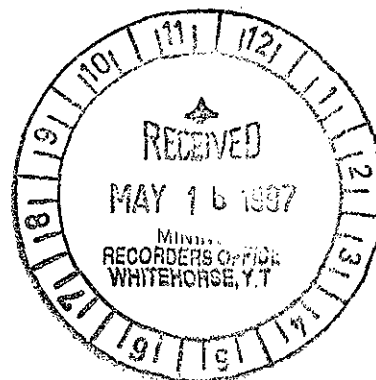


**1996 ASSESSMENT REPORT**  
**GEOLOGICAL, GEOPHYSICAL and**  
**GEOCHEMICAL WORK ON THE MARS PROPERTY**

**DDH 1-16 CLAIMS**  
**(YB67058 - YB67073)**  
**MARS 1-200 CLAIMS**  
**(YB96047 - YB96246)**  
**MARS 201 - 272**  
**(YB96831-YB96802)**



Whitehorse Mining District,  
Yukon Territory

NTS Mapsheet 105E/7  
Latitude: 61° 17' N  
Longitude: 134° 48' W

Work Performed between July 19, 1996  
and September 28, 1996

**L. Walton, M.Sc.**  
**May 16, 1997**

**CAMDAN EXPLORATION INC.**  
Suite 200, 100 Main Street  
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093656

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
presentation work in the amount  
of 21,600.

*M. B. ...*  
Regional Manager, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.

## SUMMARY

The Mars property consists of the DDH 1-16 mineral claims and the MARS 1-272 mineral claims centered on the Teslin Crossing stock, Laberge map area, Yukon. The claims are accessible by helicopter based out of Whitehorse, which is 50 km southwest of the property. The Livingstone Trail is a winter tote trail, sometimes passable during dry summer months, which passes within seven km of the claims. Previous work carried out in 1972 by United Keno Hill Mines Ltd. revealed widespread copper mineralization in a magnetite-rich syenite to monzonite stock; however, the samples were not analyzed for gold. Samples from the stock collected during a 1996 prospecting program by Mr. B. Sauer returned anomalous gold, silver and copper values. The property was optioned by Camdan Exploration Inc. in September, 1996.

The Mars property is a previously unrecognized alkalic gold-copper porphyry exploration target. The property lies within northern Stikinia terrane, which is composed of Upper Triassic Lewes River Group calc-alkaline volcanic island arc rocks and Upper Triassic to Middle Jurassic Laberge Group island arc derived sedimentary rocks. A Middle Jurassic alkalic syenite, monzonite and granite epizonal high-level stock intrudes the Lewes River Group and Laberge Group sedimentary rocks on the Mars property. The stock exhibits widespread and intense potassic alteration and brecciation.

Gold and copper mineralization within the stock is associated with limonitic stockwork zones containing magnetite and carbonate veinlets. Disseminated pyrite is located in altered rocks beside the mineralized zones. Copper mineralization occurs on fracture surfaces, in quartz veins and carbonate veins and as disseminations within the altered stock. Native gold is associated with chalcopyrite, pyrite, magnetite and hematite.

Of the rock samples collected during 1996 reconnaissance prospecting and sampling, 23 grab samples returned between 100 and 4790 ppb gold (of these samples, 11 returned greater than 0.5 g/t gold and 4 samples returned greater than 1.0 g/t gold), 33 samples returned between 1.0 ppm and 195.7 ppm silver, and 39 samples returned between 500 ppm and 1.95% copper. The anomalous samples are spread throughout a 2.5 km area. A ground total field magnetic survey totaling 12.4 line km defined several strong magnetic anomalies, the largest of which measures 58,700 gammas over a 350 m x 150 m area.

Exploration of the Mars property is in the early reconnaissance stage. The intrusive age, lithology and chemistry, combined with the alteration and rock geochemical results indicate an alkalic copper-gold porphyry exploration target. An exploration program involving geological mapping, geochemistry and geophysics is recommended.

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## INTRODUCTION

This report describes the exploration work carried out on the Mars Property during the 1996 field season. The DDH 1-16 claims were staked in June, 1996 by prospector B. Sauer. The MARS 1-272 claims were staked by Camdan Exploration Inc. after optioning the property. The DDH 1-16 claims and the MARS 1-272 claims are collectively referred to as the "Mars property." The Mars property is located 50 km northeast of Whitehorse, Yukon and is accessible by helicopter or a winter tote trail.

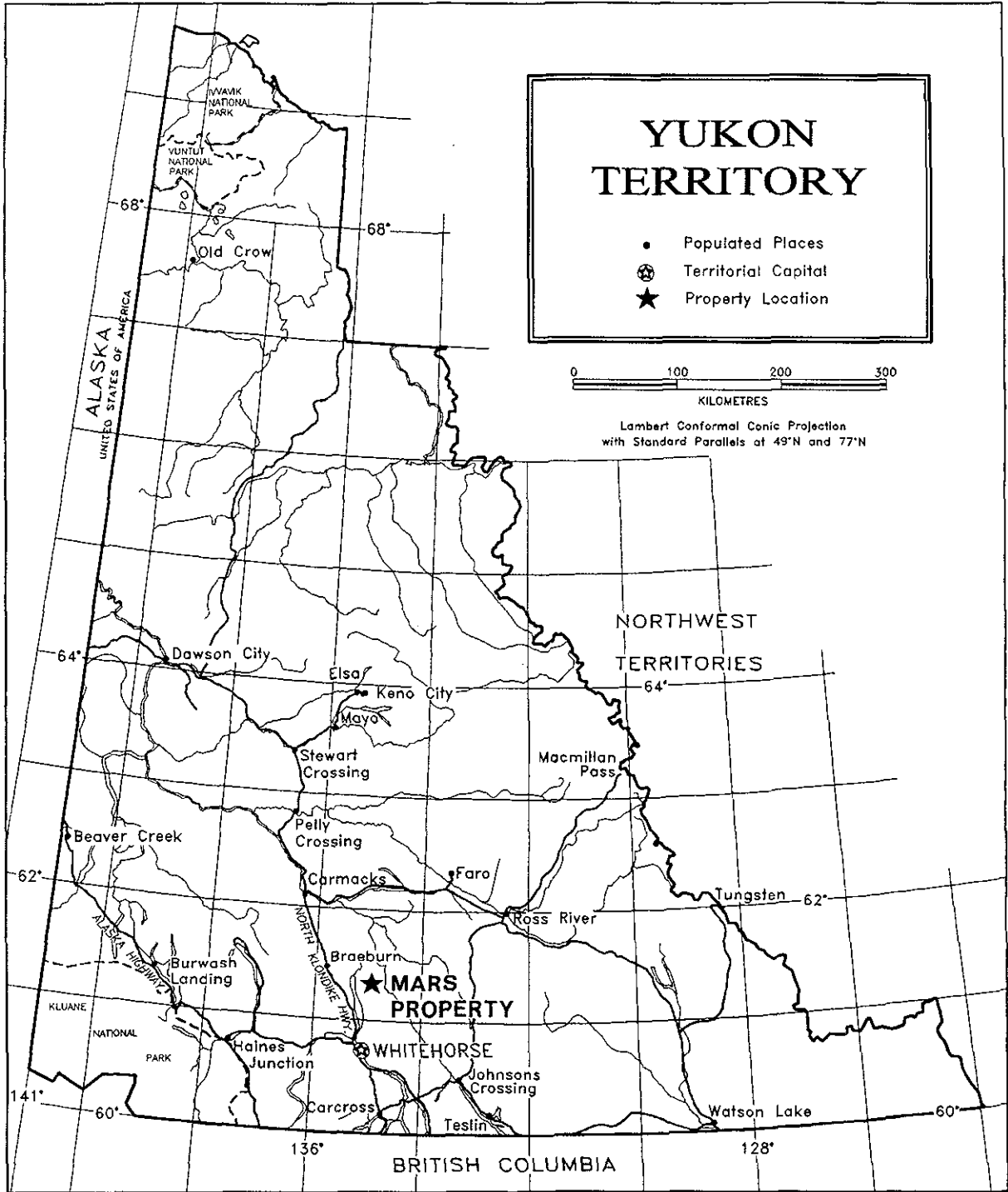
Exploration work completed on the property in 1996 included prospecting, geochemical rock and soil sampling and a total field ground magnetometer survey. Exploration work to date has been generally confined to the Windy Mountain ridge area on the DDH 1-16 claims. A property examination and sampling was carried out on July 19, 1996 by L. Walton and D. Ouellette of Camdan Exploration Inc. and A. Doherty and S. Ross of Aurum Geological Consultants Inc. The ground geophysical survey was carried out from August 7-11 and on August 31, 1996 by a two-person crew from Amerok Geosciences Ltd. Prospecting and geochemical sampling was carried out by L. Walton on August 31, 1996 and by L. Walton, D. Ouellette and F. Pearson of Camdan Exploration Inc. on September 28, 1996. M. Burke from Exploration and Geological Services Division of the Department of Indian Affairs and Northern Development examined the property on September 28, 1996. C. Hart of the Yukon Geology Program also visited and sampled the property during 1996 (Hart, 1997 in press).

Previous work is summarized from Doherty (1996), Pangman and VanTassell (1972), Pangman (1973) and published sources of government geological information.

## LOCATION and ACCESS

The Mars property is located in southwest Yukon, about 50 km northeast of Whitehorse at latitude 61° 17'N and longitude 134° 48'W on NTS map area 105E/7 (Figure 1). The Teslin River borders the eastern boundary of the Mars property.

Access is by helicopter based in Whitehorse, Yukon, which has daily jet service to southern Canada. Alternate helicopter access is from the Klondike Highway near Lake Laberge, which is 30 km west of the property. A winter tote trail to the Livingstone Creek placer mining area passes within 7 km of the property. The trail may be passable during the dry mid-summer period. Access to the property is also possible by boat on the Teslin River.



<b>CAMDAN EXPLORATION INC.</b>		
<b>MARS PROPERTY Location Map</b>		
SCALE: 1 : 6 000 000	DATE: Jan. 7th/97	
NTS: 105 E/7	DRAWN:	FIGURE 1

## HISTORY

The first geology map of the Laberge area was published by Bostock and Lees (1938). The most recent regional geology map was published by Tempelman-Kluit (1984). A total of 60 Yukon Minfile occurrences are shown in the Laberge map area; however, the only mineral production to date has been from the Livingstone placer camp which has been mined and prospected intermittently since its discovery in 1898.

The first mention of an intrusive stock underlying the Windy Mountain area is from Bostock and Lees (1938) who describe a pink monzonite stock. There is no record of exploration interest in the Windy Mountain area until 1971, when a helicopter reconnaissance sampling program in the Laberge map area by United Keno Hill Mines Ltd. (UKHM) and others led to the discovery of sporadic and widespread copper and molybdenum mineralization at Windy Mountain. The TUV 1-24 claims were staked by UKHM in 1972 during geological and geochemical evaluation of the Windy Mountain area. The TUV claims were subsequently dropped after a brief exploration program, and to the author's best knowledge, no further exploration work was carried out in the Windy Mountain area until 1996. None of the samples collected by UKHM were analyzed for gold.

In May, 1996, prospector B. Sauer, under the Yukon Prospectors Assistance Program, and on the suggestion of A. Doherty of Whitehorse, prospected the Windy Mountain area with a three person crew. The DDH 1-16 claims were staked over the area of the lapsed TUV claims in June, 1996 by Mr. B. Sauer and subsequently, anomalous gold values were returned from rock samples collected from magnetite-rich altered intrusive rocks on the Windy Mountain ridge. The DDH 1-16 claims were optioned by Camdan Exploration Inc. in September, 1996, and additional claims were staked (MARS 1-272) and a brief exploration program was carried out.

In January, 1997, the geology and geochemistry of the Teslin Crossing Pluton is described by Hart, 1997 (in press). The pluton is described as an alkalic gold-rich porphyry target.

## PROPERTY

The Mars property consists of the DDH 1-16 claims and the MARS 1-272 claims, (Figure 2). All of the claims were staked under the Yukon Quartz Mining Act within the Whitehorse Mining District. The total area covered by the claims is 6,020 hectares (14,876 acres). The DDH 1-16 claims and the MARS claims are under option by Camdan Exploration Inc. from Mr. B. Sauer and Mr. A. Doherty. Claim data are as follows:

**Table 1 Claim Data**

<b>CLAIM NAME</b>	<b>GRANT NUMBERS</b>	<b>RECORDING DATE</b>	<b>EXPIRY DATE</b>
DDH 1-16	YB67058 - YB67073	June 7, 1996	June 7, 1997
MARS 1 - 200	YB96047 - YB96246	August 16, 1996	August 16, 1997
MARS 201 - 272	YB96731 - YB96802	October 10, 1996	October 10, 1997

## **CLIMATE, TOPOGRAPHY and VEGETATION**

The climate in the area of the Mars property is semi-arid, with warm summers and long, cold winters. Total precipitation averages about 30 cm annually, with moderate snowfalls during the winter months.

The property is situated 20 km east of Lake Laberge within the Lewis Plateau physiographic region, in an area of moderate to rugged topography. Elevations within the Mars property area range from 1220 m (4000 ft) to 1485 m (4867 ft) above sea level. The most prominent topographic feature is the long, northwest trending Windy Mountain ridge. Several secondary spurs, separated by prominent stream valleys are perpendicular to the main ridge. Treeline is at approximately 1370 m (4500 ft). Above treeline, outcrop is exposed on the tops of and sides of the ridgetop and the tops of the higher spurs. There is less than 3% outcrop on the property. Vegetation below treeline is thick and consists mainly of alder, willow and black spruce.

## **SURFICIAL GEOLOGY**

The surficial geology of the Laberge area has been mapped by Klassen and Morison (1987). The Laberge map sheet was completely covered 24,000 years ago by the McConnell ice sheet which moved from southeast to northwest through the map area. In the Windy Mountain area, the till cover below the ridgetops is bouldery, with a silty to sandy matrix, and is generally less than 1 m thick (although locally it can reach greater thickness). The till forms a discontinuous cover over the bedrock terrain and is associated with colluvium and bedrock fragments. Soil development in the Windy Mountain area is expected to be poor (C. Mougeot, pers. comm., 1997) with little or no B horizon development due to the semi-arid climate.

## **REGIONAL GEOLOGY**

The regional geology of the Lake Laberge map area has been mapped by Bostock and Lees (1938), and more recently by Tempelman-Kluit (1984). Understanding of the tectonic setting of Stikinia terrane has been the focus of several recent papers (e.g., McMillan *et al.*, 1995) and research programs by several government geology agencies (e.g., Yukon Geology Program).

The Mars property is situated in northern Stikinia Terrane near the eastern flank of the Coast Plutonic Complex. Stikinia Terrane is composed of Late Triassic Lewes River calc-alkaline volcanic island arc rocks and Upper Triassic to Middle Jurassic Laberge Group island arc derived sedimentary rocks (Figure 3). The Lewes River Group was deposited as an island arc complex during the Late Triassic and Early to Middle Jurassic. It comprises a 7,000 m thick succession of basalt, andesite, flow breccia and crystalline tuff, with associated sediment. In the Laberge area, the Lewes River Group is composed of a lowermost augite porphyritic basalt sequence, unconformably overlain by a reddish limestone member with intercalated argillite, greywacke and mudstones. The Laberge Group consists of 3000 m of fore-arc basin alluvial and marine conglomerate, sandstone and shale. In the Laberge area, the Laberge Group consists of a coarse polymictic cobble and boulder conglomerate, siltstones and argillite. The Tantalus conglomerate is an overlap assemblage that contains minor coal seams. The Laberge Group developed in a forearc basin above a southwest-dipping subduction zone, northeast of the Lewes River volcanic arc. The island arc complex collided against North America in the Mid-Jurassic along what became an accretionary structure called the Teslin Suture Zone.

Intrusive rocks of Jurassic age are less common in the northern part of Stikinia terrane than in the southern part and tend to be calc-alkaline and felsic. The Teslin Crossing stock, a fine to medium grained equigranular to porphyritic monzonite with lesser syenite and granite, is unusual because of its alkalic chemistry (Hart, pers. comm., 1997). The Teslin Crossing stock was emplaced in local pull-apart basins in Laberge Group strata (Woodsworth, *et al.*, 1991).

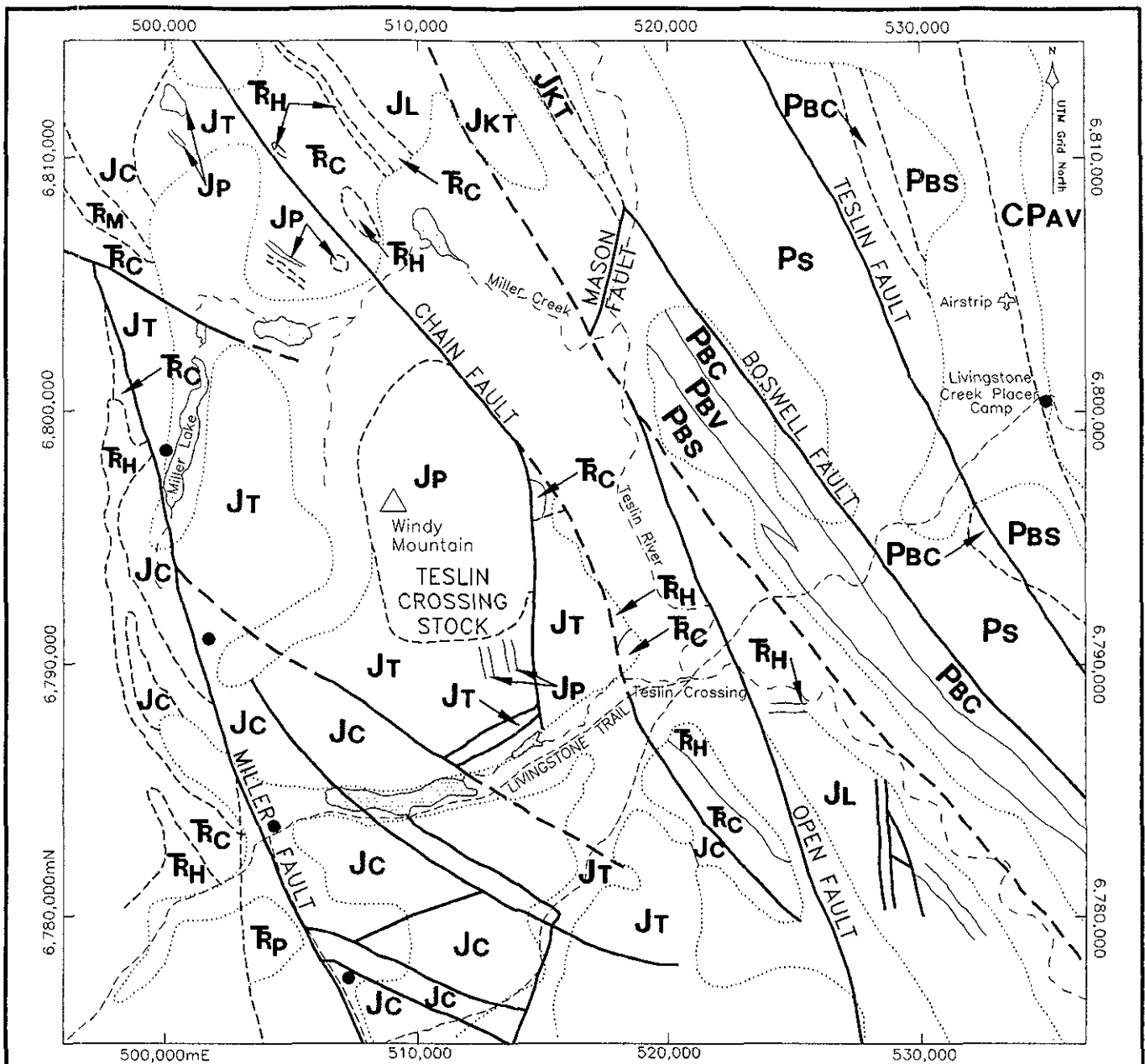
A 1989 regional stream sediment sampling release (Open File 1960) shows elevated copper, gold, lead, zinc, barium and silver values in the Mars property area. The government aeromagnetic map for 105E/7 shows a distinct kidney shaped magnetic high over the Teslin Crossing stock.

### **Structure**

Faulting, lithologic attitudes, and other regional trends are generally north-west, with some younger north-east structures. The northwest trending Teslin Fault, 20 km east of the MARS property is the largest structure in the area. The Chain Fault parallels the northeast side of the stock and another unnamed fault parallels the east side of the stock. Numerous smaller northwest trending faults cut Lewes River Group and Laberge Group strata west of the MARS property.

## **PROPERTY GEOLOGY**

United Keno Hill geologists carried out reconnaissance scale geological mapping and sampling as part of their 1972 exploration program on the TUV mineral claims.



**UPPER JURASSIC AND/OR CRETACEOUS**  
 Tantalus Formation  
 Jkt Chert-pebble conglomerate

**MIDDLE JURASSIC**  
 Teslin Crossing Stock  
 JP Leucocratic monzonite, syenite and granite

**LOWER TO MIDDLE JURASSIC**  
 Laberge Group  
 JL Undifferentiated shale, greywacke and conglomerate  
 JT Tanglefoot Formation Arkose  
 JC Conglomerate Formation Conglomerate

**UPPER TRIASSIC TO JURASSIC**  
 Lewes River Group  
 RC Casca Member Shale, greywacke and limestone  
 RH Hancock Member Limestone  
 RP Pravos Formation Volcanic breccia

**CARBONIFEROUS AND/OR PERMIAN**  
 Anvil Allochthonous Assemblage  
 CPav Amphibolite

**LEGEND**


**LOWER AND MIDDLE PENNSYLVANIAN**  
 Semenof Formation  
 Ps Basalt  
 Boswell Formation  
 PBS Phyllite, greywacke, chert and chert conglomerate  
 PBC Limestone  
 PBV Basalt

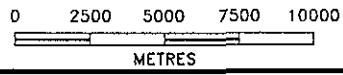
\* Map and legend modified from Templeman-Kluit (1984)

--- Limit of outcrop  
 - - - Geological boundary  
 - - - Fault, approximate, assumed  
 - - - Normal fault (circle on downthrown side)  
 - - - Winter tote trail

**CAMDAN EXPLORATION INC.**

**MARS PROPERTY  
 Regional Geology**

SCALE: 1 : 250 000	DATE: Jan. 21st/97
NTS: 105 E	DRAWN:  FIGURE 3



A summary of the geological mapping and a geological map is contained in the assessment report on the property (VanTassel and Pangman, 1972). Also at this time, a B.Sc. thesis on the petrology of the Windy Mountain pluton (now called the Teslin Crossing stock) was carried out by the party chief of the UKHM crew (Pangman, 1973). The thesis was written before widely accepted terms for copper porphyry deposit models came into use; however, it does contain descriptions of features analogous to those of alkaline gold-copper porphyry deposits (for example; potassium metasomatism, breccia zones, magnetite veinlets).

A property geology map, shown in Figure 4, is modified from Pangman and VanTassel (1972), Pangman (1973) and Tempelman-Kluit (1984). Descriptions of the rock units are as follows:

#### **Lewes River Group (Upper Triassic)**

Massive, resistant, white weathering limestone and thick bedded limestone is exposed in one large outcrop 30 m east of the Teslin Crossing stock. The limestone grades into a clastic unit towards the stock.

#### **Laberge Group (Early-Middle Jurassic)**

Gritty, coarse grained arkose and feldspathic sandstone, granite pebble conglomerate and brown shale of the Tanglefoot Formation are exposed in places around the perimeter of the Teslin Crossing stock. Parts of the Tanglefoot Formation may be Tantalus Formation (C. Hart, pers. comm., 1996). Pangman and VanTassel (1972) note that black argillite and argillaceous grey siltstone is more common than arkosic rocks. The Laberge Group rocks contain abundant pyrite close to the intrusive contact with the Teslin Crossing stock, and limonite-rich fracture surfaces are common in the black argillite. The sedimentary rocks dip gently eastwards.

#### **Intrusive Rocks**

The Teslin Crossing stock is approximately 7.0 km by 6.0 km and is slightly elongated in a north-south direction. The stock consists of multiple intrusive phases of varying composition and is inferred to be emplaced at high levels. The stock is intruded by later felsic and lamprophyre dykes.

It was assumed, until the Teslin Crossing stock was age-dated, that the stock was Cretaceous; however, K-Ar isochrons from hornblende and biotite indicate dates between 173 and 186 million years (Tempelman-Kluit, 1984). Additional age dating is being carried out by the Yukon Geology Program (C. Hart, pers. comm., 1997).

Pangman (1973) carried out XRF analysis on 12 rock samples from the Teslin Crossing stock. He determined that the main intrusive is of intermediate silica composition and metaluminous. More recent analysis of the Teslin Crossing stock by C. Hart (in press, 1997) places the chemistry of the stock in the alkaline field.

Mapping by Pangman (1973) outlined an equigranular to coarse grained central phase consisting of diopside monzonite, which grades to a hornblende monzonite porphyry border phase. The following descriptions are summarized from Pangman (1973) and the authors' field observations.

Central Phase (Jg):

Feldspar accounts for 80 to 90% of the central phase rock. Quartz was not noted. Sphene, apatite and magnetite are ubiquitous accessory minerals and may total up to 5%. Pyroxene-magnetite-apatite clasts were noted. Unaltered intrusive rock is rare. Limonite stained biotite books and limonite filled cavities are common in the northern part of the stock. Thin section analysis by Pangman (1973) determined that incipient brecciation around the border of feldspar grains and narrow highly brecciated fractures are characteristic of the altered part of the stock. Potassium metasomatism in the form of 1 cm wide potassic feldspar stringers is widespread. The northeastern part of the stock exhibits more intense potassic alteration and brecciation. Highly assimilated dark green sedimentary xenoliths were noted in a few localities.

Porphyritic border phase (Jg<sub>1</sub>)

Pangman (1973) notes that this phase was observed whenever the intrusive contact with the sedimentary rocks was found and is particularly abundant in the southwestern part of the pluton, in the vicinity of Windy Mountain where most of the exploration work to date has been carried out. The porphyritic border phase varies from diopside monzonite porphyry to hornblende monzonite porphyry. It is generally light grey to pink. Syenitic phases were noted during the 1996 exploration program.

Plagioclase phenocrysts from 1 mm to 1 cm account for 30 to 50% of the rock. Pangman (1973) noted from thin section observation that some of the plagioclase phenocrysts have a narrow potassium-rich rim. The matrix is generally fine grained anhedral potassium-rich feldspar grains. Diopside, hornblende and biotite occur both as phenocrysts and in the matrix. Diopside is more common in those samples furthest away from the intrusive contact. Hornblende becomes more common than diopside as the intrusive contact is approached.

Accessory opaque minerals include both pyrite and magnetite. Magnetite pods and veins are common throughout the intrusion. Quartz veins are less common. Sedimentary xenoliths are common in the border phase. Secondary biotite has been noted.

Widespread zones of intense brecciation and potassium metasomatism were noted by Pangman (1973) in both phases of the stock. He notes that large areas of the northern part of the central phase of the main stock were brecciated and that even larger areas of the northeastern part of the stock showed brecciation. Brecciated zones in the porphyritic border phase in the southwestern part of the stock (DDH claims area) are often intensely limonite stained and semi-linear. Randomly

distributed narrow carbonate veinlets are relatively common, particularly in the brecciated limonitic zones. Pangman (1973) describes a 3 m wide carbonate rich zone near the Windy Mountain summit where irregular, highly brecciated intrusive fragments up to 20 cm are contained in a rusty weathering dolomite and ankerite matrix. Chalcopyrite, and more rarely, galena are associated with the carbonate veins.

### Dyke Rocks

Mafic dykes mapped as lamprophyres by Pangman (1973) are situated along the northern intrusive contact and in the southwestern portion of the pluton. The dykes are medium green-blue, fine grained porphyritic to black aphanitic. Magnetite and pyrite are accessory minerals. The lamprophyre dykes look fresh in appearance, but thin section examination shows fairly abundant sericitization and kaolinization of the matrix, and calcite replacing ferromagnesian minerals.

Felsic dykes ranging from 3 to 10 m were mapped by Pangman (1973). The dykes are vertical and are highly continuous; one was traced for over 500 m. The dykes have a medium to dark green to pink aphanitic to fine grained matrix. The composition of the matrix varies from hornblende-plagioclase porphyry to diopside-biotite-plagioclase porphyry to a hornblende porphyry. Feldspar phenocrysts, hornblende and diopside phenocrysts were noted.

## **MINERALIZATION**

Exploration by United Keno Hill Mines Ltd. in the early 1970's outlined areas of chalcopyrite, pyrite, malachite, azurite and rare galena. Pangman and VanTassel (1977) concluded that observed copper and molybdenum mineralization was random and widespread. Copper mineralization occurs as random smears on fracture surfaces, in quartz veins, dolomite veins and as disseminated grains within the altered intrusive rock. An association between chalcopyrite and carbonate rich brecciated alteration zones was noted by Pangman (1973). Chalcopyrite was also noted in coarsely crystalline calcite veins up to 0.5 m wide, sometimes containing purple fluorite. Nearly massive pyrite veins were noted at the northwestern intrusive contact. Massive white quartz veins are relatively uncommon, although they may contain chalcopyrite, and more rarely, scheelite.

Reconnaissance prospecting and sampling in 1996 by Aurum and by Camdan Exploration confirmed the existence of copper mineralization in limonitic stockwork fractures associated with quartz veins and carbonate veins, and as disseminations in the host rock. There seems to be a correlation between chalcopyrite and pods and veins of magnetite and potassic alteration.

Results to date show that anomalous gold and copper values are widespread along the Windy Mountain Ridge, a distance of 2.5 km. The highest values to date come

from an outcrop on a small knob separated from the Windy Mountain ridge by a small gully (X-Zone):

### ***X-Zone***

The X-zone is situated close to the intrusive-sediment contact on the west side of the Windy Mountain ridge (Fig. 5). Potassic altered and mineralized rock is exposed for 1.5 m width and 5 m along the trend of the mineralized zone. Surface samples consist of orange-rust weathering, malachite stained (with minor azurite) intensely altered intrusive rock containing well developed limonitic boxworks associated with magnetite stockwork veinlets, minor carbonate and argillic alteration and manganese dendrites. The exposed altered rocks trend 170°/60°W, although the magnetite content of the zone affects compass readings by as much as 50%. A sample of the altered rock collected in June, 1996 returned 4790 ppb gold, 195.7 ppm silver and 0.28% copper (Doherty, 1996). Grab and chip samples collected by Camdan Exploration Inc. across the zone returned up to 2710 ppb gold, 87.5 ppm silver and 1.95 % copper.

The intrusive rocks exposed on either side of the X-zone are non-calcareous, light grey, fine to medium grained with an iron weathering rim and fine grained pyrite disseminated throughout. The rock has a strange "sugary" texture and contains minor hornblende.

## **1996 EXPLORATION PROGRAM**

### ***Reconnaissance Rock Geochemistry***

A total of 81 rock chip, 25 soil samples, and one silt sample were collected during the 1996 B. Sauer prospecting program on the property (Doherty, 1996). Sample locations and copper and gold values for the B. Sauer samples are shown on Figure 5. Most samples were grab samples collected on or near the Windy Mountain ridge. Twelve of the rock grab samples collected along the ridge top returned gold geochemical values between 149 ppb Au and 4790 ppb Au. The anomalous samples are distributed throughout the DDH 1-16 claims. Silver values range between 0.7 and 195 ppm and copper values are between 16 ppm and 1.1% for the same twelve samples.

On July 19, 1996, Camdan Exploration Inc. collected 15 rock grab and chip samples during the initial property visit. Some of the rock samples were collected from the sites where anomalous gold values were reported by Doherty (1996). Sample locations are shown in Figures 4 and 5, and rock sample descriptions are given in Appendix A. Analytical results are given in Appendix B.

Five of the samples collected by Camdan Exploration Inc. returned gold geochemical values between 411 ppb and 2710 ppb. Seven of the samples returned copper geochemical values between 2054 ppm and 19,513 ppm and corresponding silver values up to 87.5 ppm. Two of the samples which returned high gold values (LW96001 and LW96002; 2589 ppb and 2710 ppb gold respectively), were collected from the same spot where an Aurum rock sample returned 4790 ppb Au. One sample, A9629003, was collected from a previously unsampled knob (Pink Zone on Figure 5) north of the Windy Mountain ridge and returned 541 ppb gold. Anomalous values for lead (up to 3602 ppm), antimony (up to 634 ppm) and molybdenum (up to 257 ppm) values were also reported.

Two additional days of prospecting and reconnaissance rock sampling were carried out on August 31, 1996 and on September 28, 1996. The sampling program on September 28, 1996 was hampered by a snowstorm. A total of 53 rock samples were collected. Three of the samples returned over 100 ppb gold and 11 of the rock samples returned over 500 ppm copper.

A summary table of anomalous 1996 rock geochemistry results is given below:

No. of Samples		No. of Samples	
Gold (>100 ppb)	23	Copper (>500 ppm)	39
Gold (>500 ppb)	11	Copper (>1000 ppm)	13
Gold (>1000 ppb)	4	Copper (>5000 ppm)	5

### **Soil Geochemistry**

Soil samples were collected from the Windy Mountain ridge by Aurum (Doherty, 1996). Results were generally low.

On September 28, soil sampling by Camdan Exploration was carried out. The grid established for the ground magnetometer survey was used as a control and a total of 27 soil samples were collected from the bottom of deep (up to 1 m) soil pits. The samples were collected from the area over the most intense magnetic high as outlined by the ground magnetometer survey (see next section). The soil samples were sieved to -200 mesh at the lab, instead of the standard 80 mesh. The geochemical analyses are presented in Appendix B. The sample locations and gold and copper values are plotted in Figure 6.

A total of 13 soil samples returned between 100 ppm and 781 ppm copper and a total of 6 soil samples returned between 15 ppb and 57 ppb gold. The anomalous gold samples are concentrated along line 6+00E between 3+00N and 5+25N and correspond to the most intense magnetic anomaly as outlined by the ground magnetometer survey.

### **Geophysics**

The Mars property is associated with a distinct kidney to donut-shape total field magnetic high of up to 58,800 gammas as shown on the Geological Survey of Canada Aeromagnetic map for 105E/7 (Figure 7).

A total magnetic field survey was conducted on the DDH claims from August 7 - 11, 1996 and on August 31, 1996. A 700 m long baseline was established with crosslines every 100 m. The crosslines extend for 450 m north and 450 m south from the baseline and are picketed every 25 m. Magnetometer readings were taken every 12.5 m along the survey lines. A total of 12.4 line km of geophysics was completed.

A color contour map of the results and a description of the survey method is in Appendix B. The map indicates several areas of pronounced magnetic response which appear to originate from magnetite rich rocks along the ridge on which the grid is centered.

### **CONCLUSIONS**

The Mars property is underlain by a Middle Jurassic alkalic stock of varying composition which intrudes Upper Triassic Lewes River Group and Lower to Middle Jurassic Laberge Group sedimentary rocks. Anomalous gold values, first reported by Doherty (1996) are widespread and appear to be associated with linear limonitic stockwork zones, carbonate and magnetite veinlets, disseminated pyrite and intensely altered potassic intrusive rock. The age, lithology, chemistry, style of mineralization and geochemical and geophysical signature suggest that the Mars property is a previously unrecognized alkalic copper-gold occurrence of the type found at Afton, Ajax, Mt. Polley, Red Chris, Mt. Milligan and Galore Creek.

The Mars property is a bulk tonnage, low grade gold and copper target. Elevated values of silver, molybdenum, lead, zinc, arsenic, antimony, cobalt and barium were also noted. Widespread anomalous copper and gold values to date are from rock samples collected along a 2.5 km ridge. The highest rock geochemical values returned to date (4790 ppb gold and 1.95% copper) are from the X-zone, near the intrusive-sediment contact. Rock samples which returned greater than 500 ppb gold and/or greater than 5,000 ppm copper were returned from six other areas on the Mars property.

Chalcopyrite and native gold mineralization is associated with limonitic stockwork zones containing magnetite and carbonate veinlets in pink potassic altered intrusive host rock. Mineralization is also associated with quartz veins, massive calcite veins and as disseminated grains within the altered intrusive host rock. Potassic vein selvages, minor clay alteration and secondary biotite have also been noted.

Of the rock samples collected from the program, 23 grab samples returned between 100 and 4790 ppb gold, 33 samples returned between 1.0 ppm and 195.7 ppm silver and 39 samples returned between 500 ppm and 1.95% copper. A 350 m x 150 m magnetic high was outlined by a ground total field magnetic survey. Soil geochemistry outlined a coincident gold anomaly with the magnetic high.

## **RECOMMENDATIONS**

Exploration on the Mars property is in the early reconnaissance stage. Results to date have confirmed that the Teslin Crossing alkalic stock contains anomalous gold, copper and silver and shows features indicative of an alkalic porphyry Cu-Au occurrence. The Mars property and the surrounding area is unexplored; therefore the following exploration program is warranted and recommended:

1. Additional claim staking should be carried out to cover the area around the existing Mars claim block.
2. A soil orientation survey in combination with a surficial geology study should be carried out.
3. Geological mapping, grid soil sampling and prospecting should be carried out in the Windy Mountain summit and ridge area, with special attention paid to mapping alteration zones and linking alteration to mineralization.
4. Reconnaissance geological sampling, soil sampling and geophysics should be carried out over unexplored geological and geophysical targets on the Mars property (for example, the Pink zone and the area defined by the magnetic high in the northeast part of the claims).

## REFERENCES

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## STATEMENT OF QUALIFICATIONS

I, L. Walton, hereby certify that:

1. I am a geologist with Camdan Exploration Inc., 100-200 Main Street, Whitehorse, Yukon.
2. I hold a Bachelor of Science (Specialization) Degree (1982) from the University of Alberta.
3. I hold a Master of Science Degree (1987) from the University of Alberta.
4. I have been working in the field of mineral exploration since May of 1980.
5. I am a director of Camdan Exploration Inc. and hold a 50% interest in the company. Camdan Exploration Inc. has an option on the MARS property.
6. I am the author of this report on the MARS property, Whitehorse Mining District, Yukon, which is based on my personal examination of the ground during July, August and September, 1996 and on referenced sources.
7. I consent to the use of this report in a company report or statement, provided that no portion is used out of context in such a manner as to convey a meaning differing materially from that set out in the whole.

May 16, 1997



L. Walton, M.Sc.

## STATEMENT OF COSTS

### FIELDWORK

L. Walton, M.Sc.

July 19, August 31, September 28, 1996

3 days @ \$400/day

\$1,200.00

D. Ouellette, B.Sc.

July 19, September 28, 1996

2 days @ \$400/day

\$800.00

F. Pearson, B. Eng.

September 28, 1996

1 day @ \$150/day

\$150.00

TOTAL FIELDWORK

\$2,150.00

### GEOCHEMISTRY

Northern Analytical Laboratories Ltd.

14 rock samples, 1 soil sample

\$312.00

Acme Analytical Laboratories Ltd.

24 rock samples

\$390.00

Acme Analytical Laboratories Ltd.

29 rock samples, 27 soil samples

\$861.30

TOTAL GEOCHEMISTRY

\$1,563.30

### GEOPHYSICS

Amerok Geosciences Ltd., Whitehorse

Ground Magnetometer Survey, Aug. 7-11, Aug 31, 1996

TOTAL GEOPHYSICS

\$4,775.00

### SUPPORT COSTS

Trans North Helicopters, Whitehorse

\$793.40

\$3,000.00

Helidynamics, Whitehorse

\$1,306.79

\$1,147.50

TOTAL SUPPORT COSTS

\$6,247.69

### RESEARCH AND REPORT PREPARATION

Vancouver Petrographics, Vancouver

Thin section and polished thin section preparation

\$182.50

Thin section description and photographs

\$175.00

L. Walton, M.Sc. (Compilation, Data Interpretation, Report Writing)

July (5 days), August (6 days), January (9 days)

20 days @ \$400/day

\$8,000.00

Geological Drafting Services

\$1,960.00

TOTAL RESEARCH AND REPORT PREPARATION COSTS

\$10,317.50

**TOTAL VALUE OF 1996 ASSESSMENT WORK**

**\$25,053.49**

Note: Geological survey, sampling on DDH 1-16 claims

Geophysical survey/grid on DDH 1-6, 15, 16 claims

**APPENDIX A**  
**Rock Sample Descriptions**

**CAMDAN EXPLORATION**  
**Rock Sample Descriptions - 1996**  
**Mars Property N.T.S. 105E/7**

Sample No	Location	Type of Sample	Description	Cu ppm	Au ppb	Ag ppm
July 19, 1996						
SR9629100	X-Zone	Chip	Malachite stained limonitic showing crosscut by magnetite veinlets	3878	51	3.8
LW96001	X-Zone	Composite Grab	Composite grab sample across same zone as above	8333	2589	38
LW96002	X-Zone	Composite Grab	Composite grab sample across zone - same as above	2161	2710	87.5
LW96003	X-Zone	Composite Grab	Malachite stained, minor azurite, light greenish grey f.g. granitic rock, minor calcite, magnetite stockwork, Mn dendrites	19513	14	2.3
LW96004	X-Zone	Grab	Med grey granitic rock, non-calcareous with Fe weathering rim and scattered dark hornblende? Grains. Minor f.g. disseminated pyrite. Equigranular, almost "sugary" texture.	476	10	0.5
9629A001	X-Zone	Grab	Same as above	5585	27	4.6
DO96001	X-Zone	Chip	Same as above but more homogeneous, no mafics	2054	23	0.8
9629A002	X-Zone	Grab	Light green gry with magnetite veinlets, light green clots, limonitic boxwork.	275	1303	0.2
9629A003	Pink Zone	Grab	Potassic flooded, mottled pink/light grey, cross-cut by calcite stockwork, minor magnetite	4319	541	27.5
LW96005	Pink Zone	Grab	Equigranular, light pink-grey, slightly sugary looking, disseminated bright orange limonite specks, disseminated f.g. pyrite, no magnetite, Kspar-rich, 5-10% grey quartz. Abundant quartz veining in area - quartz is waxy looking, not crystalline, up to 5 cm in width.	143	15	0.1
LW96006	Pink Zone	Grab	Homogeneous pink potassic feldspar flooded rock with scattered mottled pale yellowish clots. Minor biotite?, minor magnetite, non-calcareous	51	53	0.1
DOR96002	Cliff Zone	Chip	Across 3 m wide fracture zone. Sample is across 150 cm	108	411	n/a
DOR96003	Cliff Zone	Chip	Across 70 cm	207	31	n/a
9629A004	Moon Zone	Grab	Quartz vein with chalcopyrite and malachite	134	47	1.0
Aug. 31, 1996						
LW96R010	N of DDH	Grab	Light grey altered intrusive with xenoliths	36	3	<0.3
LW96R011	N of DDH	Grab	Light grey altered, iron-stained intrusive	21	11	<0.3
LW96R012	N of DDH	Grab	Altered light grey/pink intrusive with Kspar, relic mafics	34	1	<0.3
LW96R013	N of DDH	Grab	Light grey/white altered intrusive	28	1	<0.3
LW96R014	N of DDH	Grab	Homogeneous medium grey altered intrusive	20	1	<0.3
LW96R015	Windy Mtn S Ridge	Grab	Different than above - Kspar flooded, distinct pink color, some brecciation, Mn-wad	27	2	<0.3
LW96R016	Windy Mtn S Ridge	Grab	Pink/grey intrusive rock with chlorite/epidote? clots	189	25	<0.3
LW96R017	Windy Mtn S Ridge	Grab	Kspar altered intrusive, remnant mafics	97	3	<0.3
LW96R018	Windy Mtn S Ridge	Grab	Kspar altered intrusive, green mafic clots	44	4	<0.3
LW96R019	Windy Mtn S Ridge	Grab	Fuzzy, altered Kspar flooded intrusive with f.g. magnetite	13	1	<0.3
LW96R020	Windy Mtn S Ridge	Grab	Mottled, sugary texture, potassic altered intrusive with f.g. chalcopyrite clots, magnetite and malachite	46	2	<0.3
LW96021	Windy Mtn S Ridge	Grab	Same as above	207	10	<0.3
LW96022	Windy Mtn S Ridge	Grab	Almost 100 potassic alteration with magnetite clots	188	18	<0.3
LW96023	Windy Mtn S Ridge	Grab	Same as above but with more magnetite	194	12	<0.3
LW96024	Windy Mtn S Ridge	Grab	Odd speckled grey/pink intrusive	31	3	<0.3
LW96025	Windy Mtn S Ridge	Grab	Same as above	106	8	<0.3
LW96026	Windy Mtn S Ridge	Grab	Same as above, f.g. chalcopyrite	248	9	<0.3

LW96027	Windy Mtn S Ridge	Grab	Same as above, f.g. chalcopyrite	97	9	<0.3
LW96R028	Windy Mtn S Ridge	Grab	Altered intrusive with potassic alteration, limonite, sericite	123	13	<0.3
LW96R029	Windy Mtn S Ridge	Grab	Limonite rich intrusive with trace chalcopyrite and malachite	7209	556	2.4
LW96R030	Windy Mtn S Ridge	Grab	Altered grey intrusive with pink Kspar, f.g. chalcopyrite, malachite, azurite, sericite	4693	517	1.6
LW96R031	Windy Mtn S Ridge	Grab	Fresher looking medium grey intrusive with disseminated mafics with trace f.g. chalcopyrite	88	5	<0.3
LW96R032	Windy Mtn S Ridge	Grab	Altered intrusive with limonite, orange weathering, trace chalcopyrite	981	9	1.5
LW96R033	X-Zone	Grab	Light to medium grey homogeneous intrusive with f.g. sulphides	364	6	<0.3
Sept. 28, 1996						
LW96040	E side Windy Mtn.	Grab	Lt grey f.g. felsic dyke rock, rusty weathering	139	20	<0.3
LW96041	Windy Mtn near peak	Grab	Orange weathering limonitic shear zone .2m wide, <5% magnetite, Kspar rich, no visible sulphides	259	28	0.7
LW96042	Windy Mtn near peak	Grab	Same as above, more abundant limonite	709	17	1.3
LW96043	Windy Mtn near peak	Grab	Same as above, orange weathering, abundant limonite, altered intrusive, fspar altered to white clay, black Mn dendrites, minor carbonate veinlets	1547	25	1.9
LW96044	Windy Mtn near peak	Grab	Pink and green sheared Kspar-rich, trace magnetite, pinkish mottled with green clots 1-2 mm, sometimes cigar shaped up to 1 cm, trace carbonate, trace clay alteration	23	3	<0.3
LW96045	Windy Mtn near peak	Grab	Intensely altered, Kspar rich intrusive, pink to rust on weathered surface, Mn dendrites and clots, trace very f.g. chalcopyrite, clayey alteration, 2-5% malachite, limonite filled small vugs	7852	26	4.1
LW96046	Windy Mtn near peak	Grab	Medium grey altered intrusive with 5% biotite	165	2	0.4
LW96050	N side Windy Mtn	Grab	Altered intrusive cut by quartz stockwork. Quartz stockwork veins up to 2 cm wide. Grey to smoky quartz with minor bladed calcite (epithermal texture - like at Mt. Skukum). Comb texture in vein, subhedral crystals, center is clayey in places. Trace malachite and trace chalcopyrite in altered intrusive hosting stockwork.	1030	28	0.9
LW96051	Windy Mtn near peak	Grab	Altered mottled medium gray-Kspar sheared limonitic orange weathering zone on top of Cliff zone. Disseminated magnetite crystals <1%. One small grain chalcopyrite in microshear. Minor clay alteration, carbonate veinlets, trace hematite	315	45	0.6
MBMARS96-1	E side Windy Mtn	Grab	Strongly magnetic, f.g. to m.g. kspar-rich intrusive. Dark green mafics <2%	193	26	<0.3
MBMARS96-2	E side Windy Mtn	Grab	F.g. leucocratic, mottled flesh/grey altered Kspar-rich intrusive crosscut by orange weathering quartz stockwork. Very f.g. disseminated chalcopyrite with malachite. Some portions darker grey with f.g. dark grey breccia fragments.	753	56	0.4
MBMARS96-3	SE side Windy Mtn	Grab	Kspar-rich f.g. to m.g. altered intrusive with 2-10% mafics, abundant magnetite disseminated and in patches. Minor clay alteration	83	5	<0.3
MBMARS96-4	SE side Windy Mtn	Grab	Kspar-rich intrusive with mottled flesh-grey texture, 10-30% mafics. Strongly magnetic. Trace malachite, quartz stockwork. Chalcadonic veinlet 3 mm, also white calcite crystals 1 mm	44	2	0.3
MBMARS96-5	SE side Windy Mtn	Grab	Equigranular flesh and dark green mineral, salt and pepper texture, magnetic, very bright silvery sulphide - Mo? Not as altered as previous sample	96	7	<0.3
MBMARS96-6	E side Windy Mtn	Grab	Intensely sheared, limonitic, carbonate/siderite, altered Kspar rich leucocratic f.g. intrusive, trace secondary biotite?	52	17	0.4
MBMARS96-7	E side Windy Mtn	Grab	Sheared Kspar-rich altered intrusive with 10-30% green powdery mafic mineral. Magnetic. Nearby rusty weathering felsic dyke	67	5	0.3
MBMARS96-8	Saddle	Grab	Rusty weathering medium-dark grey homogeneous altered intrusive. Magnetic, calcareous in places. Not as "pink" as previous samples	49	8	0.3
MBMARS96-9	NE knob Windy Mtn.	Grab	Medium grey, fuzzy texture, flesh/med grey altered intrusive. Magnetic, non calcareous, trace disseminated chalcopyrite, 1 small bleb bornite, trace malachite	688	122	0.4

DOM96R10	E side Windy Mtn	Grab	Breccia - dark grey/flesh with f.g. dark grey breccia fragments up to 3 cm. Trace magnetite, trace chalcopyrite. Crosscut by flesh Kspar veinlets up to 0.5 cm in width	71	3	<0.3
DOM96R11	E side Windy Mtn	Grab	Dark weathering, kspar flooded rock. Flesh/grey/green fresh surface with epidote? and rusty red hematite patches. Fresh surface is crosscut by thin veinlets of felted dark green mineral (tremolite-actinolite?). These veinlets are in turn cross-cut by epidote green veinlets. Trace chalcopyrite.	25	3	0.3
DOM96R12	E side Windy Mtn	Grab	Homogeneous f.g. to m.g. flesh/grey "fuzzy texture" intrusive with 1-2% secondary biotite? And trace very f.g. disseminated pyrite. Strongly magnetic, trace apatite	16	2	<0.3
DOM96R13	Windy Mtn peak	Grab	Feldspar porphyry with large and abundant kspar phenocrysts up to 2 cm. Phenocrysts are euhedral, flesh-colored and comprise 60-80% of rock. Matrix is f.g. intrusive with round biotite crystals up to 2 mm.	135	3	1.4
DOM96R14	NE side Windy Mtn	Grab	Homogeneous f.g. to m.g. flesh/grey "fuzzy texture" intrusive with trace steel grey metallic very f.g. sulphide. Very calcareous, trace biotite, other dark grey-green mafic	30	2	0.4
DOM96R15	Windy Mtn peak	Grab	Strongly magnetic. Homogeneous grey m.g. to f.g. intrusion cut by flesh-colored kspar veinlets, also get kspar alteration in groundmass. Very f.g. disseminated pyrite and grey sulphide, green mafic, trace apatite, resembles R14 and R12	13	4	<0.3
DOM96R16	E of Windy Mtn	Grab	Dark orange-brown weathering f.g. intrusive with limonite spots and veinlets and clay altered kspar. Very f.g. disseminated sulphide. Different than the above grey rocks.	560	13	1.1
DOM96R17	NE of Windy Mtn	Grab	Magnetic white/green/flesh. Trace biotite up to 1 mm grains, mafics 20-40%	25	4	<0.3
DOM96R18	NE of Windy Mtn	Grab	Magnetic, dark green flesh colored altered intrusive. Minor hematite patches < 1mm. Mafics 40-60% of rock. Minor clay alteration	26	5	0.4
DOM96R19	NE of Windy Mtn	Grab	Orange weathering sheared and limonitic felsic dyke, light grey, very f.g. homogeneous, slightly calcareous, white coating	11	2	0.5
DOM96F20	Windy Mtn S ridge, N end	Grab	Orange weathering, blocky fractured, sheared miachite stained rock cut by carbonate veinlets up to 1 cm. Carbonate veinlets make up 5% of rock, non-magnetic, felsic	899	40	0.5
DOM96R20	Windy Mtn, S ridge, N end	Grab	Fuzzy texture, light grey/flesh rock, very homogeneous, <5% mafics, leucocratic. Slightly magnetic, dark green mafics	23	2	<0.3

**APPENDIX B**  
**Geochemistry Results and Analytical Methods**



# CERTIFICATE OF ANALYSIS

## iPL 96G0668

2036 Columbia Street  
 Vancouver, B.C.  
 Canada V5Y 3E1  
 Phone (604) 879-7878  
 Fax (604) 879-7898

INTERNATIONAL PLASMA LABORATORY LTD.

**Northern Analytical Laboratories** 15 Samples  
 Out: Aug 02, 1996 Project: W.O. 10424  
 In : Jul 30, 1996 Shipper: Norm Smith  
 PO#: 54613 Shipment: ID=C030901  
 Msg: ICP(AqR)30

0= Rock 0= Soil 0= Core 0=RC Ct 15= Pulp 0=Other [066817:16:27:69080296]  
 Raw Storage: -- -- -- -- 12Mon/Dis -- Mon=Month Dis=Discard  
 Pulp Storage: -- -- -- -- 12Mon/Dis -- Rtn=Return Arc=Archive

**Document Distribution**

1 Northern Analytical Laboratories EN RT CC IN FX  
 105 Copper Road 1 2 2 2 1  
 Whitehorse DL 3D 5D BT BL  
 YT Y1A 2Z7 0 0 0 1 0  
 ATT: Norm Smith Ph:403/668-4968  
 Fx:403/668-4890

**Analytical Summary**

##	Code	Met	Title	Limit	Limit	Units	Description	Element	##
		hod		Low	High				
01	721P	ICP	Ag	0.1	100	ppm	Ag ICP	Silver	01
02	711P	ICP	Cu	1	20000	ppm	Cu ICP	Copper	02
03	714P	ICP	Pb	2	20000	ppm	Pb ICP	Lead	03
04	730P	ICP	Zn	1	20000	ppm	Zn ICP	Zinc	04
05	703P	ICP	As	5	9999	ppm	As ICP 5 ppm	Arsenic	05
06	702P	ICP	Sb	5	9999	ppm	Sb ICP	Antimony	06
07	732P	ICP	Hg	3	9999	ppm	Hg ICP	Mercury	07
08	717P	ICP	Mo	1	9999	ppm	Mo ICP	Molybdenum	08
09	747P	ICP	Tl	10	999	ppm	Tl ICP 10 ppm (Incomplete	Thallium	09
10	705P	ICP	Bi	2	999	ppm	Bi ICP	Bismuth	10
11	707P	ICP	Cd	0.1	100	ppm	Cd ICP	Cadmium	11
12	710P	ICP	Co	1	999	ppm	Co ICP	Cobalt	12
13	718P	ICP	Ni	1	999	ppm	Ni ICP	Nickel	13
14	704P	ICP	Ba	2	9999	ppm	Ba ICP (Incomplete Digest	Barium	14
15	727P	ICP	W	5	999	ppm	W ICP (Incomplete Digest	Tungsten	15
16	709P	ICP	Cr	1	9999	ppm	Cr ICP (Incomplete Digest	Chromium	16
17	729P	ICP	V	2	999	ppm	V ICP	Vanadium	17
18	716P	ICP	Mn	1	9999	ppm	Mn ICP	Manganese	18
19	713P	ICP	La	2	9999	ppm	La ICP (Incomplete Digest	Lanthanum	19
20	723P	ICP	Sr	1	9999	ppm	Sr ICP (Incomplete Digest	Strontium	20
21	731P	ICP	Zr	1	999	ppm	Zr ICP	Zirconium	21
22	736P	ICP	Sc	1	99	ppm	Sc ICP	Scandium	22
23	726P	ICP	Ti	0.01	1.00	%	Ti ICP (Incomplete Digest	Titanium	23
24	701P	ICP	Al	0.01	9.99	%	Al ICP (Incomplete Digest	Aluminum	24
25	708P	ICP	Ca	0.01	9.99	%	Ca ICP (Incomplete Digest	Calcium	25
26	712P	ICP	Fe	0.01	9.99	%	Fe ICP	Iron	26
27	715P	ICP	Mg	0.01	9.99	%	Mg ICP (Incomplete Digest	Magnesium	27
28	720P	ICP	K	0.01	9.99	%	K ICP (Incomplete Digest	Potassium	28
29	722P	ICP	Na	0.01	5.00	%	Na ICP (Incomplete Digest	Sodium	29
30	719P	ICP	P	0.01	5.00	%	P ICP	Phosphorus	30



## SAMPLE PREPARATION

### Soils

Incoming soils are sorted, counted and logged. The soils are placed in an oven devoted to geochem and dried at 150 F.

When soils are dry, they are sieved through an 80 mesh screen. If 20g of -80 # soil is not obtained, the +80 # is then sieved through a 40 # sieve and placed in a separate bag. The reject is stored in its original bag.

### Rocks

Incoming rocks are sorted, counted and logged. Rocks are first crushed through a jaw crusher set at 3/8" gap and then crushed through a 1/8" gap.

The crushed sample is split using a Jones Riffle until a 250g sample is obtained. The reject is placed in its original bag and stored.

The sample is then dried at 150 F and pulverized to -150 # using a ring pulverizer.

TRACE LEVEL GOLD FIRE ASSAY

15g of sample is mixed with a suitable flux in a 30g crucible, inquarted with 2 mg Ag and fused at 1900 F. The contents of the crucible is poured into a mold and allowed to cool. The slag is broken off and discarded. The lead button is then pounded into a cube.

The lead button is placed into a bone ash cupel which has been preheated to 1800 F. When the lead is completely molten, the temperature is dropped to 1750 F. The dampers are opened to allow air inside the furnace. When cupelation is complete, the cupel is taken out and allowed to cool.

The silver-gold prill is picked out of the cupel and dropped into a 16 x 150 mm test tube. 2 mls of 1:1 Nitric Acid is added and the test tube is heated to dissolve the silver. 3 mls of HCl is then added to dissolve the gold. The test tube is made up to 10 mls using a reference, mixed and run on the A.A.

## ATOMIC ABSORPTION ANALYSIS

### Geochem Digestion [Trace Level Analysis]

0.500g of sample is weighed into a 16 x 150 mm test tube. 2 ml of 1:1 Nitric Acid is added and the test tube is placed in a hot water bath for 20 minutes. 3 ml of HCl is added and the sample is heated for 40 minutes. When digestion is completed, the sample is cooled in a cold water bath. The test tube is then bulked to 10 mls using a reference, stirred and allowed to settle. The sample is now ready to run on the A.A.

For ICP the sample is digested in one step using 5 mls of 2 parts HCl, 1 Part Nitric Acid and 2 parts water.

### Assay Digestion [Ore Level Analysis]

1.000g of sample is weighed into a class A 100 ml volumetric flask. 5 mls of Nitric Acid is added and the flask is placed on a 400 F hot plate until the red fumes indicating reaction subside. 20 mls of water\* and 10 mls of HCl are added and placed on the hot plate for 5 minutes. The flask is then bulked to the neck with water and brought to a boil. The flask is then cooled, bulked to the mark, shaken and allowed to settle prior to running on the A.A.

\* Some elements require special treatment. For example, Cl requires 20 mls 10% Tartaric acid.



105 Copper Road  
Whitehorse, Yukon  
Y1A 2Z7  
Ph: (403) 668-4968  
Fax: (403) 668-4890

07/08/96

Assay Certificate

Page 1

Camdan Exploration  
Lori Walton

WO#10424

Sample #	Au ppb
DO 96001	23
DOR 96002	411
DOR 96003	31
LW 96001	2589
LW 96002	2710
LW 96003	14
LW 96004	10
LW 96005	15
LW 96006	53
SR 962901001	51
9629A001	27
9629A002	1303
A003	541
9629A004	47
DOS 96001	7

Certified by



GEOCHEMICAL ANALYSIS CERTIFICATE



CAMDAN Exploration File # 96-4912  
 55 Boswell Crescent, Whitehorse YT Y1A 4T2 Submitted by: Lori Walton

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppb	
LW96R-010	3	36	55	68	<.3	7	5	257	2.15	3	<5	<2	6	118	.3	2	<2	72	.83	.098	18	15	.30	420	.12	3	.80	.18	.13	3	3
LW96R-011	2	21	17	29	<.3	4	3	198	1.70	<2	<5	<2	7	93	<.2	<2	<2	52	.54	.060	18	8	.13	481	.09	<3	.36	.08	.07	<2	11
LW96R-012	2	34	24	36	<.3	5	2	274	1.45	<2	7	<2	9	144	<.2	<2	<2	46	.34	.050	15	12	.09	677	.09	<3	.27	.09	.09	3	1
LW96R-013	2	28	10	28	<.3	4	1	150	1.15	<2	6	<2	8	117	<.2	<2	<2	42	.27	.045	12	9	.04	628	.08	<3	.33	.09	.08	2	1
LW96R-014	2	20	12	34	<.3	7	3	236	1.66	<2	12	<2	14	50	<.2	<2	<2	59	.57	.084	23	15	.22	169	.15	<3	.42	.10	.12	3	1
LW96R-015	2	27	6	19	<.3	4	<1	129	.35	<2	<5	<2	4	30	<.2	<2	<2	20	.42	.086	20	14	.15	138	.12	<3	.35	.10	.05	2	2
LW96R-016	2	189	6	36	<.3	9	5	259	2.99	<2	<5	<2	10	119	<.2	<2	<2	78	1.06	.112	30	13	.80	787	.16	5	1.22	.10	.16	3	25
LW96R-017	10	97	48	168	<.3	6	2	234	1.22	<2	<5	<2	9	68	.3	<2	<2	33	.66	.083	23	11	.26	1027	.11	<3	.49	.10	.11	<2	3
LW96R-018	3	44	8	38	<.3	8	10	239	3.23	<2	<5	<2	8	221	<.2	<2	<2	86	1.26	.105	35	13	.70	354	.16	6	1.37	.15	.16	3	4
LW96R-019	2	13	9	15	<.3	7	1	54	1.65	<2	<5	<2	7	193	<.2	<2	<2	57	1.19	.094	18	17	.09	581	.11	4	.99	.12	.10	<2	1
LW96R-020	3	46	8	14	<.3	9	1	96	1.91	<2	<5	<2	7	53	<.2	<2	<2	62	1.46	.098	20	19	.30	285	.11	9	1.12	.07	.10	2	2
LW96R-021	2	207	6	14	<.3	10	2	76	1.71	2	<5	<2	7	203	<.2	2	<2	65	1.61	.099	21	17	.40	660	.11	10	1.42	.12	.09	2	10
LW96R-022	5	188	10	35	<.3	12	4	230	2.99	<2	<5	<2	12	61	<.2	<2	<2	45	1.15	.090	22	11	.36	497	.13	6	.86	.10	.06	8	18
LW96R-023	10	194	11	62	<.3	27	12	530	9.39	<2	<5	<2	21	45	.2	<2	<2	119	.87	.087	38	19	.41	517	.13	3	.70	.11	.05	18	12
LW96R-024	2	31	10	13	<.3	5	1	95	.50	<2	9	<2	8	41	<.2	<2	2	8	.11	.009	8	23	.05	965	.04	<3	.19	.10	.08	5	3
LW96R-025	3	106	8	25	<.3	8	12	167	2.60	<2	<5	<2	9	307	<.2	<2	<2	62	1.19	.106	25	17	.47	444	.16	4	1.41	.23	.16	2	8
LW96R-026	12	248	10	26	<.3	10	8	147	2.44	<2	5	<2	9	408	<.2	<2	<2	56	1.43	.087	33	22	.36	345	.15	7	1.58	.27	.16	4	9
LW96R-027	2	97	6	28	<.3	7	5	212	2.37	2	<5	<2	9	74	<.2	2	<2	63	1.18	.099	28	15	.55	342	.14	4	1.08	.08	.13	2	9
LW96R-028	5	123	9	24	<.3	8	6	66	1.46	<2	<5	<2	3	39	<.2	<2	<2	30	.22	.038	15	20	.20	292	.11	3	.53	.11	.10	5	13
LW96R-029	209	7209	9	46	2.4	24	10	213	5.28	<2	7	<2	7	34	.7	2	<2	62	.51	.079	100	13	.20	71	.01	3	.39	.05	.13	<2	556
RE LW96R-029	205	7021	10	43	2.6	23	10	209	5.18	<2	5	3	8	33	.4	<2	<2	60	.50	.078	98	12	.20	69	.01	<3	.38	.05	.12	<2	844
LW96R-030	5	4693	9	58	1.6	22	13	335	2.82	<2	<5	<2	9	96	.6	2	<2	129	1.38	.115	31	15	1.45	1548	.19	3	1.23	.13	.13	<2	517
LW96R-031	4	88	12	50	<.3	6	3	254	2.03	<2	<5	<2	7	90	<.2	<2	<2	56	.82	.086	25	27	.21	1093	.13	4	.57	.08	.08	2	5
LW96R-032	6	981	18	21	1.5	6	4	257	.72	<2	<5	<2	11	50	<.2	<2	3	22	.72	.077	72	12	.04	626	<.01	3	.26	.10	.03	3	9
LW96R-033	5	364	6	14	<.3	6	10	69	1.66	<2	5	<2	4	62	<.2	<2	<2	19	.47	.051	17	17	.20	151	.10	3	.49	.09	.07	2	6
STANDARD C2/AU-R	23	64	38	151	7.1	75	37	1188	3.98	40	19	8	39	54	20.0	16	18	77	.57	.109	42	68	1.04	208	.09	26	2.08	.06	.14	11	453

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: ROCK AU\* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 30 1996

DATE REPORT MAILED: Oct 8/96

SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

CAMDAN Exploration File # 96-5234 Page 1  
 55 Boswell Crescent, Whitehorse YT Y1A 4T2 Submitted by: Lori Walton



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppb	
LW96040	1	139	6	12	<.3	3	2	79	.63	13	<5	<2	2	28	<.2	<2	<2	15	.20	.021	11	10	.06	289	<.01	<3	.24	.08	.11	<2	20
LW96041	1	259	36	62	.7	9	12	562	4.06	7	<5	<2	9	127	<.2	<2	<2	123	1.22	.132	64	10	.41	1658	.02	4	.79	.06	.27	2	28
LW96042	1	709	27	86	1.3	8	9	512	3.72	8	<5	<2	8	105	<.2	<2	3	123	1.40	.128	71	8	.13	1247	.01	3	.66	.04	.15	2	17
LW96043	1	1547	19	48	1.9	6	6	421	2.47	15	<5	<2	4	137	<.2	<2	21	124	1.94	.088	44	9	.19	1514	<.01	3	.37	.05	.08	3	25
LW96044	1	23	9	27	<.3	6	3	220	1.52	11	<5	<2	9	73	<.2	<2	<2	56	.70	.095	26	10	.43	266	.12	6	.71	.12	.18	<2	3
LW96045	31	7852	8	52	4.1	24	6	220	1.55	8	7	<2	8	38	.7	2	5	58	.35	.099	35	10	.14	488	<.01	<3	.49	.08	.03	<2	26
LW96046	2	165	9	31	.4	10	5	315	3.00	6	<5	<2	4	113	<.2	<2	<2	85	.66	.093	25	17	.31	571	.18	3	.68	.16	.21	4	2
LW96050	2	1030	5	14	.9	6	2	200	.99	4	<5	<2	2	127	<.2	<2	2	21	.66	.022	10	12	.09	438	.05	<3	.29	.06	.05	3	28
LW96051	9	315	11	43	.6	10	8	578	3.18	2	<5	<2	6	142	<.2	<2	<2	101	2.10	.093	23	14	.66	581	.03	6	.44	.07	.12	2	45
MBMARS96-1	2	193	10	22	<.3	9	4	199	1.86	12	<5	<2	7	70	<.2	<2	<2	53	.79	.075	21	14	.33	851	.12	7	.54	.07	.08	2	26
MBMARS96-2	6	753	8	28	.4	17	7	465	3.13	6	<5	<2	5	129	<.2	<2	<2	98	2.37	.095	27	36	.65	926	.02	4	.47	.07	.10	2	56
MBMARS96-3	1	83	8	30	<.3	7	5	295	2.86	6	<5	<2	8	158	<.2	<2	<2	86	.86	.105	30	11	.54	651	.16	7	1.04	.16	.16	<2	5
MBMARS96-4	1	44	12	30	.3	7	4	328	2.10	4	<5	<2	5	110	<.2	<2	<2	75	1.78	.108	32	10	.37	746	.11	4	.59	.07	.17	2	2
MBMARS96-5	2	96	8	23	<.3	6	2	230	1.87	4	<5	<2	5	206	<.2	<2	2	72	1.06	.105	33	10	.51	431	.13	5	1.18	.13	.12	<2	7
MBMARS96-6	1	52	6	26	.4	27	8	515	2.89	2	<5	<2	5	215	<.2	<2	<2	128	4.12	.079	23	32	.66	576	.04	5	.56	.06	.15	3	17
MBMARS96-7	1	67	11	14	<.3	7	2	154	1.34	4	<5	<2	7	70	<.2	<2	2	55	.39	.056	15	10	.30	891	.10	4	.43	.07	.12	<2	5
RE MBMARS96-7	1	66	10	14	<.3	6	2	152	1.34	2	<5	<2	7	70	<.2	<2	<2	55	.38	.056	15	10	.30	895	.10	3	.43	.07	.12	<2	4
MBMARS96-8	3	49	11	24	.3	8	4	275	2.15	4	<5	<2	6	142	<.2	<2	<2	58	1.51	.083	33	19	.38	1223	.05	6	.55	.07	.12	<2	8
MBMARS96-9	24	688	5	16	.4	10	4	98	2.13	5	<5	<2	7	236	<.2	<2	4	76	.90	.105	18	11	.22	620	.12	3	1.09	.31	.08	2	122
DOM96R10	1	71	12	12	<.3	9	1	193	1.04	6	<5	<2	3	72	<.2	<2	<2	45	.98	.096	59	21	.50	768	.15	8	.52	.10	.13	2	3
DOM96R11	2	25	19	50	.3	11	3	306	1.01	4	<5	<2	5	78	<.2	<2	2	43	2.02	.065	23	26	.46	1206	.05	3	.42	.08	.10	<2	3
DOM96R12	1	16	8	18	<.3	6	3	164	2.37	3	5	<2	7	115	<.2	<2	2	73	.68	.096	22	11	.26	583	.13	3	.75	.19	.15	3	2
DOM96R13	1	135	66	141	1.4	32	7	513	1.68	5	<5	<2	4	116	.9	<2	3	44	1.76	.047	8	73	.70	1279	.08	3	.67	.07	.60	2	3
DOM96R14	1	30	12	41	.4	6	5	333	2.91	2	<5	<2	9	120	<.2	<2	<2	84	1.02	.127	29	11	.38	802	.13	4	.62	.11	.19	2	2
DOM96R15	1	13	8	27	<.3	7	5	265	2.82	5	<5	<2	7	117	<.2	2	<2	78	.70	.107	25	12	.32	567	.15	4	.76	.14	.22	<2	4
DOM96R16	33	560	14	32	1.1	8	5	348	2.02	5	<5	<2	7	115	<.2	<2	9	73	.76	.093	33	9	.30	1003	.02	6	.62	.16	.14	2	13
DOM96R17	1	25	8	19	<.3	7	3	166	2.78	3	<5	<2	5	86	<.2	<2	2	89	.90	.121	23	12	.35	438	.15	5	.83	.09	.13	<2	4
DOM96R18	1	26	12	35	.4	6	6	494	2.70	2	<5	<2	7	143	<.2	<2	<2	92	1.83	.090	26	12	.41	1445	.13	5	.59	.07	.19	2	5
DOM96R19	2	11	14	43	.5	5	2	860	3.89	5	<5	<2	3	146	.2	2	<2	67	8.44	.011	3	7	3.98	71	<.01	<3	.27	.01	.01	2	2
DOM96R20	1	23	9	13	<.3	6	1	147	.84	4	<5	<2	4	45	<.2	2	<2	30	.69	.092	17	12	.53	265	.12	5	.68	.10	.13	3	2
DOM96F20	4	899	8	38	.5	18	8	712	3.48	<2	<5	<2	3	185	.3	<2	4	90	6.33	.058	16	16	2.86	1428	<.01	3	.33	.03	.09	<2	40
STANDARD C2/AU-R	21	61	43	151	7.5	74	37	1160	4.14	46	15	8	37	55	21.6	20	21	75	.60	.108	40	70	.99	219	.08	32	2.20	.07	.17	11	567

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.  
 ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB  
 - SAMPLE TYPE: P1 ROCK P2 SOIL AU\* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)  
 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 10 1996

DATE REPORT MAILED: Oct 19/96

SIGNED BY: *C. Long* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
3+00E 4+00N	2	118	22	100	<.3	37	12	642	3.71	8	<5	<2	3	72	.2	<2	2	81	.74	.117	25	39	.81	739	.08	5	1.88	.04	.10	<2	8
3+00E 3+75N	1	82	34	90	<.3	22	12	1073	3.59	6	<5	<2	5	70	.2	2	<2	79	.98	.123	39	22	.58	654	.02	4	1.55	.03	.09	<2	9
4+00E 5+50N	2	57	12	77	<.3	36	11	520	3.72	5	<5	<2	2	55	<.2	<2	<2	81	.66	.074	15	43	.80	630	.08	3	1.97	.03	.08	<2	3
4+00E 5+25N	2	61	18	83	<.3	35	11	541	3.75	9	<5	<2	3	44	<.2	<2	<2	81	.41	.047	14	39	.76	623	.06	3	2.46	.03	.07	<2	4
4+00E 5+00N	1	58	12	87	<.3	41	9	425	3.78	8	<5	<2	4	71	<.2	<2	<2	80	.80	.067	19	44	.84	641	.08	4	2.04	.04	.07	<2	3
4+00E 4+25N	2	120	18	110	<.3	37	12	634	3.50	9	<5	<2	3	105	.4	<2	<2	79	1.85	.101	20	36	.81	600	.08	5	1.74	.05	.13	<2	5
4+00E 4+00N	1	47	13	93	<.3	41	12	495	3.73	6	<5	<2	2	45	<.2	<2	2	78	.53	.064	15	45	.90	441	.06	3	2.46	.03	.08	<2	3
5+00E 5+75N	2	56	16	81	<.3	36	11	481	3.86	5	6	<2	2	42	<.2	2	2	89	.42	.039	15	47	.88	506	.06	4	2.71	.03	.08	<2	6
5+00E 5+50N	1	74	13	99	<.3	39	12	623	4.01	8	<5	<2	4	53	<.2	2	2	82	.62	.086	24	46	.84	519	.09	4	1.88	.04	.09	<2	5
5+00E 4+50N	1	48	13	65	<.3	38	9	361	3.30	8	<5	<2	<2	46	<.2	<2	3	71	.53	.051	15	42	.68	408	.06	3	2.10	.02	.08	<2	2
5+00E 4+25N	1	76	13	90	<.3	32	11	545	3.76	7	<5	<2	4	68	<.2	<2	<2	81	.63	.051	22	40	.77	512	.08	3	1.87	.05	.08	<2	4
5+00E 4+00N	1	58	11	73	<.3	42	11	490	3.76	<2	<5	<2	<2	42	<.2	<2	<2	75	.42	.043	13	42	.81	333	.06	<3	2.34	.03	.05	<2	3
5+00E 3+75N	2	177	18	71	.4	32	11	503	3.67	7	<5	<2	<2	53	<.2	<2	2	89	.51	.048	21	45	.81	624	.05	4	2.52	.02	.07	<2	7
6+00E 5+25N	6	89	12	65	<.3	16	6	338	2.07	5	<5	<2	<2	96	<.2	<2	<2	46	1.25	.078	10	20	.40	524	.04	5	1.21	.04	.05	<2	3
6+00E 5+00N	2	77	12	87	<.3	31	10	500	3.15	6	7	<2	2	81	.2	2	2	69	1.32	.084	16	34	.65	475	.06	5	1.60	.04	.10	<2	3
6+00E 4+75N	2	100	19	98	<.3	29	9	499	3.65	7	<5	<2	4	67	<.2	2	3	80	.66	.057	23	37	.77	672	.07	4	1.78	.04	.08	<2	25
6+00E 4+50N	2	103	13	86	<.3	36	10	457	3.81	2	<5	<2	3	57	<.2	<2	<2	89	.53	.029	29	48	.74	616	.05	3	2.52	.04	.06	<2	6
6+00E 4+25N	1	418	85	141	<.3	29	20	1953	4.66	<2	<5	<2	<2	72	.2	<2	5	121	.65	.220	51	42	1.65	789	.06	4	3.22	.02	.10	<2	21
6+00E 4+00N	2	781	311	90	1.9	22	16	2123	3.16	2	<5	<2	<2	132	.2	<2	5	86	1.99	.233	107	30	.83	1541	.03	4	2.06	.02	.08	<2	46
RE 6+00E 4+00N	2	818	319	92	1.9	21	16	2202	3.25	<2	5	<2	<2	137	.2	<2	5	88	2.05	.237	112	30	.84	1613	.03	6	2.12	.02	.09	<2	33
6+00E 3+75N	3	485	112	91	.7	22	14	1426	3.30	<2	<5	<2	<2	106	<.2	<2	4	86	1.35	.175	75	33	.78	1351	.04	3	2.08	.02	.10	<2	57
6+00E 3+50N	1	406	41	87	<.3	18	9	842	2.14	4	8	<2	<2	167	<.2	<2	<2	52	1.75	.126	47	23	.46	1019	.03	4	1.61	.03	.06	<2	8
6+00E 3+25N	3	504	102	101	.6	25	10	562	3.06	3	<5	<2	<2	80	<.2	<2	<2	74	.91	.109	35	39	.64	895	.06	3	1.95	.02	.08	<2	15
6+00E 3+00N	16	687	43	78	<.3	41	10	299	3.93	16	<5	<2	<2	48	<.2	2	2	223	.64	.068	17	72	1.35	383	.21	3	1.80	.02	.19	<2	21
7+00E 5+50N	2	129	14	82	<.3	24	10	591	2.90	2	<5	<2	<2	45	<.2	<2	<2	80	.52	.067	12	35	.60	582	.05	3	1.82	.02	.10	<2	5
7+00E 4+25N	2	107	15	80	<.3	30	9	387	3.65	6	9	<2	2	49	<.2	3	2	83	.46	.022	22	42	.73	544	.05	3	2.16	.03	.07	<2	6
7+00E 4+00N	2	98	13	84	<.3	29	9	408	3.52	5	8	<2	4	56	<.2	<2	<2	76	.62	.043	24	37	.65	464	.06	3	1.60	.04	.07	<2	6
8+00E 4+50N	1	73	13	72	<.3	27	8	342	2.92	<2	<5	<2	<2	46	<.2	<2	<2	70	.58	.068	15	36	.90	449	.08	4	1.91	.03	.09	<2	4
STANDARD C2/AU-S	20	59	42	144	7.4	71	35	1160	4.15	40	16	8	35	58	21.3	18	20	72	.58	.106	39	65	.99	221	.08	32	2.11	.07	.15	12	41

Sample type: -200 SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

**APPENDIX C**  
**Total Field Magnetometer Survey and Field Report**

**d. Results.** Digital data is appended to this report in Geopak (ASCII) XYZ format. In addition, a total magnetic field colour contour map in 4 copies is appended. The map indicates several areas of pronounced magnetic response which appear to originate from magnetite rich rocks along the ridge on which the grid is centred.

Thank you for the opportunity to work with you on this project. I hope the results will be useful to you in your exploration program.

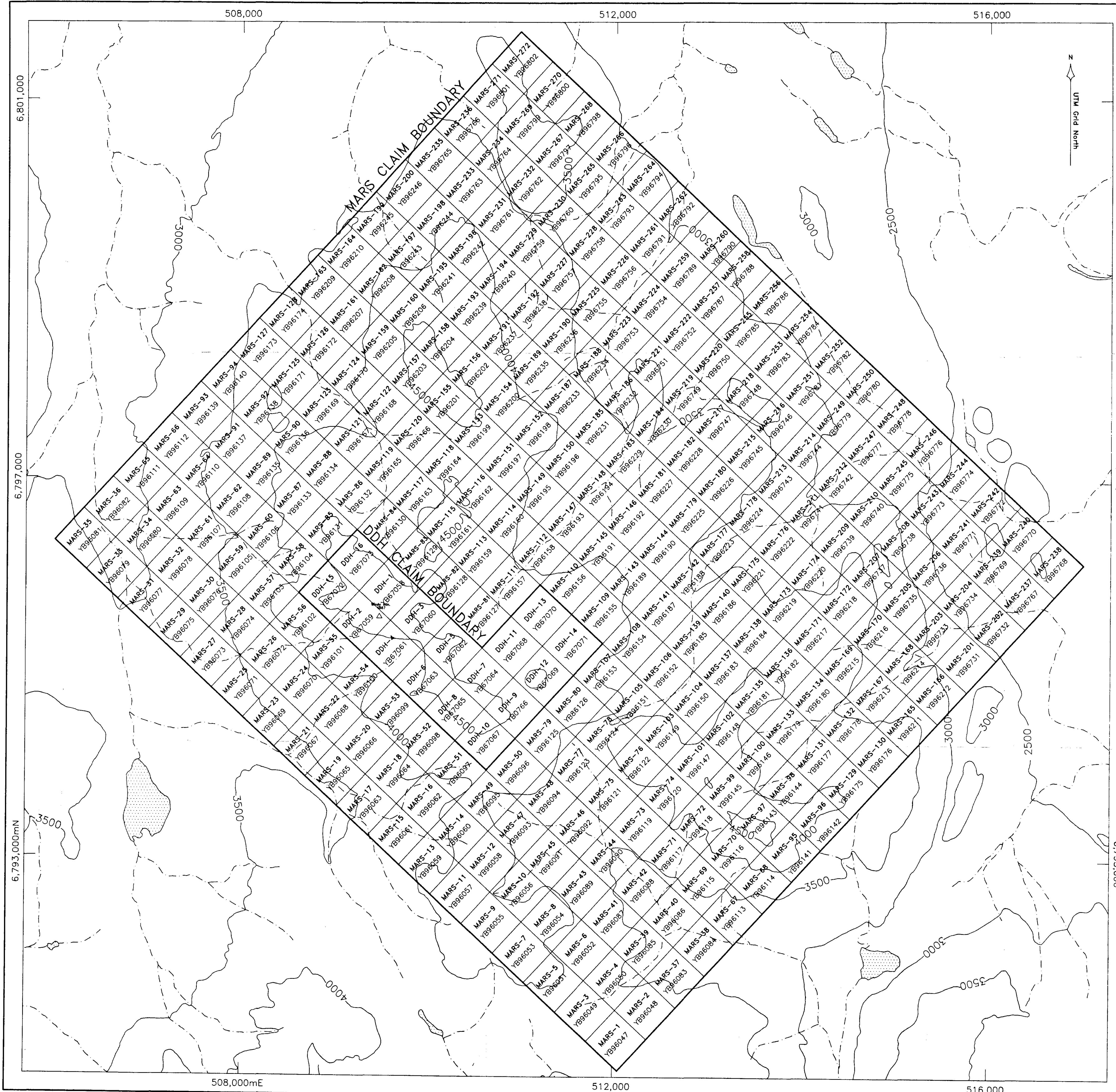
Respectfully submitted,  
**AMEROK GEOSCIENCES LTD.**

A handwritten signature in black ink, appearing to read 'M.A. Power', with a stylized flourish at the end.

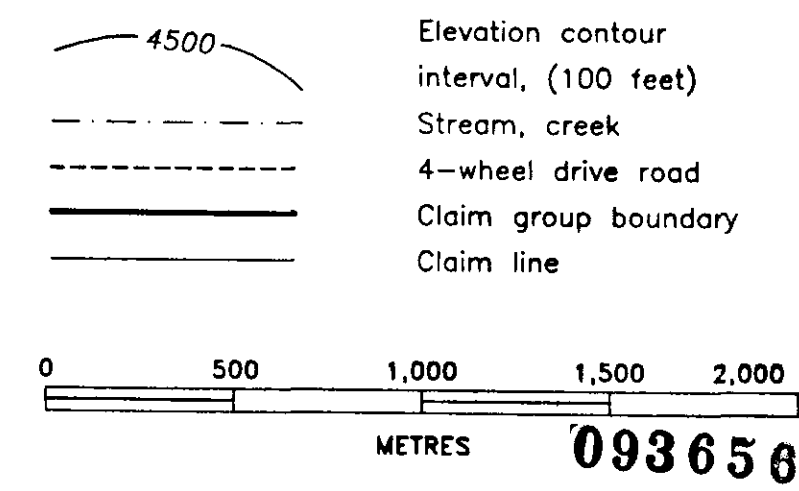
M.A. Power M.Sc. P.Geo.  
Geophysicist

/encl.





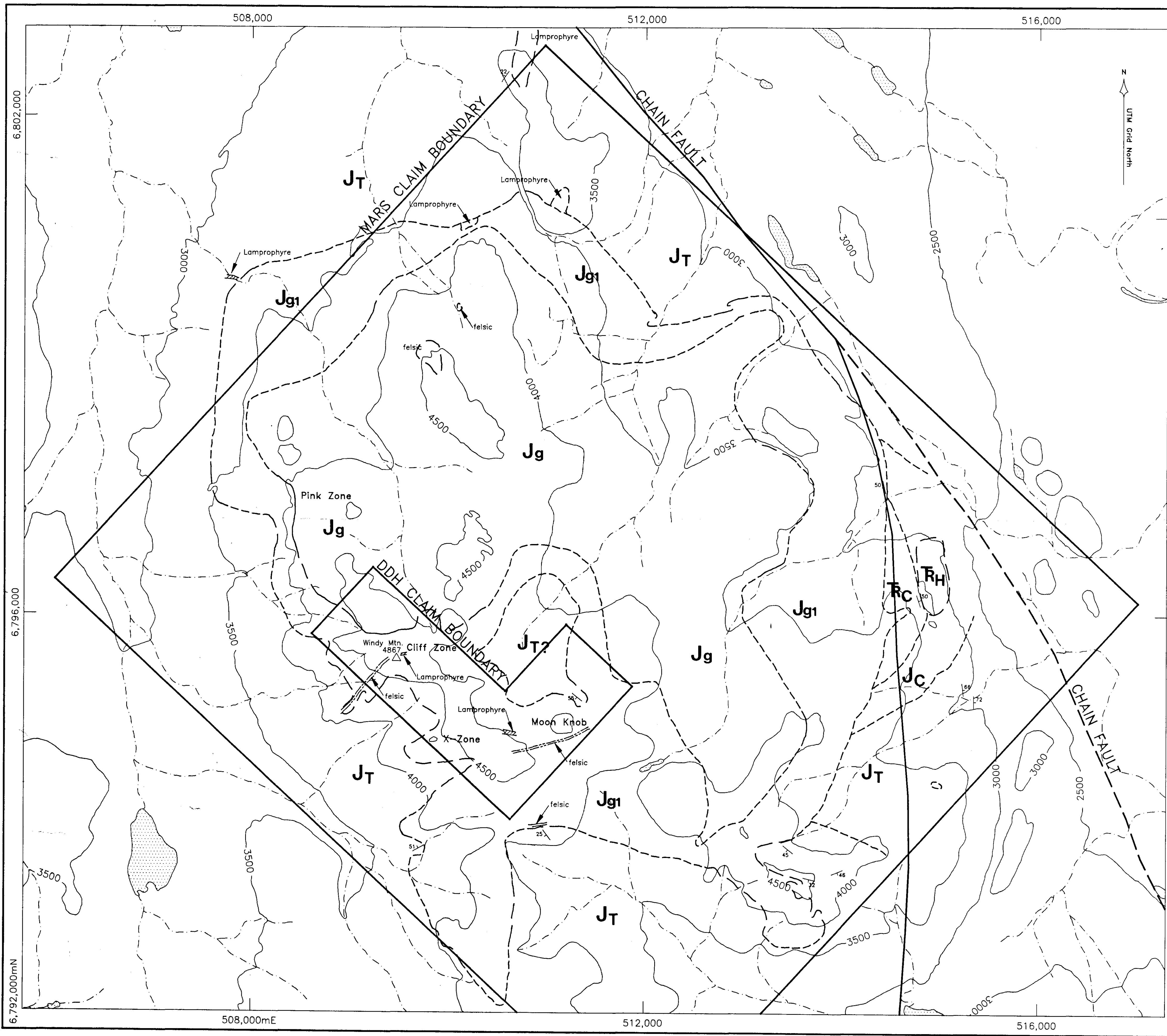
LEGEND & SYMBOLS



CAMDAN EXPLORATION INC.

MARS PROPERTY  
DDH and Mars Claims  
Claim Plan

SCALE: 1 : 20,000      DATE: Jan. 20th/97  
N.T.S.: 105 E/7      DRAWN: sjs      FIGURE 2



**LEGEND & SYMBOLS**

- JURASSIC**  
 Middle Jurassic  
 Teslin Crossing Stock  
 [Jg] Medium to fine grained, equigranular monzonite, syenite & granite  
 [Jg1] Porphyritic border phase  
 [---] Felsic dyke  
 [---] Lamprophyre
- Lower and Middle Jurassic  
 Laberge Group  
 [JT] Tanglefoot Formation  
 Arkose & feldspathic sandstone, interbedded granite-pebble conglomerate  
 [Jc] Conglomerate Formation  
 Cobble & pebble conglomerate

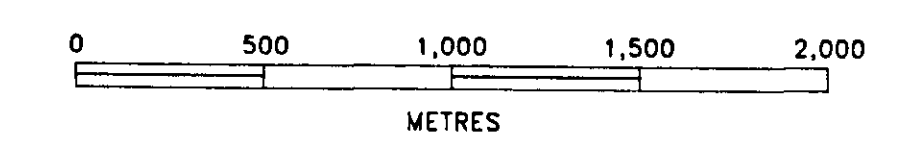
- TRIASSIC**  
 Upper Triassic to Jurassic  
 Lewes River Group  
 [Rc] Casca Member  
 Brown shale  
 [Rh] Hancock Member  
 Limestone & minor thin bedded argillaceous limestone

- [---] Geological boundary (defined, approximate, assumed)  
 [---] Fault (defined, approximate, assumed)  
 [---] Bedding

\* Geology modified from Pangman (1973) and Templeman-Kluit (1984)

**093656**

- [---] Elevation contour interval, (100 feet)  
 [---] Stream, creek  
 [---] 4-wheel drive road  
 [---] Claim group boundary

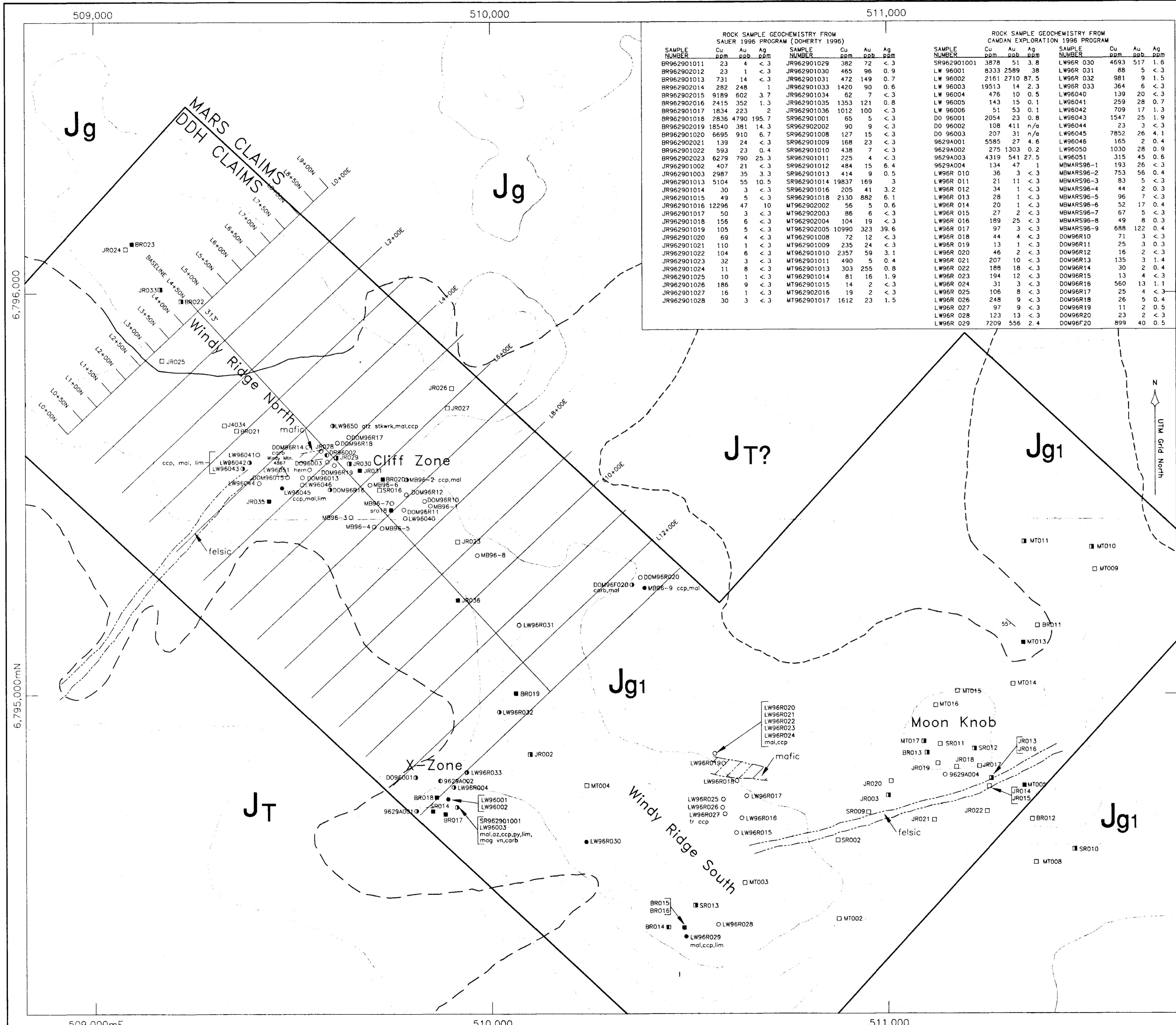


**CAMDAN EXPLORATION INC.**

**MARS PROPERTY  
 Geology**

②

SCALE: 1 : 20,000      DATE: Jan. 20th/97  
 N.T.S.: 105 E/7      DRAWN: [Symbol]      FIGURE 4



ROCK SAMPLE GEOCHEMISTRY FROM SAUER 1996 PROGRAM (DOHERTY 1996)						ROCK SAMPLE GEOCHEMISTRY FROM CAMDAN EXPLORATION 1996 PROGRAM					
SAMPLE NUMBER	Cu ppm	Au ppb	Ag ppm	SAMPLE NUMBER	Cu ppm	Au ppb	Ag ppm	SAMPLE NUMBER	Cu ppm	Au ppb	Ag ppm
BR962901011	23	4	<.3	JR962901029	382	72	<.3	SR962901001	3878	51	3.8
BR962902012	23	1	<.3	JR962901030	485	96	0.9	LW96001	8333	2589	38
BR962901013	731	14	<.3	JR962901031	472	149	0.7	LW96002	2161	2710	87.5
BR962902014	282	248	1	JR962901033	1420	90	0.6	LW96003	19513	14	2.3
BR962902015	9189	602	3.7	JR962901034	62	7	<.3	LW96004	476	10	0.5
BR962902016	2415	352	1.3	JR962901035	1353	121	0.8	LW96005	143	15	0.1
BR962901017	1834	223	2	JR962901036	1012	100	<.3	LW96006	51	53	0.1
BR962901018	2836	4790	195.7	SR962901001	65	5	<.3	DO96001	2054	23	0.8
BR962902019	18540	381	14.3	SR962902002	90	9	<.3	DO96002	108	411	n/a
BR962901020	6695	910	6.7	SR962901008	127	15	<.3	DO96003	207	31	n/a
BR962902021	139	24	<.3	SR962901009	168	23	<.3	9629A001	5585	27	4.6
BR962901022	593	23	0.4	SR962901010	438	7	<.3	9629A002	275	1303	0.2
BR962902023	6279	790	25.3	SR962901011	225	4	<.3	9629A003	4319	541	27.5
JR962901002	407	21	<.3	SR962901012	484	15	6.4	9629A004	134	47	1
JR962901003	2987	35	3.3	SR962901013	414	9	0.5	LW96R010	36	3	<.3
JR962901013	5104	55	10.5	SR962901014	1937	169	3	LW96R011	21	11	<.3
JR962901014	30	3	<.3	SR962901016	205	41	3.2	LW96R012	34	1	<.3
JR962901015	49	5	<.3	SR962901018	2130	882	6.1	LW96R013	28	1	<.3
JR962901016	12296	47	10	MT962902002	56	5	0.6	LW96R014	20	1	<.3
JR962901017	50	3	<.3	MT962902003	86	6	<.3	LW96R015	27	2	<.3
JR962901018	156	6	<.3	MT962902004	104	19	<.3	LW96R016	189	25	<.3
JR962901019	105	5	<.3	MT962902005	10990	323	39.6	LW96R017	97	3	<.3
JR962901020	69	4	<.3	MT962901008	72	12	<.3	LW96R018	44	4	<.3
JR962901021	110	1	<.3	MT962901009	235	24	<.3	LW96R019	13	1	<.3
JR962901022	104	6	<.3	MT962901010	2357	59	3.1	LW96R020	46	2	<.3
JR962901023	32	3	<.3	MT962901011	490	5	0.4	LW96R021	207	10	<.3
JR962901024	11	8	<.3	MT962901013	303	255	0.8	LW96R022	188	18	<.3
JR962901025	10	1	<.3	MT962901014	81	16	1.9	LW96R023	194	12	<.3
JR962901026	186	9	<.3	MT962901015	14	2	<.3	LW96R024	31	3	<.3
JR962901027	16	1	<.3	MT962902016	19	2	<.3	LW96R025	106	8	<.3
JR962901028	30	3	<.3	MT962901017	1612	23	1.5	LW96R026	248	9	<.3
								LW96R027	97	9	<.3
								LW96R028	123	13	<.3
								LW96R029	7209	556	2.4
								DOM96F20			
								DOM96F21			
								DOM96F22			
								DOM96F23			
								DOM96F24			
								DOM96F25			
								DOM96F26			
								DOM96F27			
								DOM96F28			
								DOM96F29			
								DOM96F30			

### LEGEND & SYMBOLS

**JURASSIC**  
 Middle Jurassic  
 Teslin Crossing Stock  
 Jg Medium to fine grained, equigranular monzonite, syenite & granite  
 Jg1 Porphyritic border phase  
 Felsic dyke  
 Lamprophyre

**Lower and Middle Jurassic**  
 Laberge Group  
 JT Tanglefoot Formation  
 Arkose & feldspathic sandstone, interbedded granite-pebble conglomerate  
 Jc Conglomerate Formation  
 Cobble & pebble conglomerate

**TRIASSIC**  
 Upper Triassic to Jurassic  
 Lewes River Group  
 RC Casca Member  
 Brown shale  
 H Hancock Member  
 Limestone & minor thin bedded argillaceous limestone

Geological boundary (defined, approximate, assumed)  
 Bedding  
 Geophysical grid

\* Geology modified from Pangman (1973) and Templeman-Kluit (1984)

**Abbreviations**

ccp	Chalcopyrite	lim	Limonite
mal	Malachite	mag	Magnetite (as veinlets)
az	Azurite	carb	Carbonate
py	Pyrite	hem	Hematite

**Rock Samples - Geochemistry**

Camdan Exploration Samples  
 LW96001  
 ● ≥ 300 ppm copper  
 ● ≥ 100 ppb gold  
 ● ≥ 300 ppm copper, ≥ 100 ppb gold

B. Sauer Samples (Doherty, 1996)  
 BR962901002  
 ■ ≥ 300 ppm copper  
 ■ ≥ 100 ppb gold  
 ■ ≥ 300 ppm copper, ≥ 100 ppb gold

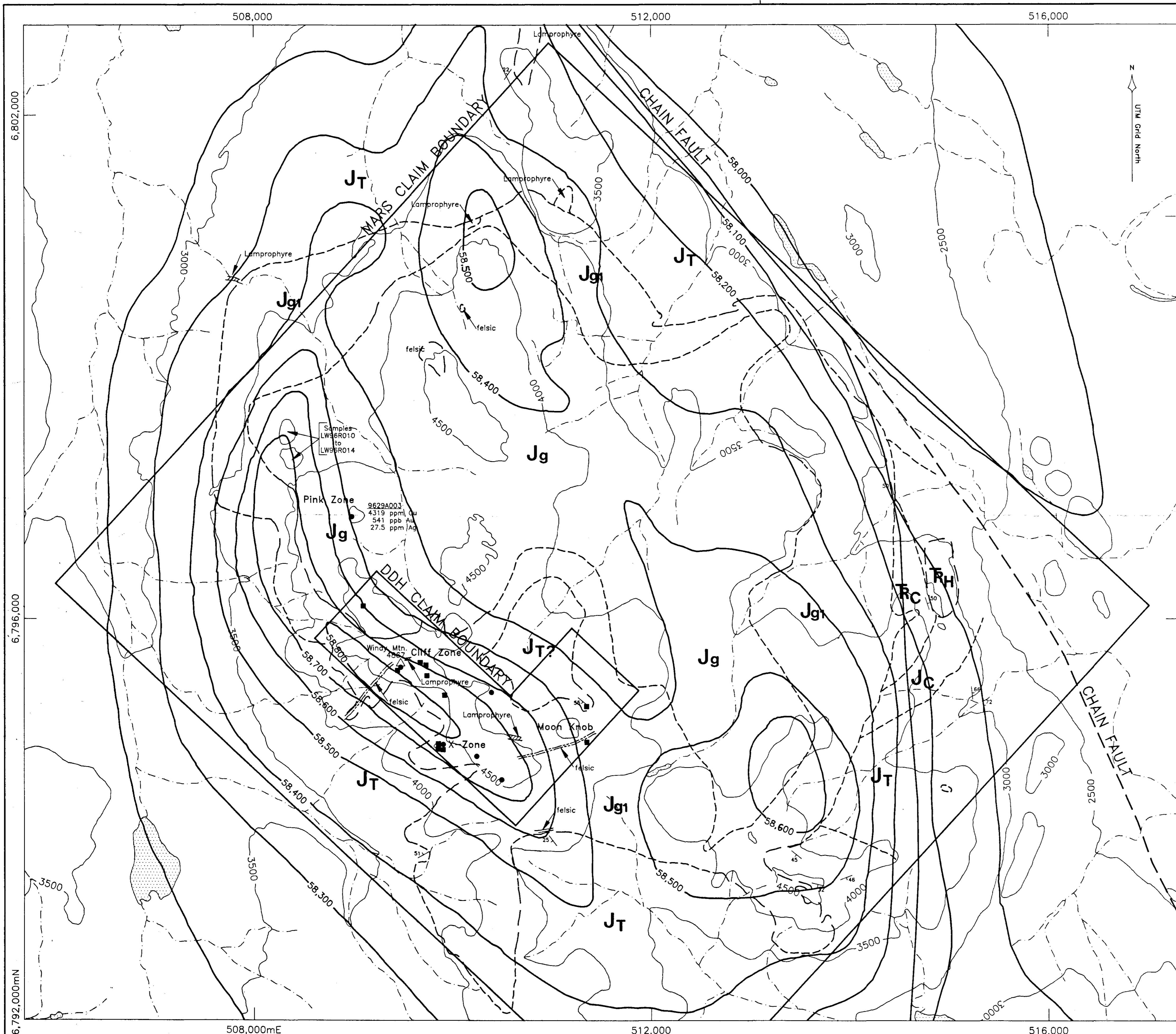
Elevation contour interval, (100 metres)  
 Stream, creek  
 4-wheel drive road  
 Claim group boundary

0 100 200 300 400 METRES

**CAMDAN EXPLORATION INC.**

**MARS PROPERTY** ③  
**DDH CLAIMS**  
**Sample Locations, Rock Geochemistry and Geology**

SCALE: 1 : 5,000      DATE: Jan. 17th/97  
 N.T.S.: 105 E/7      DRAWN: oxa      FIGURE 5



**LEGEND & SYMBOLS**

- JURASSIC**  
 Middle Jurassic  
 Teslin Crossing Stock  
 [Jg] Medium to fine grained, equigranular monzonite, syenite & granite  
 [Jg1] Porphyritic border phase  
 [---] Felsic dyke  
 [///] Lamprophyre
- Lower and Middle Jurassic  
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 Upper Triassic to Jurassic  
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- [---] Geological boundary (defined, approximate, assumed)  
 [---] Fault (defined, approximate, assumed)  
 [---] Bedding

• Geology modified from Pangman (1973) and Templeman-Kluit (1984)

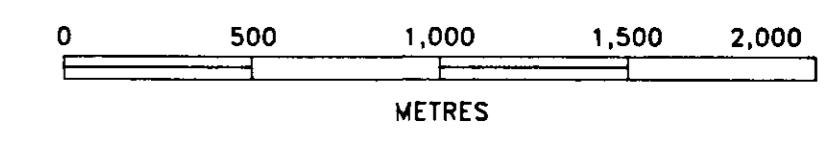
- [○] Magnetic contour (from government aeromag map for 105E/7)  
 58,400

**Anomalous Rock Samples**

- Camdan Exploration rock sample  
 ≥ 300 ppm copper, ≥ 100 ppb gold  
 ■ B. Sauer rock sample  
 ≥ 300 ppm copper, ≥ 100 ppb gold

- [---] Elevation contour interval, (100 feet)  
 [---] Stream, creek  
 [---] 4-wheel drive road  
 [---] Claim group boundary

093656

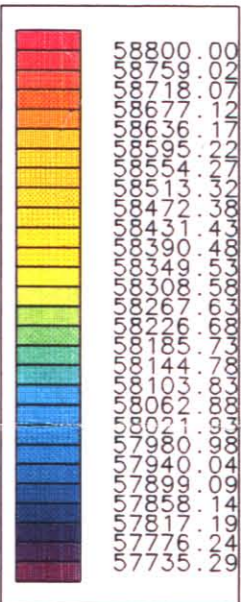
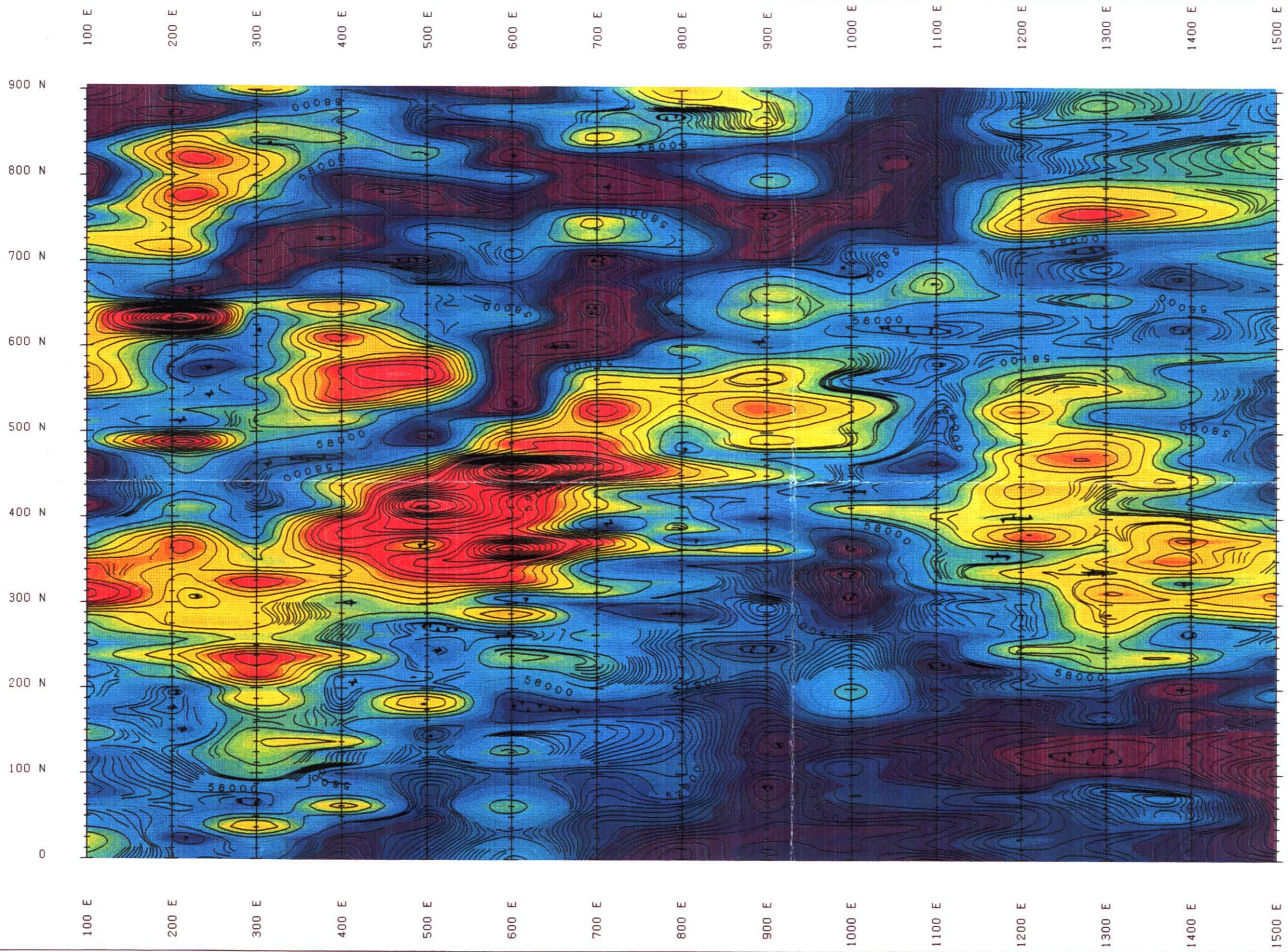


**CAMDAN EXPLORATION INC.**

**MARS PROPERTY  
 Compilation Map**

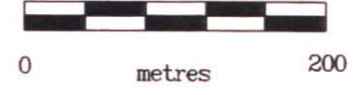
④

SCALE: 1 : 20,000 DATE: Jan. 22nd/97  
 N.T.S.: 105 E/7 DRAWN: [signature] FIGURE 7



(Colour level values in nT)  
Contours: 10, 100, 1000 nT

Scale: 1:5,000



CAMDAN EXPLORATION INC.  
MARS PROJECT  
NTS 106 E 7  
TOTAL MAGNETIC FIELD  
COLOUR CONTOUR MAP

093656 (5)  
AMEROK GEOSCIENCES LTD.