEAD ANOMALY 2
MMI GOLD ANOMALY 1
MMI GOLD ANOMALY 2
DRIFTWOOD CREEK
250M AT 82°
SAMPLES EVERY 50M
550M AT 74°
SAMPLES EVERY 50M
200M AT 48°
SAMPLES EVERY 25M
PART OF MMI LINE 3100 NORTH
81+00E
82+00E
83+00E
84+00E
85+00E
86+00E
87+00E
88+00E
89+00E
90+00E
92+00E
10°
N
MMI SOILS LEGEND
'RESPONSE RATIO' CLASS BOUNDARIES
ANOMALOUS CLASS
0 - 2.5
BACKGROUND
2.6 - 5.0
ANOMALOUS THRESHOLD
5.1 - 10.0
ANOMALOUS
10.1 - 20.0
VERY ANOMALOUS
> 20.1
EXTREMELY ANOMALOUS
NS - NO SAMPLE
SCALE 1:4,000
40 0 40 80 120 160 METRES
FIGURE 20
J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA
CHACO BEAR PROJECT
GOLD, CERIUM & LEAD ASSAY PLANS
MAIN ZONE
RECONNAISSANCE LINE 3100 NORTH
MMI GEOCHEMICAL SURVEY
BY: GEOTRONICS CONSULTING
SCALE : AS SHOWN
DRAWN : EBC & JMA
DATE : JAN 2008
CHECKED : JMA
REVISED:
PROFESSIONAL ENGINEER
PROVINCE
J. M. ASHTON
BRITISH COLUMBIA


MMI CERIUM ASSAY PLAN
MMI LEAD ANOMALY 1
MMI LEAD ANOMALY 2
MMI LEAD ASSAY PLAN
MMI GOLD ANOMALY 1
MMI GOLD ANOMALY 2
MMI GOLD ASSAY PLAN
DRIFTWOOD CREEK
250M AT 82°
SAMPLES EVERY 50M
550M AT 74°
SAMPLES EVERY 50M
200M AT 48°
SAMPLES EVERY 25M
PART OF MMI LINE 3100 NORTH
MMI SOILS LEGEND
'RESPONSE RATIO' CLASS BOUNDARIES
ANOMALOUS CLASS
0 - 2.5 BACKGROUND
2.6 - 5.0 ANOMALOUS THRESHOLD
5.1 - 10.0 ANOMALOUS
10.1 - 20.0 VERY ANOMALOUS
> 20.1 EXTREMELY ANOMALOUS
NS - NO SAMPLE
SCALE 1:4,000
40 0 40 80 120 160 METRES
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. M. ASHTON
FIGURE 20
J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA
CHACO BEAR PROJECT
GOLD, CERIUM & LEAD ASSAY PLANS
MAIN ZONE
RECONNAISSANCE LINE 3100 NORTH
MMI GEOCHEMICAL SURVEY
BY: GEOTRONICS CONSULTING
SCALE: AS SHOWN
DRAWN: EBC & JMA
DATE: JAN 2008
CHECKED: JMA
REVISED:


N
MMI CERIUM ASSAY PLAN
LINE 3100 NORTH
MMI LEAD ANOMALY 3
MMI LEAD ASSAY PLAN
LINE 3100 NORTH
MMI GOLD ANOMALY 3
MMI GOLD ASSAY PLAN
LINE 3100 NORTH
DRIFTWOOD CREEK
NS
34+00N
92+00E
93+00E
94+00E
95+00E
96+00E
97+00E
98+00E
99+00E
100+00E
101+00E
102+00E
103+00E
104+00E
105+00E
NOTES
1. EASTERN PART OF LINE 3100 NORTH LOCATED EAST OF DRIFTWOOD CREEK.
2. NO SAMPLE AREA IS STEEP BARE ROCK OUTCROP; UNSUITABLE FOR MMI SAMPLING.
3. TO AVOID CLUTTER AT SMALL SCALE ONLY ANOMALOUS INTERVALS SHOWN.
MMI SOILS LEGEND
'RESPONSE RATIO' CLASS BOUNDARIES
ANOMALOUS CLASS
0 – 2.5 BACKGROUND
2.6 – 5.0 ANOMALOUS THRESHOLD
5.1 – 10.0 ANOMALOUS
10.1 – 20.0 VERY ANOMALOUS
>20.1 EXTREMELY ANOMALOUS
NS – NO SAMPLE
PROFESSIONAL
PROVINCE OF
J. M. ASHTON
BRITISH COLUMBIA
ENGINEER
SCALE 1:4,000
40 0 40 80 120 160 METRES
FIGURE 21
J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA
CHACO BEAR PROJECT
GOLD, LEAD & CERIUM ASSAY PLANS
MAIN ZONE PART OF LINE 3100 NORTH
MMI GEOCHEMICAL SURVEY
GEOLOGIST : DM
DRAWN : EBC
CHECKED : JMA
SCALE : AS SHOWN
DATE : SEP. 2007
REVISED :



MMI SOILS LEGEND

'RESPONSE RATIO' CLASS BOUNDARIES	ANOMALOUS CLASS
0 – 2.5	BACKGROUND
2.6 – 5.0	ANOMALOUS THRESHOLD
5.1 – 10.0	ANOMALOUS
10.1 – 20.0	VERY ANOMALOUS
>20.1	EXTREMELY ANOMALOUS

NS – NO SAMPLE

NOTES

1. EASTERN PART OF LINE 3100 NORTH LOCATED EAST OF DRIFTWOOD CREEK.
2. NO SAMPLE AREA IS STEEP BARE ROCK OUTCROP; UNSUITABLE FOR MMI SAMPLING.
3. TO AVOID CLUTTER AT SMALL SCALE ONLY ANOMALOUS INTERVALS SHOWN.

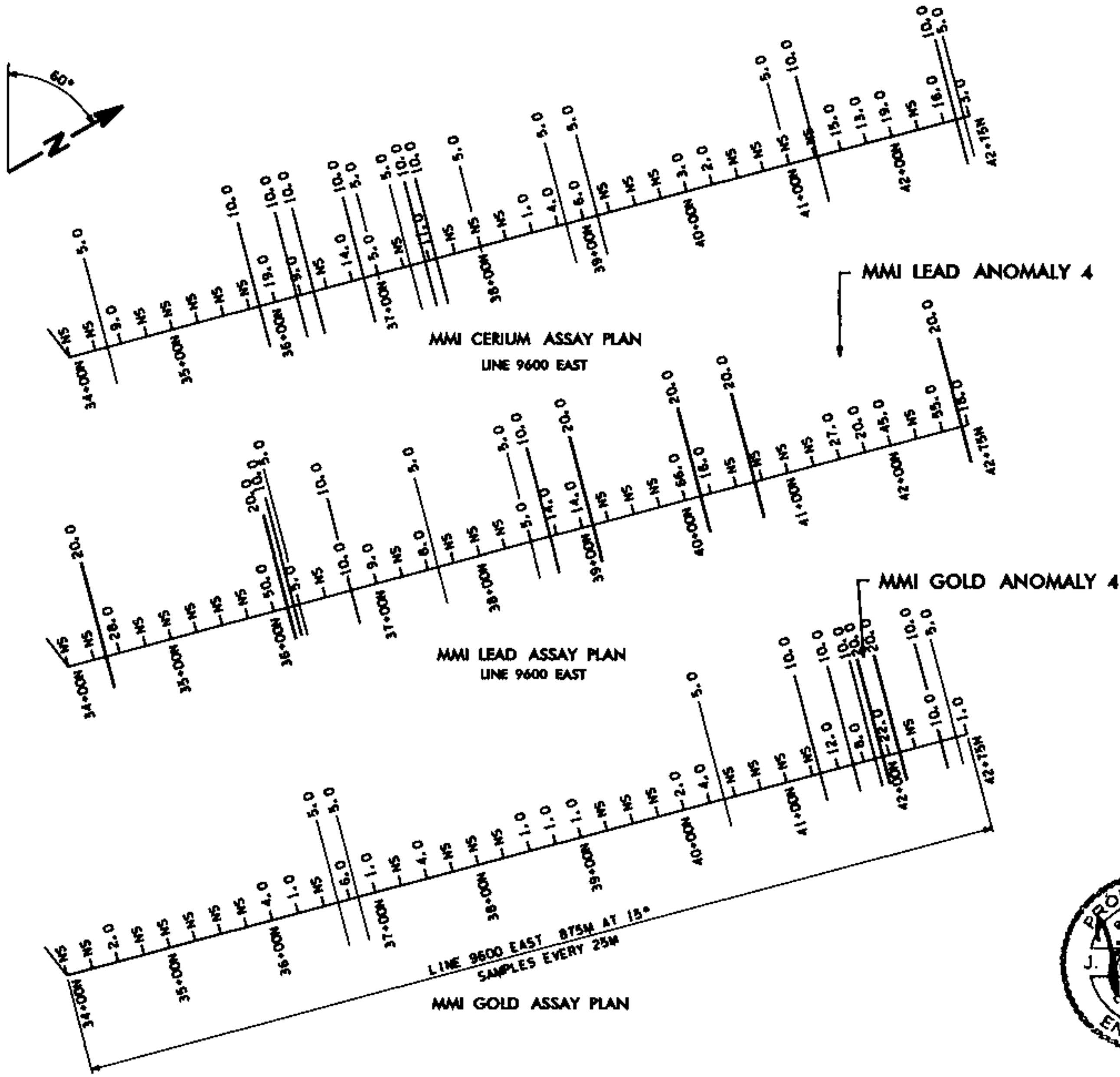
FIGURE 21

J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

CHACO BEAR PROJECT

GOLD, LEAD & CERIUM ASSAY PLANS
MAIN ZONE PART OF LINE 3100 NORTH
MMI GEOCHEMICAL SURVEY

GEOLOGIST :	DM	SCALE :	AS SHOWN
DRAWN :	EBC	DATE :	SEP. 2007
CHECKED :	JMA	REVISED:	



MMI SOILS LEGEND

	'RESPONSE RATIO' CLASS BOUNDARIES	ANOMALOUS CLASS
	0 – 2.5	BACKGROUND
	2.6 – 5.0	ANOMALOUS THRESHOLD
	5.1 – 10.0	ANOMALOUS
	10.1 – 20.0	VERY ANOMALOUS
	>20.1	EXTREMELY ANOMALOUS

NS – NO SAMPLE

NOTES

1. LINE 9600 EAST TRAVERSE ENCOUNTERED SEVERAL SECTIONS OF BARE OUTCROP WHICH NOT SUITABLE MMI SAMPLE MATERIAL.
2. CONTOURS ARE SPECULATIVE WHERE SHOWN IN VICINITY OF "NO SAMPLE" TAKEN.

SCALE 1:4,000 — 40 0 40 80 120 160 METRES

FIGURE 22

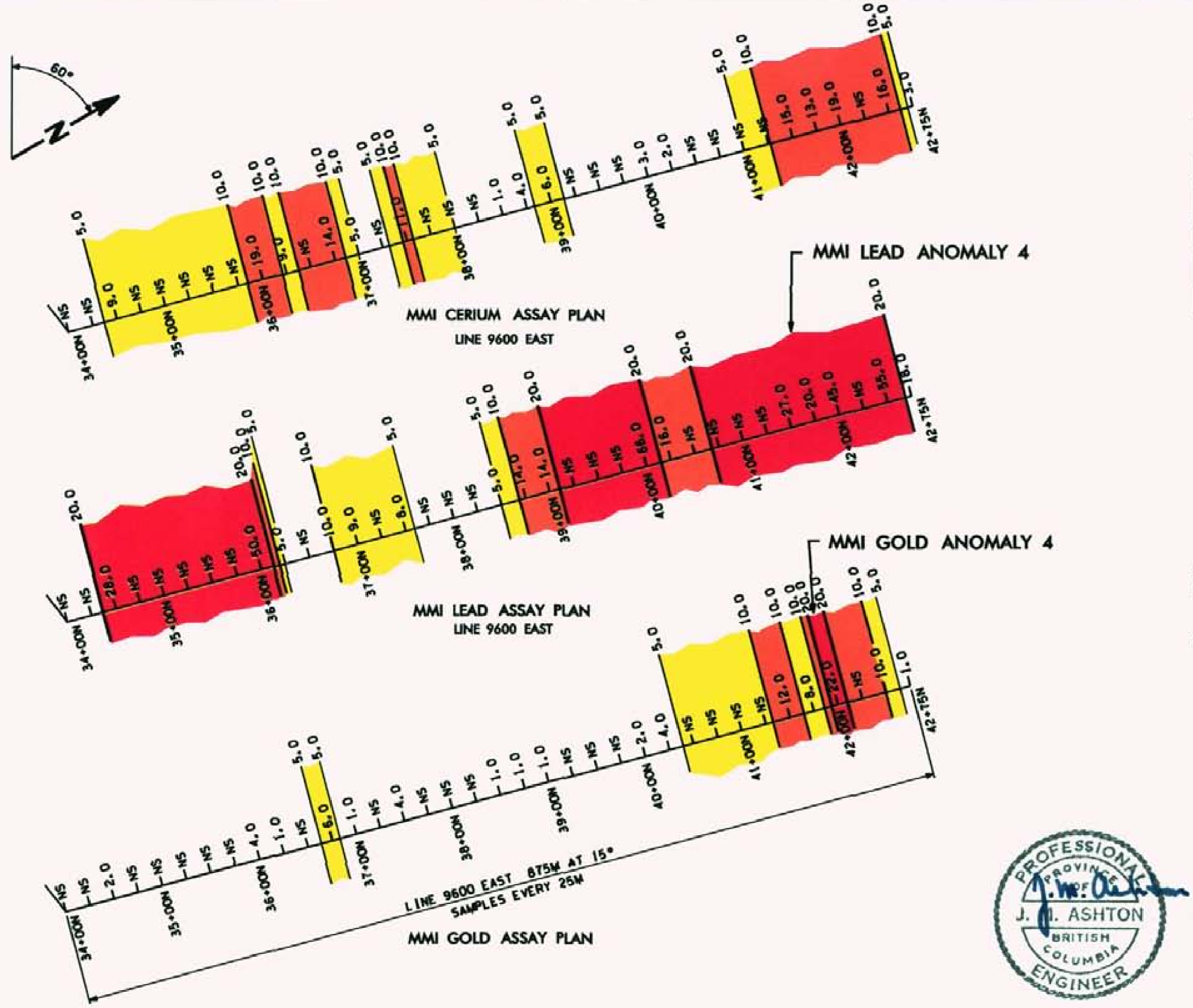
J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

CHACO BEAR PROJECT

GOLD, LEAD & CERIUM ASSAY PLANS
RECONNAISSANCE LINE 9600 EAST
MMI GEOCHEMICAL SURVEY

GEOLOGIST :	DM	SCALE :	AS SHOWN
DRAWN :	EBC	DATE :	SEP. 2007
CHECKED :	JMA	REVISED:	

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — J. M. ASHTON



MMI SOILS LEGEND

'RESPONSE RATIO' CLASS BOUNDARIES	ANOMALOUS CLASS
0 – 2.5	BACKGROUND
2.6 – 5.0	ANOMALOUS THRESHOLD
5.1 – 10.0	ANOMALOUS
10.1 – 20.0	VERY ANOMALOUS
>20.1	EXTREMELY ANOMALOUS

NS – NO SAMPLE

NOTES

1. LINE 9600 EAST TRAVERSE ENCOUNTERED SEVERAL SECTIONS OF BARE OUTCROP WHICH NOT SUITABLE MMI SAMPLE MATERIAL.
2. CONTOURS ARE SPECULATIVE WHERE SHOWN IN VICINITY OF "NO SAMPLE" TAKEN.

SCALE 1:4,000 — 40 0 40 80 120 160 METRES

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — J. M. ASHTON

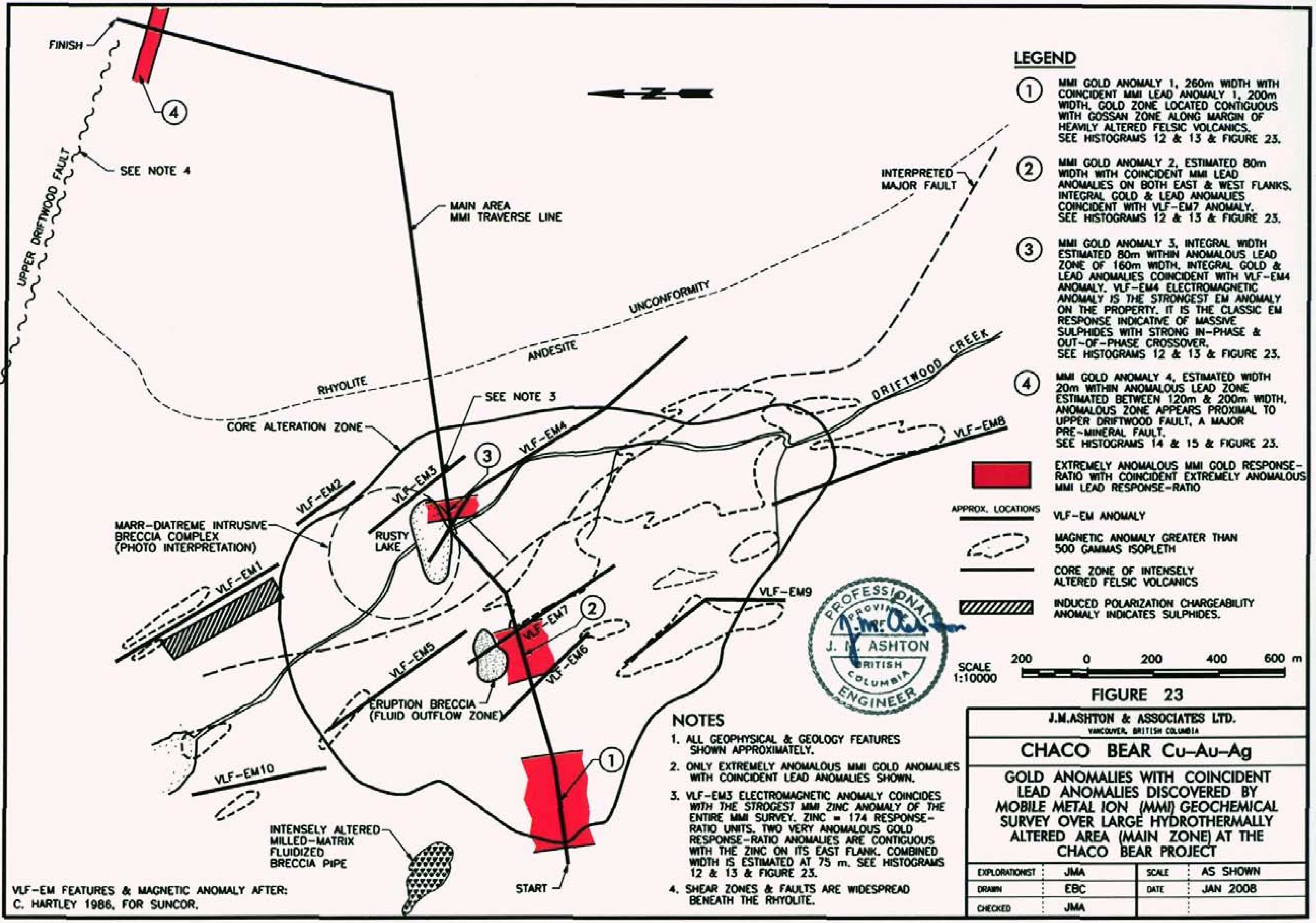
FIGURE 22

J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA

CHACO BEAR PROJECT

GOLD, LEAD & CERIUM ASSAY PLANS
RECONNAISSANCE LINE 9600 EAST
MMI GEOCHEMICAL SURVEY

GEOLOGIST :	DM	SCALE :	AS SHOWN
DRAWN :	EBC	DATE :	SEP. 2007
CHECKED :	JMA	REVISED:	



FINISH
SEE NOTE 4
UPPER DRIFTWOOD FAULT
MAIN AREA MMI TRAVERSE LINE
INTERPRETED MAJOR FAULT
UNCONFORMITY
ANDESITE
RHYOLITE
SEE NOTE 3
CORE ALTERATION ZONE
DRIFTWOOD CREEK
VLF-EM8
VLF-EM4
VLF-EM3
VLF-EM2
MARR-DIATREME INTRUSIVE BRECCIA COMPLEX (PHOTO INTERPRETATION)
RUSTY LAKE
VLF-EM1
VLF-EM9
VLF-EM7
VLF-EM5
VLF-EM6
ERUPTION BRECCIA (FLUID OUTFLOW ZONE)
VLF-EM10
INTENSELY ALTERED MILLED-MATRIX FLUIDIZED BRECCIA PIPE
START
VLF-EM FEATURES & MAGNETIC ANOMALY AFTER: C. HARTLEY 1986, FOR SUNCOR.
LEGEND
1 MMI GOLD ANOMALY 1, 260m WIDTH WITH COINCIDENT MMI LEAD ANOMALY 1, 200m WIDTH. GOLD ZONE LOCATED CONTIGUOUS WITH GOSSAN ZONE ALONG MARGIN OF HEAVILY ALTERED FELSIC VOLCANICS. SEE HISTOGRAMS 12 & 13 & FIGURE 23.
2 MMI GOLD ANOMALY 2, ESTIMATED 80m WIDTH WITH COINCIDENT MMI LEAD ANOMALIES ON BOTH EAST & WEST FLANKS. INTEGRAL GOLD & LEAD ANOMALIES COINCIDENT WITH VLF-EM7 ANOMALY. SEE HISTOGRAMS 12 & 13 & FIGURE 23.
3 MMI GOLD ANOMALY 3, INTEGRAL WIDTH ESTIMATED 80m WITHIN ANOMALOUS LEAD ZONE OF 160m WIDTH. INTEGRAL GOLD & LEAD ANOMALIES COINCIDENT WITH VLF-EM4 ANOMALY. VLF-EM4 ELECTROMAGNETIC ANOMALY IS THE STRONGEST EM ANOMALY ON THE PROPERTY. IT IS THE CLASSIC EM RESPONSE INDICATIVE OF MASSIVE SULPHIDES WITH STRONG IN-PHASE & OUT-OF-PHASE CROSSOVER. SEE HISTOGRAMS 12 & 13 & FIGURE 23.
4 MMI GOLD ANOMALY 4, ESTIMATED WIDTH 20m WITHIN ANOMALOUS LEAD ZONE ESTIMATED BETWEEN 120m & 200m WIDTH. ANOMALOUS ZONE APPEARS PROXIMAL TO UPPER DRIFTWOOD FAULT, A MAJOR PRE-MINERAL FAULT. SEE HISTOGRAMS 14 & 15 & FIGURE 23.
EXTREMELY ANOMALOUS MMI GOLD RESPONSE-RATIO WITH COINCIDENT EXTREMELY ANOMALOUS MMI LEAD RESPONSE-RATIO
APPROX. LOCATIONS VLF-EM ANOMALY
MAGNETIC ANOMALY GREATER THAN 500 GAMMAS ISOPLETH
CORE ZONE OF INTENSELY ALTERED FELSIC VOLCANICS
INDUCED POLARIZATION CHARGEABILITY ANOMALY INDICATES SULPHIDES.
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA J. M. ASHTON
SCALE 1:10000
200 0 200 400 600 m
FIGURE 23
NOTES
1. ALL GEOPHYSICAL & GEOLOGY FEATURES SHOWN APPROXIMATELY.
2. ONLY EXTREMELY ANOMALOUS MMI GOLD ANOMALIES WITH COINCIDENT LEAD ANOMALIES SHOWN.
3. VLF-EM3 ELECTROMAGNETIC ANOMALY COINCIDES WITH THE STROGEST MMI ZINC ANOMALY OF THE ENTIRE MMI SURVEY. ZINC = 174 RESPONSE-RATIO UNITS. TWO VERY ANOMALOUS GOLD RESPONSE-RATIO ANOMALIES ARE CONTIGUOUS WITH THE ZINC ON ITS EAST FLANK. COMBINED WIDTH IS ESTIMATED AT 75 m. SEE HISTOGRAMS 12 & 13 & FIGURE 23.
4. SHEAR ZONES & FAULTS ARE WIDESPREAD BENEATH THE RHYOLITE.
J.M.ASHTON & ASSOCIATES LTD.
VANCOUVER, BRITISH COLUMBIA
CHACO BEAR Cu-Au-Ag
GOLD ANOMALIES WITH COINCIDENT LEAD ANOMALIES DISCOVERED BY MOBILE METAL ION (MMI) GEOCHEMICAL SURVEY OVER LARGE HYDROTHERMALLY ALTERED AREA (MAIN ZONE) AT THE CHACO BEAR PROJECT
EXPLORATIONIST JMA
SCALE AS SHOWN
DRAWN EBC
DATE JAN 2008
CHECKED JMA

Appendix A

APPENDIX A

Columns 4 to 15: Mobile Metal Ion (MMI) Geochemical Assay Data Corresponding to Sample Site Co-ordinates of Columns 1, 2, and 3 for Selected Elements as Shown.

Columns 16 to 27: MMI Data Re-arrangement Only to Determine MMI Background (Lower Quartile) Values. Data Bears No Relationship to Sample SiteCoordinates.

			Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn	Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn
Line 100N															0.5	5	0.05	1	2.5	2.5	30	2.5	2.5	5	2	10
5+00W	100N	-500	125	5	1	23	61	11	7240	2.5	17	1600	37	210	1	5	0.05	2	6	2.5	80	2.5	2.5	5	2	40
4+50W	100N	-450	20	5	0.2	24	455	17	2190	2.5	14	2190	15	120	1	5	0.05	2	6	2.5	100	2.5	6	5	2	40
4+00W	100N	-400	16	5	0.1	5	149	12	400	2.5	11	160	13	80	2	5	0.05	2	8	2.5	100	2.5	6	10	2	50
3+50W	100N	-350	16	5	0.1	22	102	6	2260	2.5	22	1180	8	120	3	5	0.05	2	9	2.5	110	2.5	8	20	3	50
3+00W	100N	-300	9	5	0.05	23	39	15	200	2.5	44	50	5	650	3	5	0.05	2	10	6	150	2.5	9	20	3	60
2+50W	100N	-250	21	5	0.1	5	102	9	1110	2.5	66	620	17	40	3	5	0.05	3	12	6	150	2.5	9	30	4	60
2+00W	100N	-200	8	5	0.05	20	35	15	480	2.5	45	130	6	370	3	5	0.05	3	12	6	160	2.5	10	30	4	70
1+50W	100N	-150	17	5	0.05	60	55	39	940	2.5	44	250	9	500	4	5	0.05	4	17	6	170	2.5	10	30	4	80
1+00W	100N	-100	19	5	0.2	37	28	21	1300	2.5	32	100	5	370	4	5	0.05	4	18	7	170	2.5	10	30	5	80
0+50W	100N	-50	10	10	0.1	17	111	14	660	2.5	18	100	6	350	4	5	0.05	4	18	8	170	2.5	10	40	5	90
0+00W	100N	0	13	5	0.7	119	306	15	8020	7	45	990	57	820	4	5	0.05	4	19	8	180	2.5	11	40	5	90
0+50E	100N	50	33	20	1.3	86	835	157	10700	9	92	1030	193	470	5	5	0.05	5	21	9	180	2.5	11	50	5	100
1+00E	100N	100	*	*	*	*	*	*	*	*	*	*	*	*	5	5	0.05	5	22	9	180	2.5	11	50	5	110
1+50E	100N	150	*	*	*	*	*	*	*	*	*	*	*	*	5	5	0.05	5	23	9	200	2.5	11	60	5	110
2+00E	100N	200	*	*	*	*	*	*	*	*	*	*	*	*	5	5	0.05	6	24	9	200	2.5	12	60	6	120
2+50E	100N	250	*	*	*	*	*	*	*	*	*	*	*	*	5	5	0.05	7	24	10	210	2.5	13	60	6	120
3+00E	100N	300	*	*	*	*	*	*	*	*	*	*	*	*	5	5	0.05	7	25	10	210	2.5	14	60	6	120
3+50E	100N	350	*	*	*	*	*	*	*	*	*	*	*	*	6	5	0.05	7	26	11	220	2.5	14	70	6	120
4+00E	100N	400	20	10	0.05	6	89	16	440	2.5	18	40	9	240	6	5	0.05	7	26	11	220	2.5	15	70	6	120
4+50E	100N	450	6	5	0.05	12	38	24	270	2.5	32	30	7	330	6	5	0.05	7	27	11	230	2.5	15	70	6	130
5+00E	100N	500	4	10	0.05	90	231	27	570	9	231	90	22	1050	6	5	0.05	7	28	12	240	2.5	15	70	6	130
5+50E	100N	550	*	*	*	*	*	*	*	*	*	*	*	*	6	5	0.05	8	28	12	250	2.5	16	80	6	130
6+00E	100N	600	*	*	*	*	*	*	*	*	*	*	*	*	6	5	0.05	8	30	12	250	2.5	16	80	6	130
6+50E	100N	650	*	*	*	*	*	*	*	*	*	*	*	*	6	5	0.05	8	32	12	260	2.5	16	90	7	130
7+00E	100N	700	4	20	0.05	8	285	19	110	2.5	21	270	11	160	6	5	0.05	8	35	13	260	2.5	16	90	7	140
Line 300N															6	5	0.05	8	36	13	260	2.5	17	90	7	150
5+00W	300N	-500	*	*	*	*	*	*	*	*	*	*	*	*	7	5	0.05	8	36	13	260	2.5	17	100	7	150
4+50W	300N	-450	11	5	0.1	7	45	11	1160	2.5	33	370	11	120	7	5	0.05	8	38	13	270	2.5	17	100	7	150
4+00W	300N	-400	10	20	0.2	7	167	26	560	2.5	16	140	13	250	7	5	0.05	9	39	14	270	2.5	18	110	7	150
3+50W	300N	-350	50	5	0.7	21	92	12	2640	2.5	24	780	36	250	7	5	0.05	9	39	14	270	2.5	18	110	7	160
3+00W	300N	-300	18	5	0.2	16	49	2.5	1150	2.5	21	510	35	250	7	5	0.05	9	40	14	290	2.5	18	120	8	160
2+50W	300N	-250	24	20	0.1	8	327	37	270	2.5	11	180	9	180	7	5	0.05	10	42	15	320	2.5	18	120	8	160
2+00W	300N	-200	11	5	0.05	17	42	8	350	2.5	22	60	5	210	7	5	0.05	10	42	15	320	2.5	18	120	8	170
1+50W	300N	-150	9	5	0.05	14	18	19	450	2.5	19	170	5	220	7	5	0.05	10	42	15	350	2.5	19	130	8	180
1+00W	300N	-100	2	5	0.1	10	63	56	200	2.5	22	170	6	410	8	5	0.1	10	42	15	370	2.5	19	140	8	190
0+50W	300N	-50	10	5	0.2	58	158	14	1060	5	34	70	16	510	8	5	0.1	10	43	15	370	2.5	19	140	8	210
0+00W	300N	0	6	5	0.05	20	42	43	260	5	25	20	13	430	8	5	0.1	10	43	15	380	2.5	19	150	8	210
0+50E	300N	50	3	30	0.05	26	51	55	100	2.5	16	70	18	670	8	5	0.1	10	44	15	390	2.5	19	150	8	220
1+00E	300N	100	10	5	0.05	48	68	43	470	2.5	54	150	9	280	9	5	0.1	11	45	16	400	2.5	21	160	8	220
1+50E	300N	150	11	10	0.05	73	60	27	890	10	103	140	23	760	9	5	0.1	11	45	16	400	2.5	21	170	9	220
2+00E	300N	200	15	20	0.3	18	845	25	1140	5	33	220	27	370	9	5	0.1	12	49	17	410	2.5	22	170	9	230
2+50E	300N	250	3	20	0.05	14	70	17	170	2.5	22	30	18	360	9	5	0.1	13	49	17	410	2.5	22	170	9	240
3+00E	300N	300	6	30	0.2	2	413	10	250	2.5	6	430	28	80	9	5	0.1	13	51	17	420	2.5	22	170	9	250
3+50E	300N	350	24	10	0.5	13	266	8	1070	5	27	510	294	380	9	5	0.1	13	51	17	430	2.5	22	180	9	250
4+00E	300N	400	5	10	0.05	4	276	10	180	2.5	10	110	30	90	9	5	0.1	14	54	17	440	2.5	22	190	9	250
4+50E	300N	450	6	5	0.05	10	69	14	220	2.5	28	170	11	310	9	5	0.1	14	55	17	440	2.5	22	200	9	250
5+00E	300N	500	7	5	0.1	8	45	2.5	210	2.5	14	60	14	60	9	5	0.1	14	55	17	450	2.5	23	200	9	270
5+50E	300N	550	12	20	0.5	2	106	15	410	2.5	15	70	11	150	10	5	0.1	14	60	17	450	2.5	24	220	10	270
6+00E	300N	600	*	*	*	*	*	*	*	*	*	*	*	*	10	5	0.1	14	61	18	470	2.5	24	230	10	280
6+50E	300N	650	*	*	*	*	*	*	*	*	*	*	*	*	10	5	0.1	14	61	18	480	2.5	25	240	10	280
7+00E	300N	700	*	*	*	*	*	*	*	*	*	*	*	*	10	5	0.1	15	63	18	500	2.5	25	240	11	300
Line 500N															10	5	0.1	16	63	19	500	2.5	26	250	11	300
5+00W	500N	-500	*	*	*	*	*	*	*	*	*	*	*	*	10	5	0.2	17	68	19	510	2.5	26	250	11	300

			Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn	Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn
4+50W	500N	-450	*	*	*	*	*	*	*	*	*	*	*	*	10	5	0.2	17	69	19	530	2.5	26	250	11	300
4+00W	500N	-400	13	10	0.05	8	152	24	170	2.5	23	120	8	150	11	5	0.2	17	70	19	550	2.5	27	270	11	310
3+50W	500N	-350	9	5	0.2	8	90	6	260	2.5	17	70	50	110	11	5	0.2	17	76	20	560	2.5	27	270	11	320
3+00W	500N	-300	54	20	0.5	4	485	13	420	2.5	11	240	20	110	11	5	0.2	18	76	20	570	2.5	28	270	11	330
2+50W	500N	-250	5	5	0.05	7	32	21	150	2.5	44	120	5	300	11	5	0.2	18	79	21	570	2.5	28	280	11	340
2+00W	500N	-200	*	*	*	*	*	*	*	*	*	*	*	*	11	5	0.2	18	85	21	570	2.5	28	280	11	340
1+50W	500N	-150	*	*	*	*	*	*	*	*	*	*	*	*	11	5	0.2	19	86	21	620	5	28	320	12	340
1+00W	500N	-100	3	5	0.05	79	25	41	550	2.5	44	110	11	770	11	5	0.2	20	89	23	660	5	30	320	12	350
0+50W	500N	-50	8	10	0.2	2	536	13	290	2.5	13	240	27	130	11	10	0.2	20	90	24	690	5	31	340	13	350
0+00W	500N	0	7	5	0.05	38	30	20	320	2.5	48	90	8	680	12	10	0.2	21	92	24	750	5	31	340	13	360
0+50E	500N	50	7	20	0.05	29	305	32	390	14	31	320	64	300	12	10	0.2	22	94	24	810	5	32	340	13	360
1+00E	500N	100	7	5	0.05	15	27	18	220	2.5	78	90	6	560	13	10	0.2	22	95	24	820	5	32	370	13	370
1+50E	500N	150	11	5	0.05	4	2.5	17	80	2.5	50	5	2	90	13	10	0.2	23	102	25	850	5	32	380	13	370
2+00E	500N	200	8	5	0.05	41	43	23	240	2.5	46	80	7	430	13	10	0.2	23	102	26	850	5	33	380	13	370
2+50E	500N	250	*	*	*	*	*	*	*	*	*	*	*	*	13	10	0.2	23	106	26	890	5	33	430	14	370
3+00E	500N	300	20	5	0.3	3	76	2.5	500	7	19	30	130	40	14	10	0.2	23	111	26	920	5	34	430	15	380
3+50E	500N	350	17	20	0.2	7	572	9	440	20	27	170	232	70	14	10	0.2	24	128	27	940	6	34	460	15	380
4+00E	500N	400	9	5	0.1	3	313	6	180	2.5	17	50	24	270	14	10	0.2	24	135	27	990	6	36	460	15	390
4+50E	500N	450	5	20	0.2	7	43	19	320	2.5	19	340	9	130	14	10	0.3	24	136	27	1020	6	36	480	16	400
5+00E	500N	500	*	*	*	*	*	*	*	*	*	*	*	*	15	10	0.3	24	148	28	1040	6	37	500	17	410
5+50E	500N	550	*	*	*	*	*	*	*	*	*	*	*	*	15	10	0.3	24	149	30	1040	6	37	510	18	420
6+00E	500N	600	*	*	*	*	*	*	*	*	*	*	*	*	15	10	0.3	25	150	30	1060	6	37	510	18	420
6+50E	500N	650	*	*	*	*	*	*	*	*	*	*	*	*	15	10	0.3	26	152	30	1070	6	37	520	19	430
7+00E	500N	700	*	*	*	*	*	*	*	*	*	*	*	*	16	20	0.3	26	155	31	1110	6	39	520	19	430
Rusty Project															16	20	0.4	26	158	32	1140	7	40	540	19	440
Line 3100N															16	20	0.4	26	167	33	1150	7	42	620	20	440
81+00E	3100N	0	7	20	0.7	10	95	89	1020	2.5	18	380	8	160	17	20	0.4	27	171	34	1160	7	44	620	20	470
81+25E	3100N	25	*	*	*	*	*	*	*	*	*	*	*	*	17	20	0.4	29	190	34	1180	7	44	630	20	500
81+50E	3100N	50	78	110	4.5	14	826	69	1180	12	2.5	27700	24	630	18	20	0.5	31	190	37	1300	7	44	730	22	510
81+75E	3100N	75	*	*	*	*	*	*	*	*	*	*	*	*	18	20	0.5	31	207	37	1310	7	44	730	22	530
82+00E	3100N	100	27	40	1.4	4	136	33	4860	6	2.5	1380	12	120	19	20	0.5	33	224	37	1340	7	44	740	23	560
82+25E	3100N	125	*	*	*	*	*	*	*	*	*	*	*	*	19	20	0.5	35	231	39	1450	7	45	780	23	570
82+50E	3100N	150	28	5	2.2	19	148	17	2280	2.5	8	950	27	270	20	20	0.5	36	266	40	1530	7	45	790	24	570
82+75E	3100N	175	*	*	*	*	*	*	*	*	*	*	*	*	20	20	0.5	37	269	41	1910	8	46	830	24	570
83+00E	3100N	200	41	10	1.9	14	561	51	3620	6	16	1280	20	340	20	20	0.5	38	276	43	2030	8	48	900	25	630
83+25E	3100N	225	*	*	*	*	*	*	*	*	*	*	*	*	20	20	0.6	38	278	43	2030	8	48	950	27	630
83+50E	3100N	250	41	5	2.7	73	135	9	2710	8	39	830	27	570	21	20	0.6	39	284	43	2190	8	50	990	27	640
83+75E	3100N	275	*	*	*	*	*	*	*	*	*	*	*	*	21	20	0.6	39	285	45	2260	8	50	1030	27	650
84+00E	3100N	300	4	5	0.3	76	26	43	620	7	37	320	11	1940	22	20	0.6	41	300	47	2280	9	53	1030	27	670
84+25E	3100N	325	*	*	*	*	*	*	*	*	*	*	*	*	22	20	0.7	48	305	47	2370	9	53	1070	28	670
84+50E	3100N	350	22	5	0.9	23	26	103	2370	5	36	280	13	280	23	30	0.7	48	306	51	2470	9	54	1180	30	680
84+75E	3100N	375	*	*	*	*	*	*	*	*	*	*	*	*	24	30	0.7	49	312	54	2470	10	58	1190	32	720
85+00E	3100N	400	1	5	0.3	48	19	311	570	17	37	250	15	420	24	30	0.7	50	313	55	2510	10	58	1280	33	730
85+25E	3100N	425	*	*	*	*	*	*	*	*	*	*	*	*	27	30	0.8	55	327	56	2520	10	59	1350	35	760
85+50E	3100N	450	9	20	0.5	59	18	215	1040	19	26	200	11	720	28	30	0.9	58	332	62	2520	11	66	1380	36	770
85+75E	3100N	475	*	*	*	*	*	*	*	*	*	*	*	*	30	30	0.9	59	385	62	2640	11	69	1410	36	820
86+00E	3100N	500	12	30	0.2	38	23	31	260	9	30	1070	7	220	33	30	0.9	60	404	67	2650	12	73	1420	37	840
86+25E	3100N	525	*	*	*	*	*	*	*	*	*	*	*	*	34	30	1	73	413	69	2710	13	75	1600	50	910
86+50E	3100N	550	14	60	0.6	39	36	16	430	15	44	460	8	350	36	40	1	73	455	89	3380	13	77	1810	50	940
86+75E	3100N	575	*	*	*	*	*	*	*	*	*	*	*	*	40	40	1	76	485	103	3620	14	78	1860	57	1050
87+00E	3100N	600	59	5	0.6	86	51	11	530	10	10	3910	9	570	41	40	1.1	79	536	103	3770	15	83	2150	64	1070
87+25E	3100N	625	*	*	*	*	*	*	*	*	*	*	*	*	41	40	1.3	83	561	113	3930	16	92	2190	91	1110
87+50E	3100N	650	21	40	3	36	1420	908	2510	28	19	520	23	1540	50	40	1.4	86	572	113	4860	17	92	2260	113	1320
87+75E	3100N	675	*	*	*	*	*	*	*	*	*	*	*	*	54	40	1.5	86	627	145	5830	19	95	2530	129	1370

			Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn	Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn
88+25E	3100N	25	*	*	*	*	*	*	*	*	*	*	*	*	78	60	2.2	93	835	215	8020	20	110	3180	134	1540
88+50E	3100N	50	9	5	0.1	10	6	34	450	2.5	12	60	3	60	83	70	2.7	119	837	311	8030	22	148	3340	193	1940
88+75E	3100N	75	*	*	*	*	*	*	*	*	*	*	*	*	125	110	3	122	845	313	10700	24	231	3910	232	4200
89+00E	3100N	100	13	5	0.05	10	6	30	270	2.5	19	60	2	50	145	120	4.5	800	1420	908	13700	28	357	27700	294	17000
89+25E	3100N	125	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
89+50E	3100N	150	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
89+75E	3100N	175	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
90+00E	3100N	200	9	10	0.2	27	12	145	410	2.5	16	80	7	340	*	*	*	*	*	*	*	*	*	*	*	*
90+25E	3100N	225	8	5	0.2	33	8	62	570	2.5	18	30	6	150	*	*	*	*	*	*	*	*	*	*	*	*
90+50E	3100N	250	14	40	0.2	26	24	47	990	8	36	190	6	230	*	*	*	*	*	*	*	*	*	*	*	*
90+75E	3100N	275	14	5	0.3	55	9	17	690	2.5	40	540	3	300	*	*	*	*	*	*	*	*	*	*	*	*
91+00E	3100N	300	18	5	1	13	85	17	1450	5	15	2150	22	50	*	*	*	*	*	*	*	*	*	*	*	*
91+25E	3100N	325	15	40	0.5	9	44	12	750	8	34	270	8	100	*	*	*	*	*	*	*	*	*	*	*	*
91+50E	3100N	350	11	10	0.5	7	61	6	1530	5	11	630	9	130	*	*	*	*	*	*	*	*	*	*	*	*
91+75E	3100N	375	34	5	0.4	10	22	24	820	6	31	280	6	130	*	*	*	*	*	*	*	*	*	*	*	*
92+00E	3100N	400	30	30	0.7	26	76	47	1310	7	32	1190	8	420	*	*	*	*	*	*	*	*	*	*	*	*
92+25E	3100N	425	40	5	1.5	25	39	15	3380	2.5	25	1410	7	370	*	*	*	*	*	*	*	*	*	*	*	*
92+50E	3100N	450	9	30	0.4	24	36	20	2030	8	58	620	19	250	*	*	*	*	*	*	*	*	*	*	*	*
92+75E	3100N	475	11	10	1	31	269	62	5830	6	48	1810	113	940	*	*	*	*	*	*	*	*	*	*	*	*
93+00E	3100N	500	0.5	5	0.1	14	12	27	370	7	110	120	2	4200	*	*	*	*	*	*	*	*	*	*	*	*
93+25E	3100N	525	10	40	0.6	24	40	34	13700	22	73	1860	129	220	*	*	*	*	*	*	*	*	*	*	*	*
93+50E	3100N	550	1	20	0.1	26	837	103	8030	20	148	520	25	1320	*	*	*	*	*	*	*	*	*	*	*	*
93+75E	3100N	575	3	120	0.05	800	171	113	2470	16	357	200	6	17000	*	*	*	*	*	*	*	*	*	*	*	*
94+00E	3100N	600	16	70	0.9	17	207	113	1040	11	77	270	36	380	*	*	*	*	*	*	*	*	*	*	*	*
94+25E	3100N	625	14	60	0.9	14	42	313	1340	11	83	10	19	160	*	*	*	*	*	*	*	*	*	*	*	*
94+50E	3100N	650	10	5	0.1	122	86	67	2470	5	59	460	50	1110	*	*	*	*	*	*	*	*	*	*	*	*
94+75E	3100N	675	13	5	0.1	50	155	30	2520	8	50	740	134	400	*	*	*	*	*	*	*	*	*	*	*	*
95+00E	3100N	700	83	5	0.2	83	150	37	2030	6	37	340	32	840	*	*	*	*	*	*	*	*	*	*	*	*
95+25E	3100N	725	23	5	0.4	24	42	17	810	7	37	340	91	1070	*	*	*	*	*	*	*	*	*	*	*	*
95+50E	3100N	750	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
95+75E	3100N	775	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
96+00E	3100N	800	15	5	0.2	13	284	40	1910	5	92	150	19	360	*	*	*	*	*	*	*	*	*	*	*	*
96+25E	3100N	825	6	5	0.05	49	24	28	850	2.5	58	40	6	630	*	*	*	*	*	*	*	*	*	*	*	*
96+50E	3100N	850	6	5	0.05	22	63	24	850	2.5	53	20	10	530	*	*	*	*	*	*	*	*	*	*	*	*
96+75E	3100N	875	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
97+00E	3100N	900	22	5	0.1	39	21	17	2520	2.5	42	5	5	640	*	*	*	*	*	*	*	*	*	*	*	*
97+25E	3100N	925	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
97+50E	3100N	950	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
105+50E	3100N	2050	5	5	0.1	1	10	26	3770	2.5	53	5	4	10	*	*	*	*	*	*	*	*	*	*	*	*
105+75E	3100N	2075	9	5	0.05	8	17	54	2650	2.5	95	500	2	150	*	*	*	*	*	*	*	*	*	*	*	*
Line 9600E															*	*	*	*	*	*	*	*	*	*	*	*
34+00N	9600E	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
34+25N	9600E	25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
34+50N	9600E	50	20	5	0.1	23	190	7	230	2.5	10	1420	9	670	*	*	*	*	*	*	*	*	*	*	*	*
34+75N	9600E	75	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
35+00N	9600E	100	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
35+25N	9600E	125	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
35+50N	9600E	150	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
35+75N	9600E	175	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
36+00N	9600E	200	10	20	0.2	35	385	18	400	6	22	2530	13	440	*	*	*	*	*	*	*	*	*	*	*	*
36+25N	9600E	225	6	5	0.05	17	190	9	160	2.5	26	250	12	340	*	*	*	*	*	*	*	*	*	*	*	*
36+50N	9600E	250	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
36+75N	9600E	275	6	10	0.3	24	300	19	920	6	69	480	15	730	*	*	*	*	*	*	*	*	*	*	*	*
37+00N	9600E	300	5	5	0.05	9	94	2.5	100	2.5	28	430	4	140	*	*	*	*	*	*	*	*	*	*	*	*

			Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn	Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn
37+50N	9600E	25	4	10	0.2	31	224	37	510	7	75	380	10	910	*	*	*	*	*	*	*	*	*	*	*	*
37+75N	9600E	50	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
38+00N	9600E	75	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
38+25N	9600E	100	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
38+50N	9600E	125	7	5	0.05	8	28	2.5	30	2.5	22	230	4	120	*	*	*	*	*	*	*	*	*	*	*	*
38+75N	9600E	150	6	5	0.05	11	79	15	170	2.5	18	730	8	190	*	*	*	*	*	*	*	*	*	*	*	*
39+00N	9600E	175	5	20	0.05	10	128	30	380	6	15	730	7	440	*	*	*	*	*	*	*	*	*	*	*	*
39+25N	9600E	200	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
39+50N	9600E	225	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
39+75N	9600E	250	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
40+00N	9600E	275	19	30	0.1	18	54	18	150	24	28	3340	10	1370	*	*	*	*	*	*	*	*	*	*	*	*
40+25N	9600E	300	11	5	0.2	11	49	13	250	5	26	790	8	320	*	*	*	*	*	*	*	*	*	*	*	*
40+50N	9600E	325	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
40+75N	9600E	350	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
41+00N	9600E	375	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
41+25N	9600E	400	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
41+50N	9600E	425	11	10	0.6	2	312	12	180	7	6	1350	11	300												
41+75N	9600E	450	7	20	0.4	2	278	13	260	7	9	1030	13	170												
42+00N	9600E	475	36	30	1.1	5	404	21	500	10	10	2260	20	390												
42+25N	9600E	500	*	*	*	*	*	*	*	*	*	*	*	*												
42+50N	9600E	525	15	40	0.5	9	332	26	370	13	9	2770	11	130												
42+75N	9600E	550	7	5	0.05	18	55	15	210	2.5	24	900	7	570												
															4.411	5	0.05	5.14286	20.73	8.4107	185.7143	2.5	11.53571	50.53571	4.928571	97.5

Appendix B

APPENDIX B

Columns 4 to 15: Mobile Metal Ion (MMI) Geochemical Assay Data Corresponding to Sample Site Co-ordinates of Columns 1, 2, and 3 for Selected Elements as Shown.

Columns 16 to 27: Calculated MMI **Response-Ratio** Data for Selected Elements Shown Corresponding to Sample Sites Shown in Columns 1, 2, and 3.

			Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn	Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn
																							[redacted]			
Chaco Project																										
Line 100N																										
5+00W	100N	-500	125	5	1	23	61	11	7240	2.5	17	1600	37	210	28.34	1.00	20.00	4.47	2.94	1.31	38.98	1.00	1.47	31.66	7.51	2.15
4+50W	100N	-450	20	5	0.2	24	455	17	2190	2.5	14	2190	15	120	4.53	1.00	4.00	4.67	21.95	2.02	11.79	1.00	1.21	43.34	3.04	1.23
4+00W	100N	-400	16	5	0.1	5	149	12	400	2.5	11	160	13	80	3.63	1.00	2.00	0.97	7.19	1.43	2.15	1.00	0.95	3.17	2.64	0.82
3+50W	100N	-350	16	5	0.1	22	102	6	2260	2.5	22	1180	8	120	3.63	1.00	2.00	4.28	4.92	0.71	12.17	1.00	1.91	23.35	1.62	1.23
3+00W	100N	-300	9	5	0.05	23	39	15	200	2.5	44	50	5	650	2.04	1.00	1.00	4.47	1.88	1.78	1.08	1.00	3.81	0.99	1.01	6.67
2+50W	100N	-250	21	5	0.1	5	102	9	1110	2.5	66	620	17	40	4.76	1.00	2.00	0.97	4.92	1.07	5.98	1.00	5.72	12.27	3.45	0.41
2+00W	100N	-200	8	5	0.05	20	35	15	480	2.5	45	130	6	370	1.81	1.00	1.00	3.89	1.69	1.78	2.58	1.00	3.90	2.57	1.22	3.79
1+50W	100N	-150	17	5	0.05	60	55	39	940	2.5	44	250	9	500	3.85	1.00	1.00	11.67	2.65	4.64	5.06	1.00	3.81	4.95	1.83	5.13
1+00W	100N	-100	19	5	0.2	37	28	21	1300	2.5	32	100	5	370	4.31	1.00	4.00	7.19	1.35	2.50	7.00	1.00	2.77	1.98	1.01	3.79
0+50W	100N	-50	10	10	0.1	17	111	14	660	2.5	18	100	6	350	2.27	2.00	2.00	3.31	5.35	1.66	3.55	1.00	1.56	1.98	1.22	3.59
0+00W	100N	0	13	5	0.7	119	306	15	8020	7	45	990	57	820	2.95	1.00	14.00	23.14	14.76	1.78	43.18	2.80	3.90	19.59	11.57	8.41
0+50E	100N	50	33	20	1.3	86	835	157	10700	9	92	1030	193	470	7.48	4.00	26.00	16.72	40.28	18.67	57.62	3.60	7.98	20.38	39.16	4.82
1+00E	100N	100													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1+50E	100N	150													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2+00E	100N	200													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2+50E	100N	250													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3+00E	100N	300													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3+50E	100N	350													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4+00E	100N	400	20	10	0.05	6	89	16	440	2.5	18	40	9	240	4.53	2.00	1.00	1.17	4.29	1.90	2.37	1.00	1.56	0.79	1.83	2.46
4+50E	100N	450	6	5	0.05	12	38	24	270	2.5	32	30	7	330	1.36	1.00	1.00	2.33	1.83	2.85	1.45	1.00	2.77	0.59	1.42	3.38
5+00E	100N	500	4	10	0.05	90	231	27	570	9	231	90	22	1050	0.91	2.00	1.00	17.50	11.14	3.21	3.07	3.60	20.02	1.78	4.46	10.77
5+50E	100N	550													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6+00E	100N	600													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6+50E	100N	650													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7+00E	100N	700	4	20	0.05	8	285	19	110	2.5	21	270	11	160	0.91	4.00	1.00	1.56	13.75	2.26	0.59	1.00	1.82	5.34	2.23	1.64
Line 300N																										
5+00W	300N	-500													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4+50W	300N	-450	11	5	0.1	7	45	11	1160	2.5	33	370	11	120	2.49	1.00	2.00	1.36	2.17	1.31	6.25	1.00	2.86	7.32	2.23	1.23
4+00W	300N	-400	10	20	0.2	7	167	26	560	2.5	16	140	13	250	2.27	4.00	4.00	1.36	8.06	3.09	3.02	1.00	1.39	2.77	2.64	2.56
3+50W	300N	-350	50	5	0.7	21	92	12	2640	2.5	24	780	36	250	11.34	1.00	14.00	4.08	4.44	1.43	14.22	1.00	2.08	15.43	7.30	2.56
3+00W	300N	-300	18	5	0.2	16	49	2.5	1150	2.5	21	510	35	250	4.08	1.00	4.00	3.11	2.36	0.30	6.19	1.00	1.82	10.09	7.10	2.56
2+50W	300N	-250	24	20	0.1	8	327	37	270	2.5	11	180	9	180	5.44	4.00	2.00	1.56	15.77	4.40	1.45	1.00	0.95	3.56	1.83	1.85
2+00W	300N	-200	11	5	0.05	17	42	8	350	2.5	22	60	5	210	2.49	1.00	1.00	3.31	2.03	0.95	1.88	1.00	1.91	1.19	1.01	2.15
1+50W	300N	-150	9	5	0.05	14	18	19	450	2.5	19	170	5	220	2.04	1.00	1.00	2.72	0.87	2.26	2.42	1.00	1.65	3.36	1.01	2.26
1+00W	300N	-100	2	5	0.1	10	63	56	200	2.5	22	170	6	410	0.45	1.00	2.00	1.94	3.04	6.66	1.08	1.00	1.91	3.36	1.22	4.21
0+50W	300N	-50	10	5	0.2	58	158	14	1060	5	34	70	16	510	2.27	1.00	4.00	11.28	7.62	1.66	5.71	2.00	2.95	1.39	3.25	5.23
0+00W	300N	0	6	5	0.05	20	42	43	260	5	25	20	13	430	1.36	1.00	1.00	3.89	2.03	5.11	1.40	2.00	2.17	0.40	2.64	4.41
0+50E	300N	50	3	30	0.05	26	51	55	100	2.5	16	70	18	670	0.68	6.00	1.00	5.06	2.46	6.54	0.54	1.00	1.39	1.39	3.65	6.87
1+00E	300N	100	10	5	0.05	48	68	43	470	2.5	54	150	9	280	2.27	1.00	1.00	9.33	3.28	5.11	2.53	1.00	4.68	2.97	1.83	2.87
1+50E	300N	150	11	10	0.05	73	60	27	890	10	103	140	23	760	2.49	2.00	1.00	14.19	2.89	3.21	4.79	4.00	8.93	2.77	4.67	7.79
2+00E	300N	200	15	20	0.3	18	845	25	1140	5	33	220	27	370	3.40	4.00	6.00	3.50	40.76	2.97	6.14	2.00	2.86	4.35	5.48	3.79
2+50E	300N	250	3	20	0.05	14	70	17	170	2.5	22	30	18	360	0.68	4.00	1.00	2.72	3.38	2.02	0.92	1.00	1.91	0.59	3.65	3.69
3+00E	300N	300	6	30	0.2	2	413	10	250	2.5	6	430	28	80	1.36	6.00	4.00	0.39	19.92	1.19	1.35	1.00	0.52	8.51	5.68	0.82
3+50E	300N	350	24	10	0.5	13	266	8	1070	5	27	510	294	380	5.44	2.00	10.00	2.53	12.83	0.95	5.76	2.00	2.34	10.09	59.65	3.90
4+00E	300N	400	5	10	0.05	4	276	10	180	2.5	10	110	30	90	1.13	2.00	1.00	0.78	13.31	1.19	0.97	1.00	0.87	2.18	6.09	0.92
4+50E	300N	450	6	5	0.05	10	69	14	220	2.5	28	170	11	310	1.36	1.00	1.00	1.94	3.33	1.66	1.18	1.00	2.43	3.36	2.23	3.18
5+00E	300N	500	7	5	0.1	8	45	2.5	210	2.5	14	60	14	60	1.59	1.00	2.00	1.56	2.17	0.30	1.13	1.00	1.21	1.19	2.84	0.62
5+50E	300N	550	12	20	0.5	2	106	15	410	2.5	15	70	11	150	2.72	4.00	10.00	0.39	5.11	1.78	2.21	1.00	1.30	1.39	2.23	1.54
6+00E	300N	600													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6+50E	300N	650													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7+00E	300N	700													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Line 500N																										
5+00W	500N	-500													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4+50W	500N	-450													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn	Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn
4+00W	500N	-400	13	10	0.05	8	152	24	170	2.5	23	120	8	150	2.95	2.00	1.00	1.56	7.33	2.85	0.92	1.00	1.99	2.37	1.62	1.54
3+50W	500N	-350	9	5	0.2	8	90	6	260	2.5	17	70	50	110	2.04	1.00	4.00	1.56	4.34	0.71	1.40	1.00	1.47	1.39	10.14	1.13
3+00W	500N	-300	54	20	0.5	4	485	13	420	2.5	11	240	20	110	12.24	4.00	10.00	0.78	23.39	1.55	2.26	1.00	0.95	4.75	4.06	1.13
2+50W	500N	-250	5	5	0.05	7	32	21	150	2.5	44	120	5	300	1.13	1.00	1.00	1.36	1.54	2.50	0.81	1.00	3.81	2.37	1.01	3.08
2+00W	500N	-200													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1+50W	500N	-150													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1+00W	500N	-100	3	5	0.05	79	25	41	550	2.5	44	110	11	770	0.68	1.00	1.00	15.36	1.21	4.87	2.96	1.00	3.81	2.18	2.23	7.90
0+50W	500N	-50	8	10	0.2	2	536	13	290	2.5	13	240	27	130	1.81	2.00	4.00	0.39	25.85	1.55	1.56	1.00	1.13	4.75	5.48	1.33
0+00W	500N	0	7	5	0.05	38	30	20	320	2.5	48	90	8	680	1.59	1.00	1.00	7.39	1.45	2.38	1.72	1.00	4.16	1.78	1.62	6.97
0+50E	500N	50	7	20	0.05	29	305	32	390	14	31	320	64	300	1.59	4.00	1.00	5.64	14.71	3.80	2.10	5.60	2.69	6.33	12.99	3.08
1+00E	500N	100	7	5	0.05	15	27	18	220	2.5	78	90	6	560	1.59	1.00	1.00	2.92	1.30	2.14	1.18	1.00	6.76	1.78	1.22	5.74
1+50E	500N	150	11	5	0.05	4	2.5	17	80	2.5	50	5	2	90	2.49	1.00	1.00	0.78	0.12	2.02	0.43	1.00	4.33	0.10	0.41	0.92
2+00E	500N	200	8	5	0.05	41	43	23	240	2.5	46	80	7	430	1.81	1.00	1.00	7.97	2.07	2.73	1.29	1.00	3.99	1.58	1.42	4.41
2+50E	500N	250													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3+00E	500N	300	20	5	0.3	3	76	2.5	500	7	19	30	130	40	4.53	1.00	6.00	0.58	3.67	0.30	2.69	2.80	1.65	0.59	26.38	0.41
3+50E	500N	350	17	20	0.2	7	572	9	440	20	27	170	232	70	3.85	4.00	4.00	1.36	27.59	1.07	2.37	8.00	2.34	3.36	47.07	0.72
4+00E	500N	400	9	5	0.1	3	313	6	180	2.5	17	50	24	270	2.04	1.00	2.00	0.58	15.10	0.71	0.97	1.00	1.47	0.99	4.87	2.77
4+50E	500N	450	5	20	0.2	7	43	19	320	2.5	19	340	9	130	1.13	4.00	4.00	1.36	2.07	2.26	1.72	1.00	1.65	6.73	1.83	1.33
5+00E	500N	500													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5+50E	500N	550													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6+00E	500N	600													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6+50E	500N	650													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7+00E	500N	700													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rusty Project																										
Line 3100N																										
81+00E	3100N	0	7	20	0.7	10	95	89	1020	2.5	18	380	8	160	1.59	4.00	14.00	1.94	4.58	10.58	5.49	1.00	1.56	7.52	1.62	1.64
81+50E	3100N	50	78	110	4.5	14	826	69	1180	12	2.5	27700	24	630	17.68	22.00	90.00	2.72	39.84	8.20	6.35	4.80	0.22	548.13	4.87	6.46
82+00E	3100N	100	27	40	1.4	4	136	33	4860	6	2.5	1380	12	120	6.12	8.00	28.00	0.78	6.56	3.92	26.17	2.40	0.22	27.31	2.43	1.23
82+50E	3100N	150	28	5	2.2	19	148	17	2280	2.5	8	950	27	270	6.35	1.00	44.00	3.69	7.14	2.02	12.28	1.00	0.69	18.80	5.48	2.77
83+00E	3100N	200	41	10	1.9	14	561	51	3620	6	16	1280	20	340	9.30	2.00	38.00	2.72	27.06	6.06	19.49	2.40	1.39	25.33	4.06	3.49
83+50E	3100N	250	41	5	2.7	73	135	9	2710	8	39	830	27	570	9.30	1.00	54.00	14.19	6.51	1.07	14.59	3.20	3.38	16.42	5.48	5.85
84+00E	3100N	300	4	5	0.3	76	26	43	620	7	37	320	11	1940	0.91	1.00	6.00	14.78	1.25	5.11	3.34	2.80	3.21	6.33	2.23	19.90
84+50E	3100N	350	22	5	0.9	23	26	103	2370	5	36	280	13	280	4.99	1.00	18.00	4.47	1.25	12.25	12.76	2.00	3.12	5.54	2.64	2.87
85+00E	3100N	400	1	5	0.3	48	19	311	570	17	37	250	15	420	0.23	1.00	6.00	9.33	0.92	36.98	3.07	6.80	3.21	4.95	3.04	4.31
85+50E	3100N	450	9	20	0.5	59	18	215	1040	19	26	200	11	720	2.04	4.00	10.00	11.47	0.87	25.56	5.60	7.60	2.25	3.96	2.23	7.38
86+00E	3100N	500	12	30	0.2	38	23	31	260	9	30	1070	7	220	2.72	6.00	4.00	7.39	1.11	3.69	1.40	3.60	2.60	21.17	1.42	2.26
86+50E	3100N	550	14	60	0.6	39	36	16	430	15	44	460	8	350	3.17	12.00	12.00	7.58	1.74	1.90	2.32	6.00	3.81	9.10	1.62	3.59
87+00E	3100N	600	59	5	0.6	86	51	11	530	10	10	3910	9	570	13.38	1.00	12.00	16.72	2.46	1.31	2.85	4.00	0.87	77.37	1.83	5.85
87+50E	3100N	650	21	40	3	36	1420	908	2510	28	19	520	23	1540	4.76	8.00	60.00	7.00	68.49	107.96	13.52	11.20	1.65	10.29	4.67	15.79
88+00E	3100N	700	145	30	0.8	93	627	45	3930	13	28	3180	33	1430	32.87	6.00	16.00	18.08	30.24	5.35	21.16	5.20	2.43	62.93	6.70	14.67
88+50E	3100N	750	9	5	0.1	10	6	34	450	2.5	12	60	3	60	2.04	1.00	2.00	1.94	0.29	4.04	2.42	1.00	1.04	1.19	0.61	0.62
89+00E	3100N	800	13	5	0.05	10	6	30	270	2.5	19	60	2	50	2.95	1.00	1.00	1.94	0.29	3.57	1.45	1.00	1.65	1.19	0.41	0.51
89+50E	3100N	850													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90+00E	3100N	875	9	10	0.2	27	12	145	410	2.5	16	80	7	340	2.04	2.00	4.00	5.25	0.58	17.24	2.21	1.00	1.39	1.58	1.42	3.49
90+25E	3100N	900	8	5	0.2	33	8	62	570	2.5	18	30	6	150	1.81	1.00	4.00	6.42	0.39	7.37	3.07	1.00	1.56	0.59	1.22	1.54
90+50E	3100N	925	14	40	0.2	26	24	47	990	8	36	190	6	230	3.17	8.00	4.00	5.06	1.16	5.59	5.33	3.20	3.12	3.76	1.22	2.36
90+75E	3100N	950	14	5	0.3	55	9	17	690	2.5	40	540	3	300	3.17	1.00	6.00	10.69	0.43	2.02	3.72	1.00	3.47	10.69	0.61	3.08
91+00E	3100N	975	18	5	1	13	85	17	1450	5	15	2150	22	50	4.08	1.00	20.00	2.53	4.10	2.02	7.81	2.00	1.30	42.54	4.46	0.51
91+25E	3100N	1000	15	40	0.5	9	44	12	750	8	34	270	8	100	3.40	8.00	10.00	1.75	2.12	1.43	4.04	3.20	2.95	5.34	1.62	1.03
91+50E	3100N	1025	11	10	0.5	7	61	6	1530	5	11	630	9	130	2.49	2.00	10.00	1.36	2.94	0.71	8.24	2.00	0.95	12.47	1.83	1.33
91+75E	3100N	1050	34	5	0.4	10	22	24	820	6	31	280	6	130	7.71	1.00	8.00	1.94	1.06	2.85	4.42	2.40	2.69	5.54	1.22	1.33
92+00E	3100N	1075	30	30	0.7	26	76	47	1310	7	32	1190	8	420	6.80	6.00	14.00	5.06	3.67	5.59	7.05	2.80	2.77	23.55	1.62	4.31
92+25E	3100N	1100	40	5	1.5	25	39	15	3380	2.5	25	1410	7	370	9.07	1.00	30.00	4.86	1.88	1.78	18.20	1.00	2.17	27.90	1.42	3.79
92+50E	3100N	1125	9	30	0.4	24	36	20	2030	8	58	620	19	250	2.04	6.00	8.00	4.67	1.74	2.38	10.93	3.20	5.03	12.27	3.86	2.56
92+75E	3100N	1150	11	10	1	31	269	62	5830	6	48	1810	113	940	2.49	2.00	20.00	6.03	12.98	7.37	31.39	2.40	4.16	35.82	22.93	9.64
93+00E	3100N	1175	0.5	5	0.1	14	12	27	370	7	110	120	2	4200	0.11	1.00	2.00	2.72	0.58	3.21	1.99	2.80	9.54	2.37	0.41	43.08
93+25E	3100N	1200	10	40	0.6	24	40	34	13700	22	73	1860	129	220	2.27	8.00	12.00	4.67	1.93	4.04	73.77	8.80	6.33	36.81	26.17	2.26

			Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn	Ag	As	Au	Cd	Ce	Co	Cu	Mo	Ni	Pb	U	Zn
93+75E	3100N	25	3	120	0.05	800	171	113	2470	16	357	200	6	17000	0.68	24.00	1.00	155.56	8.25	13.44	13.30	6.40	30.95	3.96	1.22	174.36
94+00E	3100N	50	16	70	0.9	17	207	113	1040	11	77	270	36	380	3.63	14.00	18.00	3.31	9.98	13.44	5.60	4.40	6.67	5.34	7.30	3.90
94+25E	3100N	75	14	60	0.9	14	42	313	1340	11	83	10	19	160	3.17	12.00	18.00	2.72	2.03	37.21	7.22	4.40	7.20	0.20	3.86	1.64
94+50E	3100N	100	10	5	0.1	122	86	67	2470	5	59	460	50	1110	2.27	1.00	2.00	23.72	4.15	7.97	13.30	2.00	5.11	9.10	10.14	11.38
94+75E	3100N	125	13	5	0.1	50	155	30	2520	8	50	740	134	400	2.95	1.00	2.00	9.72	7.48	3.57	13.57	3.20	4.33	14.64	27.19	4.10
95+00E	3100N	150	83	5	0.2	83	150	37	2030	6	37	340	32	840	18.82	1.00	4.00	16.14	7.24	4.40	10.93	2.40	3.21	6.73	6.49	8.62
95+25E	3100N	175	23	5	0.4	24	42	17	810	7	37	340	91	1070	5.21	1.00	8.00	4.67	2.03	2.02	4.36	2.80	3.21	6.73	18.46	10.97
95+50E	3100N	200													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95+75E	3100N	225													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96+00E	3100N	250	15	5	0.2	13	284	40	1910	5	92	150	19	360	3.40	1.00	4.00	2.53	13.70	4.76	10.28	2.00	7.98	2.97	3.86	3.69
96+25E	3100N	275	6	5	0.05	49	24	28	850	2.5	58	40	6	630	1.36	1.00	1.00	9.53	1.16	3.33	4.58	1.00	5.03	0.79	1.22	6.46
96+50E	3100N	300	6	5	0.05	22	63	24	850	2.5	53	20	10	530	1.36	1.00	1.00	4.28	3.04	2.85	4.58	1.00	4.59	0.40	2.03	5.44
96+75E	3100N	325													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97+00E	3100N	350	22	5	0.1	39	21	17	2520	2.5	42	5	5	640	4.99	1.00	2.00	7.58	1.01	2.02	13.57	1.00	3.64	0.10	1.01	6.56
97+25E	3100N	375													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97+50E	3100N	400													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105+50E	3100N	2050	5	5	0.1	1	10	26	3770	2.5	53	5	4	10	1.13	1.00	2.00	0.19	0.48	3.09	20.30	1.00	4.59	0.10	0.81	0.10
105+75E	3100N	2075	9	5	0.05	8	17	54	2650	2.5	95	500	2	150	2.04	1.00	1.00	1.56	0.82	6.42	14.27	1.00	8.24	9.89	0.41	1.54
Line 9600E																										
34+00N	9600E	0													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34+25N	9600E	25													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34+50N	9600E	50	20	5	0.1	23	190	7	230	2.5	10	1420	9	670	4.53	1.00	2.00	4.47	9.16	0.83	1.24	1.00	0.87	28.10	1.83	6.87
34+75N	9600E	75													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35+00N	9600E	100													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35+25N	9600E	125													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35+50N	9600E	150													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35+75N	9600E	175													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36+00N	9600E	200	10	20	0.2	35	385	18	400	6	22	2530	13	440	2.27	4.00	4.00	6.81	18.57	2.14	2.15	2.40	1.91	50.06	2.64	4.51
36+25N	9600E	225	6	5	0.05	17	190	9	160	2.5	26	250	12	340	1.36	1.00	1.00	3.31	9.16	1.07	0.86	1.00	2.25	4.95	2.43	3.49
36+50N	9600E	250													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36+75N	9600E	275	6	10	0.3	24	300	19	920	6	69	480	15	730	1.36	2.00	6.00	4.67	14.47	2.26	4.95	2.40	5.98	9.50	3.04	7.49
37+00N	9600E	300	5	5	0.05	9	94	2.5	100	2.5	28	430	4	140	1.13	1.00	1.00	1.75	4.53	0.30	0.54	1.00	2.43	8.51	0.81	1.44
37+25N	9600E	325													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37+50N	9600E	350	4	10	0.2	31	224	37	510	7	75	380	10	910	0.91	2.00	4.00	6.03	10.80	4.40	2.75	2.80	6.50	7.52	2.03	9.33
37+75N	9600E	375													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38+00N	9600E	400													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38+25N	9600E	425													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38+50N	9600E	450	7	5	0.05	8	28	2.5	30	2.5	22	230	4	120	1.59	1.00	1.00	1.56	1.35	0.30	0.16	1.00	1.91	4.55	0.81	1.23
38+75N	9600E	475	6	5	0.05	11	79	15	170	2.5	18	730	8	190	1.36	1.00	1.00	2.14	3.81	1.78	0.92	1.00	1.56	14.45	1.62	1.95
39+00N	9600E	500	5	20	0.05	10	128	30	380	6	15	730	7	440	1.13	4.00	1.00	1.94	6.17	3.57	2.05	2.40	1.30	14.45	1.42	4.51
39+25N	9600E	525													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39+50N	9600E	550													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39+75N	9600E	575													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40+00N	9600E	600	19	30	0.1	18	54	18	150	24	28	3340	10	1370	4.31	6.00	2.00	3.50	2.60	2.14	0.81	9.60	2.43	66.09	2.03	14.05
40+25N	9600E	625	11	5	0.2	11	49	13	250	5	26	790	8	320	2.49	1.00	4.00	2.14	2.36	1.55	1.35	2.00	2.25	15.63	1.62	3.28
40+50N	9600E	650													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40+75N	9600E	675													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41+00N	9600E	700													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41+25N	9600E	725													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41+50N	9600E	750	11	10	0.6	2	312	12	180	7	6	1350	11	300	2.49	2.00	12.00	0.39	15.05	1.43	0.97	2.80	0.52	26.71	2.23	3.08
41+75N	9600E	775	7	20	0.4	2	278	13	260	7	9	1030	13	170	1.59	4.00	8.00	0.39	13.41	1.55	1.40	2.80	0.78	20.38	2.64	1.74
42+00N	9600E	800	36	30	1.1	5	404	21	500	10	10	2260	20	390	8.16	6.00	22.00	0.97	19.49	2.50	2.69	4.00	0.87	44.72	4.06	4.00
42+25N	9600E	825													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42+50N	9600E	850	15	40	0.5	9	332	26	370	13	9	2770	11	130	3.40	8.00	10.00	1.75	16.01	3.09	1.99	5.20	0.78	54.81	2.23	1.33
42+75N	9600E	875	7	5	0.05	18	55	15	210	2.5	24	900	7	570	1.59	1.00	1.00	3.50	2.65	1.78	1.13	1.00	2.08	17.81	1.42	5.85

Appendix C

APPENDIX C

Mobile Metal Ion (MMI) Geochemical Assay Data for all 46 Elements Assayed

ANALYTE			Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cu	Dy	Er	Eu	Fe	Gd	La	Li	Mg	Mo
METHOD			MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
DETECTION			1	1	10	0.1	10	1	10	1	5	5	100	10	1	0.5	0.5	1	1	1	5	1	5
UNITS			PPB	PPM	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPM	PPB
Chaco Project																							
Line 100N																							
5+00W	100N	-500	125	71	<10	1	930	<1	340	23	61	11	<100	7240	35	18.3	12.6	7	47	40	<5	9	<5
4+50W	100N	-450	20	217	<10	0.2	820	2	10	24	455	17	<100	2190	137	69.5	37.5	29	154	203	<5	3	<5
4+00W	100N	-400	16	183	<10	0.1	260	<1	20	5	149	12	<100	400	40	18.1	11.6	29	48	63	<5	<1	<5
3+50W	100N	-350	16	208	<10	0.1	540	1	70	22	102	6	<100	2260	63	29.1	15.2	27	65	63	<5	4	<5
3+00W	100N	-300	9	213	<10	<0.1	510	<1	40	23	39	15	<100	200	25	13.5	4.4	52	19	13	<5	7	<5
2+50W	100N	-250	21	233	<10	0.1	2970	<1	690	5	102	9	<100	1110	59	27.3	15.4	48	68	76	<5	17	<5
2+00W	100N	-200	8	230	<10	<0.1	250	<1	<10	20	35	15	<100	480	16	10	1.8	40	9	14	<5	2	<5
1+50W	100N	-150	17	245	<10	<0.1	170	<1	<10	60	55	39	<100	940	18	10.6	2.2	45	11	23	<5	1	<5
1+00W	100N	-100	19	245	<10	0.2	260	<1	<10	37	28	21	<100	1300	10	6.4	1.4	57	6	12	<5	1	<5
0+50W	100N	-50	10	279	10	0.1	320	<1	<10	17	111	14	<100	660	31	13.7	6.2	31	27	38	<5	1	<5
0+00W	100N	0	13	99	<10	0.7	820	2	330	119	306	15	<100	8020	69	33.8	23.6	22	84	86	<5	23	7
0+50E	100N	50	33	205	20	1.3	4540	3	670	86	835	157	<100	10700	128	66.4	41.6	81	149	238	<5	38	9
1+00E	100N	100	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1+50E	100N	150	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2+00E	100N	200	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2+50E	100N	250	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3+00E	100N	300	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3+50E	100N	350	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4+00E	100N	400	20	242	10	<0.1	470	<1	<10	6	89	16	<100	440	22	10.4	4.3	57	19	27	<5	1	<5
4+50E	100N	450	6	262	<10	<0.1	370	<1	<10	12	38	24	<100	270	19	12.6	1.7	58	10	13	<5	3	<5
5+00E	100N	500	4	>300	10	<0.1	1450	<1	<10	90	231	27	<100	570	46	28.2	4.7	55	30	117	<5	3	9
5+50E	100N	550	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6+00E	100N	600	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6+50E	100N	650	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7+00E	100N	700	4	256	20	<0.1	540	<1	<10	8	285	19	<100	110	44	19.2	10.9	49	57	99	<5	1	<5
Line 300N																							
5+00W	300N	-500	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4+50W	300N	-450	11	143	<10	0.1	610	<1	220	7	45	11	<100	1160	27	14.5	7	36	28	33	<5	7	<5
4+00W	300N	-400	10	225	20	0.2	220	<1	10	7	167	26	<100	560	38	18.3	11.5	32	44	54	<5	<1	<5
3+50W	300N	-350	50	77	<10	0.7	1560	<1	410	21	92	12	<100	2640	22	11.9	8.2	8	29	22	10	12	<5
3+00W	300N	-300	18	111	<10	0.2	790	<1	280	16	49	<5	<100	1150	41	23.5	9.6	13	40	39	<5	8	<5
2+50W	300N	-250	24	280	20	0.1	460	<1	<10	8	327	37	<100	270	37	15	11.2	41	51	105	<5	<1	<5
2+00W	300N	-200	11	204	<10	<0.1	210	<1	<10	17	42	8	<100	350	25	15.3	2.8	29	15	14	<5	<1	<5
1+50W	300N	-150	9	237	<10	<0.1	390	<1	<10	14	18	19	<100	450	18	11.7	2	65	10	6	<5	2	<5
1+00W	300N	-100	2	222	<10	0.1	450	<1	90	10	63	56	<100	200	13	6.4	3.1	62	15	20	<5	10	<5
0+50W	300N	-50	10	250	<10	0.2	470	<1	<10	58	158	14	<100	1060	29	14.4	4.5	31	28	56	<5	2	5
0+00W	300N	0	6	263	<10	<0.1	450	<1	<10	20	42	43	<100	260	11	7	1	48	7	16	<5	2	5
0+50E	300N	50	3	244	30	<0.1	660	1	<10	26	51	55	<100	100	8	6.6	0.6	125	6	15	<5	3	<5
1+00E	300N	100	10	230	<10	<0.1	150	<1	<10	48	68	43	<100	470	21	10.2	2.6	20	14	24	<5	<1	<5
1+50E	300N	150	11	>300	10	<0.1	260	<1	<10	73	60	27	<100	890	15	9.4	1.9	151	8	17	6	1	10
2+00E	300N	200	15	238	20	0.3	250	<1	<10	18	845	25	<100	1140	155	76.6	45.6	50	193	347	<5	1	5
2+50E	300N	250	3	265	20	<0.1	400	<1	<10	14	70	17	<100	170	13	7.6	2.5	67	13	21	<5	1	<5
3+00E	300N	300	6	156	30	0.2	230	2	<10	2	413	10	<100	250	85	35.6	25.1	42	141	284	<5	<1	<5
3+50E	300N	350	24	>300	10	0.5	570	<1	80	13	266	8	<100	1070	184	86.1	48.2	45	214	173	<5	5	5
4+00E	300N	400	5	223	10	<0.1	240	<1	<10	4	276	10	<100	180	31	11.3	9.6	39	42	92	<5	<1	<5
4+50E	300N	450	6	242	<10	<0.1	430	<1	<10	10	69	14	<100	220	21	11.8	3.4	40	18	21	<5	2	<5
5+00E	300N	500	7	222	<10	0.1	250	<1	<10	8	45	<5	<100	210	23	11.2	3.4	33	17	15	<5	<1	<5
5+50E	300N	550	12	159	20	0.5	650	<1	60	2	106	15	<100	410	46	22.8	13.4	73	63	63	<5	3	<5
6+00E	300N	600	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb	Sc	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti	Tl	U	W	Y	Yb	Zn	Zr
MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
0.5	1	5	10	1	1	1	5	1	5	1	1	10	1	1	10	0.5	3	0.5	1	1	5	1	20	5
PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
<0.5	102	17	1600	<1	18	<1	175	<1	19	32	<1	550	<1	6	<10	1.8	7	1.1	37	<1	190	12	210	25
3.5	492	14	2190	<1	99	<1	193	<1	151	126	<1	40	<1	25	<10	8.5	1160	1.1	15	<1	816	50	120	103
7.8	150	11	160	<1	30	<1	194	<1	75	41	<1	<10	<1	7	<10	13.8	2350	0.7	13	<1	177	12	80	243
1.8	166	22	1180	<1	31	<1	209	<1	56	47	<1	120	<1	11	<10	3.7	538	1.5	8	<1	354	18	120	35
1.6	47	44	50	<1	8	<1	80	<1	30	14	<1	140	<1	4	<10	3.5	808	0.8	5	<1	142	9	650	20
<0.5	151	66	620	<1	28	<1	111	<1	74	45	<1	1770	<1	10	<10	3	81	1.3	17	<1	363	17	40	39
2.5	21	45	130	<1	4	<1	130	<1	33	7	<1	10	<1	2	<10	5.3	977	0.7	6	<1	76	7	370	32
4.4	28	44	250	<1	6	<1	229	<1	61	9	<1	<10	<1	3	<10	8.7	1310	0.8	9	<1	75	8	500	76
7	15	32	100	<1	3	<1	154	<1	28	4	<1	<10	<1	1	<10	5.3	2210	0.7	5	<1	46	5	370	58
3.3	73	18	100	<1	15	<1	137	<1	72	22	<1	<10	<1	5	<10	10	1500	0.8	6	<1	122	9	350	62
0.6	216	45	990	<1	42	<1	178	<1	60	68	<1	570	<1	13	<10	8.7	115	<0.5	57	<1	309	26	820	42
1.5	440	92	1030	<1	92	<1	282	<1	265	122	<1	1240	<1	23	<10	19	313	1.7	193	1	706	53	470	121
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3.7	55	18	40	<1	12	<1	211	<1	30	15	<1	20	<1	4	<10	9.7	871	<0.5	9	<1	96	7	240	82
3.4	19	32	30	<1	4	<1	222	<1	35	6	<1	<10	<1	2	<10	9.4	757	0.6	7	<1	94	9	330	55
2.6	87	231	90	<1	22	<1	296	<1	36	23	<1	30	<1	7	<10	15.9	541	1.1	22	1	211	20	1050	64
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1.7	203	21	270	<1	44	<1	294	<1	48	50	<1	<10	<1	8	<10	18.5	458	0.9	11	<1	200	13	160	75
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1	68	33	370	<1	13	<1	151	<1	50	20	<1	270	<1	4	<10	5.4	282	<0.5	11	<1	167	11	120	29
6.2	140	16	140	<1	28	<1	253	<1	95	38	<1	<10	<1	7	<10	13.1	969	0.5	13	<1	188	14	250	147
<0.5	60	24	780	<1	10	<1	122	<1	11	20	<1	640	<1	4	<10	1.8	<3	<0.5	36	<1	120	8	250	12
<0.5	84	21	510	<1	15	<1	165	<1	58	27	<1	410	<1	6	<10	3	29	<0.5	35	<1	254	16	250	49
3.8	178	11	180	<1	40	<1	208	<1	57	46	<1	<10	<1	8	<10	23.5	1580	1	9	<1	145	10	180	157
4.7	31	22	60	<1	6	<1	119	<1	38	10	<1	<10	<1	3	<10	4.3	1010	0.7	5	<1	133	11	210	65
1.3	17	19	170	<1	3	<1	163	<1	26	6	<1	40	<1	2	<10	4.9	419	0.6	5	<1	97	9	220	20
1.2	46	22	170	<1	9	<1	107	<1	36	13	<1	190	<1	2	<10	16.9	323	<0.5	6	<1	71	5	410	42
2.8	85	34	70	<1	19	<1	149	<1	21	23	<1	20	<1	5	<10	11.1	623	0.7	16	<1	137	10	510	43
4.4	20	25	20	<1	4	<1	321	<1	23	5	<1	<10	<1	2	<10	15.8	770	0.6	13	<1	52	6	430	92
8.4	18	16	70	<1	4	<1	198	<1	22	4	<1	<10	<1	1	<10	17.1	1720	<0.5	18	<1	41	5	670	114
1.5	37	54	150	<1	8	<1	135	<1	24	11	<1	<10	<1	3	<10	5.1	454	0.8	9	<1	87	7	280	19
21.9	22	103	140	1	5	<1	176	<1	52	7	1	<10	1	2	<10	22.9	4630	0.9	23	<1	58	8	760	435
11.6	726	33	220	1	157	<1	256	1	139	180	<1	<10	<1	29	<10	31	2440	0.5	27	1	746	58	370	317
11.2	41	22	30	<1	8	<1	298	<1	19	11	<1	<10	<1	2	<10	34.8	554	<0.5	18	<1	60	6	360	231
10.8	649	6	430	1	143	<1	425	<1	37	141	<1	<10	<1	19	<10	40.5	962	1.1	28	1	388	25	80	422
10.4	566	27	510	<1	97	<1	293	<1	130	169	<1	100	<1	33	<10	17.9	2420	0.9	294	2	909	59	380	307
7.4	157	10	110	<1	36	<1	327	<1	46	40	<1	<10	<1	6	<10	21.4	1720	0.8	30	<1	114	8	90	226
5.5	49	28	170	<1	10	<1	230	<1	28	14	<1	<10	<1	3	<10	8.5	1180	0.7	11	<1	102	8	310	66
5.6	34	14	60	<1	6	<1	286	<1	26	11	<1	<10	<1	3	<10	6.6	1150	1.1	14	<1	108	8	60	102
20.7	165	15	70	<1	30	<1	402	<1	48	49	1	70	1	9	<10	12.5	3590	0.6	11	<1	256	16	150	199
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

ANALYTE			Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cu	Dy	Er	Eu	Fe	Gd	La	Li	Mg	Mo
METHOD			MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
DETECTION			1	1	10	0.1	10	1	10	1	5	5	100	10	1	0.5	0.5	1	1	1	5	1	5
UNITS			PPB	PPM	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPM	PPB
6+50E	300N	650	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7+00E	300N	700	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Line 500N																							
5+00W	500N	-500	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4+50W	500N	-450	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4+00W	500N	-400	13	>300	10	<0.1	300	<1	<10	8	152	24	<100	170	58	31.2	16	38	56	46	<5	<1	<5
3+50W	500N	-350	9	151	<10	0.2	400	<1	170	8	90	6	<100	260	27	12.2	8.7	11	37	43	<5	11	<5
3+00W	500N	-300	54	158	20	0.5	320	<1	50	4	485	13	<100	420	55	22.9	21.5	16	80	189	<5	3	<5
2+50W	500N	-250	5	>300	<10	<0.1	240	<1	<10	7	32	21	<100	150	10	6.5	1.3	31	6	12	<5	1	<5
2+00W	500N	-200	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1+50W	500N	-150	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1+00W	500N	-100	3	293	<10	<0.1	360	<1	<10	79	25	41	<100	550	7	5.2	0.5	81	4	9	<5	6	<5
0+50W	500N	-50	8	153	10	0.2	140	<1	<10	2	536	13	<100	290	41	16.2	12.1	20	62	121	<5	1	<5
0+00W	500N	0	7	280	<10	<0.1	150	<1	<10	38	30	20	<100	320	12	7.4	1.3	33	7	10	<5	1	<5
0+50E	500N	50	7	>300	20	<0.1	390	<1	10	29	305	32	<100	390	47	20.9	9	42	45	92	<5	3	14
1+00E	500N	100	7	>300	<10	<0.1	380	<1	<10	15	27	18	<100	220	10	6.5	1.3	61	7	10	<5	2	<5
1+50E	500N	150	11	297	<10	<0.1	160	<1	<10	4	<5	17	<100	80	1	1.3	<0.5	44	<1	<1	<5	2	<5
2+00E	500N	200	8	>300	<10	<0.1	190	<1	<10	41	43	23	<100	240	7	4.1	1.1	53	6	22	<5	<1	<5
2+50E	500N	250	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3+00E	500N	300	20	106	<10	0.3	990	<1	60	3	76	<5	<100	500	65	34.2	21.5	7	92	171	<5	5	7
3+50E	500N	350	17	199	20	0.2	2440	1	130	7	572	9	<100	440	91	41	29	58	128	307	<5	23	20
4+00E	500N	400	9	261	<10	0.1	350	2	60	3	313	6	<100	180	46	21.3	9.6	43	57	99	<5	5	<5
4+50E	500N	450	5	>300	20	0.2	340	1	<10	7	43	19	<100	320	6	3.8	1.2	93	5	14	<5	<1	<5
5+00E	500N	500	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5+50E	500N	550	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6+00E	500N	600	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6+50E	500N	650	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7+00E	500N	700	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Rusty Project																							
Line 3100N																							
81+00E	3100N	0	7	238	20	0.7	590	2	50	10	95	89	<100	1020	36	20.2	7.3	82	32	34	<5	2	<5
81+25E	3100N	25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
81+50E	3100N	50	78	152	110	4.5	310	6	<10	14	826	69	<100	1180	162	78.6	44.3	83	201	355	<5	1	12
81+75E	3100N	75	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
82+00E	3100N	100	27	290	40	1.4	240	3	<10	4	136	33	<100	4860	18	8.3	5	166	22	58	<5	<1	6
82+25E	3100N	125	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
82+50E	3100N	150	28	107	<10	2.2	1070	<1	210	19	148	17	<100	2280	106	51.1	33.5	19	138	116	<5	12	<5
82+75E	3100N	175	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
83+00E	3100N	200	41	183	10	1.9	280	2	20	14	561	51	<100	3620	146	70.9	50.2	54	197	220	<5	2	6
83+25E	3100N	225	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
83+50E	3100N	250	41	232	<10	2.7	2630	<1	610	73	135	9	<100	2710	88	46.8	24.4	13	102	81	<5	17	8
83+75E	3100N	275	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
84+00E	3100N	300	4	219	<10	0.3	500	<1	20	76	26	43	<100	620	17	10.8	2.3	69	12	9	<5	7	7
84+25E	3100N	325	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
84+50E	3100N	350	22	129	<10	0.9	1110	<1	200	23	26	103	<100	2370	12	7.6	2.6	101	11	13	<5	9	5
84+75E	3100N	375	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
85+00E	3100N	400	1	118	<10	0.3	650	<1	100	48	19	311	<100	570	5	3.3	1	78	4	10	<5	6	17
85+25E	3100N	425	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
85+50E	3100N	450	9	144	20	0.5	820	2	140	59	18	215	<100	1040	9	6.2	1.7	150	8	17	<5	7	19
85+75E	3100N	475	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
86+00E	3100N	500	12	>300	30	0.2	280	1	<10	38	23	31	<100	260	5	3.1	0.9	151	4	12	<5	2	9

Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb	Sc	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti	Tl	U	W	Y	Yb	Zn	Zr
MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
0.5	1	5	10	1	1	1	5	1	5	1	1	10	1	1	10	0.5	3	0.5	1	1	5	1	20	5
PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6.6	155	23	120	<1	27	<1	172	<1	131	47	<1	30	<1	9	<10	7.4	1890	<0.5	8	2	294	25	150	85
1.7	110	17	70	<1	21	<1	240	<1	34	31	<1	330	<1	5	<10	5.2	444	<0.5	50	<1	134	8	110	47
1.7	318	11	240	<1	69	<1	206	<1	103	78	<1	60	<1	11	<10	18.7	775	<0.5	20	<1	226	16	110	103
1.9	16	44	120	<1	4	<1	151	<1	20	5	<1	30	<1	1	<10	4.4	523	<0.5	5	<1	48	5	300	23
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5.1	10	44	110	<1	2	<1	98	<1	21	3	<1	40	<1	<1	<10	8.2	784	<0.5	11	<1	33	4	770	48
5	266	13	240	<1	61	<1	283	<1	47	67	<1	20	<1	9	<10	25.8	891	0.6	27	<1	137	13	130	198
1.5	16	48	90	<1	3	<1	248	<1	26	5	<1	20	<1	2	<10	5	649	<0.5	8	<1	54	5	680	22
9.7	148	31	320	<1	30	<1	261	<1	72	38	<1	60	<1	8	<10	29.8	2140	<0.5	64	1	197	14	300	172
8.6	16	78	90	<1	3	<1	145	<1	17	5	<1	40	<1	1	<10	5	1370	<0.5	6	<1	49	5	560	62
1.8	1	50	<10	<1	<1	<1	43	<1	<5	<1	<1	20	<1	<1	<10	1.3	444	<0.5	2	<1	6	2	90	13
3.4	23	46	80	<1	6	<1	167	<1	7	5	<1	30	<1	1	<10	5.5	814	<0.5	7	<1	29	3	430	43
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<0.5	352	19	30	<1	72	<1	117	<1	38	85	<1	110	<1	12	<10	2.7	23	<0.5	130	<1	357	25	40	53
7.5	493	27	170	1	110	<1	352	<1	54	119	<1	340	<1	18	<10	35.2	1170	1.2	232	1	450	30	70	328
0.6	218	17	50	<1	45	<1	410	<1	32	53	<1	60	<1	8	<10	19.8	153	<0.5	24	<1	231	15	270	93
5.9	18	19	340	<1	4	<1	289	<1	15	5	<1	20	<1	<1	<10	12.2	2260	0.7	9	<1	28	3	130	78
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4.8	71	18	380	<1	14	<1	200	<1	35	22	<1	70	<1	6	<10	9.2	2030	1.2	8	<1	191	14	160	43
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6.5	691	<5	27700	<1	157	<1	373	2	123	165	<1	<10	<1	30	<10	26	1780	1.8	24	2	782	54	630	133
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14.1	75	<5	1380	<1	17	<1	190	2	33	19	<1	<10	<1	3	<10	17.6	4960	1	12	2	82	6	120	139
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1	305	8	950	<1	54	<1	278	<1	55	96	<1	340	<1	19	<10	4.2	190	1	27	<1	611	33	270	103
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5.7	610	16	1280	<1	122	<1	257	<1	133	168	<1	<10	<1	28	<10	18.2	1340	1	20	2	716	53	340	190
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<0.5	211	39	830	<1	36	<1	362	<1	40	71	<1	840	<1	15	<10	4.4	45	2	27	<1	460	31	570	66
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2.5	23	37	320	<1	4	<1	52	<1	41	8	<1	50	<1	2	<10	6.2	1020	0.7	11	<1	84	8	1940	47
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2.1	22	36	280	<1	5	<1	106	<1	20	7	<1	310	<1	2	<10	5.4	489	0.5	13	<1	75	6	280	30
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1.2	13	37	250	<1	3	<1	153	<1	13	4	<1	180	<1	<1	<10	4.1	259	1.2	15	<1	26	2	420	29
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6.7	23	26	200	<1	5	<1	158	<1	14	6	<1	300	<1	1	<10	7.4	1870	0.7	11	1	58	5	720	33
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13.6	12	30	1070	<1	3	<1	161	<1	13	3	<1	<10	<1	<1	<10	11	3630	0.9	7	1	24	3	220	54

ANALYTE			Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cu	Dy	Er	Eu	Fe	Gd	La	Li	Mg	Mo
METHOD			MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
DETECTION			1	1	10	0.1	10	1	10	1	5	5	100	10	1	0.5	0.5	1	1	1	5	1	5
UNITS			PPB	PPM	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPM	PPB
87+25E	3100N	25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
87+50E	3100N	50	21	97	40	3	870	1	20	36	1420	908	<100	2510	40	13.7	19	69	76	278	6	1	28
87+75E	3100N	75	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
88+00E	3100N	100	145	>300	30	0.8	260	2	<10	93	627	45	<100	3930	124	47.9	46	105	219	651	<5	<1	13
88+25E	3100N	125	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
88+50E	3100N	150	9	254	<10	0.1	250	<1	<10	10	6	34	<100	450	<1	0.7	<0.5	154	<1	3	<5	1	<5
88+75E	3100N	175	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
89+00E	3100N	200	13	296	<10	<0.1	320	<1	<10	10	6	30	<100	270	1	1.5	<0.5	118	<1	4	<5	1	<5
89+25E	3100N	225	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
89+50E	3100N	250	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
89+75E	3100N	275	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
90+00E	3100N	300	9	240	10	0.2	300	1	<10	27	12	145	<100	410	4	3.6	<0.5	153	2	5	<5	3	<5
90+25E	3100N	325	8	269	<10	0.2	300	1	<10	33	8	62	<100	570	4	4.2	<0.5	102	2	4	<5	1	<5
90+50E	3100N	350	14	214	40	0.2	480	1	<10	26	24	47	<100	990	2	1.8	<0.5	296	3	10	<5	2	8
90+75E	3100N	375	14	225	<10	0.3	220	<1	<10	55	9	17	<100	690	4	4.3	<0.5	50	2	4	<5	<1	<5
91+00E	3100N	400	18	197	<10	1	170	<1	<10	13	85	17	<100	1450	61	29.9	9.1	37	43	23	<5	<1	5
91+25E	3100N	425	15	>300	40	0.5	340	<1	<10	9	44	12	<100	750	9	5.3	2	112	7	21	<5	<1	8
91+50E	3100N	450	11	283	10	0.5	150	1	<10	7	61	6	<100	1530	22	8.3	4.3	45	18	20	<5	<1	5
91+75E	3100N	475	34	279	<10	0.4	130	<1	<10	10	22	24	<100	820	6	4.3	0.9	50	4	11	<5	<1	6
92+00E	3100N	500	30	289	30	0.7	270	2	<10	26	76	47	<100	1310	29	14.4	4.3	85	21	28	<5	<1	7
92+25E	3100N	525	40	208	<10	1.5	330	<1	<10	25	39	15	<100	3380	24	15.4	2.4	42	12	13	<5	<1	<5
92+50E	3100N	550	9	169	30	0.4	910	3	200	24	36	20	<100	2030	26	13.9	6.1	59	30	27	<5	8	8
92+75E	3100N	575	11	171	10	1	1270	2	110	31	269	62	<100	5830	169	94.2	36	52	168	161	<5	7	6
93+00E	3100N	600	<1	25	<10	0.1	1070	<1	390	14	12	27	<100	370	11	7.9	3.2	20	16	9	<5	30	7
93+25E	3100N	625	10	230	40	0.6	2220	42	40	24	40	34	<100	13700	29	43.1	2.9	132	13	21	<5	10	22
93+50E	3100N	650	1	>300	20	0.1	600	<1	20	26	837	103	<100	8030	344	242	67.6	177	324	550	<5	4	20
93+75E	3100N	675	3	294	120	<0.1	850	1	190	800	171	113	<100	2470	155	106	43.2	188	208	267	<5	11	16
94+00E	3100N	700	16	289	70	0.9	810	11	<10	17	207	113	<100	1040	58	20.6	14.7	155	73	85	<5	3	11
94+25E	3100N	725	14	183	60	0.9	810	9	<10	14	42	313	<100	1340	5	2.9	1.2	386	5	15	<5	4	11
94+50E	3100N	750	10	164	<10	0.1	960	<1	90	122	86	67	<100	2470	197	120	25.4	32	135	67	<5	12	5
94+75E	3100N	775	13	201	<10	0.1	470	<1	70	50	155	30	<100	2520	274	126	49.6	20	247	149	<5	7	8
95+00E	3100N	800	83	246	<10	0.2	370	<1	10	83	150	37	<100	2030	65	29.2	10.6	32	50	53	<5	2	6
95+25E	3100N	825	23	127	<10	0.4	1010	<1	320	24	42	17	<100	810	54	32	11.4	23	56	48	<5	14	7
95+50E	3100N	850	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
95+75E	3100N	875	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
96+00E	3100N	900	15	281	<10	0.2	700	1	20	13	284	40	<100	1910	55	25	13.5	56	60	87	<5	4	5
96+25E	3100N	925	6	262	<10	<0.1	280	<1	<10	49	24	28	<100	850	8	5.7	0.8	98	4	9	<5	2	<5
96+50E	3100N	950	6	286	<10	<0.1	330	<1	<10	22	63	24	<100	850	23	12.5	3.3	49	15	21	<5	2	<5
96+75E	3100N	975	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
97+00E	3100N	1000	22	267	<10	0.1	510	<1	40	39	21	17	<100	2520	10	5	1.2	97	6	5	<5	9	<5
97+25E	3100N	1025	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
97+50E	3100N	1050	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
105+50E	3100N	2050	5	194	<10	0.1	320	<1	30	1	10	26	<100	3770	3	2.9	<0.5	76	2	5	<5	5	<5
105+75E	3100N	2075	9	240	<10	<0.1	180	<1	<10	8	17	54	<100	2650	14	10.6	1.2	28	6	8	<5	2	<5
Line 9600E																							
34+00N	9600E	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
34+25N	9600E	25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
34+50N	9600E	50	20	108	<10	0.1	1540	2	10	23	190	7	<100	230	18	7.7	5.8	11	24	83	<5	2	<5
34+75N	9600E	75	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
35+00N	9600E	100	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
35+25N	9600E	125	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb	Sc	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti	Tl	U	W	Y	Yb	Zn	Zr
MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
0.5	1	5	10	1	1	1	5	1	5	1	1	10	1	1	10	0.5	3	0.5	1	1	5	1	20	5
PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7.1	436	19	520	<1	109	<1	284	2	52	93	<1	<10	<1	10	<10	10.6	6050	1.3	23	2	137	10	1540	60
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	940	28	3180	<1	212	<1	225	1	47	195	<1	<10	<1	27	<10	14.4	3950	1.8	33	1	658	28	1430	91
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1.1	3	12	60	<1	<1	<1	55	<1	<5	<1	<1	<10	<1	<1	<10	2.5	446	<0.5	3	<1	<5	<1	60	10
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2.2	3	19	60	<1	<1	<1	48	<1		7	<1	<1	<10	<1	<1	<10	3.8	548	<0.5		2	<1		9	2	50	18
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3.4	6	16	80	<1	1	<1	118	<1	27	1	<1	40	<1	<1	<10	7.8	921	<0.5	7	<1	20	4	340	38
3.1	4	18	30	<1	<1	<1	124	<1	25	1	<1	<10	<1	<1	<10	4.7	832	<0.5	6	<1	21	4	150	30
12.4	9	36	190	<1	2	<1	193	<1	20	2	<1	10	<1	<1	<10	9.7	2910	0.6	6	1	11	2	230	121
2.1	5	40	540	<1	1	<1	114	<1	17	1	<1	<10	<1	<1	<10	3.6	538	0.6	3	<1	21	4	300	38
5.5	79	15	2150	<1	13	<1	151	<1	52	28	<1	<10	<1	9	<10	6.9	1220	0.7	22	<1	278	20	50	106
8.5	23	34	270	<1	5	<1	167	2	38	6	<1	<10	<1	1	<10	13.5	2460	0.6	8	<1	39	4	100	171
10.3	42	11	630	<1	8	<1	204	<1	50	14	1	<10	<1	4	<10	10.5	2690	0.9	9	<1	78	6	130	170
3.4	11	31	280	<1	2	<1	172	<1	30	3	<1	<10	<1	<1	<10	6.4	759	0.7	6	<1	26	4	130	41
7.1	43	32	1190	<1	9	<1	228	1	53	14	<1	<10	<1	4	<10	12.8	2650	0.8	8	<1	126	10	420	120
3.7	21	25	1410	<1	4	<1	217	<1	46	8	<1	<10	<1	3	<10	7.2	839	0.6	7	<1	114	11	370	152
3.2	57	58	620	<1	11	<1	96	2	13	18	<1	180	<1	4	<10	9.4	1320	0.7	19	1	166	9	250	39
1.5	332	48	1810	<1	64	<1	197	2	92	110	<1	120	<1	27	<10	14.1	626	0.8	113	1	1060	63	940	69
<0.5	31	110	120	<1	5	<1	21	<1	10	11	<1	710	<1	2	<10	0.8	70	<0.5	2	<1	93	6	4200	16
1.2	31	73	1860	<1	7	<1	52	4	78	9	<1	100	<1	3	<10	24.2	301	1.1	129	1	183	40	220	43
<0.5	926	148	520	<1	217	<1	27	3	33	216	<1	50	<1	54	<10	2.6	96	0.9	25	2	1720	160	1320	22
0.8	522	357	200	<1	106	<1	13	2	37	141	<1	250	<1	27	<10	5.2	216	0.7	6	2	1350	84	17000	26
1.5	144	77	270	<1	29	<1	148	3	96	45	<1	<10	<1	12	<10	26.1	640	1.1	36	<1	281	12	380	91
2	16	83	10	<1	4	<1	74	2	24	4	<1	<10	<1	<1	<10	14.7	431	0.6	19	<1	25	2	160	78
1.2	247	59	460	<1	42	<1	82	<1	90	82	<1	220	<1	27	<10	4.1	347	<0.5	50	1	1130	82	1110	22
1.5	480	50	740	<1	83	<1	129	<1	131	157	<1	160	<1	44	<10	8.3	375	0.8	134	1	1380	80	400	48
9.3	126	37	340	<1	25	<1	154	<1	41	36	<1	<10	<1	10	<10	9.2	1730	0.8	32	<1	284	20	840	100
2.1	103	37	340	<1	19	<1	111	<1	23	34	<1	410	<1	9	<10	4.4	439	<0.5	91	<1	382	24	1070	42
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7.8	168	92	150	<1	35	<1	252	1	92	51	<1	30	<1	10	<10	31.9	1690	0.8	19	<1	229	19	360	253
8.2	10	58	40	<1	2	<1	158	<1	23	3	<1	<10	<1	<1	<10	10.5	1650	0.6	6	<1	36	5	630	76
5.2	30	53	20	<1	6	<1	255	<1	42	10	<1	<10	<1	3	<10	10.8	916	1.1	10	<1	95	9	530	56
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2	11	42	<10	<1	2	<1	111	<1	25	3	<1	60	<1	1	<10	5.7	599	<0.5	5	<1	44	3	640	21
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
0.8	6	53	<10	<1	1	<1	99	<1	15	2	<1	90	<1	<1	<10	2	244	<0.5	4	<1	12	3	<20	18
1.1	12	95	500	<1	2	<1	133	<1	35	4	<1	20	<1	2	<10	1.8	454	<0.5	2	<1	77	9	150	23
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1.9	99	10	1420	<1	25	<1	319	<1	18	23	<1	40	1	4	<10	14	304	1.1	9	1	78	6	670	116
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

ANALYTE			Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cu	Dy	Er	Eu	Fe	Gd	La	Li	Mg	Mo
METHOD			MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
DETECTION			1	1	10	0.1	10	1	10	1	5	5	100	10	1	0.5	0.5	1	1	1	5	1	5
UNITS			PPB	PPM	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPM	PPB
36+50N	9600E	25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
36+75N	9600E	50	6	264	10	0.3	1290	20	40	24	300	19	<100	920	54	24.6	15.7	46	62	93	<5	3	6
37+00N	9600E	75	5	>300	<10	<0.1	890	<1	50	9	94	<5	<100	100	31	14.8	7.5	14	32	58	<5	8	<5
37+25N	9600E	100	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
37+50N	9600E	125	4	246	10	0.2	1540	2	90	31	224	37	<100	510	23	10.4	5.8	36	25	67	<5	8	7
37+75N	9600E	150	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
38+00N	9600E	175	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
38+25N	9600E	200	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
38+50N	9600E	225	7	>300	<10	<0.1	590	<1	<10	8	28	<5	<100	30	9	5	1.5	18	7	11	<5	<1	<5
38+75N	9600E	250	6	>300	<10	<0.1	480	<1	<10	11	79	15	<100	170	13	5.8	3.1	29	13	25	<5	<1	<5
39+00N	9600E	275	5	254	20	<0.1	480	<1	<10	10	128	30	<100	380	15	7.9	4	56	18	39	<5	1	6
39+25N	9600E	300	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
39+50N	9600E	325	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
39+75N	9600E	350	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
40+00N	9600E	375	19	>300	30	0.1	1850	2	10	18	54	18	<100	150	7	3.6	1.7	42	7	22	<5	1	24
40+25N	9600E	400	11	>300	<10	0.2	410	<1	<10	11	49	13	<100	250	18	9.4	2.8	40	12	19	<5	<1	5
40+50N	9600E	425	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
40+75N	9600E	450	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
41+00N	9600E	475	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
41+25N	9600E	500	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
41+50N	9600E	525	11	108	10	0.6	680	<1	<10	2	312	12	<100	180	24	9.6	8	15	35	85	<5	<1	7
41+75N	9600E	550	7	105	20	0.4	480	<1	<10	2	278	13	<100	260	29	12.5	9.8	24	42	96	<5	1	7
42+00N	9600E	575	36	144	30	1.1	1130	<1	<10	5	404	21	<100	500	34	14.6	10.7	29	45	122	<5	<1	10
42+25N	9600E	600	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
42+50N	9600E	625	15	283	40	0.5	780	1	10	9	332	26	<100	370	39	16.4	13	68	51	102	<5	<1	13
42+75N	9600E	650	7	>300	<10	<0.1	440	<1	20	18	55	15	<100	210	21	10.7	3.4	38	17	17	<5	3	<5

Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb	Sc	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti	Tl	U	W	Y	Yb	Zn	Zr
MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
0.5	1	5	10	1	1	1	5	1	5	1	1	10	1	1	10	0.5	3	0.5	1	1	5	1	20	5
PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7.9	188	69	480	<1	40	<1	263	<1	27	53	<1	20	<1	10	<10	32.6	1490	1	15	<1	249	19	730	258
2.4	101	28	430	<1	22	<1	127	<1	9	25	<1	100	<1	6	<10	6.9	385	0.6	4	<1	183	11	140	32
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4.8	79	75	380	<1	19	<1	271	<1	21	21	<1	80	<1	4	<10	33.5	749	1.1	10	<1	98	8	910	144
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2.3	19	22	230	<1	4	<1	208	<1	9	6	<1	<10	<1	1	<10	4.6	417	1.2	4	<1	42	3	120	31
10	39	18	730	<1	8	<1	219	<1	17	11	<1	<10	<1	2	<10	13.1	1670	1.1	8	<1	53	4	190	175
2.9	62	15	730	<1	14	<1	275	1	31	16	<1	<10	<1	3	<10	21.8	732	1	7	<1	66	6	440	81
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4.6	24	28	3340	<1	6	<1	210	5	15	6	<1	10	<1	1	<10	18.6	583	2	10	<1	32	3	1370	86
4.8	30	26	790	<1	6	<1	144	<1	35	9	<1	<10	<1	3	<10	11.4	791	1.7	8	<1	69	7	320	140
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2.5	136	6	1350	<1	31	<1	358	<1	26	34	<1	<10	<1	5	<10	23.3	308	2.2	11	<1	91	8	300	151
3	156	9	1030	<1	36	<1	307	<1	27	38	<1	<10	<1	6	<10	22.2	363	1.8	13	<1	119	10	170	117
5.8	169	10	2260	1	40	<1	429	2	37	43	<1	<10	<1	7	<10	25.9	478	2.6	20	<1	140	12	390	339
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	178	9	2770	<1	39	<1	306	1	36	47	<1	<10	<1	8	<10	22	2390	1.9	11	1	169	12	130	249
1.5	42	24	900	<1	8	<1	180	<1	19	12	<1	30	<1	3	<10	6.6	343	1.3	7	<1	99	7	570	20

Appendix D

APPENDIX D

CERTIFICATES of Analyses

Main Zone Mobile Metal Ion (MMI) Survey

SGS

Certificate of Analysis

Work Order: 096861

To: Geotronics Consulting Inc.
Attn: David G.Mark
6204 - 125th Street
SURREY
BC V3X 2E1

Date: Jan 08, 2008

P.O. No. :	PROJECT: RUSTY
Project No. :	DEFAULT
No. Of Samples	28
Date Submitted	Nov 05, 2007
Report Comprises	Pages 1 to 6 (Inclusive of Cover Sheet)

Distribution of unused material:

STORE: 28 Soils

Certified By : ____________________
Gavin McGill
Operations Manager

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer:

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

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

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

Methods marked with an asterisk (e.g. *NAA08V) were subcontracted

Subject to SGS General Terms and Conditions

SGS Canada Inc. Mineral Services 1885 Leslie Street Toronto ON M3B 2M3 t(416) 445-5755 f(416) 445-4152 www.sgs.com

Element	Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	1	1	10	0.1	10	1	10	1	5	5
Units	PPB	PPM	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB
L31+00N-90+00E	9	240	10	0.2	300	1	<10	27	12	145
L31+00N-90+25E	8	269	<10	0.2	300	1	<10	33	8	62
L31+00N-90+50E	14	214	40	0.2	480	1	<10	26	24	47
L31+00N-90+75E	14	225	<10	0.3	220	<1	<10	55	9	17
L31+00N-91+00E	16	197	<10	1.0	170	<1	<10	13	85	17
L31+00N-91+25E	15	>300	40	0.5	340	<1	<10	9	44	12
L31+00N-91+50E	11	283	10	0.5	150	1	<10	7	61	6
L31+00N-91+75E	34	279	<10	0.4	130	<1	<10	10	22	24
L31+00N-92+00E	30	289	30	0.7	270	2	<10	26	76	47
L31+00N-92+25E	40	208	<10	1.5	330	<1	<10	25	39	15
L31+00N-92+50E	9	189	30	0.4	910	3	200	24	36	20
L31+00N-92+75E	11	171	10	1.0	1270	2	110	31	269	62
L31+00N-93+00E	<1	25	<10	0.1	1070	<1	390	14	12	27
L31+00N-93+25E	10	230	40	0.6	2220	42	40	24	40	34
L31+00N-93+50E	1	>300	20	0.1	600	<1	20	26	837	103
L31+00N-93+75E	3	294	120	<0.1	850	1	190	800	171	113
L31+00N-94+00E	16	289	70	0.9	810	11	<10	17	207	113
L31+00N-94+25E	14	183	60	0.9	810	9	<10	14	42	313
L31+00N-94+50E	10	164	<10	0.1	960	<1	90	122	66	67
L31+00N-94+75E	13	201	<10	0.1	470	<1	70	50	155	30
L31+00N-95+00E	63	246	<10	0.2	370	<1	10	83	150	37
L31+00N-95+25E	23	127	<10	0.4	1010	<1	320	24	42	17
L31+00N-96+00E	15	281	<10	0.2	700	1	20	13	284	40
L31+00N-96+25E	6	282	<10	<0.1	280	<1	<10	49	24	26
L31+00N-96+50E	6	288	<10	<0.1	330	<1	<10	22	63	24
L31+00N-97+00E	22	267	<10	0.1	510	<1	40	39	21	17
L31+00N-105+50E	5	194	<10	0.1	320	<1	30	1	10	26
L31+00N-105+75E	9	240	<10	<0.1	180	<1	<10	8	17	54
*Dup L31+00N-90+00E	6	240	<10	0.1	230	<1	<10	23	7	173
*Dup L31+00N-93+00E	<1	21	<10	<0.1	920	<1	380	18	15	29
*Dup L31+00N-96+50E	7	>300	<10	0.2	310	<1	<10	19	84	22
*Std MMISRM14	20	45	10	40.2	70	<1	290	9	19	51
*Blk BLANK	<1	<1	<10	<0.1	<10	<1	<10	<1	<5	<5

Element	Cr	Cu	Dy	Er	Eu	Fe	Gd	La	Li	Mg
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	100	10	1	0.5	0.5	1	1	1	5	1
Units	PPB	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPM
L31+00N-90+00E	<100	410	4	3.6	<0.5	153	2	5	<5	3
L31+00N-90+25E	<100	570	4	4.2	<0.5	102	2	4	<5	1
L31+00N-90+50E	<100	990	2	1.8	<0.5	296	3	10	<5	2
L31+00N-90+75E	<100	690	4	4.3	<0.5	50	2	4	<5	<1
L31+00N-91+00E	<100	1450	61	29.9	9.1	37	43	23	<5	<1
L31+00N-91+25E	<100	750	9	5.3	2.0	112	7	21	<5	<1
L31+00N-91+50E	<100	1530	22	8.3	4.3	45	18	20	<5	<1
L31+00N-91+75E	<100	820	6	4.3	0.9	50	4	11	<5	<1
L31+00N-92+00E	<100	1310	29	14.4	4.3	85	21	28	<5	<1
L31+00N-92+25E	<100	3380	24	15.4	2.4	42	12	13	<5	<1
L31+00N-92+50E	<100	2030	26	13.9	6.1	59	30	27	<5	8
L31+00N-92+75E	<100	5830	169	94.2	36.0	52	168	161	<5	7
L31+00N-93+00E	<100	370	11	7.9	3.2	20	16	9	<5	30
L31+00N-93+25E	<100	13700	29	43.1	2.9	132	13	21	<5	10
L31+00N-93+50E	<100	8030	344	242	67.6	177	324	550	<5	4
L31+00N-93+75E	<100	2470	155	106	43.2	188	208	267	<5	11
L31+00N-94+00E	<100	1040	58	20.6	14.7	155	73	85	<5	3
L31+00N-94+25E	<100	1340	5	2.9	1.2	386	5	15	<5	4
L31+00N-94+50E	<100	2470	197	120	25.4	32	135	67	<5	12
L31+00N-94+75E	<100	2520	274	126	49.6	20	247	149	<5	7
L31+00N-95+00E	<100	2030	65	29.2	10.6	32	50	53	<5	2
L31+00N-95+25E	<100	810	54	32.0	11.4	23	56	46	<5	14
L31+00N-96+00E	<100	1910	55	25.0	13.5	56	60	87	<5	4
L31+00N-96+25E	<100	850	8	5.7	0.8	98	4	9	<5	2
L31+00N-96+50E	<100	850	23	12.5	3.3	49	15	21	<5	2
L31+00N-97+00E	<100	2520	10	5.0	1.2	97	6	5	<5	9
L31+00N-105+50E	<100	3770	3	2.9	<0.5	76	2	5	<5	5
L31+00N-105+75E	<100	2650	14	10.6	1.2	28	6	8	<5	2
*Dup L31+00N-90+00E	<100	360	3	3.1	<0.5	135	1	3	<5	4
*Dup L31+00N-93+00E	<100	500	14	9.5	4.2	18	22	14	<5	29
*Dup L31+00N-96+50E	<100	860	26	13.2	3.9	46	18	26	<5	2
*Std MMISRM14	<100	770	3	1.0	1.1	3	5	4	<5	36
*Blk BLANK	<100	<10	<1	<0.5	<0.5	<1	<1	<1	<5	<1

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Element	Mo	Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	5	0.5	1	5	10	1	1	1	5	1
Units	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
L31+00N-90+00E	<5	3.4	6	16	80	<1	1	<1	118	<1
L31+00N-90+25E	<5	3.1	4	18	30	<1	<1	<1	124	<1
L31+00N-90+50E	8	12.4	9	36	190	<1	2	<1	193	<1
L31+00N-90+75E	<5	2.1	5	40	540	<1	1	<1	114	<1
L31+00N-91+00E	5	5.5	79	15	2150	<1	13	<1	151	<1
L31+00N-91+25E	8	8.5	23	34	270	<1	5	<1	167	2
L31+00N-91+50E	5	10.3	42	11	630	<1	8	<1	204	<1
L31+00N-91+75E	6	3.4	11	31	280	<1	2	<1	172	<1
L31+00N-92+00E	7	7.1	43	32	1190	<1	9	<1	228	1
L31+00N-92+25E	<5	3.7	21	25	1410	<1	4	<1	217	<1
L31+00N-92+50E	8	3.2	57	58	620	<1	11	<1	96	2
L31+00N-92+75E	6	1.5	332	46	1810	<1	64	<1	197	2
L31+00N-93+00E	7	<0.5	31	110	120	<1	5	<1	21	<1
L31+00N-93+25E	22	1.2	31	73	1860	<1	7	<1	52	4
L31+00N-93+50E	20	<0.5	926	148	520	<1	217	<1	27	3
L31+00N-93+75E	16	0.8	522	357	200	<1	106	<1	13	2
L31+00N-94+00E	11	1.5	144	77	270	<1	29	<1	148	3
L31+00N-94+25E	11	2.0	16	83	10	<1	4	<1	74	2
L31+00N-94+50E	5	1.2	247	59	460	<1	42	<1	82	<1
L31+00N-94+75E	8	1.5	460	50	740	<1	83	<1	129	<1
L31+00N-95+00E	6	9.3	126	37	340	<1	25	<1	154	<1
L31+00N-95+25E	7	2.1	103	37	340	<1	19	<1	111	<1
L31+00N-96+00E	5	7.8	188	92	150	<1	35	<1	252	1
L31+00N-96+25E	<5	6.2	10	58	40	<1	2	<1	158	<1
L31+00N-96+50E	<5	5.2	30	53	20	<1	6	<1	255	<1
L31+00N-97+00E	<5	2.0	11	42	<10	<1	2	<1	111	<1
L31+00N-105+50E	<5	0.8	6	53	<10	<1	1	<1	99	<1
L31+00N-105+75E	<5	1.1	12	95	500	<1	2	<1	133	<1
*Dup L31+00N-90+00E	<5	1.9	3	18	60	<1	<1	<1	78	<1
*Dup L31+00N-93+00E	8	<0.5	46	99	200	<1	7	<1	22	<1
*Dup L31+00N-96+50E	<5	6.7	40	52	30	<1	8	<1	256	<1
*Std MMISRM14	39	<0.5	16	287	130	44	3	<1	325	1
*Blk BLANK	<5	<0.5	<1	<5	<10	<1	<1	<1	<5	<1

![SGS]

Element	Sc	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti	Tl
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	5	1	1	10	1	1	10	0.5	3	0.5
Units	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
L31+00N-90+00E	27	1	<1	40	<1	<1	<10	7.8	921	<0.5
L31+00N-90+25E	25	1	<1	<10	<1	<1	<10	4.7	832	<0.5
L31+00N-90+50E	20	2	<1	10	<1	<1	<10	9.7	2910	0.6
L31+00N-90+75E	17	1	<1	<10	<1	<1	<10	3.6	538	0.6
L31+00N-91+00E	52	28	<1	<10	<1	9	<10	6.9	1220	0.7
L31+00N-91+25E	38	6	<1	<10	<1	1	<10	13.5	2460	0.6
L31+00N-91+50E	50	14	1	<10	<1	4	<10	10.5	2690	0.9
L31+00N-91+75E	30	3	<1	<10	<1	<1	<10	6.4	759	0.7
L31+00N-92+00E	53	14	<1	<10	<1	4	<10	12.8	2650	0.8
L31+00N-92+25E	46	8	<1	<10	<1	3	<10	7.2	839	0.6
L31+00N-92+50E	13	18	<1	180	<1	4	<10	9.4	1320	0.7
L31+00N-92+75E	92	110	<1	120	<1	27	<10	14.1	626	0.8
L31+00N-93+00E	10	11	<1	710	<1	2	<10	0.8	70	<0.5
L31+00N-93+25E	78	9	<1	100	<1	3	<10	24.2	301	1.1
L31+00N-93+50E	33	216	<1	50	<1	54	<10	2.6	96	0.9
L31+00N-93+75E	37	141	<1	250	<1	27	<10	5.2	216	0.7
L31+00N-94+00E	96	45	<1	<10	<1	12	<10	26.1	640	1.1
L31+00N-94+25E	24	4	<1	<10	<1	<1	<10	14.7	431	0.6
L31+00N-94+50E	90	82	<1	220	<1	27	<10	4.1	347	<0.5
L31+00N-94+75E	131	157	<1	160	<1	44	<10	8.3	375	0.8
L31+00N-95+00E	41	36	<1	<10	<1	10	<10	9.2	1730	0.8
L31+00N-95+25E	23	34	<1	410	<1	9	<10	4.4	439	<0.5
L31+00N-96+00E	92	51	<1	30	<1	10	<10	31.9	1690	0.8
L31+00N-96+25E	23	3	<1	<10	<1	<1	<10	10.5	1650	0.6
L31+00N-96+50E	42	10	<1	<10	<1	3	<10	10.8	916	1.1
L31+00N-97+00E	25	3	<1	60	<1	1	<10	5.7	599	<0.5
L31+00N-105+50E	15	2	<1	90	<1	<1	<10	2.0	244	<0.5
L31+00N-105+75E	35	4	<1	20	<1	2	<10	1.8	454	<0.5
*Dup L31+00N-90+00E	24	<1	<1	40	<1	<1	<10	4.3	821	<0.5
*Dup L31+00N-93+00E	9	16	<1	710	<1	3	<10	<0.5	53	<0.5
*Dup L31+00N-96+50E	45	13	<1	<10	<1	4	<10	12.2	1140	1.0
*Std MMISRM14	10	5	<1	560	<1	<1	<10	23.5	7	<0.5
*Blk BLANK	<5	<1	<1	<10	<1	<1	<10	<0.5	<3	<0.5

Final : 03686 : Order: [illegible]

Element	U	W	Y	Yb	Zn	Zr
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	1	1	5	1	20	5
Units	PPB	PPB	PPB	PPB	PPB	PPB
L31+00N-90+00E	7	<1	20	4	340	38
L31+00N-90+25E	6	<1	21	4	150	30
L31+00N-90+50E	6	1	11	2	230	121
L31+00N-90+75E	3	<1	21	4	300	38
L31+00N-91+00E	22	<1	278	20	50	106
L31+00N-91+25E	8	<1	39	4	100	171
L31+00N-91+50E	9	<1	78	6	130	170
L31+00N-91+75E	6	<1	26	4	130	41
L31+00N-92+00E	8	<1	126	10	420	120
L31+00N-92+25E	7	<1	114	11	370	152
L31+00N-92+50E	19	1	166	9	250	39
L31+00N-92+75E	113	1	1060	63	940	69
L31+00N-93+00E	2	<1	93	6	4200	16
L31+00N-93+25E	129	1	183	40	220	43
L31+00N-93+50E	25	2	1720	160	1320	22
L31+00N-93+75E	6	2	1350	84	17000	26
L31+00N-94+00E	36	<1	281	12	380	91
L31+00N-94+25E	19	<1	25	2	160	78
L31+00N-94+50E	50	1	1130	82	1110	22
L31+00N-94+75E	134	1	1380	80	400	48
L31+00N-95+00E	32	<1	284	20	840	100
L31+00N-95+25E	91	<1	382	24	1070	42
L31+00N-96+00E	19	<1	229	19	360	253
L31+00N-96+25E	6	<1	36	5	630	76
L31+00N-96+50E	10	<1	95	9	530	56
L31+00N-97+00E	5	<1	44	3	640	21
L31+00N-105+50E	4	<1	12	3	<20	18
L31+00N-105+75E	2	<1	77	9	150	23
*Dup L31+00N-90+00E	5	<1	17	3	330	26
*Dup L31+00N-93+00E	1	<1	121	8	3910	14
*Dup L31+00N-96+50E	10	<1	107	9	490	68
*Std MMISRM14	39	<1	12	<1	320	16
*Blk BLANK	<1	<1	<5	<1	<20	<5

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Certificate of Analysis

Work Order: 096858

To: Geotronics Consulting Inc.
Attn: David G.Mark
6204 - 125th Street
SURREY
BC V3X 2E1

Date: Jan 08, 2008

P.O. No. :	PROJECT: RUSTY
Project No. :	DEFAULT
No. Of Samples	34
Date Submitted	Nov 05, 2007
Report Comprises	Pages 1 to 6 (Inclusive of Cover Sheet)

Distribution of unused material:

STORE: 34 Soils

Certified By :
Gavin McGill
Operations Manager

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer:

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

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

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

Methods marked with an asterisk (e.g. *NAA08V) were subcontracted

Subject to SGS General Terms and Conditions

SGS Canada Inc. Mineral Services 1885 Leslie Street Toronto ON M3B 2M3 t(416) 445-5755 f(416) 445-4152 www.sgs.com

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Element	Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	1	1	10	0.1	10	1	10	1	5	5
Units	PPB	PPM	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB
L96+00E-34+50N	20	108	<10	0.1	1540	2	10	23	190	7
L96+00E-36+00N	10	243	20	0.2	1740	7	40	35	385	18
L96+00E-36+25N	6	206	<10	<0.1	1990	<1	110	17	190	9
L96+00E-36+75N	6	264	10	0.3	1290	20	40	24	300	19
L96+00E-37+00N	5	>300	<10	<0.1	890	<1	50	9	94	<5
L96+00E-37+50N	4	246	10	0.2	1540	2	90	31	224	37
L96+00E-38+50N	7	>300	<10	<0.1	590	<1	<10	8	28	<5
L96+00E-38+75N	6	>300	<10	<0.1	480	<1	<10	11	79	15
L96+00E-39+00N	5	254	20	<0.1	480	<1	<10	10	128	30
L96+00E-40+00N	19	>300	30	0.1	1850	2	10	16	54	18
L96+00E-40+25N	11	>300	<10	0.2	410	<1	<10	11	49	13
L96+00E-41+50N	11	108	10	0.6	680	<1	<10	2	312	12
L96+00E-41+75N	7	105	20	0.4	480	<1	<10	2	278	13
L96+00E-42+00N	36	144	30	1.1	1130	<1	<10	5	404	21
L96+00E-42+50N	15	283	40	0.5	780	1	10	9	332	26
L96+00E-42+75N	7	>300	<10	<0.1	440	<1	20	18	55	15
L31+00N-81+00E	7	238	20	0.7	590	2	50	10	95	89
L31+00N-81+50E	78	152	110	4.5	310	6	<10	14	826	69
L31+00N-82+00E	27	290	40	1.4	240	3	<10	4	136	33
L31+00N-82+50E	28	107	<10	2.2	1070	<1	210	19	148	17
L31+00N-83+00E	41	183	10	1.9	280	2	20	14	561	51
L31+00N-83+50E	41	232	<10	2.7	2630	<1	610	73	135	9
L31+00N-84+00E	4	219	<10	0.3	500	<1	20	76	26	43
L31+00N-84+50E	22	129	<10	0.9	1110	<1	200	23	26	103
L31+00N-85+00E	1	118	<10	0.3	650	<1	100	48	19	311
L31+00N-85+50E	9	144	20	0.5	820	2	140	59	18	215
L31+00N-86+00E	12	>300	30	0.2	280	1	<10	38	23	31
L31+00N-86+50E	14	290	60	0.6	290	3	<10	39	36	16
L31+00N-87+00E	59	230	<10	0.6	240	<1	60	86	51	11
L31+00N-87+50E	21	97	40	3.0	670	1	20	36	1420	908
L31+00N-88+00E	145	>300	30	0.6	260	2	<10	93	627	45
L31+00N-88+50E	9	254	<10	0.1	250	<1	<10	10	6	34
L31+00N-89+00E	13	296	<10	<0.1	320	<1	<10	10	6	30
L31+00N-89+50E	7	271	20	0.3	360	2	<10	29	19	43
*Dup L96+00E-34+50N	20	105	<10	0.2	1480	1	<10	23	202	7
*Dup L96+00E-41+75N	8	136	30	0.4	650	1	<10	3	288	14
*Dup L31+00N-85+00E	2	120	<10	0.3	790	<1	90	48	23	437
*Std MMISRM14	19	45	10	40.9	100	<1	250	6	21	49
*Blk BLANK	<1	<1	<10	0.7	<10	<1	<10	<1	<5	<5

SGS

Element	Cr	Cu	Dy	Er	Eu	Fe	Gd	La	Li	Mg
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	100	10	1	0.5	0.5	1	1	1	5	1
Units	PPB	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPM
L96+00E-34+50N	<100	230	18	7.7	5.8	11	24	83	<5	2
L96+00E-36+00N	<100	400	24	9.0	7.4	48	30	134	<5	3
L96+00E-36+25N	<100	160	22	9.6	6.3	21	25	67	<5	3
L96+00E-36+75N	<100	920	54	24.6	15.7	46	62	93	<5	3
L96+00E-37+00N	<100	100	31	14.8	7.5	14	32	58	<5	6
L96+00E-37+50N	<100	510	23	10.4	5.8	36	25	67	<5	6
L96+00E-38+50N	<100	30	9	5.0	1.5	18	7	11	<5	<1
L96+00E-38+75N	<100	170	13	5.8	3.1	29	13	25	<5	<1
L96+00E-39+00N	<100	360	15	7.9	4.0	56	18	39	<5	1
L96+00E-40+00N	<100	150	7	3.6	1.7	42	7	22	<5	1
L96+00E-40+25N	<100	250	18	9.4	2.6	40	12	19	<5	<1
L96+00E-41+50N	<100	180	24	9.6	8.0	15	35	85	<5	<1
L96+00E-41+75N	<100	260	29	12.5	9.8	24	42	96	<5	1
L96+00E-42+00N	<100	500	34	14.6	10.7	29	45	122	<5	<1
L96+00E-42+50N	<100	370	39	16.4	13.0	68	51	102	<5	<1
L96+00E-42+75N	<100	210	21	10.7	3.4	38	17	17	<5	3
L31+00N-81+00E	<100	1020	36	20.2	7.3	82	32	34	<5	2
L31+00N-81+50E	<100	1180	162	78.6	44.3	63	201	355	<5	1
L31+00N-82+00E	<100	4860	18	8.3	5.0	166	22	56	<5	<1
L31+00N-82+50E	<100	2280	106	51.1	33.5	19	138	116	<5	12
L31+00N-83+00E	<100	3620	146	70.9	50.2	54	197	220	<5	2
L31+00N-83+50E	<100	2710	88	46.8	24.4	13	102	81	<5	17
L31+00N-84+00E	<100	620	17	10.8	2.3	69	12	9	<5	7
L31+00N-84+50E	<100	2370	12	7.6	2.6	101	11	13	<5	9
L31+00N-85+00E	<100	570	5	3.3	1.0	78	4	10	<5	6
L31+00N-85+50E	<100	1040	9	6.2	1.7	150	8	17	<5	7
L31+00N-86+00E	<100	260	5	3.1	0.9	151	4	12	<5	2
L31+00N-86+50E	<100	430	10	6.6	1.5	143	7	19	<5	1
L31+00N-87+00E	<100	530	14	5.0	3.4	31	17	44	<5	2
L31+00N-87+50E	<100	2510	40	13.7	19.0	69	76	278	6	1
L31+00N-88+00E	<100	3930	124	47.9	46.0	105	219	651	<5	<1
L31+00N-88+50E	<100	450	<1	0.7	<0.5	154	<1	3	<5	1
L31+00N-89+00E	<100	270	1	1.5	<0.5	118	<1	4	<5	1
L31+00N-89+50E	<100	400	13	8.3	1.0	108	7	8	<5	3
*Dup L96+00E-34+50N	<100	210	18	7.9	5.8	10	25	85	<5	<1
*Dup L96+00E-41+75N	<100	330	33	14.2	10.8	27	46	96	<5	<1
*Dup L31+00N-85+00E	<100	600	5	3.1	1.1	73	5	11	<5	6
*Std MMISRM14	<100	740	3	1.0	1.2	3	5	5	<5	38
*Blk BLANK	<100	<10	<1	<0.5	<0.5	<1	<1	<1	<5	<1

SGS

Element	Mo	Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	5	0.5	1	5	10	1	1	1	5	1
Units	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
L96+00E-34+50N	<5	1.9	99	10	1420	<1	25	<1	319	<1
L96+00E-36+00N	6	12.5	124	22	2530	<1	33	<1	324	<1
L96+00E-36+25N	<5	4.9	86	28	250	<1	21	<1	241	<1
L96+00E-36+75N	6	7.9	188	69	480	<1	40	<1	263	<1
L96+00E-37+00N	<5	2.4	101	28	430	<1	22	<1	127	<1
L96+00E-37+50N	7	4.8	79	75	380	<1	19	<1	271	<1
L96+00E-38+50N	<5	2.3	19	22	230	<1	4	<1	208	<1
L96+00E-38+75N	<5	10.0	39	18	730	<1	8	<1	219	<1
L96+00E-39+00N	6	2.9	62	15	730	<1	14	<1	275	1
L96+00E-40+00N	24	4.6	24	28	3340	<1	6	<1	210	5
L96+00E-40+25N	5	4.8	30	26	790	<1	6	<1	144	<1
L96+00E-41+50N	7	2.5	136	6	1350	<1	31	<1	358	<1
L96+00E-41+75N	7	3.0	156	9	1030	<1	36	<1	307	<1
L96+00E-42+00N	10	5.8	169	10	2260	1	40	<1	429	2
L96+00E-42+50N	13	11.0	178	9	2770	<1	39	<1	306	1
L96+00E-42+75N	<5	1.5	42	24	900	<1	8	<1	180	<1
L31+00N-81+00E	<5	4.8	71	18	380	<1	14	<1	200	<1
L31+00N-81+50E	12	6.5	691	<5	27700	<1	157	<1	373	2
L31+00N-82+00E	6	14.1	75	<5	1380	<1	17	<1	190	2
L31+00N-82+50E	<5	1.0	305	8	950	<1	54	<1	278	<1
L31+00N-83+00E	6	5.7	610	16	1280	<1	122	<1	257	<1
L31+00N-83+50E	8	<0.5	211	39	830	<1	36	<1	362	<1
L31+00N-84+00E	7	2.5	23	37	320	<1	4	<1	52	<1
L31+00N-84+50E	5	2.1	22	36	280	<1	5	<1	106	<1
L31+00N-85+00E	17	1.2	13	37	250	<1	3	<1	153	<1
L31+00N-85+50E	19	6.7	23	26	200	<1	5	<1	158	<1
L31+00N-86+00E	9	13.6	12	30	1070	<1	3	<1	161	<1
L31+00N-86+50E	15	15.6	21	44	460	<1	5	<1	187	<1
L31+00N-87+00E	10	1.9	52	10	3910	<1	12	<1	154	<1
L31+00N-87+50E	28	7.1	436	19	520	<1	109	<1	284	2
L31+00N-88+00E	13	12.0	940	28	3180	<1	212	<1	225	1
L31+00N-88+50E	<5	1.1	3	12	60	<1	<1	<1	55	<1
L31+00N-89+00E	<5	2.2	3	19	60	<1	<1	<1	48	<1
L31+00N-89+50E	<5	2.5	12	27	430	<1	2	<1	127	<1
*Dup L96+00E-34+50N	<5	1.4	103	<5	1520	<1	26	<1	319	<1
*Dup L96+00E-41+75N	7	3.1	166	8	1360	<1	38	<1	314	<1
*Dup L31+00N-85+00E	20	1.7	14	42	240	<1	3	<1	151	<1
*Std MMISRM14	41	<0.5	17	298	160	45	3	<1	295	<1
*Blk BLANK	<5	<0.5	<1	<5	<10	<1	<1	<1	<5	<1

Element	Sc	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti	Tl
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	5	1	1	10	1	1	10	0.5	3	0.5
Units	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
L96+00E-34+50N	18	23	<1	40	1	4	<10	14.0	304	1.1
L96+00E-36+00N	19	26	1	50	2	5	<10	25.3	2540	1.1
L96+00E-36+25N	15	22	<1	100	<1	4	<10	23.4	945	0.9
L96+00E-36+75N	27	53	<1	20	<1	10	<10	32.6	1490	1.0
L96+00E-37+00N	9	25	<1	100	<1	6	<10	6.9	385	0.6
L96+00E-37+50N	21	21	<1	80	<1	4	<10	33.5	749	1.1
L96+00E-38+50N	9	6	<1	<10	<1	1	<10	4.6	417	1.2
L96+00E-38+75N	17	11	<1	<10	<1	2	<10	13.1	1670	1.1
L96+00E-39+00N	31	16	<1	<10	<1	3	<10	21.8	732	1.0
L96+00E-40+00N	15	6	<1	10	<1	1	<10	18.6	563	2.0
L96+00E-40+25N	35	9	<1	<10	<1	3	<10	11.4	791	1.7
L96+00E-41+50N	26	34	<1	<10	<1	5	<10	23.3	308	2.2
L96+00E-41+75N	27	38	<1	<10	<1	6	<10	22.2	363	1.8
L96+00E-42+00N	37	43	<1	<10	<1	7	<10	25.9	478	2.6
L96+00E-42+50N	36	47	<1	<10	<1	8	<10	22.0	2390	1.9
L96+00E-42+75N	19	12	<1	30	<1	3	<10	6.6	343	1.3
L31+00N-81+00E	35	22	<1	70	<1	6	<10	9.2	2030	1.2
L31+00N-81+50E	123	165	<1	<10	<1	30	<10	26.0	1780	1.8
L31+00N-82+00E	33	19	<1	<10	<1	3	<10	17.6	4960	1.0
L31+00N-82+50E	55	96	<1	340	<1	19	<10	4.2	190	1.0
L31+00N-83+00E	133	168	<1	<10	<1	28	<10	18.2	1340	1.0
L31+00N-83+50E	40	71	<1	840	<1	15	<10	4.4	45	2.0
L31+00N-84+00E	41	8	<1	50	<1	2	<10	6.2	1020	0.7
L31+00N-84+50E	20	7	<1	310	<1	2	<10	5.4	489	0.5
L31+00N-85+00E	13	4	<1	180	<1	<1	<10	4.1	259	1.2
L31+00N-85+50E	14	6	<1	300	<1	1	<10	7.4	1870	0.7
L31+00N-86+00E	13	3	<1	<10	<1	<1	<10	11.0	3630	0.9
L31+00N-86+50E	20	6	1	<10	<1	1	<10	13.0	4810	0.7
L31+00N-87+00E	7	13	<1	90	<1	3	<10	5.2	451	0.7
L31+00N-87+50E	52	93	<1	<10	<1	10	<10	10.6	6050	1.3
L31+00N-88+00E	47	195	<1	<10	<1	27	<10	14.4	3950	1.8
L31+00N-88+50E	<5	<1	<1	<10	<1	<1	<10	2.5	446	<0.5
L31+00N-89+00E	7	<1	<1	<10	<1	<1	<10	3.8	548	<0.5
L31+00N-89+50E	23	4	<1	10	<1	2	<10	8.9	1160	<0.5
*Dup L96+00E-34+50N	14	23	<1	<10	<1	4	<10	14.1	277	0.8
*Dup L96+00E-41+75N	28	42	<1	<10	<1	7	<10	28.0	363	1.5
*Dup L31+00N-85+00E	12	4	<1	170	<1	<1	<10	5.0	345	1.6
*Std MMISRM14	8	5	<1	510	<1	<1	<10	23.0	<3	0.7
*Blk BLANK	<5	<1	<1	<10	<1	<1	<10	<0.5	<3	<0.5

Element	U	W	Y	Yb	Zn	Zr
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	1	1	5	1	20	5
Units	PPB	PPB	PPB	PPB	PPB	PPB
L96+00E-34+50N	9	1	78	6	670	116
L96+00E-36+00N	13	1	99	7	440	180
L96+00E-36+25N	12	1	101	8	340	167
L96+00E-36+75N	15	<1	249	19	730	258
L96+00E-37+00N	4	<1	183	11	140	32
L96+00E-37+50N	10	<1	98	8	910	144
L96+00E-38+50N	4	<1	42	3	120	31
L96+00E-38+75N	8	<1	53	4	190	175
L96+00E-39+00N	7	<1	66	6	440	81
L96+00E-40+00N	10	<1	32	3	1370	86
L96+00E-40+25N	8	<1	69	7	320	140
L96+00E-41+50N	11	<1	91	8	300	151
L96+00E-41+75N	13	<1	119	10	170	117
L96+00E-42+00N	20	<1	140	12	390	339
L96+00E-42+50N	11	1	169	12	130	249
L96+00E-42+75N	7	<1	99	7	570	20
L31+00N-81+00E	8	<1	191	14	160	43
L31+00N-81+50E	24	2	782	54	630	133
L31+00N-82+00E	12	2	82	6	120	139
L31+00N-82+50E	27	<1	611	33	270	103
L31+00N-83+00E	20	2	716	53	340	190
L31+00N-83+50E	27	<1	460	31	570	66
L31+00N-84+00E	11	<1	84	8	1940	47
L31+00N-84+50E	13	<1	75	6	280	30
L31+00N-85+00E	15	<1	26	2	420	29
L31+00N-85+50E	11	1	58	5	720	33
L31+00N-86+00E	7	1	24	3	220	54
L31+00N-86+50E	8	2	49	5	350	87
L31+00N-87+00E	9	<1	62	3	570	19
L31+00N-87+50E	23	2	137	10	1540	60
L31+00N-88+00E	33	1	658	28	1430	91
L31+00N-88+50E	3	<1	<5	<1	60	10
L31+00N-89+00E	2	<1	9	2	50	18
L31+00N-89+50E	6	<1	62	7	370	36
*Dup L96+00E-34+50N	9	<1	77	7	630	112
*Dup L96+00E-41+75N	15	<1	131	11	240	156
*Dup L31+00N-85+00E	15	<1	25	2	370	32
*Std MMISRM14	40	<1	12	<1	360	16
*Blk BLANK	<1	<1	<5	<1	<20	<5

Appendix E

APPENDIX E

CERTIFICATES of Analyses

Bearnx Zone Mobile Metal Ion (MMI) Survey

SGS

Certificate of Analysis

Work Order: 096820

To: Geotronics Consulting Inc.
Attn: David G.Mark
6204 - 125th Street
SURREY
BC V3X 2E1

Date: Jan 08, 2008

P.O. No. :	PROJECT: CHACO BEAR
Project No. :	DEFAULT
No. Of Samples	37
Date Submitted	Nov 05, 2007
Report Comprises	Pages 1 to 6 (Inclusive of Cover Sheet)

Distribution of unused material:

STORE: 37 Soils

Certified By :

Gavin McGill
Operations Manager

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer:

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

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

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

Methods marked with an asterisk (e.g. *NAA08V) were subcontracted

Subject to SGS General Terms and Conditions

SGS

Element	Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	1	1	10	0.1	10	1	10	1	5	5
Units	PPB	PPM	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB
L3+00N-4+50W	11	143	<10	0.1	610	<1	220	7	45	11
L3+00N-4+00W	10	225	20	0.2	220	<1	10	7	167	26
L3+00N-3+50W	50	77	<10	0.7	1560	<1	410	21	92	12
L3+00N-3+00W	18	111	<10	0.2	790	<1	280	16	49	<5
L3+00N-2+50W	24	280	20	0.1	460	<1	<10	8	327	37
L3+00N-2+00W	11	204	<10	<0.1	210	<1	<10	17	42	8
L3+00N-1+50W	9	237	<10	<0.1	390	<1	<10	14	18	19
L3+00N-1+00W	2	222	<10	0.1	450	<1	90	10	63	56
L3+00N-0+50W	10	250	<10	0.2	470	<1	<10	58	158	14
L3+00N-BL0E	6	263	<10	<0.1	450	<1	<10	20	42	43
L3+00N-0+50E	3	244	30	<0.1	660	1	<10	26	51	55
L3+00N-1+00E	10	230	<10	<0.1	150	<1	<10	48	68	43
L3+00N-1+50E	11	>300	10	<0.1	260	<1	<10	73	60	27
L3+00N-3+50E	15	238	20	0.3	250	<1	<10	18	845	25
L3+00N-4+00E	3	265	20	<0.1	400	<1	<10	14	70	17
L3+00N-4+50E	6	156	30	0.2	230	2	<10	2	413	10
L3+00N-5+00E	24	>300	10	0.5	570	<1	80	13	266	8
L3+00N-5+50E	5	223	10	<0.1	240	<1	<10	4	276	10
L3+00N-6+00E	6	242	<10	<0.1	430	<1	<10	10	69	14
L3+00N-6+50E	7	222	<10	0.1	250	<1	<10	8	45	<5
L3+00N-7+00E	12	159	20	0.5	650	<1	60	2	106	15
L1+00N-5+00W	125	71	<10	1.0	930	<1	340	23	61	11
L1+00N-4+50W	20	217	<10	0.2	820	2	10	24	455	17
L1+00N-4+00W	16	183	<10	0.1	260	<1	20	5	149	12
L1+00N-3+50W	16	208	<10	0.1	540	1	70	22	102	6
L1+00N-3+00W	9	213	<10	<0.1	510	<1	40	23	39	15
L1+00N-2+50W	21	233	<10	0.1	2970	<1	890	5	102	9
L1+00N-2+00W	8	230	<10	<0.1	250	<1	<10	20	35	15
L1+00N-1+50W	17	245	<10	<0.1	170	<1	<10	60	55	39
L1+00N-1+00W	19	245	<10	0.2	260	<1	<10	37	28	21
L1+00N-0+50W	10	279	10	0.1	320	<1	<10	17	111	14
L1+00N-0+00W	13	99	<10	0.7	820	2	330	119	306	15
L1+00N-0+50E	33	205	20	1.3	4540	3	670	86	835	157
L1+00N-4+00E	20	242	10	<0.1	470	<1	<10	6	89	16
L1+00N-4+50E	6	262	<10	<0.1	370	<1	<10	12	38	24
L1+00N-5+00E	4	>300	10	<0.1	1450	<1	<10	90	231	27
L1+00N-7+00E	4	256	20	<0.1	540	<1	<10	8	285	19
*Dup L03+00N-04+50W	12	139	<10	0.1	670	<1	250	7	45	10
*Dup L03+00N-01+50E	11	>300	<10	<0.1	340	<1	<10	75	53	24
*Dup L01+00N-03+50W	17	215	<10	0.1	510	1	70	19	100	8
*Dup L01+00N-07+00E	4	253	10	0.2	520	<1	<10	8	252	15
*Std MMISRM14	21	44	20	41.8	80	<1	270	9	23	57
*Blk BLANK	<1	<1	<10	<0.1	<10	<1	<10	<1	<5	<5

Element	Cr	Cu	Dy	Er	Eu	Fe	Gd	La	Li	Mg
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	100	10	1	0.5	0.5	1	1	1	5	1
Units	PPB	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPM
L3+00N-4+50W	<100	1160	27	14.5	7.0	36	28	33	<5	7
L3+00N-4+00W	<100	560	38	18.3	11.5	32	44	54	<5	<1
L3+00N-3+50W	<100	2640	22	11.9	8.2	8	29	22	10	12
L3+00N-3+00W	<100	1150	41	23.5	9.6	13	40	39	<5	8
L3+00N-2+50W	<100	270	37	15.0	11.2	41	51	105	<5	<1
L3+00N-2+00W	<100	350	25	15.3	2.8	29	15	14	<5	<1
L3+00N-1+50W	<100	450	16	11.7	2.0	65	10	6	<5	2
L3+00N-1+00W	<100	200	13	6.4	3.1	62	15	20	<5	10
L3+00N-0+50W	<100	1060	29	14.4	4.5	31	28	56	<5	2
L3+00N-BL0E	<100	260	11	7.0	1.0	46	7	16	<5	2
L3+00N-0+50E	<100	100	8	6.6	0.6	125	6	15	<5	3
L3+00N-1+00E	<100	470	21	10.2	2.6	20	14	24	<5	<1
L3+00N-1+50E	<100	890	15	9.4	1.9	151	8	17	6	1
L3+00N-3+50E	<100	1140	155	76.6	45.6	50	193	347	<5	1
L3+00N-4+00E	<100	170	13	7.6	2.5	67	13	21	<5	1
L3+00N-4+50E	<100	250	85	35.6	25.1	42	141	284	<5	<1
L3+00N-5+00E	<100	1070	184	86.1	48.2	45	214	173	<5	5
L3+00N-5+50E	<100	180	31	11.3	9.6	39	42	92	<5	<1
L3+00N-6+00E	<100	220	21	11.8	3.4	40	18	21	<5	2
L3+00N-6+50E	<100	210	23	11.2	3.4	33	17	15	<5	<1
L3+00N-7+00E	<100	410	46	22.8	13.4	73	63	63	<5	3
L1+00N-5+00W	<100	7240	35	18.3	12.6	7	47	40	<5	9
L1+00N-4+50W	<100	2190	137	69.5	37.5	29	154	203	<5	3
L1+00N-4+00W	<100	400	40	18.1	11.6	29	48	63	<5	<1
L1+00N-3+50W	<100	2260	63	29.1	15.2	27	65	63	<5	4
L1+00N-3+00W	<100	200	25	13.5	4.4	52	19	13	<5	7
L1+00N-2+50W	<100	1110	59	27.3	15.4	46	66	76	<5	17
L1+00N-2+00W	<100	480	16	10.0	1.8	40	9	14	<5	2
L1+00N-1+50W	<100	940	18	10.6	2.2	45	11	23	<5	1
L1+00N-1+00W	<100	1300	10	6.4	1.4	57	6	12	<5	1
L1+00N-0+50W	<100	660	31	13.7	6.2	31	27	38	<5	1
L1+00N-0+00W	<100	6020	69	33.8	23.6	22	84	86	<5	23
L1+00N-0+50E	<100	10700	128	66.4	41.6	81	149	238	<5	38
L1+00N-4+00E	<100	440	22	10.4	4.3	57	19	27	<5	1
L1+00N-4+50E	<100	270	19	12.6	1.7	58	10	13	<5	3
L1+00N-5+00E	<100	570	46	28.2	4.7	55	30	117	<5	3
L1+00N-7+00E	<100	110	44	19.2	10.9	49	57	99	<5	1
*Dup L03+00N-04+50W	<100	1100	25	13.3	6.9	31	27	33	<5	7
*Dup L03+00N-01+50E	<100	890	16	10.2	1.8	136	9	17	<5	1
*Dup L01+00N-03+50W	<100	2160	60	28.5	14.7	30	62	64	<5	3
*Dup L01+00N-07+00E	<100	130	44	19.5	10.5	43	54	91	<5	1
*Std MMISRM14	<100	760	3	1.2	1.4	3	6	6	<5	39
*Blk BLANK	<100	<10	<1	<0.5	<0.5	<1	<1	<1	<5	<1

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Element	Mo	Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	5	0.5	1	5	10	1	1	1	5	1
Units	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
L3+00N-4+50W	<5	1.0	68	33	370	<1	13	<1	151	<1
L3+00N-4+00W	<5	6.2	140	16	140	<1	28	<1	253	<1
L3+00N-3+50W	<5	<0.5	60	24	780	<1	10	<1	122	<1
L3+00N-3+00W	<5	<0.5	84	21	510	<1	15	<1	165	<1
L3+00N-2+50W	<5	3.8	178	11	180	<1	40	<1	208	<1
L3+00N-2+00W	<5	4.7	31	22	60	<1	6	<1	119	<1
L3+00N-1+50W	<5	1.3	17	19	170	<1	3	<1	163	<1
L3+00N-1+00W	<5	1.2	46	22	170	<1	9	<1	107	<1
L3+00N-0+50W	5	2.8	85	34	70	<1	19	<1	149	<1
L3+00N-BL0E	5	4.4	20	25	20	<1	4	<1	321	<1
L3+00N-0+50E	<5	8.4	18	16	70	<1	4	<1	198	<1
L3+00N-1+00E	<5	1.5	37	54	150	<1	8	<1	135	<1
L3+00N-1+50E	10	21.9	22	103	140	1	5	<1	176	<1
L3+00N-3+50E	5	11.6	726	33	220	1	157	<1	256	1
L3+00N-4+00E	<5	11.2	41	22	30	<1	8	<1	298	<1
L3+00N-4+50E	<5	10.8	649	6	430	1	143	<1	425	<1
L3+00N-5+00E	5	10.4	566	27	510	<1	97	<1	293	<1
L3+00N-5+50E	<5	7.4	157	10	110	<1	36	<1	327	<1
L3+00N-6+00E	<5	5.5	49	28	170	<1	10	<1	230	<1
L3+00N-6+50E	<5	5.6	34	14	60	<1	6	<1	286	<1
L3+00N-7+00E	<5	20.7	165	15	70	<1	30	<1	402	<1
L1+00N-5+00W	<5	<0.5	102	17	1600	<1	18	<1	175	<1
L1+00N-4+50W	<5	3.5	492	14	2190	<1	99	<1	193	<1
L1+00N-4+00W	<5	7.8	150	11	160	<1	30	<1	194	<1
L1+00N-3+50W	<5	1.8	166	22	1180	<1	31	<1	209	<1
L1+00N-3+00W	<5	1.6	47	44	50	<1	8	<1	80	<1
L1+00N-2+50W	<5	<0.5	151	66	620	<1	28	<1	111	<1
L1+00N-2+00W	<5	2.5	21	45	130	<1	4	<1	130	<1
L1+00N-1+50W	<5	4.4	28	44	250	<1	6	<1	229	<1
L1+00N-1+00W	<5	7.0	15	32	100	<1	3	<1	154	<1
L1+00N-0+50W	<5	3.3	73	18	100	<1	15	<1	137	<1
L1+00N-0+00W	7	0.6	216	45	990	<1	42	<1	178	<1
L1+00N-0+50E	9	1.5	440	92	1030	<1	92	<1	282	<1
L1+00N-4+00E	<5	3.7	55	18	40	<1	12	<1	211	<1
L1+00N-4+50E	<5	3.4	19	32	30	<1	4	<1	222	<1
L1+00N-5+00E	9	2.6	87	231	90	<1	22	<1	296	<1
L1+00N-7+00E	<5	1.7	203	21	270	<1	44	<1	294	<1
*Dup L03+00N-04+50W	<5	1.2	64	30	310	<1	13	<1	154	<1
*Dup L03+00N-01+50E	10	19.9	21	97	140	1	5	<1	182	<1
*Dup L01+00N-03+50W	<5	2.4	161	20	1170	<1	30	<1	220	<1
*Dup L01+00N-07+00E	<5	1.5	191	22	280	<1	41	<1	299	<1
*Std MMISRM14	43	<0.5	19	340	160	50	3	<1	282	1
*Blk BLANK	<5	<0.5	<1	<5	<10	<1	<1	<1	<5	<1

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Element	Sc	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti	Tl
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	5	1	1	10	1	1	10	0.5	3	0.5
Units	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
L3+00N-4+50W	50	20	<1	270	<1	4	<10	5.4	282	<0.5
L3+00N-4+00W	95	38	<1	<10	<1	7	<10	13.1	969	0.5
L3+00N-3+50W	11	20	<1	640	<1	4	<10	1.8	<3	<0.5
L3+00N-3+00W	58	27	<1	410	<1	6	<10	3.0	29	<0.5
L3+00N-2+50W	57	46	<1	<10	<1	8	<10	23.5	1580	1.0
L3+00N-2+00W	38	10	<1	<10	<1	3	<10	4.3	1010	0.7
L3+00N-1+50W	26	6	<1	40	<1	2	<10	4.9	419	0.6
L3+00N-1+00W	36	13	<1	190	<1	2	<10	16.9	323	<0.5
L3+00N-0+50W	21	23	<1	20	<1	5	<10	11.1	623	0.7
L3+00N-BL0E	23	5	<1	<10	<1	2	<10	15.8	770	0.6
L3+00N-0+50E	22	4	<1	<10	<1	1	<10	17.1	1720	<0.5
L3+00N-1+00E	24	11	<1	<10	<1	3	<10	5.1	454	0.8
L3+00N-1+50E	52	7	1	<10	1	2	<10	22.9	4630	0.9
L3+00N-3+50E	139	180	<1	<10	<1	29	<10	31.0	2440	0.5
L3+00N-4+00E	19	11	<1	<10	<1	2	<10	34.8	554	<0.5
L3+00N-4+50E	37	141	<1	<10	<1	19	<10	40.5	962	1.1
L3+00N-5+00E	130	169	<1	100	<1	33	<10	17.9	2420	0.9
L3+00N-5+50E	46	40	<1	<10	<1	6	<10	21.4	1720	0.8
L3+00N-6+00E	28	14	<1	<10	<1	3	<10	8.5	1160	0.7
L3+00N-6+50E	26	11	<1	<10	<1	3	<10	6.6	1150	1.1
L3+00N-7+00E	48	49	1	70	1	9	<10	12.5	3590	0.6
L1+00N-5+00W	19	32	<1	550	<1	6	<10	1.8	7	1.1
L1+00N-4+50W	151	126	<1	40	<1	25	<10	8.5	1160	1.1
L1+00N-4+00W	75	41	<1	<10	<1	7	<10	13.8	2350	0.7
L1+00N-3+50W	56	47	<1	120	<1	11	<10	3.7	538	1.5
L1+00N-3+00W	30	14	<1	140	<1	4	<10	3.5	808	0.8
L1+00N-2+50W	74	45	<1	1770	<1	10	<10	3.0	81	1.3
L1+00N-2+00W	33	7	<1	10	<1	2	<10	5.3	977	0.7
L1+00N-1+50W	61	9	<1	<10	<1	3	<10	8.7	1310	0.8
L1+00N-1+00W	28	4	<1	<10	<1	1	<10	5.3	2210	0.7
L1+00N-0+50W	72	22	<1	<10	<1	5	<10	10.0	1500	0.8
L1+00N-0+00W	60	68	<1	570	<1	13	<10	8.7	115	<0.5
L1+00N-0+50E	265	122	<1	1240	<1	23	<10	19.0	313	1.7
L1+00N-4+00E	30	15	<1	20	<1	4	<10	9.7	871	<0.5
L1+00N-4+50E	35	6	<1	<10	<1	2	<10	9.4	757	0.6
L1+00N-5+00E	36	23	<1	30	<1	7	<10	15.9	541	1.1
L1+00N-7+00E	48	50	<1	<10	<1	8	<10	18.5	458	0.9
*Dup L03+00N-04+50W	46	20	<1	260	<1	4	<10	3.7	373	<0.5
*Dup L03+00N-01+50E	48	6	<1	<10	<1	2	<10	19.9	4080	0.8
*Dup L01+00N-03+50W	58	46	<1	100	<1	11	<10	4.3	687	1.4
*Dup L01+00N-07+00E	46	47	<1	<10	<1	8	<10	17.3	407	1.1
*Std MMISRM14	11	6	<1	530	<1	<1	<10	25.2	<3	0.5
*Blk BLANK	<5	<1	<1	<10	<1	<1	<10	<0.5	<3	<0.5

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Element	U	W	Y	Yb	Zn	Zr
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	1	1	5	1	20	5
Units	PPB	PPB	PPB	PPB	PPB	PPB
L3+00N-4+50W	11	<1	167	11	120	29
L3+00N-4+00W	13	<1	188	14	250	147
L3+00N-3+50W	36	<1	120	8	250	12
L3+00N-3+00W	35	<1	254	16	250	49
L3+00N-2+50W	9	<1	145	10	180	157
L3+00N-2+00W	5	<1	133	11	210	65
L3+00N-1+50W	5	<1	97	9	220	20
L3+00N-1+00W	6	<1	71	5	410	42
L3+00N-0+50W	16	<1	137	10	510	43
L3+00N-BL0E	13	<1	52	6	430	92
L3+00N-0+50E	18	<1	41	5	670	114
L3+00N-1+00E	9	<1	87	7	280	19
L3+00N-1+50E	23	<1	58	8	760	435
L3+00N-3+50E	27	1	746	58	370	317
L3+00N-4+00E	18	<1	60	6	360	231
L3+00N-4+50E	28	1	388	25	80	422
L3+00N-5+00E	294	2	909	59	380	307
L3+00N-5+50E	30	<1	114	8	90	226
L3+00N-6+00E	11	<1	102	8	310	66
L3+00N-6+50E	14	<1	108	8	60	102
L3+00N-7+00E	11	<1	256	16	150	199
L1+00N-5+00W	37	<1	190	12	210	25
L1+00N-4+50W	15	<1	816	50	120	103
L1+00N-4+00W	13	<1	177	12	80	243
L1+00N-3+50W	6	<1	354	18	120	35
L1+00N-3+00W	5	<1	142	9	650	20
L1+00N-2+50W	17	<1	363	17	40	39
L1+00N-2+00W	6	<1	76	7	370	32
L1+00N-1+50W	9	<1	75	6	500	76
L1+00N-1+00W	5	<1	46	5	370	58
L1+00N-0+50W	6	<1	122	9	350	62
L1+00N-0+00W	57	<1	309	26	820	42
L1+00N-0+50E	193	1	706	53	470	121
L1+00N-4+00E	9	<1	96	7	240	82
L1+00N-4+50E	7	<1	94	9	330	55
L1+00N-5+00E	22	1	211	20	1050	64
L1+00N-7+00E	11	<1	200	13	160	75
*Dup L03+00N-04+50W	9	<1	157	10	110	25
*Dup L03+00N-01+50E	21	<1	64	8	690	397
*Dup L01+00N-03+50W	8	<1	336	18	110	43
*Dup L01+00N-07+00E	11	<1	206	14	150	67
*Std MMISRM14	44	<1	14	<1	340	15
*Blk BLANK	<1	<1	<5	<1	<20	<5

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Certificate of Analysis

Work Order: 096862

To: Geotronics Consulting Inc.
Attn: David G.Mark
6204 - 125th Street
SURREY
BC V3X 2E1

Date: Jan 08, 2008

P.O. No. :	PROJECT: CHACO BEAR
Project No. :	DEFAULT
No. Of Samples	18
Date Submitted	Nov 05, 2007
Report Comprises	Pages 1 to 6 (Inclusive of Cover Sheet)

Distribution of unused material:

STORE: 18 Soils

Certified By : ____________________
Gavin McGill
Operations Manager

ISO 17025 Accredited for Specific Tests. SCC No. 456

Report Footer:

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

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

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

Methods marked with an asterisk (e.g. *NAA08V) were subcontracted

SGS Canada Inc. Mineral Services 1885 Leslie Street Toronto ON M3B 2M3 t(416) 445-5755 f(416) 445-4152 www.sgs.com

Element	Ag	Al	As	Au	Ba	Bi	Ca	Cd	Ce	Co
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	1	1	10	0.1	10	1	10	1	5	5
Units	PPB	PPM	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB
L05+00N-4+00W	13	>300	10	<0.1	300	<1	<10	8	152	24
L05+00N-3+50W	9	151	<10	0.2	400	<1	170	8	90	6
L05+00N-3+00W	54	158	20	0.5	320	<1	50	4	485	13
L05+00N-2+50W	5	>300	<10	<0.1	240	<1	<10	7	32	21
L05+00N-2+00W	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-1+50W	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-1+00W	3	293	<10	<0.1	360	<1	<10	79	25	41
L05+00N-0+50W	8	153	10	0.2	140	<1	<10	2	536	13
L05+00N-0+00	7	280	<10	<0.1	150	<1	<10	38	30	20
L05+00N-0+50E	7	>300	20	<0.1	390	<1	10	29	305	32
L05+00N-1+00E	7	>300	<10	<0.1	380	<1	<10	15	27	18
L05+00N-1+50E	11	297	<10	<0.1	160	<1	<10	4	<5	17
L05+00N-2+00E	8	>300	<10	<0.1	190	<1	<10	41	43	23
L05+00N-2+50E	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-3+00E	20	106	<10	0.3	990	<1	60	3	76	<5
L05+00N-3+50E	17	199	20	0.2	2440	1	130	7	572	9
L05+00N-4+00E	9	261	<10	0.1	350	2	60	3	313	6
L05+00N-4+50E	5	>300	20	0.2	340	1	<10	7	43	19
*Dup L05+00N-4+00W	12	297	<10	<0.1	270	<1	<10	8	137	19
*Dup L05+00N-2+00E	8	>300	<10	<0.1	200	<1	<10	42	39	21
*Std MMISRM14	18	43	10	47.8	80	<1	220	8	17	42
*Blk BLANK	<1	<1	<10	<0.1	<10	<1	<10	<1	<5	<5

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Element	Cr	Cu	Dy	Er	Eu	Fe	Gd	La	Li	Mg
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	100	10	1	0.5	0.5	1	1	1	5	1
Units	PPB	PPB	PPB	PPB	PPB	PPM	PPB	PPB	PPB	PPM
L05+00N-4+00W	<100	170	58	31.2	16.0	38	56	46	<5	<1
L05+00N-3+50W	<100	260	27	12.2	8.7	11	37	43	<5	11
L05+00N-3+00W	<100	420	55	22.9	21.5	16	80	189	<5	3
L05+00N-2+50W	<100	150	10	6.5	1.3	31	6	12	<5	1
L05+00N-2+00W	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-1+50W	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-1+00W	<100	550	7	5.2	0.5	81	4	9	<5	6
L05+00N-0+50W	<100	290	41	16.2	12.1	20	62	121	<5	1
L05+00N-0+00	<100	320	12	7.4	1.3	33	7	10	<5	1
L05+00N-0+50E	<100	390	47	20.9	9.0	42	45	92	<5	3
L05+00N-1+00E	<100	220	10	6.5	1.3	61	7	10	<5	2
L05+00N-1+50E	<100	80	1	1.3	<0.5	44	<1	<1	<5	2
L05+00N-2+00E	<100	240	7	4.1	1.1	53	6	22	<5	<1
L05+00N-2+50E	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-3+00E	<100	500	65	34.2	21.5	7	92	171	<5	5
L05+00N-3+50E	<100	440	91	41.0	29.0	58	128	307	<5	23
L05+00N-4+00E	<100	180	46	21.3	9.6	43	57	99	<5	5
L05+00N-4+50E	<100	320	6	3.8	1.2	93	5	14	<5	<1
*Dup L05+00N-4+00W	<100	220	58	30.1	15.5	34	54	42	<5	<1
*Dup L05+00N-2+00E	<100	250	6	4.0	1.0	50	5	20	<5	<1
*Std MMISRM14	<100	680	2	0.7	0.8	3	4	3	<5	46
*Blk BLANK	<100	<10	<1	<0.5	<0.5	<1	<1	<1	<5	<1

Element	Mo	Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	5	0.5	1	5	10	1	1	1	5	1
Units	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
L05+00N-4+00W	<5	6.6	155	23	120	<1	27	<1	172	<1
L05+00N-3+50W	<5	1.7	110	17	70	<1	21	<1	240	<1
L05+00N-3+00W	<5	1.7	318	11	240	<1	69	<1	206	<1
L05+00N-2+50W	<5	1.9	16	44	120	<1	4	<1	151	<1
L05+00N-2+00W	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-1+50W	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-1+00W	<5	5.1	10	44	110	<1	2	<1	98	<1
L05+00N-0+50W	<5	5.0	266	13	240	<1	61	<1	283	<1
L05+00N-0+00	<5	1.5	16	48	90	<1	3	<1	248	<1
L05+00N-0+50E	14	9.7	148	31	320	<1	30	<1	261	<1
L05+00N-1+00E	<5	8.6	16	78	90	<1	3	<1	145	<1
L05+00N-1+50E	<5	1.8	1	50	<10	<1	<1	<1	43	<1
L05+00N-2+00E	<5	3.4	23	46	80	<1	6	<1	167	<1
L05+00N-2+50E	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-3+00E	7	<0.5	352	19	30	<1	72	<1	117	<1
L05+00N-3+50E	20	7.5	493	27	170	1	110	<1	352	<1
L05+00N-4+00E	<5	0.6	218	17	50	<1	45	<1	410	<1
L05+00N-4+50E	<5	5.9	18	19	340	<1	4	<1	289	<1
*Dup L05+00N-4+00W	<5	4.9	146	23	100	<1	26	<1	171	<1
*Dup L05+00N-2+00E	<5	2.6	21	44	110	<1	5	<1	171	<1
*Std MMISRM14	32	<0.5	13	251	120	42	3	<1	290	<1
*Blk BLANK	<5	<0.5	<1	<5	<10	<1	<1	<1	<5	<1

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Element	Sc	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti	Tl
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	5	1	1	10	1	1	10	0.5	3	0.5
Units	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB	PPB
L05+00N-4+00W	131	47	<1	30	<1	9	<10	7.4	1890	<0.5
L05+00N-3+50W	34	31	<1	330	<1	5	<10	5.2	444	<0.5
L05+00N-3+00W	103	76	<1	60	<1	11	<10	18.7	775	<0.5
L05+00N-2+50W	20	5	<1	30	<1	1	<10	4.4	523	<0.5
L05+00N-2+00W	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-1+50W	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-1+00W	21	3	<1	40	<1	<1	<10	8.2	784	<0.5
L05+00N-0+50W	47	67	<1	20	<1	9	<10	25.8	891	0.6
L05+00N-0+00	26	5	<1	20	<1	2	<10	5.0	649	<0.5
L05+00N-0+50E	72	38	<1	60	<1	8	<10	29.8	2140	<0.5
L05+00N-1+00E	17	5	<1	40	<1	1	<10	5.0	1370	<0.5
L05+00N-1+50E	<5	<1	<1	20	<1	<1	<10	1.3	444	<0.5
L05+00N-2+00E	7	5	<1	30	<1	1	<10	5.5	814	<0.5
L05+00N-2+50E	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-3+00E	38	65	<1	110	<1	12	<10	2.7	23	<0.5
L05+00N-3+50E	54	119	<1	340	<1	18	<10	35.2	1170	1.2
L05+00N-4+00E	32	53	<1	60	<1	8	<10	19.8	153	<0.5
L05+00N-4+50E	15	5	<1	20	<1	<1	<10	12.2	2260	0.7
*Dup L05+00N-4+00W	127	45	<1	20	<1	9	<10	6.0	1550	<0.5
*Dup L05+00N-2+00E	6	5	<1	30	<1	<1	<10	4.7	632	<0.5
*Std MMISRM14	8	4	<1	520	<1	<1	<10	16.9	<3	<0.5
*Blk BLANK	<5	<1	<1	<10	<1	<1	<10	<0.5	<3	<0.5

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Final : 096662 Order: PROJECT CHACO BEAR

Element	U	W	Y	Yb	Zn	Zr
Method	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5	MMI-M5
Det.Lim.	1	1	5	1	20	5
Units	PPB	PPB	PPB	PPB	PPB	PPB
L05+00N-4+00W	8	2	294	25	150	85
L05+00N-3+50W	50	<1	134	8	110	47
L05+00N-3+00W	20	<1	226	16	110	103
L05+00N-2+50W	5	<1	48	5	300	23
L05+00N-2+00W	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-1+50W	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-1+00W	11	<1	33	4	770	48
L05+00N-0+50W	27	<1	137	13	130	198
L05+00N-0+00	8	<1	54	5	680	22
L05+00N-0+50E	64	1	197	14	300	172
L05+00N-1+00E	6	<1	49	5	560	62
L05+00N-1+50E	2	<1	6	2	90	13
L05+00N-2+00E	7	<1	29	3	430	43
L05+00N-2+50E	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L05+00N-3+00E	130	<1	357	25	40	53
L05+00N-3+50E	232	1	450	30	70	328
L05+00N-4+00E	24	<1	231	15	270	93
L05+00N-4+50E	9	<1	28	3	130	78
*Dup L05+00N-4+00W	8	<1	290	23	150	71
*Dup L05+00N-2+00E	7	<1	28	3	420	35
*Std MMISRM14	33	<1	9	<1	330	11
*Blk BLANK	<1	<1	<5	<1	<20	<5

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