PROGRAM DESIGNATION # 03-017

DDH 1 - 16 (inclusive) and MARS 1 - 200 (inclusive) MINERAL CLAIMS (MARS PROPERTY)

WORK PERFORMED: JULY 17-23, 2003

LOCATION: 61° 16' north latitude and 134° 45' west longitude

The Mars Alkalic Cu-Au Property, Laberge Map Area (105E/7), Yukon Territory, Canada:

Characteristics of Geology, Alteration and Mineralization, and Exploration Potential for Alkalic Cu-Au Deposits. Includes Trenching and Sampling Results.

August 29, 2003

Prepared For: Saturn Minerals Inc
+Successor Company to Saturn Ventures Inc.

901-1030 Burnaby Street
Vancouver, B.C. V6E 1N8

By: Dr. James R. Lang, P.Geo.	Murray McClaren, P.Geo.
Lang Geoscience Inc	*Crockite Resources Ltd*
10556 Suncrest Drive	283 Woodale Road
Delta, B.C. V4C 2N5	North Vancouver, B.C. V7N 1S6
604-582-3808 (ph/fax)	604-986-5873 (ph/fax)
jlang@dccnet.com	murraychipper@aol.com

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1.0 Summary

Saturn Minerals Inc. carried out a field program of trenching and geological evaluation of the Mars property during the period of July 18 to July 21, 2003. Camp gear and equipment were trucked from Whitehorse to a staging point near Lake Labarge. Men and materials were helicopter transported into a camp site on the DDH-1 mineral claim which is located in the southwestern portion of the Mars property. Dr. J.R. Lang, P.Geo. conducted geological investigations and was assisted by Mr. M. McClaren, P.Geo. Mr. R. Pelletier of Kluane Drilling Ltd., operated a KH-41 excavator and Mr. M. Elson assisted in various aspects of the exploration program. A total of approximately 109.5 meters of trenching was completed and 53 rock samples and 8 soil samples were submitted to Acme Analytical Laboratories of Vancouver, B.C. The nature of the terrain and the limited capabilities of the KH-41 excavator severely limited the trenching program. No information of any significance was obtained from this portion of the exploration program. Alteration mapping and a re-interpretation of geophysical results has helped to define and prioritize areas that warrant further investigation.

Numerous exploration programs have been carried out on the Mars property since its discovery in 1971. The most significant work was carried out by Placer Dome Canada Ltd. between 1997 and 1998. Saturn Ventures Inc. (predecessor company to Saturn Minerals Inc.) optioned the property in 2001. Exploration by Saturn Ventures Inc. in 2001 resulted in the discovery of a new mineralized zone (TA zone) as well as additional areas that warrant future follow-up.

The property is underlain by the Jurassic Teslin Crossing pluton and sedimentary rocks of the Middle Jurassic Tanglefoot Formation. Poorly exposed and locally strongly altered hornfelsic volcanic rocks are found in the east-central portion of the property. The Teslin Crossing pluton is alkalic and silica over-saturated in nature. Many features observed on the Mars property are similar to those found at other silica-oversaturated, alkalic copper-gold deposits. Alteration mapping during the 2003 program outlined a broad, northwesterly trending zone of K-feldspar alteration that is up to 1 kilometer wide and at least 3 kilometers long. The early K-feldspar alteration zone envelops and is overprinted by zones of quartz veins and silicification; magnetite rich alteration zones and zones of albitic alteration. Extensive induced polarization resistivity highs spatially correlate with areas of quartz veins and silicification. Areas of silicification and resistivity highs also have a close association with copper (+/- gold) mineralization. These areas constitute the primary exploration targets on the Mars property. The Kelly zone and Moon Knob were the best mineralized areas examined during the 2003 field program. Siliceous, hornfelsic sedimentary rocks found at intrusive contacts locally contain significant copper (+/-gold) values and may constitute an additional exploration target.

A modest diamond drilling program is recommended to test priority targets located at Moon Knob and at the Kelly zone. Prior to the proposed drilling program further prospecting and geological appraisal should be carried out in those areas that remain poorly defined.

2.0 Property Description and Location

The Mars property consists of 216 contiguous unsurveyed two-post mineral claims covering approximately 4,500 Hectares. The clalims are owned 50% each Brian R. Sauer and R. Allan Doherty. They are subject to an option agreement dated September 4, 2001 with Saturn Ventures Inc. (now known as Saturn Mining Inc.). The claims are located within the Whitehorse Mining District, Yukon and are shown on Northern Affairs Program Mineral Rights Map 105-E-07. Claim data is as follows:

Claim Name	Grant No.	Recording Date	Expiry Date
DDH 1-16	YB67058-67073	June 7, 1996	June 7, 2004
Mars 1-200	YB96047-96246	July 16, 1996	Aug. 16, 2004

The DDH 1-16 and Mars 1-200 claims are collectively known as the Mars property and the claims are situated on the Teslin Crossing Stock..

The Mars property is located in south-Lake Laberge and the Teslin River, south of its confluence with the Yukon River.

3.0 Accessibility, Physiography and Infrastructure

Access to the property is by helicopter from Whitehorse. The "Livingston Trail", a winter-only trail suitable for track-type vehicles to placer gold mining camps in the Livingstone Creek area comes within 5 kilometers of the Property. There are no local resources or infrastructure on the Mars Property.

The Mars property is located within a physiographic region known as the Lewes Plateau, an area of moderate to rugged topography. The most prominent topographic feature is a northwest trending ridge informally called Windy Mountain. Relief on the Property is about 550 meters, with the highest point at 1,483 meters above sea level.

Vegetation consits of stunted but mature black spruce, willow, birch and alder below 1,300 meters, with alpine grasses and mosses at higher elevations.

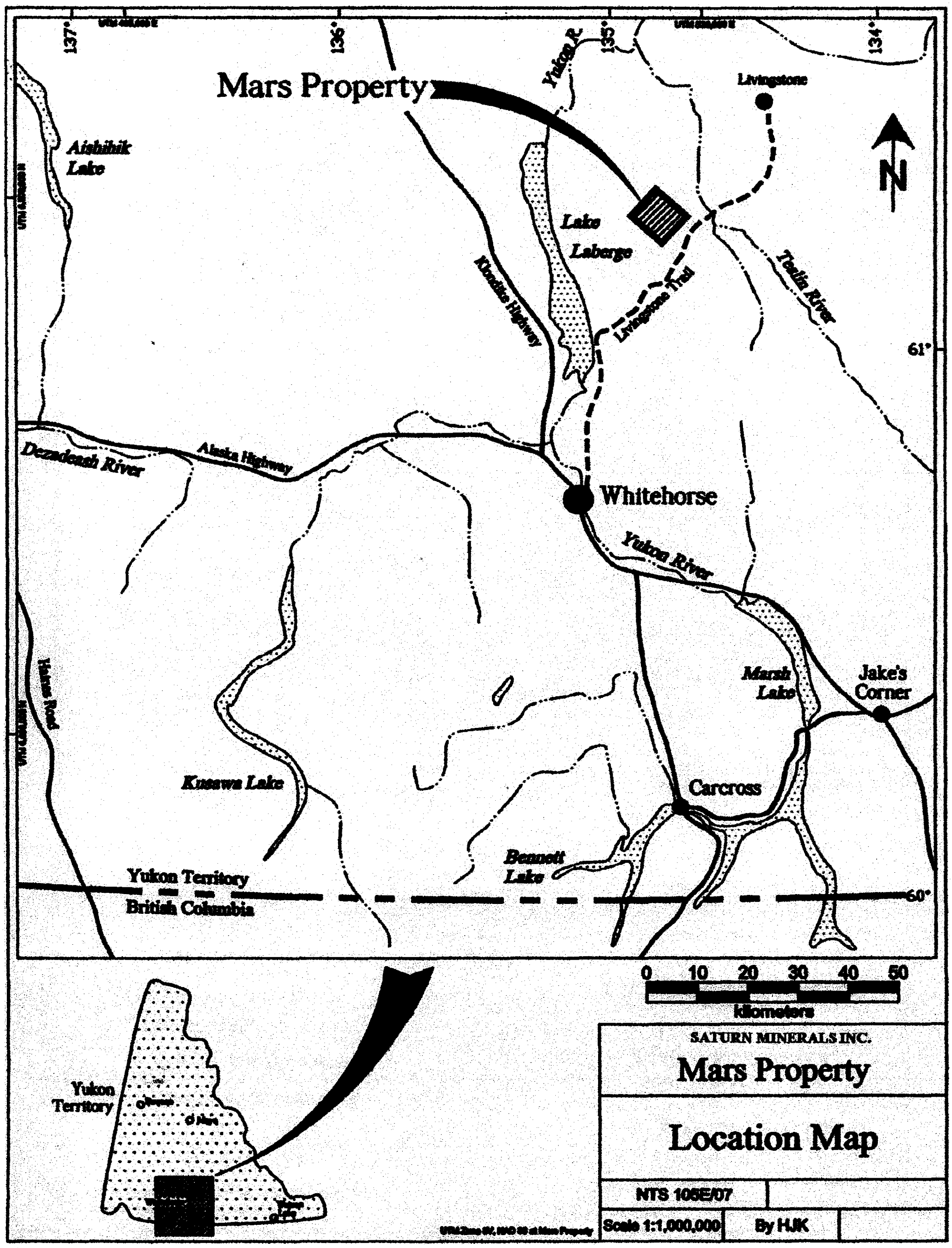

FIGURE 1.0

Modified from Keyser, H.J., 2002b

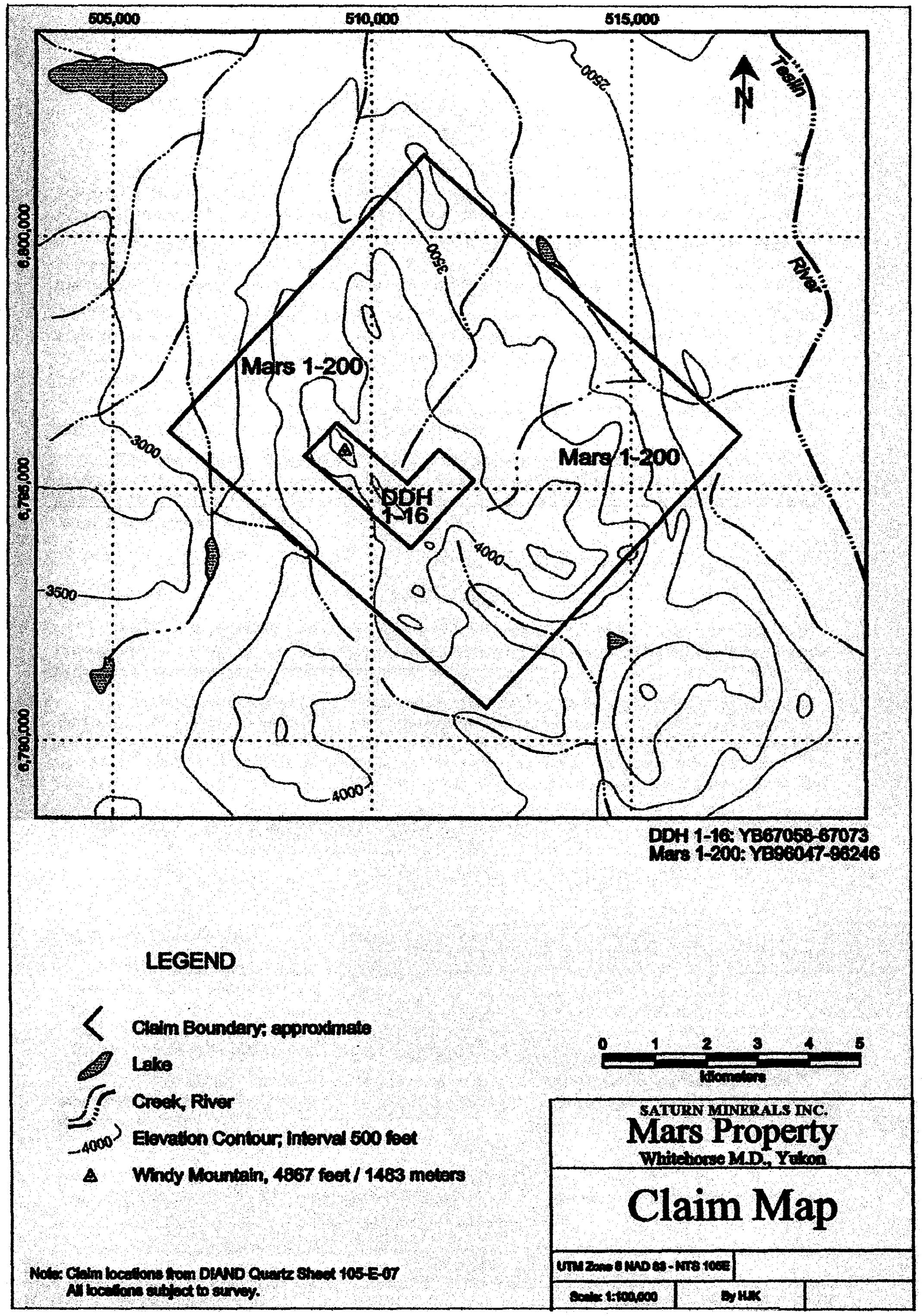

FIGURE 2.0 Modified from Keyser, H.J., 2002b

4.0 Introduction

Copper-gold deposits related to intrusions with an alkalic geochemical composition are widespread and include the Copper Mountain/Ingerbelle, Afton-Ajax, Mount Polley, Galore Creek and Mount Milligan deposits in British Columbia (Barr et al., 1976; Lang et al., 1995a, 1995b), Goonumbla/North Parkes (Muller et al., 1994) and Cadia-Ridgeway (Holliday et al., 2002) in New South Wales, Marian and Dinkidi in the Philippines (Wolfe et al., 1999), and Skouries in Greece (Kroll et al., 2002). Deposits of the alkalic Cu-Au association have historically been considered a compositional variant on the more traditional porphyry copper theme (e.g., Barr et al., 1976), although they exhibit a number of characteristics which distinguish them from this model (e.g., Lang et al., 1995b; Lang et al., in review). Lang et al. (in review) have subdivided the alkalic Cu-Au deposits into silica-undersaturated, silica-saturated and silica-oversaturated sub-types, based upon the level of silica saturation in associated alkalic intrusions and the presence or absence of quartz veins as a major alteration stage.

In the Canadian Cordillera, alkalic Cu-Au deposits were traditionally recognized only south of latitude 58°N in the Quesnel and Stikine tectonostratigraphic terranes. All of these deposits are silica-undersaturated or silica-saturated types. In the late 1990s, exploration on the Mars property, located about 65 km north-northeast of Whitehorse in Yukon Territory, recognized it as a further example of alkalic Cu-Au mineralization (Doherty, 1996; Hart, 1997; Wark, 1998; Wells, 1998). Geological and exploration work on this property has identified numerous areas of Cu-Au mineralization within and genetically associated with intermediate to felsic, alkalic intrusive rocks of the Teslin Crossing pluton (Hart, 1997), and has outlined some of the general geological features of the area. Characteristics of alteration and mineralization have, however, received only cursory attention.

This report provides additional information on the distribution and assemblages of alteration and mineralization on the Mars alkalic Cu-Au property. This work is based upon a review of previous exploration data and geological studies, new geochemical analyses of selected alteration and vein types in rock samples. Through comparison to other alkalic Cu-Au systems in British Columbia and elsewhere, the results highlight the exploration potential of the Mars system and recommendations are made for further exploration of the Mars property.

5.0 History and Previous Exploration

The exploration history of the Mars property began in 1971 and has continued sporadically to the present. Major highlights of past exploration include the following.

1971-1973. The Mars property was first investigated for intrusion-related Cu mineralization by United Keno Mines Ltd and by Archer-Cathro and Associates. United Keno, in a joint venture with Falconbridge and Canadian Superior, was drawn to the area by elevated Cu and Mo values in regional stream sediment samples, and acquired a claim position to assess porphyry Cu-Mo potential. Work included geological mapping and soil geochemistry surveys, but samples were not analyzed for Au (Pangman and VanTassell, 1972; Pangman, 1973). The property was allowed to lapse in 1973.

1996. A claim block was restaked in 1996 by Al Doherty and Brian Sauer, who recognized the similarities of the Mars property to alkalic Cu-Au deposits elsewhere in the Canadian Cordillera (Doherty, 1996). Positive results for Au assays led to an option of the ground to Camdan Exploration Inc later that year (Walton, 1996). Work included ground magnetic surveys and rock sampling.

1997. Placer Dome Canada Ltd optioned the property from Camdan in 1997 and completed the most extensive exploration on the property to date (Wark, 1998). The program included airborne and ground geophysical surveys (magnetics, radiometrics and IP), rock and soil geochemistry, hand trenching, geological mapping and limited thin section petrography (Wark, 1998; Wells, 1998). Results were

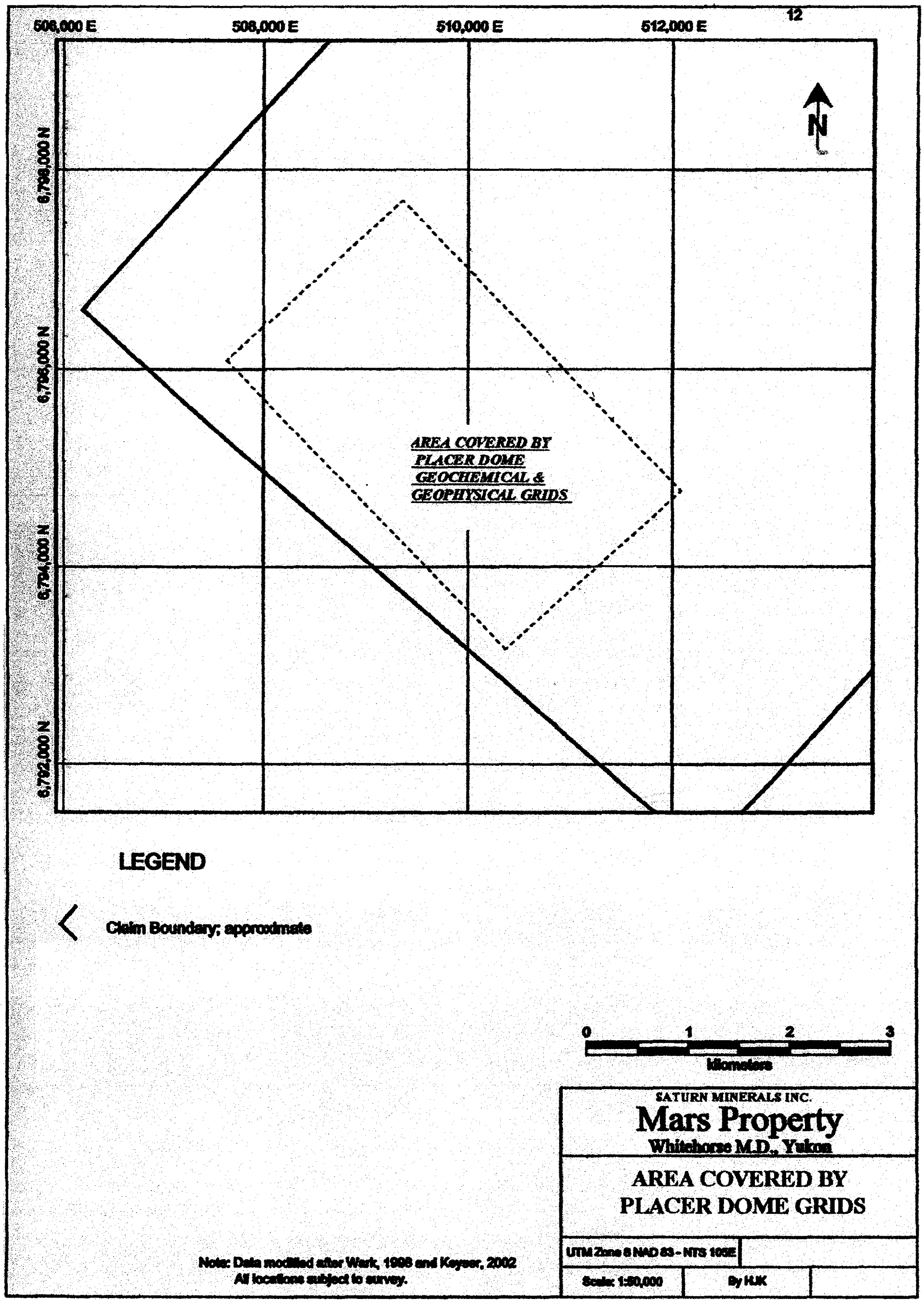

FIGURE 3.0

Modified from Keyser, H.J., 2002b

encouraging and drilling was recommended (Wark, 1998), but Placer Dome dropped their option in 1998 and the ground reverted back to Doherty and Sauer.

2001. Saturn Ventures Inc. (successor company to Saturn Minerals Inc) optioned the Mars property from Doherty and Sauer. Additional grid construction, soil and rock geochemistry, hand trenching and prospecting were completed. At least one new mineralized zone was encountered (TA zone).

2003. A small program of excavator trenching, and a review of surface geology, alteration and mineralization accompanied by rock geochemistry was completed by Saturn Minerals Inc. Results allowed the first map of alteration distribution and assemblages to be compiled for the property.

6.0 Regional and Local Geology

The regional geological setting of the Teslin Crossing pluton has been summarized by Hart (1997), from which most of the following section is taken. The pluton is located within the Stikine tectonstratigraphic terrane, the largest of several such domains of uncertain derivation that accreted to the margin of ancestral North America during the Middle Jurassic. Stikinia consists of an Upper Paleozoic volcanic arc basement overlain by the Lewes River volcanic arc of Middle and Late Triassic age. The Whitehorse Trough developed as a marginal basin during this time, and was infilled by up to seven kilometers of strata that include Late Triassic volcanic-rich detritus and carbonate of the Lewes River Group and Jurassic clastic rocks of the Laberge Group. Amalgamation of the adjacent Cache Creek terrane and accretion to North America resulted in deformation of these rocks during the Jurassic.

The Teslin Crossing pluton is an isolated intrusive body emplaced near the axis of the Whitehorse Trough. The pluton is part of a 15 kilometre long zone of small stocks, sills and dykes that extend northwest of the pluton, and additional small intrusions occur at Tanglefoot and Porphyry mountains 20 kilometres south of Carmacks. The pluton is not, however, part of an extensive igneous suite.

Host rocks to the Teslin Crossing pluton are mostly fissile, black, well-bedded, carbonaceous, variably limey, poorly indurated shale and siltstone with minor, thin, chert-rich sandstone interbeds (Hart, 1997). Tempelman-Kluit (1984) assigned these rocks to the Middle Jurassic Tanglefoot Formation; fossils yield ages of Toarcian or Aalenian (Hart, 1997). They occur in a block that is fault-bounded against older rocks; the eastern margin of this block and the pluton are cut by north and north-northwest faults that include the southern end of the Chain fault. Volcanic rocks of Aalenian age are found 10 kilometres north-northwest of the pluton and may be temporally associated; a raft of possible hornfelsed volcanic rocks is also poorly exposed in the east-central part of the pluton, but the age of these rocks has not been established. Host rocks to the pluton dip steeply away from the pluton.

Poorly exposed volcanic rocks are found in the east-central part of the pluton. Wells (1998) describes these as locally porphyroblastic dacite to trachyandesite with locally strong carbonate alteration. The rocks appear to comprise a sequence of reworked tuff. They are strongly altered to hornfels, as well as later stages of hydrothermal alteration; as such they are older than igneous and magmatic-hydrothermal activity related to the pluton. Their genetic association with the pluton remain unknown.

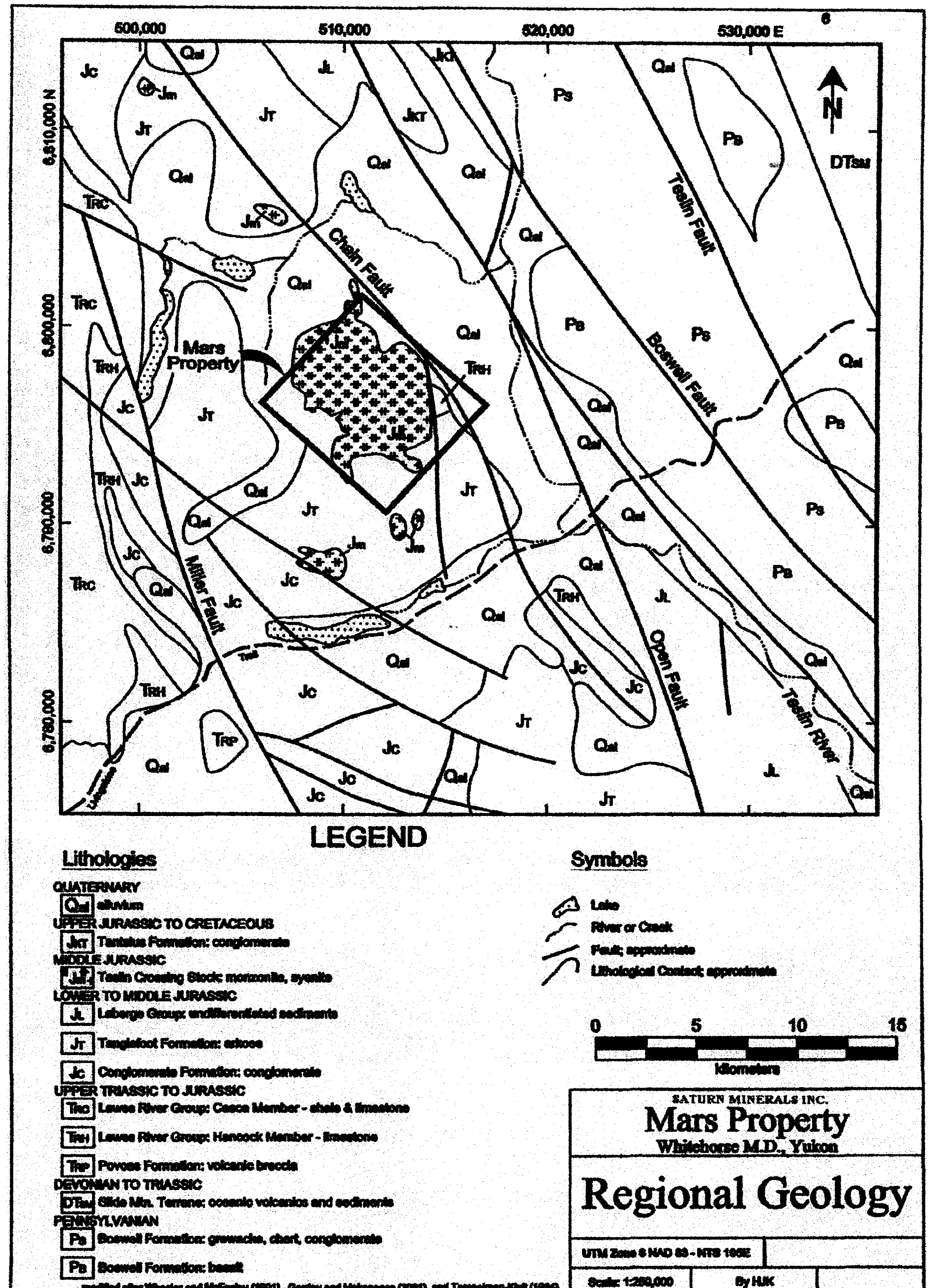

FIGURE 4.0 Modified from Keyser, H..J., 2002b

6.1 Teslin Crossing Pluton

Description and Rock Types. The Teslin Crossing pluton has not been mapped in detail, but many general features are known. The stock comprises a central phase bounded by a border phase, and the pluton and its host rocks are cut by dykes and sills of variable composition and orientation. The pluton is bounded on the east by strands of the Chain fault. On the north and west, contacts against host rocks appear to be sharp and steep (Pangman, 1972). To the south, the contact appears to be more shallowly dipping, and contours of airborne magnetic data indicate that the intrusion extends well outboard of the exposed contact. The surface expression of the pluton is about 8 by 5 kilometres, but the >57,200 gamma magnetic contour indicates a body up to twice that size. Sedimentary rocks above this part of the pluton are hornfelsed and may form a large roof pendant above one shoulder of the stock, although a large-scale sill geometry has also been suggested. Characteristics of the rock types in the pluton are summarized below.

- **Central Phase.** The core of the pluton comprises a texturally and compositionally variable suite of intrusive rock types. Most rocks are pink, medium to coarse-grained, equigranular syenite to monzonite compositions (Hart, 1997). Hart (1997) describes three main rock types. 1) The main phase is medium to light grey-pink monzonite with fine-grained hornblende and up to 40% euhedral, strongly zoned plagioclase in a slightly finer-grained matrix of orthoclase and hornblende. Accessory magnetite and rare, oxidized biotite are also present. Xenoliths are abundant and fractures with K-feldspar envelopes are common (see below). 2) A leucocratic, tan-pink syenite is characterized by an absence of ferromagnesian minerals. It is composed of 5 to 10% euhedral plagioclase in a matrix of slightly finer-grained orthoclase. Xenoliths are rare; it cuts the main central phase monzonite but is cut by dykes. 3) A minor rock type comprises small plugs and dykes of leucocratic, light pink, coarse-grained, equigranular alkali feldspar syenite. It contains >90% orthoclase, 6% euhedral hornblende, 1% magnetite and minor plagioclase. All phases contain accessory titanite, apatite, biotite, pyroxene and rutile. Pangman (1972) notes a change from An_{46} to An_{20} from early to late phases. He also notes abundant accessory pyroxene, but Hart (1997) asserts that all observed pyroxene is xenolithic or xenocrystic.
- **Border Phase.** This is a texturally variable, equigranular to fine-grained and crowded porphyritic phase that ranges from monzodiorite to monzonite. Phenocrysts are euhedral, between 1 and 4 mm in length, and comprise 50% plagioclase and 5% hornblende. Plagioclase phenocrysts have only weak compositional zoning (Wells, 1998). The matrix is grey and fine-grained. Accessory minerals include magnetite, apatite, titanite, pyroxene, and local pyrite and chalcopyrite (later hydrothermal?).
- **Dykes and Sills.** Swarms of dykes and sills have been described from south of the pluton by Hart (1997). They are similar to the border phase but are more fine-grained, locally more mafic and commonly trachytic. They range from 3 to 15 metres in thickness, and may be at least hundreds to several kilometers in length. Within the pluton, several trachytic feldspar porphyry syenite dykes have been observed that can contain orthoclase phenocrysts to several centimetres in length in a pink matrix with 5 to 10% hornblende and minor biotite and magnetite; these dykes appear to be unaltered (local clay and sericite; Wells, 1998) and unmineralized, and may post-date hydrothermal activity in the stock. The largest of these dykes is nine metres wide and is located on Moon Knob (Wark, 1998). Dykes within the pluton strike northeast to east-northeast with nearly vertical dips, whereas sill swarms south of the pluton strike north and are west-dipping (Hart, 1997 Mafic dykes with easterly trend have been described by Wells (1998) as metre scale, steeply dipping, grey to green, fine-grained hornblende porphyries with plagioclase, 3 to 5% orthoclase, and minor carbonate and magnetite; these dykes were described as lamprophyres by Pangman (1973) but subsequent authors (Hart, 1997; Wells, 1998) have disagreed with this nomenclature and call them monzonites to monzodiorite/gabbro. Narrow pegmatoidal dykes common, as are fine-grained felsic dykes.

- **Xenoliths.** These are common in most phases of the pluton. They include black pyroxenite, pyroxene gabbro and fine-grained diorite, and also hornfelsed sedimentary host rock (only found in the border phase). Xenoliths are rounded to angular, are mostly <20 cm in size, and locally occur in sufficiently high concentrations to form intrusion breccia.

Age. The age of the Teslin Crossing pluton is not tightly constrained. Four K-Ar dates range between 164 and 186 Ma (Stevens et al., 1982; Tempelman-Kluit, 1984), and a single U-Pb date from a sill south of the pluton yielded 175.6±2.0 Ma from two slightly discordant zircon fractions (Hart, 1997).

Geochemistry. Geochemical data (Hart, 1997; Wells, 1998) on the pluton and associated dykes and sills indicate a weakly alkalic, metaluminous to locally and weakly peraluminous composition. The concentrations of SiO_2, Na_2O and K_2O range from 60 to 68%, 6.2 to 7.4% and 3.1 to 4.3%, respectively (Hart, 1997), with a slight trend toward more sodic compositions in younger phases (Wells, 1998). Normative compositions indicate silica-saturation to weak oversaturation for the main phases of the pluton, and a nepheline-normative composition for a pyroxenite xenolith (Hart, 1997).

Rocks described as granite are interpreted by Wells (1998) to be arkosic sandstone or possibly a reworked tuff.

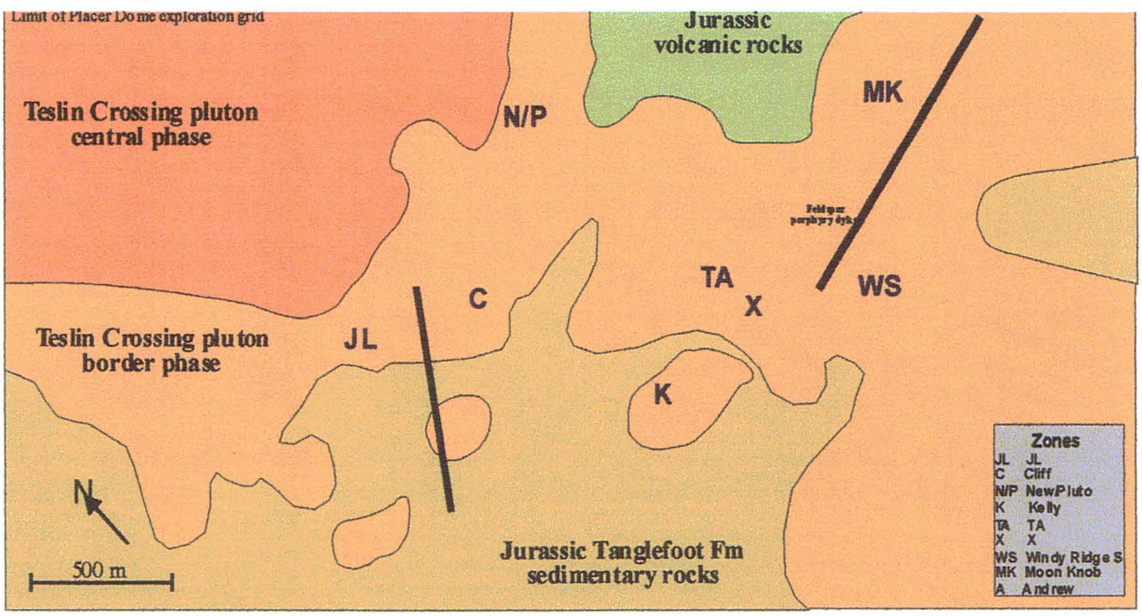

FIGURE 5.0 By J.R. Lang: Modified from Hart, C.J.R., 1997; Killin,K., 1997 & Pangman, P.G., 1973.

Geology within the Placer Dome exploration grid, as mapped by Placer. Note that exposures are very limited in many parts of the grid and that unit distribution is very generalized. Contact between the central and border phases of the pluton are gradational.

7.0 Topographic Setting of the Mars Property

PLATE 1.0 Photo by J.R. Lang

Panorama from the Windy Ridge South zone looking northwest through the centre of the exploration grid. Location of the Cliff, JL, New/Pluto and X zones is indicated. The small white dot is the exploration camp 1.5 km distant. The Kelly zone lies farther to the left of the X zone on the back side of the ridge. The TA zone is in the valley below Murray McClaren. Moon Knob and Andrew zones are well to the right of and behind the photographer. Relief is generally <200 metres.All mineralized zones are exposed on or near the bare ridge crests. Tree and alluvial cover with little or no outcrop makes identification of other mineralized zones that may lie at lower elevations difficult. Strong soil geochemistry does, however, extend well into the covered areas.

8.0 Sampling Methods Employed

Selected samples of mineralization and/or alteration were collected during foot traverses conducted througout specific areas of the property. The samples were located, marked and placed into bags and sealed. Soil samples were collected from two trenches. Samples were collected from poorly developed soils by maddock and placed into a bag. Rock chip samples were collected as continuous chips over designated sample intervals and placed into a sample bag and sealed.
Descriptions of sample location, nature of the material sampled, representative characteristics of the sample, type of lithology or pedology, alteration and mineralization were recorded in the field. Sample locations were determined by hand-held non-differential GPS units and/or compassed and chained from a GPS determined UTM NAD 83 Zone 8 grid co-ordinate.

9.0 Details of Surface Evaluation

The initial purpose of the trenching program was to excavate areas of known sub-cropping mineralization. It was found that the Kubota KH-41 could operate in only limited terrain. In addition, difficulties of machine capabilities with permafrost limited the effectiveness of the trenching program. Four trenches were excavated during the course of the field program. These trenches were located in areas of moderately anomalous copper geochemistry, as defined by previous surveys. Near the end of the program, the machine was located in an area of relatively flat terrain, with little or no permafrost. In this area (Trench 4) the Kubota KH-41 proved most effective in excavating material down to bedrock to depths of up to 1.5 meters. Bedrock exposured in the trenches were mapped and chip samples collected over designated intervals.

Foot traverses were conducted from a base camp located on the DDH-1 mineral claim. Helicopter set-outs and pickups were utilized when available. Geological observations were recorded and selected rock samples were collected. The results of these observations were correlated in the field with previously obtained geophysical and geological data.

10.0 Trenching

Between July 18, 2003 and July 21, 2003, approximately 109.5 meters of trenching in four trenches was completed. A Kubota KH-41, contracted from Kluane Drilling Ltd., 14 MacDoald Rd., Whitehorse, YT. was used to construct trenches. Mr Remy Pelletier, operator, was assisted by Mr. Marc Elson. Dr. James Lang P.Geo. and Murray McClaren P.Geo. supervised the trenching program.

Trenches were approximately 1.0 meter wide and approximately 1.5 meters deep. A total of approximately 165 cubic meters of material was extracted. This material consisted of a thin layer of organic (0.3 meters) underlain by approximately 1.0 meter of an admixture of till and colluvium with poorly developed soil horizons.Trench 4 was the only trench that exposed any significant amount of bedrock. All other trenches encountered permafrost and had to be discontinued. Rock chip samples were collected from Trench 1 and Trench 4. Soil samples were taken at 4 meter intervals in Trench 1. Two soil samples were taken in a vertical profile in Trench 3.

A tabulation of trench locations, samples collected and notes pertaining to each trench are tabulated as follows:

10.1 TRENCH DESCRIPTIONS

Trench Number	Trench Length	UTM (NAD 83) Zone 8 Starting Point of Trench	
TRENCH 1	**29.5 meters**	**509293**	**6795801**

Notes: Trench cuts colluvium and till and bottoms on permafrost.

Soil samples collected along length of trench. T1-S1 to T1-S6

Rock chip samples taken over following intervals:

Sample Designation	Sample Length	Description
T1-1	0.5-5.0 meters	Unaltered grey, magnetic monzonite
T1-2	5.5-10.5 meters	Pink alteration of monzonite at 10.5 meters; Outcrop very discontinous in trench Minor albite-epidote veinlets with magnetite Outcrop very discontinous in trench
T1-5	Float Samples adjacent to trench (Claim Post Boulders)	Malachite stained; Alt. monzonite

TRENCH 2	**24.0 meters**	**509400**	**6795762**

Notes: Trench cuts colluvium and till and bottoms on permafrost. No samples taken.

TRENCH 3	**16.0 meters**	**509468**	**6795741**

Notes: Trench cuts colluvium and till and bottoms on permafrost. At 5 meters , bedrock exposure of monzonite for 2 meters.

Soil samples collected in vertical profile. TR-S1 and TR-S2

TRENCH 4	**46.0 meters**	**509579**	**6795960**

Sample Designation	**Sample Length**	**Description**
T4-22	Taken at 22.0 meters to 22.15 meters	Fine disseminated pyrite in heavy limonitic zone follows: Structure - N70E/65NW
T4-0-6	0-6 meters	Porphyritic border phase monzonite with minor limonite stain

Sample Designation	Sample Length	Description
T4-12-18	12-18 meters	Relatively fresh pinkish monzonite with small 2 cm. zenoliths
T4-18-22	18-22 meters	Relatively fresh monzonite with moderate limonite stain. Staining increases towards 22 meters.
T4-22-25	22-25 meters	Heavy limonite stained, fractured and altered monzonite Fault zone with clay development
T4-25-27	25-27 meters	Moderate limonite; Quartz veinlets; Intrusive textures lost ; chocolate brown silicified monzonite
T4-27-33	27-33 meters	Strong limonite; silicified monzonite with quartz veins and veinlets
T4-33-39	33-39 meters	Specularite noted in quartz veinlets. Quartz veinlet orientations: N30W/40NE; N80E/80SW Strong limonite; silicified monzonite with some finely disseminated pyrite
T4-39-46	39-46 meters	Veinlets orientation N80E/75SW Strong limonite; silicified monzonite with quartz veins and veinlets.

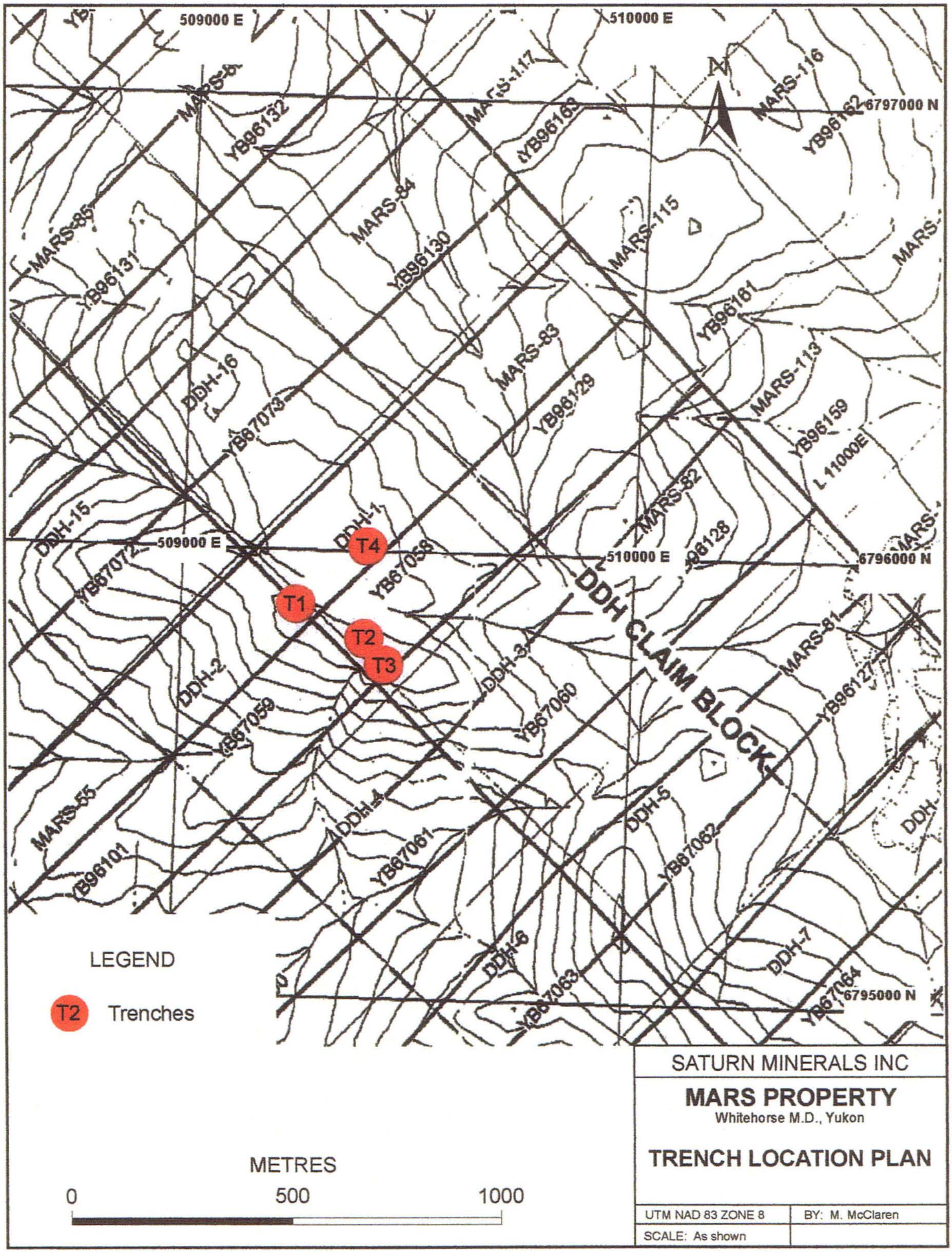
509000 E
510000 E
6797000 N
6796000 N
6795000 N
DDH CLAIM BLOCK
T1
T2
T3
T4
MARS-84
MARS-83
MARS-82
MARS-81
MARS-85
MARS-55
MARS-115
MARS-113
MARS-116
YB96132
YB96131
YB96130
YB96129
YB96161
YB96159
YB96127
YB96101
YB67073
YB67072
YB67058
YB67059
YB67060
YB67061
YB67062
YB67063
YB67064
DDH-1
DDH-2
DDH-3
DDH-4
DDH-5
DDH-6
DDH-7
DDH-15
DDH-16
L 11000E
LEGEND
T2 Trenches
METRES
0
500
1000
SATURN MINERALS INC
MARS PROPERTY
Whitehorse M.D., Yukon
TRENCH LOCATION PLAN
UTM NAD 83 ZONE 8
BY: M. McClaren
SCALE: As shown

FIGURE 6

PLATE 2.0 Photo by M.McClaren

Kubota KH-41 Excavator **Mars Property, July 2003**

11.0 Analytical Results

A total of 53 rock samples and 8 soil samples were submitted to Acme Analytical Laboratories Ltd., of Vancouver, B.C.

Rock samples were pulverized and a 0.5 gram sample split was digested by hot aqua regia. The concentration of 30 elements was then determined by ICP/ES methods. Gold analysis was carried out on an additional 30.0 gram sample split (Au**) and digested by hot aqua regia and then analysed by ICP/ES methods. Gold determinations, with the latter method, have an upper detection limit of 100 ppm and lower limit of 2 ppb.

Soil samples were analysed for 36 elements. Sub-samples were prepared and 15.0 gram sample splits were digested and analysed by ICP/MS methods for the various element concentrations.

Sample descriptions and analytical results are tabulated as follows:

11.1 SAMPLE DESCRIPTIONS

11.1.1 Alteration/Mineralization Rock Sample Descriptions

Sample	East	North	Zone	Description
JLG-1	510210	6794904	X	border phase, just SE of X zone, with disseminated py-cpy and malachite
JLG-7	509367	6795725	Cliff	border phase, subpph, wk perv chl/actn after hlb, from between KF-cal-actn vnlts. Tr dissem ep
JLG-7b	509367	6795725	Cliff	border phase, subpph, wk perv chl/actn after hlb, from between KF-cal-actn vnlts. Tr dissem ep
JLG-8	509425	6795728	Cliff	mt vein stockwork, planar to irregular, up to 3 cm wide, locally small bx vnlts; assoc w/cgr bt, KF, poss actn (later?), with some KF envs possible; in border phase with perv chl after hbl and patchy wk perv KF or KF envs; limonite on fracs and clots
JLG-10	509473	6795865	camp	border phase, many small xenos, str perv KF altn, many tight KF-cal-actn vnlts w/KF envs, mionr/tr dissem py+/-cpy, mod to wk magn, high frac density; vns 330/steep and 255/60-65 plus others
JLG-11	509476	6795854	camp	fault breccia with limonite, qtz and cal.
JLG-14	509561	6795797	Cliff	intr bx in border phase with numerous angular xenos of hornfels to 10+ cm; poss bt altn of some mafic xenos; matrix str pink perv KF and magn, dissem py>cpy higher in xenos, xenos and matrix cut by KF-cal-actn vnlts, minor CuOx; poss deeper minl being brough to surface?
JLG-16	509616	6795983	New/Pluto	border phase w/perv KF, poss silic, perv actn after hbl, tr dissem py in altered FMs, cut by barren (?) qtz vnlts planar no envs, to 1 cm mostly <3 mm; EW and NE orientations plus others
JLG-18	509660	6796122	New/Pluto	border phase or dyke, str limonite wash, tr dissem py, minor 'barren' qtz vnlts of low frac density
JLG-19	509664	6796095	New/Pluto	poss silic border phase, cut by vnlts w/qtz, hem, goeth, actn to <0.5 cm and planar, from area of high New zone assay; prop assemblage, high hem poss rel to Au? 300/vert fault with shallow E-plunging slicks
JLG-21	509803	6796069	New/Pluto	cpy-po clot and dissems in possible central phase on hill above Pluto zone; planar KF-cal vns common as stockwork, minor 'barren' qtz vnlts, poss wk silic, Sx not on fracs, wk chl/actn after hbl; ep-cal-(py) in one piece of float from nearby
JLG-22	509784	6795953	New/Pluto	wispy segregations of mt in typical border phase, w/chl or actn, only hydrothermal mt NE of Cliff zone
JLG-25	509139	6795948	NW ridge	nearly fresh border phase, rare KF-cal-actn vnlts
JLG-26	509132	6795945	NW ridge	perv KF altn creating peeudo porphyritic text in border phase
JLG-27	508967	6795981	NW ridge	irregular perv KF altn and KF-cal-actn vnlts; sel perv actn/chl after hbl
JLG-28	509009	6795970	NW ridge	freshest border phase, rare KF-cal-actn vnlts; background
JLG-31	509117	6795876	JL	sheeted to stockwork qtz vns to 2 cm w/str cpy-py-CuOx, no envs, poss silic of border phase host
JLG-32	509110	6795882	JL	qtz-py-cpy veins to sev cm w/malachite; in border phase w/str KF altn, but by later actn-cal-py vns; local bx w/actn matrix
JLG-33	509110	6795882	JL	actn-cal vns w/py-(cpy), tr malachite adj to veins, early perv KF altn, later qtz-Sx veins, latest (?) actn-cal-py-(cpy) vns
JLG-34	509100	6795842	JL	qtz-cpy-(py) veins, local actn, in zone of goeth stain trending 050/75; cpy on margins of vein, host mod perv KF and frac-cont KF, prob silic in wall rock, veins abund
JLG-35	509092	6795832	JL	3-4 cm wh qtz vn 010/70-75, in KF-altered border phase, minor actn selvage, minor cal in vugs, w/cpy-(py)-malachite
JLG-36	509093	6795832	JL	2 cm wh qtz vn 305/40 with cpy and malachite, minor adj actn, no env, normal KF-altered border phase

Sample	East	North	Zone	Description
JLG-39	509600	6795977	camp	Trench 4, zone of strong qtz veins in pyritic border phase; selected grab of qtz veins
JLG-41	509656	6795625	Cliff	perv dissem po to 2-3%, erratic, in border phase w/wk perv KF, wk KF-actn-cal vns, no qtz or mt mvs, near contact w/reduced seds so could be lower oxidn state here for po; one qtz vnlt
JLG-42	509720	6795622	Cliff	qtz vns w/cgr cpy and malachite, str limonite, dissem po in host border phase; poss in part of IP resistivity anomaly; host may be silic; bar xtals found in a vug, low frac density; 150/80-85, to >20 cm wide
JLG-46	509725	6795011	Kelly	Kelly Boulder. Crackle zone of irregular veinlets and replacements of not strongly altered border phase by mt, cpy, lesser qtz and py; host weak altn, may be silic
JLG-48	509686	6794936	Kelly	mod perv, poss frac-cont ab altn in border phase w/2-3% dissem Sx (mostly py?); retains some pink colour and visible hbl so less intense altn than spl 47
JLG-49	509728	6794968	Kelly	zone >5 m wide and 10s m long, NS ~vert trend (at least on fault that cuts it), strong limonite; contains dissem/clotty mt-cpy throug weakly albitized border phase w/cal, (py), chl or actn after FMs associated with albite altn
JLG-50	509814	6795050	Kelly	similar to above, tight fracs w/hem-cpy-py-malachite, perv ab altn stronger, minor cal on fracs and disseminated
JLG-51	509823	6795062	Kelly	hornfels <5 m from contact with stock (possible to probable roof pendant), w/sev% dissem py and ossible trace cpy
JLG-57	510481	6794795	Windy R	barren' qtz veins 345/80 and other orients w/tr Sx, no envs; in perv KF altered border phase near resistivity anomaly; minor mt-Sx vns to 1 cm width; abund KF-cal-actn vnlts in stockwork in host
JLG-59	511014	6795100	Moon Knob	315-320/vert qtz vn >12 cm wide; many stringers <0.5 cm wide 080/steep; NE orient vns are most dilatant; weakly banded, locally vuggy, py-cpy, prob moly, discrete lenses of mt, tr cal in vugs
JLG-60	511030	6795098	Moon Knob	silic bx in intr w/>7-10% dissem and micro-frac controlled py and minor to trace cpy; fracs 060/65 and 090/85, among others; ang frags of silic intr, OC only ~2 m across, no cal, some mt
JLG-61	511019	6795092	Moon Knob	large 320/vert qtz-Sx vein, smaller sheeted qtz vns 180/vert, sample of perv altn and qtz veins; poss KF-cal-actn vns and pink perv KF+/-mt+/-actn
JLG-63	510946	6795043	Moon Knob	mass mt vns, wispy repls, pockets of qtz-py-(cpy?), generally EW and steep, vns to 5+ cm in a zone >3 m wide; host rock to mt has greenish cast, remainder normal pink border phase
JLG-64	511104	6795043	Moon Knob	NS/vert qtz vn w/banding 10-12 cm wide, with malachite, goeth, py, cpy and very strong moly and ferrimolybdite; massive mt lenses, poss actn, variable orient
JLG-69	511199	6795547	Magnetite	mass mt vns w/(qtz), py, cpy, malchite, actn, in zone of int qtz veins (mostly appear barren); host rock strongly bleached intrusion (albitized border phase?); mt-Sx vns are sheeted but have overall EW/steep trend in a corridor 70 by 25 m in size
JLG-71	511199	6795347	Magnetite	area composite of varisou 'barren' qtz veins in zone surrounding the sheeted mt-Sx veins in spl 69/70; var orients, some qtz-actn with limonite stain
JLG-73	512141	6794370		Large hill 1 km E of Moon Knob across valley; qtz vns in buff to pink coloured intr (equi, fgr, hbl-bearing; could be central phase); abund limonite on fracs, tr py obs, local actn on fracs, some vns EW/steep

11.1.2 Trench 1 to 4
General Rock Descriptions

T1-1				Unaltered grey, magnetic monzonite
T1-2				unaltered grey, magnetic monzonite
T1-5	Claim	Post	Boulders	float w/malachite; KF altn
T4-22				15 cm lim-py dissems; 250/65 in border phase flt zone
T4-0-6				weak KF altn in border phase
T4-6-12				weak KF altn in border phase
T4-12-18				weak KF altn in border phase
T4-18-22				weak KF altn in border phase
T4-22-25				fault zone, strong limonite
T4-25-27				zone of quartz veining
T4-27-33				zone of quartz veining
T4-33-39				zone of quartz veining
T4-39-46				zone of quartz veining

11.2 Rock Geochemistry

11.2.1 0.5 grams ICP/ES

Sample	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm
JLG-1	21	381	10	10	< .3	4	5	66	1.21	8	< 8	< 2
JLG-7	2	34	10	28	< .3	5	8	327	2.47	3	< 8	< 2
JLG-7b	3	57	9	25	< .3	5	5	252	1.94	4	< 8	< 2
JLG-8	1	160	3	58	0.4	30	25	829	11.18	< 2	< 8	< 2
JLG-10	1	21	24	23	< .3	5	4	411	1.22	4	< 8	< 2
JLG-11	1	8	10	29	< .3	2	2	469	1.78	< 2	< 8	< 2
JLG-14	16	518	5	21	0.3	27	9	269	2.72	3	< 8	< 2
JLG-16	3	14	7	11	< .3	4	4	196	1.37	2	< 8	< 2
JLG-18	1	24	6	24	< .3	4	3	149	1.05	< 2	< 8	< 2
JLG-19	2	51	7	19	< .3	7	4	443	1.29	3	< 8	< 2
JLG-21	4	101	7	14	< .3	3	6	149	1.2	9	< 8	< 2
JLG-22	1	23	3	22	< .3	8	7	226	4.09	< 2	< 8	< 2
JLG-25	2	55	10	20	< .3	6	4	129	1.93	2	< 8	< 2
JLG-26	1	28	5	12	< .3	5	4	279	1.49	< 2	< 8	< 2
JLG-27	2	64	19	44	< .3	5	5	293	2.05	2	< 8	< 2
JLG-28	2	47	10	35	< .3	6	7	289	2.33	2	< 8	< 2
	2	48	10	36	< .3	6	7	292	2.35	3	< 8	< 2
JLG-31	9	5444	54	32	8.6	4	4	209	1.35	2	< 8	< 2
JLG-32	56	2706	58	30	4	5	5	366	1.38	< 2	< 8	< 2
JLG-33	4	172	9	20	< .3	5	5	345	1.51	< 2	< 8	< 2
JLG-34	17	129	11	31	< .3	5	5	411	1.62	< 2	< 8	< 2
JLG-35	3	798	32	21	1.4	4	3	195	0.98	< 2	< 8	< 2
JLG-36	3	277	10	16	< .3	4	4	265	1.18	< 2	< 8	< 2
JLG-37	27	148	102	112	1.7	4	4	520	0.95	< 2	< 8	< 2
JLG-39	3	57	10	9	< .3	4	2	130	0.58	< 2	< 8	< 2
JLG-41	3	109	9	13	< .3	7	3	102	1.7	2	< 8	< 2
JLG-42	1	2647	23	33	2.8	5	4	580	1.48	< 2	< 8	< 2
JLG-46	180	5339	15	39	4.2	83	35	609	4.56	13	< 8	< 2
JLG-48	2	132	9	15	< .3	4	8	73	1.07	< 2	< 8	< 2
JLG-49	2	4025	31	86	6.8	32	18	475	2.51	3	< 8	< 2
JLG-50	5	287	4	11	< .3	7	4	153	0.83	< 2	< 8	< 2
JLG-51	163	1115	< 3	25	0.8	71	13	108	2.23	< 2	< 8	< 2

	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	
Sample	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
JLG-57	4	109	6	9	< .3	7	3	102	0.77	2	< 8	< 2
JLG-59	>2000	1043	656	30	8.9	3	4	53	1.29	3	< 8	< 2
	12	139	24	131	0.3	24	12	745	2.86	18	< 8	< 2
JLG-60	41	201	7	15	< .3	5	14	259	2.58	< 2	< 8	< 2
JLG-61	40	204	23	12	< .3	4	5	153	1.25	< 2	< 8	< 2
JLG-63	36	997	< 3	91	0.3	63	65	888	26.51	< 2	< 8	< 2
JLG-64	>2000	1029	41	18	1.4	5	8	58	3.2	< 2	< 8	< 2
JLG-69	34	626	5	130	0.4	7	81	675	20.49	20	17	< 2
JLG-71	24	39	3	22	< .3	6	3	85	0.84	4	< 8	< 2
JLG-73	3	36	24	16	< .3	4	4	252	1.09	< 2	< 8	< 2
T1-1	6	22	7	14	< .3	4	3	161	1.41	2	< 8	< 2
T1-2	2	36	5	23	< .3	5	5	304	2.18	< 2	< 8	< 2
T1-5	2	16813	47	31	9	5	6	232	2.43	4	9	< 2
T4-22	3	621	55	55	3	4	5	496	1.79	5	< 8	< 2
T4-0-6	3	52	6	12	< .3	5	4	256	1.18	2	< 8	< 2
T4-6-12	1	19	6	11	< .3	4	3	223	1.21	< 2	< 8	< 2
T4-12-18	1	11	6	13	< .3	6	3	227	1.35	< 2	< 8	< 2
T4-18-22	1	42	8	18	< .3	3	4	368	1.75	< 2	< 8	< 2
	1	43	9	18	< .3	4	4	376	1.77	2	< 8	< 2
T4-22-25	1	53	13	36	0.3	4	4	318	1.49	2	< 8	< 2
T4-25-27	1	20	7	18	< .3	5	4	324	1.47	< 2	< 8	< 2
T4-27-33	1	14	8	16	< .3	5	4	315	1.28	3	< 8	< 2
T4-33-39	1	15	16	14	< .3	2	2	181	0.65	< 2	< 8	< 2
T4-39-46	2	154	8	12	< .3	5	3	204	0.99	< 2	< 8	< 2
Standard	12	141	23	132	0.3	24	12	751	2.91	20	< 8	< 2

	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba
Sample	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm
JLG-1	7	79	< .5	< 3	< 3	33	0.84	0.081	24	6	0.14	928
JLG-7	6	183	< .5	< 3	< 3	85	0.74	0.126	25	8	0.34	1156
JLG-7b	7	120	< .5	< 3	< 3	81	0.7	0.142	33	11	0.33	502
JLG-8	6	109	0.5	< 3	< 3	249	0.71	0.124	23	8	0.41	821
JLG-10	6	96	< .5	< 3	< 3	53	1.52	0.11	26	8	0.53	1044
JLG-11	3	144	< .5	5	< 3	43	5.36	0.014	4	3	2.03	416
JLG-14	5	104	< .5	< 3	< 3	113	1.35	0.097	24	64	0.97	590
JLG-16	8	87	< .5	< 3	< 3	41	0.47	0.067	21	8	0.1	791
JLG-18	8	77	< .5	< 3	< 3	38	0.29	0.033	19	4	0.06	849
JLG-19	3	117	< .5	< 3	< 3	112	0.87	0.033	18	7	0.14	1082

Sample	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm
JLG-21	6	73	< .5	< 3	< 3	37	0.61	0.06	19	9	0.24	745
JLG-22	5	42	< .5	< 3	< 3	115	0.45	0.087	17	20	0.22	561
JLG-25	7	51	< .5	< 3	< 3	58	0.51	0.111	18	15	0.12	390
JLG-26	8	53	< .5	< 3	< 3	65	0.35	0.067	22	6	0.08	472
JLG-27	6	79	< .5	< 3	< 3	63	0.58	0.096	27	9	0.2	354
JLG-28	6	267	< .5	< 3	< 3	81	0.7	0.12	21	9	0.29	1303
	7	273	< .5	< 3	< 3	82	0.7	0.122	22	8	0.29	1334
JLG-31	13	44	< .5	< 3	33	49	0.39	0.048	26	10	0.11	194
JLG-32	10	71	< .5	< 3	16	119	1.26	0.06	22	9	0.11	879
JLG-33	7	109	< .5	< 3	< 3	94	1.52	0.104	30	9	0.26	1186
JLG-34	8	88	< .5	< 3	< 3	82	1.74	0.083	33	6	0.08	821
JLG-35	2	40	< .5	< 3	< 3	28	0.3	0.035	13	12	0.16	529
JLG-36	5	48	< .5	< 3	< 3	45	0.48	0.061	21	7	0.24	268
JLG-37	3	126	1.2	3	4	48	3.76	0.039	17	11	0.64	2292
JLG-39	3	41	< .5	< 3	< 3	39	0.46	0.034	7	8	0.03	828
JLG-41	5	61	< .5	< 3	< 3	57	0.74	0.098	20	14	0.12	538
JLG-42	7	64	< .5	< 3	25	61	2.52	0.088	42	10	0.24	851
JLG-46	8	149	< .5	< 3	3	67	2.71	0.05	32	6	0.7	123
JLG-48	4	65	< .5	< 3	< 3	9	0.43	0.065	19	3	0.1	259
JLG-49	8	48	0.5	< 3	< 3	38	1.02	0.042	160	7	0.26	442
JLG-50	4	67	< .5	< 3	< 3	22	1.36	0.04	17	8	0.09	670
JLG-51	4	24	< .5	< 3	< 3	152	0.45	0.084	8	110	1.04	199
JLG-57	3	43	< .5	< 3	< 3	21	0.4	0.044	12	14	0.24	606
JLG-59	< 2	20	< .5	4	82	100	0.12	0.021	10	14	0.02	501
	3	47	5.4	4	6	58	0.71	0.094	12	182	0.65	136
JLG-60	< 2	15	< .5	< 3	5	49	0.92	0.076	9	9	0.28	99
JLG-61	6	46	< .5	< 3	5	139	0.37	0.063	17	10	0.15	635
JLG-63	6	15	< .5	< 3	< 3	4839	0.35	0.053	13	17	0.13	211
JLG-64	2	20	< .5	< 3	9	383	0.1	0.02	4	12	0.04	395
JLG-69	4	40	< .5	< 3	< 3	1123	0.06	0.02	9	7	0.02	1346
JLG-71	3	42	< .5	< 3	< 3	39	0.39	0.016	5	14	0.05	483
JLG-73	8	56	< .5	< 3	4	70	0.12	0.031	10	10	0.05	616
T1-1	5	159	< .5	< 3	3	53	0.77	0.094	20	11	0.15	393
T1-2	6	163	< .5	< 3	3	96	1.14	0.107	24	8	0.24	568
T1-5	19	55	< .5	< 3	97	146	0.41	0.131	55	11	0.29	1763
T4-22	4	65	0.8	< 3	7	53	1.59	0.079	38	3	0.12	392
T4-0-6	7	103	< .5	< 3	< 3	46	1.34	0.081	27	7	0.37	1014
T4-6-12	6	63	< .5	< 3	< 3	49	1.17	0.084	21	6	0.52	956
T4-12-18	6	59	< .5	< 3	< 3	52	0.91	0.087	24	5	0.36	741

Sample	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm
T4-18-22	5	103	<.5	<3	<3	46	1.21	0.106	32	2	0.33	1117
	6	105	<.5	<3	3	46	1.24	0.108	33	2	0.33	1137
T4-22-25	5	67	<.5	<3	<3	50	1.09	0.094	31	3	0.07	1472
T4-25-27	5	116	<.5	<3	<3	74	1.46	0.091	27	5	0.39	1026
T4-27-33	7	101	<.5	<3	<3	52	1.45	0.077	28	5	0.19	1003
T4-33-39	6	59	<.5	<3	<3	43	0.51	0.015	6	2	0.02	894
T4-39-46	4	64	<.5	<3	<3	64	0.45	0.061	17	5	0.09	1019
Standard	2	48	5.4	4	7	58	0.72	0.091	12	189	0.67	137

Sample	Ti %	B ppm	Al %	Na %	K %	W ppm
JLG-1	0.07	3	0.76	0.09	0.09	<2
JLG-7	0.13	4	0.71	0.15	0.16	<2
JLG-7b	0.11	3	0.69	0.11	0.13	<2
JLG-8	0.13	3	0.82	0.08	0.12	<2
JLG-10	0.08	9	0.6	0.09	0.09	2
JLG-11	<.01	<3	0.26	0.02	0.03	<2
JLG-14	0.15	3	0.9	0.12	0.39	<2
JLG-16	0.03	<3	0.35	0.09	0.11	<2
JLG-18	0.02	<3	0.32	0.07	0.13	<2
JLG-19	0.01	<3	0.23	0.06	0.09	<2
JLG-21	0.07	3	0.47	0.11	0.1	3
JLG-22	0.11	<3	0.4	0.08	0.1	<2
JLG-25	0.09	<3	0.5	0.08	0.1	3
JLG-26	0.03	<3	0.35	0.06	0.08	<2
JLG-27	0.07	3	0.5	0.09	0.09	<2
JLG-28	0.11	3	0.87	0.26	0.11	<2
	0.11	3	0.88	0.26	0.12	<2
JLG-31	0.01	<3	0.25	0.05	0.09	<2
JLG-32	0.01	<3	0.22	0.05	0.11	3
JLG-33	0.04	3	0.4	0.06	0.16	3

Sample	Ti %	B ppm	Al %	Na %	K %	W ppm
JLG-34	0.01	< 3	0.32	0.05	0.11	< 2
JLG-35	0.03	< 3	0.2	0.04	0.05	2
JLG-36	0.05	< 3	0.36	0.07	0.09	2
JLG-37	< .01	< 3	0.13	0.03	0.05	2
JLG-39	0.01	< 3	0.18	0.05	0.08	< 2
JLG-41	0.08	< 3	0.64	0.09	0.08	< 2
JLG-42	0.01	< 3	0.34	0.06	0.05	< 2
JLG-46	0.04	< 3	0.6	0.08	0.02	2
JLG-61	0.03	< 3	0.37	0.06	0.15	2
JLG-63	0.25	< 3	0.21	0.03	0.08	< 2
JLG-64	0.01	< 3	0.15	0.02	0.06	2
JLG-69	0.01	< 3	0.13	0.04	0.07	< 2
JLG-71	0.01	< 3	0.26	0.06	0.09	2
JLG-73	0.01	< 3	0.26	0.06	0.09	< 2
T1-1	0.1	< 3	0.77	0.25	0.09	< 2
T1-2	0.09	< 3	0.71	0.19	0.09	< 2
T1-5	0.01	< 3	0.54	0.08	0.09	< 2
T4-22	< .01	< 3	0.3	0.06	0.11	< 2
T4-0-6	0.03	< 3	0.48	0.06	0.09	3
T4-6-12	0.06	< 3	0.48	0.05	0.07	< 2
T4-12-18	0.05	< 3	0.45	0.06	0.08	< 2
T4-18-22	< .01	3	0.44	0.04	0.08	< 2
	0.01	< 3	0.45	0.04	0.09	< 2
T4-22-25	< .01	< 3	0.35	0.03	0.09	< 2
T4-25-27	0.03	< 3	0.37	0.05	0.08	< 2
T4-27-33	0.01	< 3	0.31	0.05	0.08	< 2
T4-33-39	< .01	< 3	0.15	0.05	0.07	< 2
T4-39-46	0.01	< 3	0.23	0.05	0.08	< 2
Standard	0.1	13	2.05	0.04	0.13	3

11.2.2 30.0 grams FA/ICP Au**

Sample	Au ppb	Sample	Au ppb
JLG-1	69	JLG-46	258
JLG-7	4	JLG-48	2
JLG-7b	7	JLG-49	65
JLG-8	20	JLG-50	24
JLG-10	6	JLG-51	146
JLG-11	2	JLG-57	8
JLG-14	44	JLG-59	25
JLG-16	3	JLG-61	5
JLG-18	< 2	JLG-63	44
JLG-19	9	JLG-64	10
JLG-21	7	JLG-69	20
JLG-22	3	JLG-71	< 2
JLG-25	9	JLG-73	< 2
JLG-26	2	T1-1	5
JLG-27	8	T1-2	6
JLG-28	3	T1-5	155
	4	T4-22	43
JLG-31	39	T4-0-6	3
JLG-32	12	T4-6-12	< 2
JLG-33	2	T4-12-18	2
JLG-34	2	T4-18-22	5
JLG-35	7		5
JLG-36	3	T4-22-25	9
JLG-37	51	T4-25-27	5
JLG-39	6	T4-27-33	< 2
JLG-41	8	T4-33-39	2
JLG-42	145	T4-39-46	71
		Standard	485

11.3 Soil Sample Geochemistry

11.3.1 15.0 Grams ICP/MS

SAMPLE	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %
T1-S1	1.8	56.8	9.2	69	0.1	30.8	11.1	454	2.85
T1-S2	1.6	75.1	11.3	69	0.2	31.4	12.2	714	2.74
T1-S3	1.3	35.5	9.8	62	0.1	27	12.4	401	2.71
T1-S4	1.8	61.5	10.2	80	0.2	37.1	12.3	765	3.06
T1-S5	1.7	37.8	7.1	73	0.1	32	8.7	381	2.83
T1-S6	1.7	52.8	9.6	43	0.3	37.4	11.3	327	2.46
T3-S1	1.7	55.8	8.8	66	0.1	28.1	12.2	471	2.92
T3-S2	1.9	81.2	13.1	75	0.1	29.1	12.9	599	2.65
STANDARD DS5	12.5	132.4	25.2	129	0.3	23.3	11.7	732	2.79

SAMPLE	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm
T1-S1	11.8	0.7	5	2.7	57	0.2	0.7	0.3	72
T1-S2	11.8	0.8	3	1.6	72	0.3	0.8	0.3	70
T1-S3	11.7	0.6	3.7	2.6	59	0.2	0.5	0.2	76
T1-S4	14	0.7	6.3	3.6	54	0.3	0.9	0.2	72
T1-S5	11.5	0.7	3.5	3.1	35	0.1	0.8	0.1	62
T1-S6	9.2	1.1	3.2	0.5	44	0.1	0.6	0.3	65
T3-S1	11.2	0.7	3.3	3.1	36	0.1	0.7	0.3	73
T3-S2	11.2	0.7	4.3	3.5	110	0.5	0.7	0.4	63
STANDARD DS5	18.9	6.3	41	2.7	48	5.5	3.7	6	61

SAMPLE	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm
T1-S1	0.69	0.074	13	30.6	0.55	395	0.041	< 1
T1-S2	1.07	0.094	14	30.1	0.55	415	0.032	< 1
T1-S3	0.82	0.08	12	40.2	0.68	348	0.044	< 1
T1-S4	0.65	0.109	17	32.1	0.66	355	0.065	< 1
T1-S5	0.45	0.097	14	32.1	0.56	259	0.063	< 1
T1-S6	0.48	0.095	15	33.4	0.5	375	0.025	< 1
T3-S1	0.36	0.047	14	31.8	0.69	311	0.059	< 1
T3-S2	2.61	0.102	14	25	0.6	326	0.061	< 1
							0.105	
STANDARD DS5	0.75	0.095	11	177.5	0.64	132		16

SAMPLE	Al %
T1-S1	1.31
T1-S2	1.39
T1-S3	1.57
T1-S4	1.18
T1-S5	1.15
T1-S6	1.87
T3-S1	1.56
T3-S2	0.99
STANDARD DS5	2.05

12.0 Alteration and Mineralization

Table 1.1 General alteration assemblages and styles observed in the Mars system.

Assemblage	Style	Minerals	Distribution	Geochem
Pervasive K-feldspar	Perv	Commonly found in areas where intensity of K-feldspar-calcite-actinolite veins is much higher and may be related, but timing not well-constrained. Comprises massive K-feldspar flooding of border phase, beginning in matrix and then affecting phenocrysts. Contains disseminated pyrite and chalcopyrite in Cliff zone, but elsewhere association with sulphide not constrained.	Variably developed throughout system; strongest in Cliff	
K-feldspar-actinolite-calcite	Frac	Mostly planar but locally discontinuous veins, mostly quite tight (<2-3 mm open space typical). Ubiquitous envelopes up to 2-3 cm wide with at least K-feldspar and calcite. Vein fill of K-feldspar, calcite, actinolite and rare quartz. Only rare pyrite observed as sulphide.	Entire system in variable intensity	
Albite	Perv	Pervasive white to buff or tan zones in border phase, no significant fracture control. Commonly contains disseminated pyrite and/or chalcopyrite. Can contain disseminated magnetite, which may be later, or be cut by magnetite. Intensely altered host rock typically contains no or very minor sulphide.	Moon Knob, Kelly, X, Windy Ridge South	
Magnetite	Frac	Planar to sinuous veins, small irregular replacements, possible pervasive disseminations. Magnetite is main phase, commonly with minor quartz, locally with minor biotite. May be barren and sulphide-bearing varieties (chalcopyrite and pyrite only, possibly bornite and native Au). In some cases may contain hypogene specular hematite.	Minor in Cliff Abundant in Moon Knob, X, Windy Ridge South, Andrew, Kelly	
Quartz veins	Frac	Planar to sinuous and discontinuous veins dominated by quartz, late calcite mostly in vugs, minor to important magnetite, pyrite, chalcopyrite, molybdenite. No envelopes. Up to >30 cm wide but mostly <1 to several cm. Surrounding host rock may be more widely silicified.	Pluto/New, JL, Moon Knob, Windy Ridge South, minor in X and TA, Andrew	Strong sulphides common
Epidote-albite	Frac	Minor assemblage found mostly on NW end of system. Irregularly distributed, mostly tight veinlets filled by calcite, actinolite, epidote and albite, with albite envelopes up to 2-3 cm wide. Can contain minor pyrite, but mostly unmineralized.	Occurs on NW margin and also outside of Cliff	
Hematite-actinolite	Frac	Narrow, mostly planar veinlets; various combinations of hematite, quartz, calcite, pyrite, actinolite and probably chlorite. No alteration envelopes.	Mostly in New/Pluto area	
Sericite	Perv	Very minor, mostly as selectively pervasive alteration of plagioclase grains in border phase. Does not appear to form large, discrete zones. Locally common in post-hydrothermal feldspar porphyry dykes, but also a potential relationship to pervasive K-feldspar zones. Probably has no association with sulphide.	Small areas throughout system	

12.1 Distribution of Alteration Assemblages

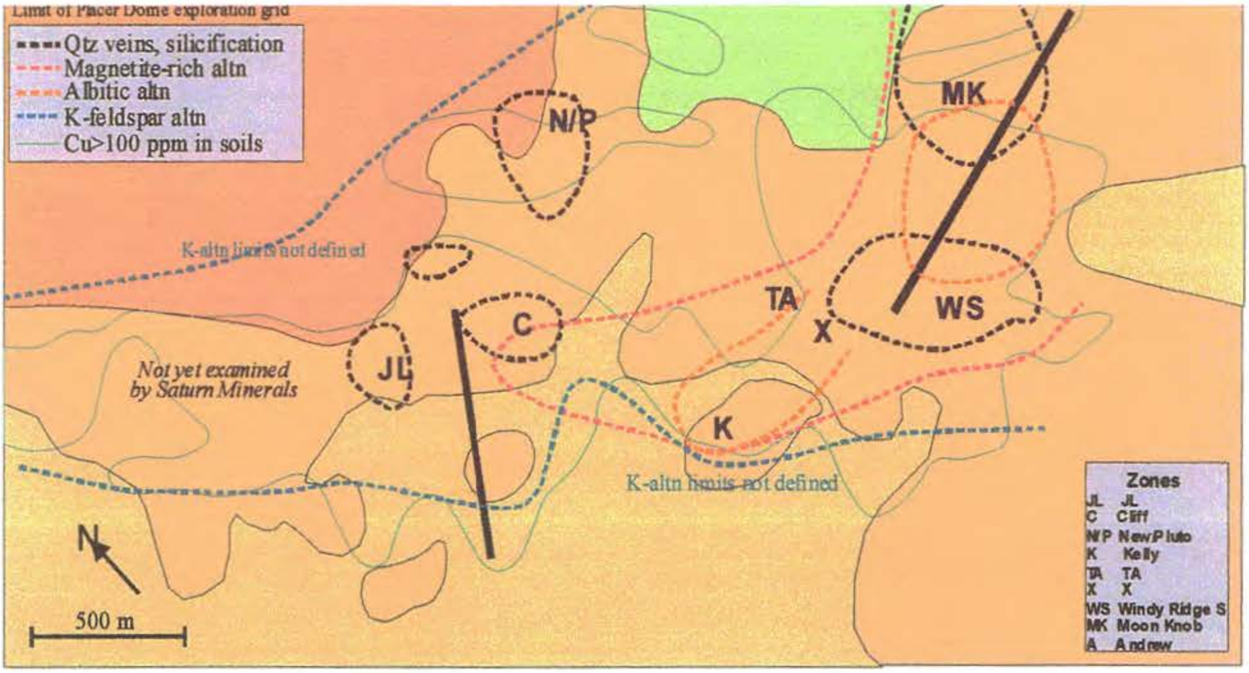

FIGURE 7.0

By J.R. Lang

Alteration on the Placer Dome exploration grid. The distribution shown above was identified during reconnaissance field examination of the property by Saturn Minerals (Lang and McClaren) during 2003. The distribution is largely schematic, as the distribution of individual assemblages was not fully defined during the 2003 program; most of the closed areas would actually be open in several directions. The area to the left of the JL zone was not examined. Past exploration reports and comments in Hart (1997) suggest that K-silicate alteration probably extends across the entire map area.

12.2 Comments from Wells (1998)

Widespread brecciation within the stock reported by United Keno Hill Mines Ltd and Pangman (1973), giving areas with quartz-carbonate veins with magnetite in the northeastern area, and minor mineralization (cpy, gl (?), moly). Only comments on Cliff, X, Windy Ridge South and Moon Knob zones. Most Au >1 g/t from X zone associated with N-trending fracture-magnetite stockwork zone.

Potassic alteration. K-feldspar veins and semi-pervasive flooding, with or without associated pyrite or chalcopyrite mineralization. Pangman (1973) indicates related to intrusive 'brecciation' (possibly stockwork fractures and/or joints). Wells suggests several generations of K-feldspar alteration. Flooding is early and widespread, and locally grades into pervasive alteration. K-feldspar veinlets occur in brecciated zones with or without associated (fine) quartz veinlets, magnetite, pyrite and chalcopyrite. Late mineralized quartz veins on Moon Knob contain chalcopyrite, pyrite, molybdenite, with K-feldspar selvages with local magnetite.

Cliff Zone. K-feldspar and/or magnetite veining widespread, locally with minor quartz in fractures. Better mineralization with more intense pervasive K-feldspar . Patchy carbonate with K-feldspar. Fine-grained, disseminated chalcopyrite and minor bornite commonly occur in small aggregates with magnetite and local coarser pyrite.

New Zone. One sample with moderate K-feldspar fractures and pervasive alteration, with minor quartz veins that returned 2 g/t Au, 0.35% Cu, 125 ppm Mo (A29330); sample not mineralized and only has disseminated magnetite, carbonate veinlets, minor chloritic fractures.

Windy Mountain South Zone. K-feldspar and magnetite veinlets occur in more 'brecciated' areas, with mineralization as fine-grained disseminations of chalcopyrite and magnetite .

X Zone. N-trending zone 1.5 m wide by up to 90+ metres long, with 'brecciation' and magnetite veins. Au values of up to 1 to 4.8 g/t found , 0.1 to 0.3% Cu, and up to 195.7 g/t Ag. Stong vein and pervasive K-feldspar alteration east of the zone, and intensity of alteration vectors into the zone. Many samples proximal to mineralization, however, showed little K-feldspar alteration. Best mineralization may be in albitized monzonite that contains fine, disseminated chalcopyrite, and magnetite veinlets.

Kelly Zone. (previously included in the X zone), chalcopyrite is mostly fracture controlled, closely associated with magnetite, brecciated chlorite and magnetite (possible actinolite?) form selvages to larger veins, early pyrite cubes within chalcopyrite, strong albite-carbonate alteration in host rock, significant recrystallization prior to brecciation and sulphide-chlorite-magnetite veining. Pervasive mineralization has finer anhedral K-feldspar (hydrothermal or igneous?), chloritized hornblende (or actinolite?), carbonate, fine disseminated chalcopyrite and magnetite.

Moon Knob Zone. Several E-trending mafic and felsic dykes. Cm scale quartz-carbonate veins common and at dyke contacts . Some quartz veins have strong K-feldspar envelopes with variable magnetite, and may contain fine-grained chalcopyrite and local molybdenite (near vein margins). Quartz distinctly grey.

Styles of Mineralization.

Disseminated mostly, in Cliff and Windy Mountain South zones. More constant Cu/Au values than at X and Moon Knob. Some high Au (low Cu/Au) from Cliff zone can be correlated with later stage veining, high Pb and/or Mo values. X zone disseminated, fracture and vein styles. Wider range of Cu/Au values. High Au correlates with fracture and vein styles combined with strong albitization. Moon Knob veinlet-related mineralization, high but variable Cu/Au values, variable Ag, local high Pb and Mo. One petrographic sample by Van Pet showed 0.02 to 0.07 mm Au grains as inclusions within the hem-altered margins of fracture pyrite located near chalcopyrite; suggests higher Au related to elevated Pb, Mo and/or Zn, suggesting that perhaps there may be different stages of Au introduction..

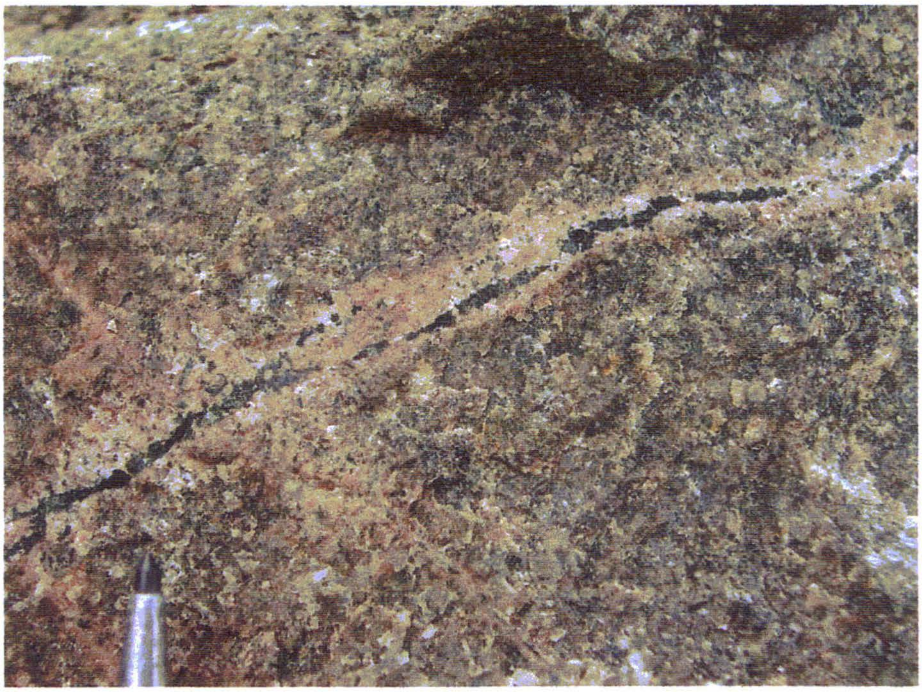

PLATE 3.0 Photo by J.R. Lang

Early K-Feldspar Alteration. K-feldspar-calcite-actinolite vein in border phase, with strong K-feldspar alteration envelope. These veins are widespread and can be of high density. They formed early and do not appear to be directly related to Cu-Au mineralization.

PLATE 4.0 Photo by J.R. Lang

Albitic Alteration. Alteration is pervasive, and commonly contains abundant disseminated pyrite-chalcopyrite and locally magnetite. It is common at Windy Ridge South, Kelly, X, TA and Moon Knob zones.

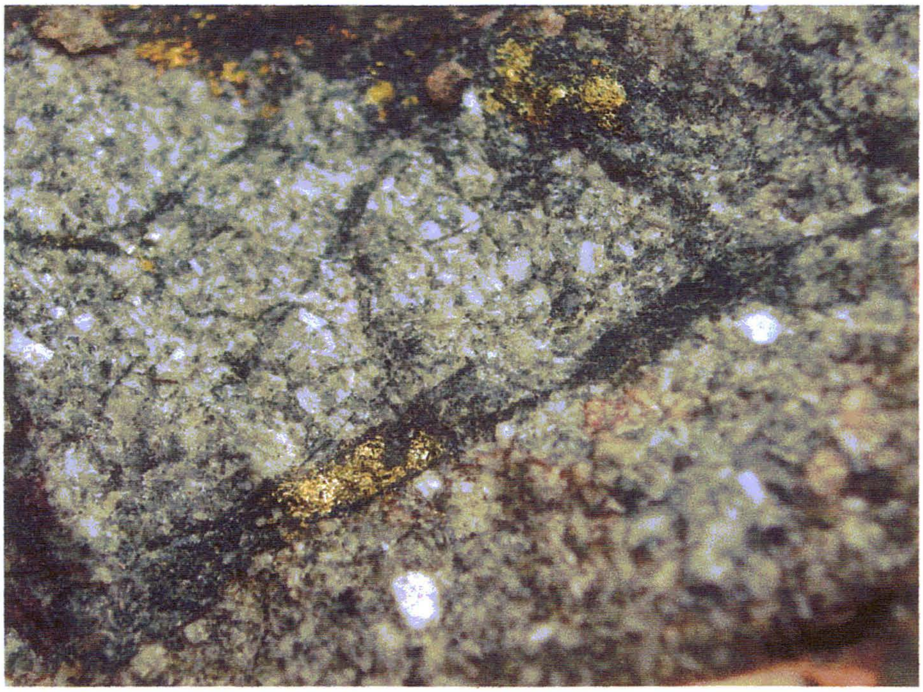

PLATE 5.1 Photo by J.R. Lang

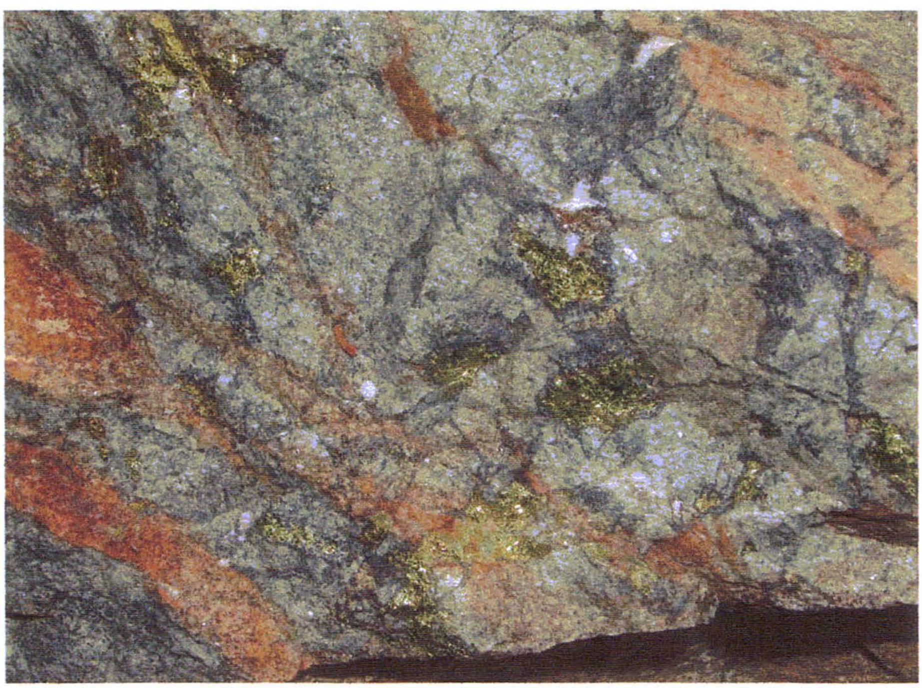

PLATE 5.2 Photo by J.R. Lang

Magnetite-Sulphide Alteration. This important assemblage is well-developed everywhere southeast of and including the Cliff zone. Strong chalcopyrite±bornite mineralization with Au is common. Biotite and quartz are commonly present. This sample is from the Kelly zone.

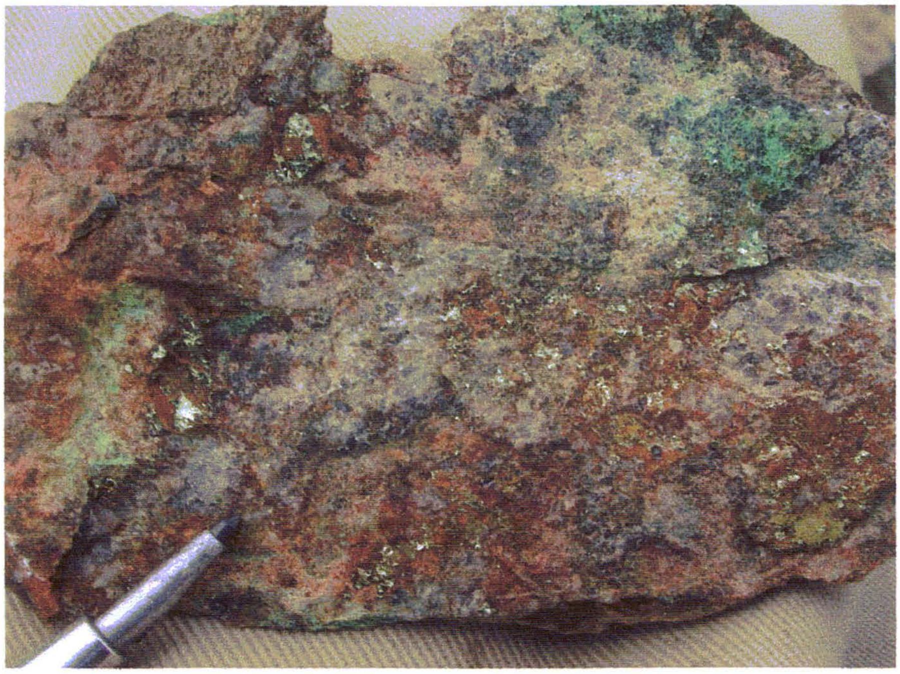

PLATE 6.1 Photo by J.R. Lang

PLATE 6.2 Photo by J.R. Lang

Mineralized Quartz Veins. Upper photo shows a high grade quartz vein with abundant chalcopyrite (and malachite) along its axis. These veins commonly contain minor magnetite, calcite and molybdenite. Many carry significant Au. They can occur in very high densities of sheeted veins (lower photo). The abundance of these veins accounts for the extensive IP resistivity highs that form a major exploration target at Mars.

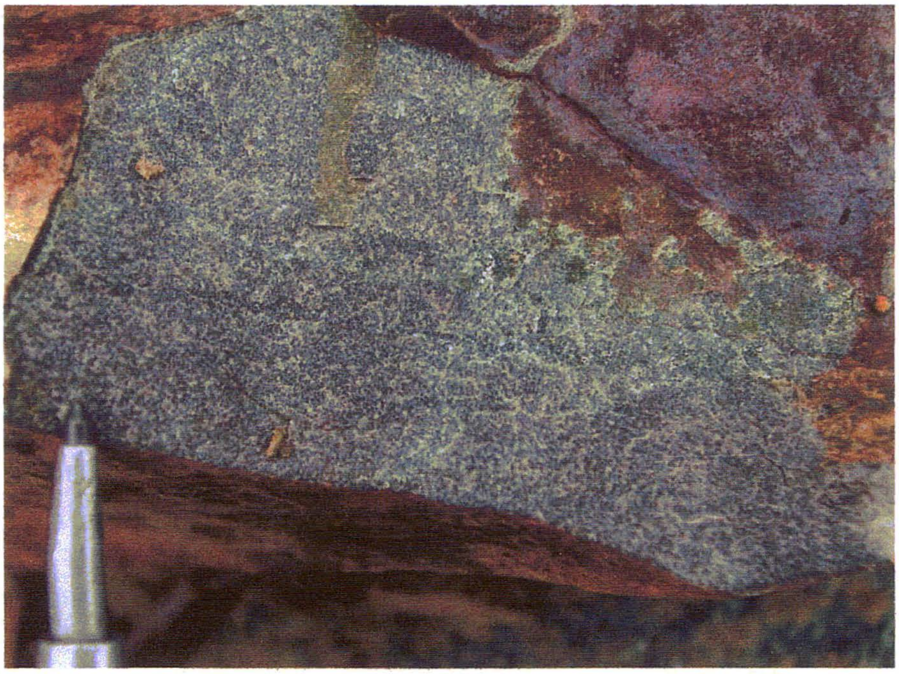

PLATE 7.1 Photo by J.R. Lang

PLATE 7.2 Photo by J.R. Lang

Mineralized Hornfels. Sedimentary rocks at the intrusive contact are altered to siliceous hornfels. This always contains abundant pyrite and/or pyrrhotite, and locally contains significant Cu-Au mineralization. This sulphide-rich material explains the IP chargeability highs along the southwestern margin of the exposed intrusive contact, and may comprise an additional type of exploration target.

13.0 Geophysical Surveys and Results

Severaly types of geophysical surveys have been completed on and around the Mars property. These include IP, airborne magnetics and airborne radiometrics. The results and implications of these surveys are described below.

Induced Polarization Survey

An IP survey was completed over a large portion of the Placer Dome grid in 1997. A total of 17.65 line kilometers on 14 lines spaced 200 metres apart was completed by Amerok Geosciences Ltd of Whitehorse.

The IP survey identified anomalies in both chargeability and resistivity. The chargeability highs are approximately coincident with the south-dipping contact of the pluton against sedimentary host rocks, and also correspond broadly to Cu-Au mineralization exposed at surface in the Kelly and X zones. Other zones of high chargeabilty are located at other points along the southwestern contact zone of the intrusion. The anomalies are elongated northwest, approximately parallel to the grid baseline and to the overall orientation of the main zone of alteration and mineralization.

Resistivity highs are widespread on the grid, but were virtually ignored during previous exploration. The strongest anomaly is located near the Moon Knob zone, with additional anomalies in the New/Pluto, JL, southeast part of the Cliff, X and Windy Ridge South zones. The anomaly on Moon Knob is at least 600 metres in length; it dips steeply to the northeast and appears to plunge to the southeast, and remains open to the southeast. This large anomaly trends parallel to the orientation of the main zone of alteration and mineralization. Each of the resistivity highs corresponds spatially to areas of mineralized quartz veins exposed at surface.

13.1 Interpretation. The chargeability highs correspond to sedimentary host rocks to the intrusion that have been altered to hornfels that contains >5 to 10% disseminated and fracture-controlled sulphide. The sulphide is primarily pyrite with lesser pyrrhotite and local concentrations of chalcopyrite. The anomalies may also, at least in part, outline zones of increased sulphide concentration along the margin of the pluton and may correlate with zones of stronger sulphide mineralization. The resistivity highs are found within the pluton. They exhibit an excellent correlation with zones of sulphide-bearing quartz veins and pervasive silicification, with and without disseminated sulphide mineralization, exposed at surface. In those cases where resistivity highs are evident on adjacent IP lines, they exhibit a northwest trend approximately parallel to the overall orientation of the principal zone of alteration and mineralization. The resistivity highs also have distinct apparent dips, mostly to the northeast, that may indicate control by larger scale structures. The correspondence of resistivity highs with zones of mineralized quartz veins, which are one of the principal hosts to ore-grade mineralization in other silica-oversaturated alkalic Cu-Au deposits (e.g., Cadia-Ridgeway in New South Wales; Holliday et al., 2002), indicates that these zones constitute some of the best drill targets on the property.

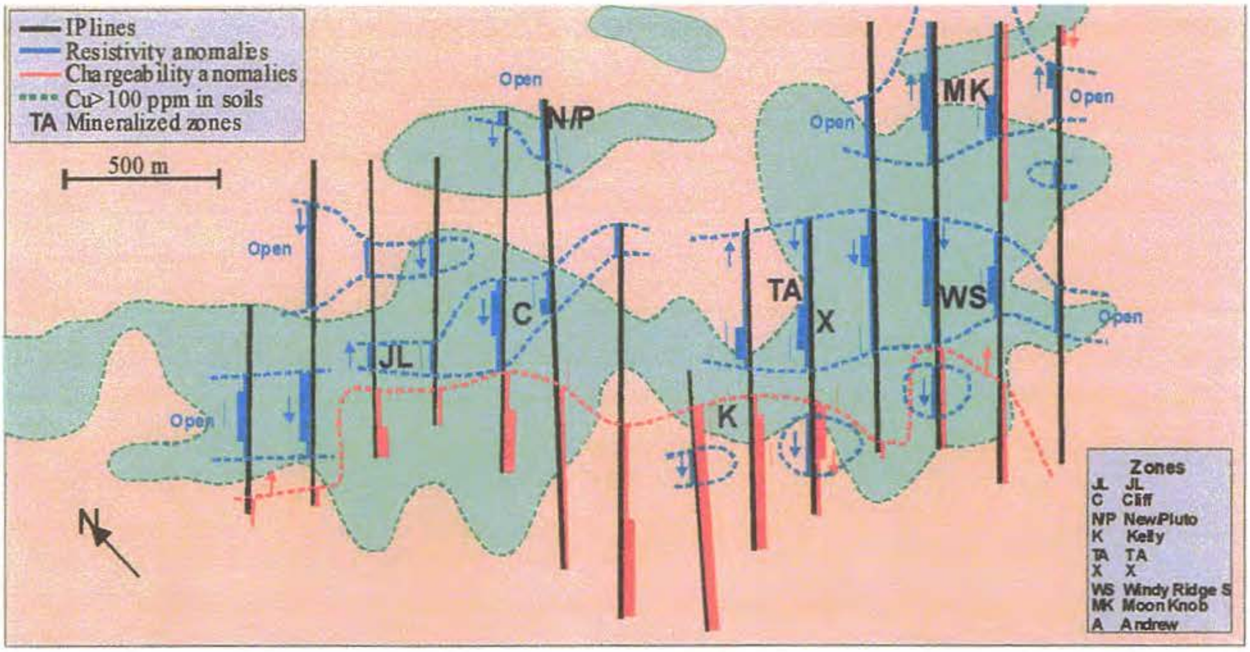

FIGURE 8.0 By J.R. Lang

Compilation Map. Map showing distribution of mineralized zones and copper geochemical results in relation to the distribution of induced polarization resistivity and chargeability anomalies.

13.2 Summary of the reinterpretation of IP surveys by Saturn Minerals.

Placer Dome acquired the data in 1997, and focused primarily on the chargeability anomalies. Field examination of alteration and mineralization in 2003, however, showed that: 1) most of the better exposed mineralization is related to zones of strong quartz vein formation and silicification; 2) chargeability anomalies are related to sulphide, and in some places Cu-bearing, hornfels of sedimentary host rocks to the pluton; and 3) that resistivity highs may constitute the principal IP exploration target on the property. The IP anomalies are extensive, laterally continuous, and correlate well with exposed geology and alteration/mineralization. In addition, most of the resistivity anomalies have distinct dips, mostly to the southwest but also in the Moon Knob zone to the northwest, that suggest a strong structural control that may broadly parallel the northwest elongation of the mineralized belt. Reinterpretation is based upon visual inspection of inverted IP pseudo-sections.

Airborne Magnetic Survey An airborne survey of combined magnetics and radiometrics was flown in 1997 by Aeordat Inc of Mississauga, Ontario. The survey comprised 2092 line kilometers, and covered the entire Placer Dome claim block and a large area peripheral to it. The magnetics confirmed that the pluton extends to the southwest of its surface exposures (e.g., Figure X), and that it has a sharp contact on the east and northeast consistent with the existence of the Chain fault as a major bounding structure. The magnetics also support a zoned nature to the pluton, with a stronger magnetic signature in the Border phase and a more subdued response in the Central phase; the stronger magnetic response in the Border phase may also reflect the presence of abundant hydrothermal magnetite as veins and disseminations. The magnetic survey provides only limited information at the smaller scales of individual mineralized zones.

Airborne Radiometric Survey The radiometric results have not been reviewed in detail. Wark (1997) notes that the potassium channel reveals several unconnected regions of high potassium concentration within the pluton and suggests that this could reflect either: 1) hydrothermal alteration; or 2) variation in distribution of primary igneous K-feldspar among different phases of the pluton.

14.0 Summary of Key Features of the Mars Alkalic Cu-Au Property

- Known Cu-Au mineralization occurs within the margin of a Jurassic, alkalic pluton 8 by 5 km in surface exposure, at its southwestern contact against locally Cu-Au mineralized Jurassic sedimentary rocks altered to hornfels. This pluton is covered by mineral claims collectively known as the Mars property.
- Cu-Au-Mo mineralization is related to widespread, locally intense, vein and pervasive K-feldspar, albite, magnetite-biotite, and quartz alteration.
- A prospective zone, at least 2.8 km by up to 1.6 km in size and open in three directions, has been outlined by soil geochemistry, IP, alteration and mineralization, and rock chip sampling.
- The best targets are wide, laterally extensive zones of strong IP resistivity that correspond to exposed areas of mineralized quartz veins.
- Additional potential exists along the extensive, but unexplored, pluton-sedimentary contact.

15.0 Conclusions and Recommendations

The July 2003 trenching program results did not enhance nor detract from the merits of the Mars property. Trenching was hindered by terrain and permafrost conditions. Alteration mapping and a re-interpretation of the induced polarization survey has aided in the selection of priority target areas. Moon Knob and the Kelly Zone have been identified as areas that warrant a diamond drilling program. Further prospecting and geological appraisal should be carried out in poorly defined areas such as the Andrew Zone, the TA Zone and areas of mineralized hornfels.

It is recommended that, following prospecting and further geological examinations, a modest drill program be undertaken. This program should consist of approximately 600 meters of diamond drill testing of priority targets such as Moon Knob and the Kelly Zone. Based on the results of the proposed program, consideration should be given to extending the present geophysical coverage.

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17.0 Author's Certificate and Signature Page

17.0.1 Dr. James R. Lang (PGeo)

Lang Geoscience Inc
10556 Suncrest Drive
Delta, British Columbia, Canada V4C2N5
604-582-3808 (ph/fax); jlang@dccnet.com

1. I, Dr. James R. Lang P.Geo, am a Professional Geoscientist employed by Lang Geoscience Incorporated, with offices at 10556 Suncrest Drive, Delta, B.C., Canada, V4C 2N5.

2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, registration #25376.

3. I am a graduate of Michigan State University (1983 B.Sc in geology, with honors) and the University of Arizona (1986 MSc and 1991 PhD in economic geology).

4. I have been engaged in mineral exploration and ore deposit research continuously since graduation in 1983, and have been involved in mineral exploration in Canada, the United States, Bolivia, Mexico, Chile, Argentina, Peru, Spain and Portugal.

5. I am president of Lang Geoscience Incorporated, a geological consulting firm incorporated in the Province of British Columbia

6. As a result of my professional registration, education and experience, I am a qualified person as defined in N.I. 43-101.

7. I am not an independent qualified person as defined by N.I. 43-101, as I sit on the Board of Directors of Saturn Minerals Inc and hold stock and stock option positions in the company and the Mars property.

8. The foregoing report on the Mars property is based on a study of available data and company reports, and my personal knowledge of the geology of the property gained during field work between July 17 and 23, 2003.

Dated at Delta, British Columbia, this 8th of September, 2003.

"James R. Lang"
Dr. James R. Lang, P.Geo.

17.0.2 **Murray McClaren (PGeo)**

Crockite Resources Ltd.
283 Woodale Road
North Vancouver, British Columbia, Canada V7N1S6
604-986-5873 (ph/fax); murraychipper@aol.com

1. I, Murray McClarenP.Geo, am a Professional Geoscientist employed by Crockite Resources Ltd., with offices at 283 Woodale Road, North Vancouver,B.C., Canada, V7N1S6.

2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, registration #24048.

3. I am a graduate of University of British Columbia (1973 B.Sc in geology)

4. I have been engaged in mineral exploration and development continuously since graduation in 1973, and have been involved in mineral exploration in Canada, the United States, Mexico, and Portugal.

5. I am president of Crockite Resources Ltd., a geological consulting firm incorporated in the Province of British Columbia

6. As a result of my professional registration, education and experience, I am a qualified person as defined in N.I. 43-101.

7. I am not an independent qualified person as defined by N.I. 43-101, as I sit on the Board of Directors of Saturn Minerals Inc and hold stock and stock option positions in the company and the Mars property.

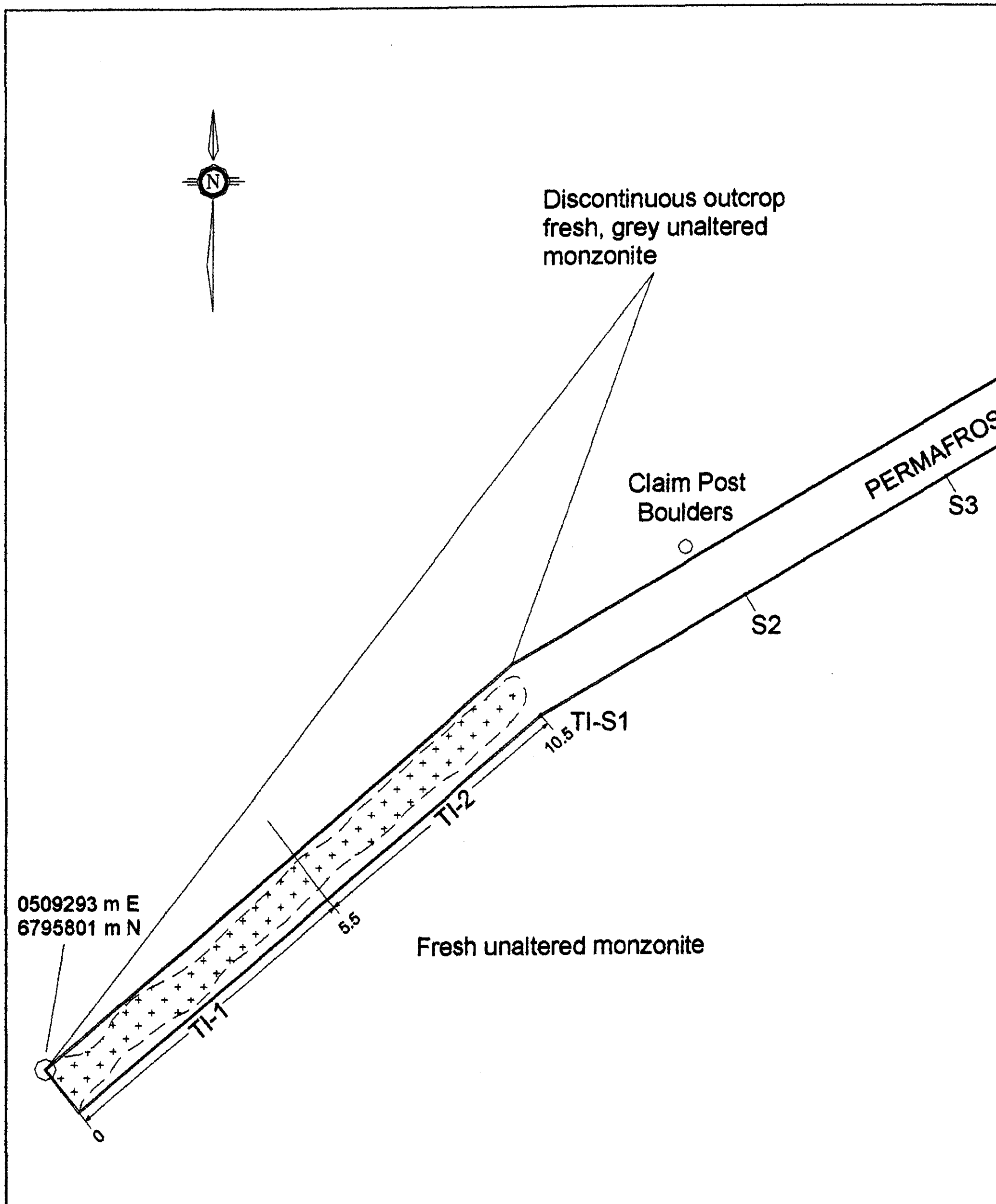
8. The foregoing report on the Mars property is based on a study of available data and company reports, and my personal knowledge of the geology of the property gained during field work between July 17 and 23, 2003.

Dated at Vancouver, British Columbia, this 8th of September, 2003.

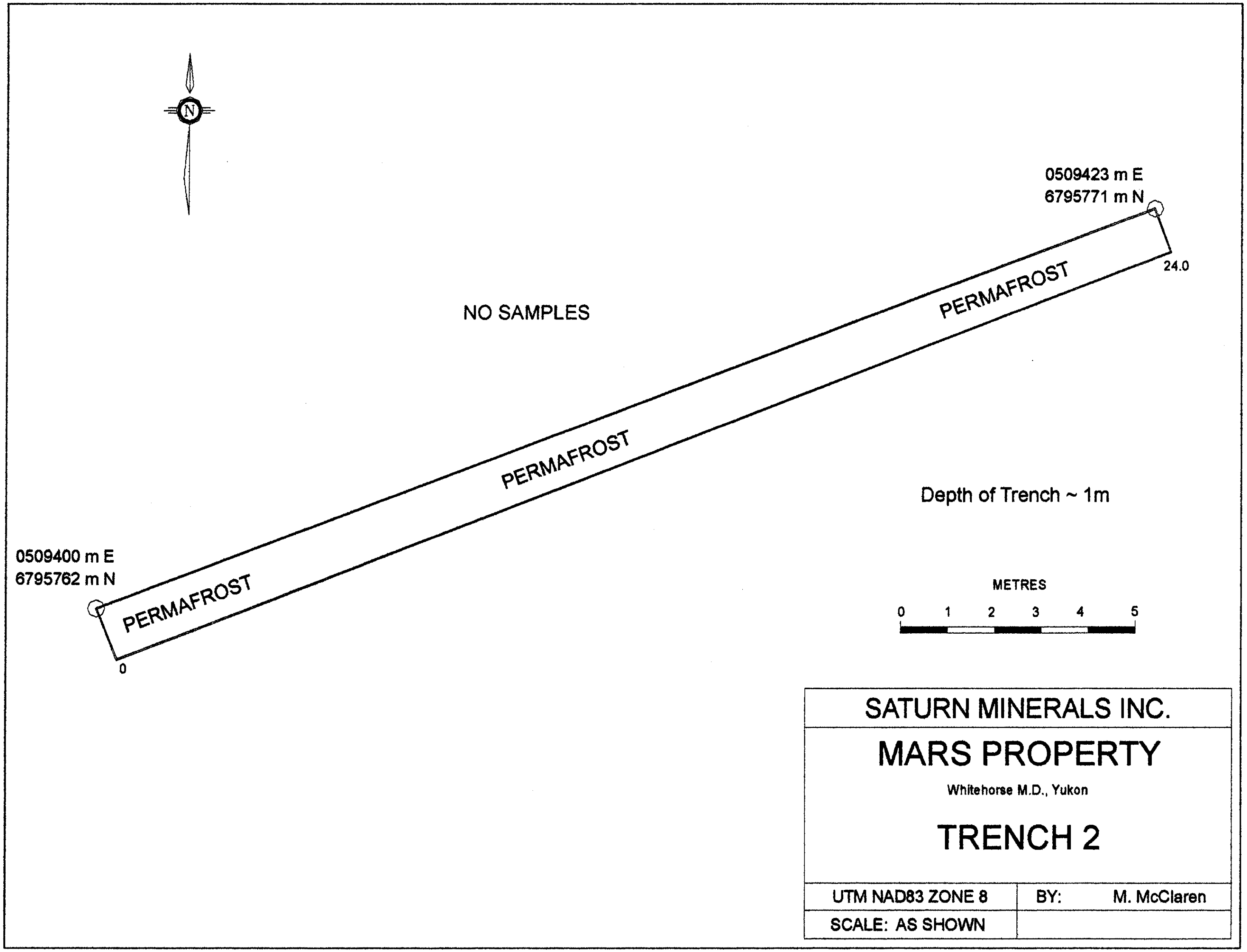
Murray McClaren, P.Geo.

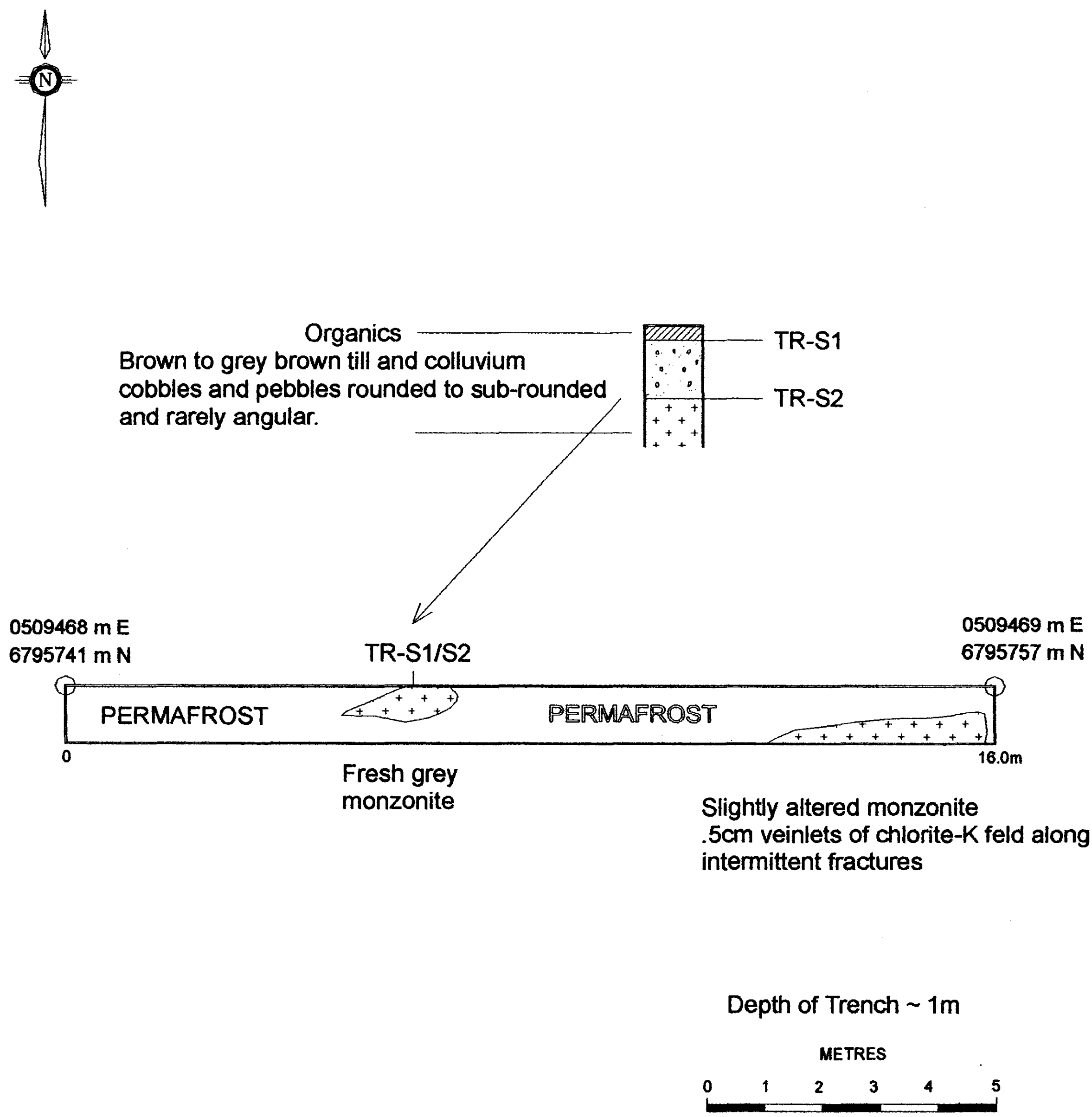
APPENDIX A

Trench Diagrams

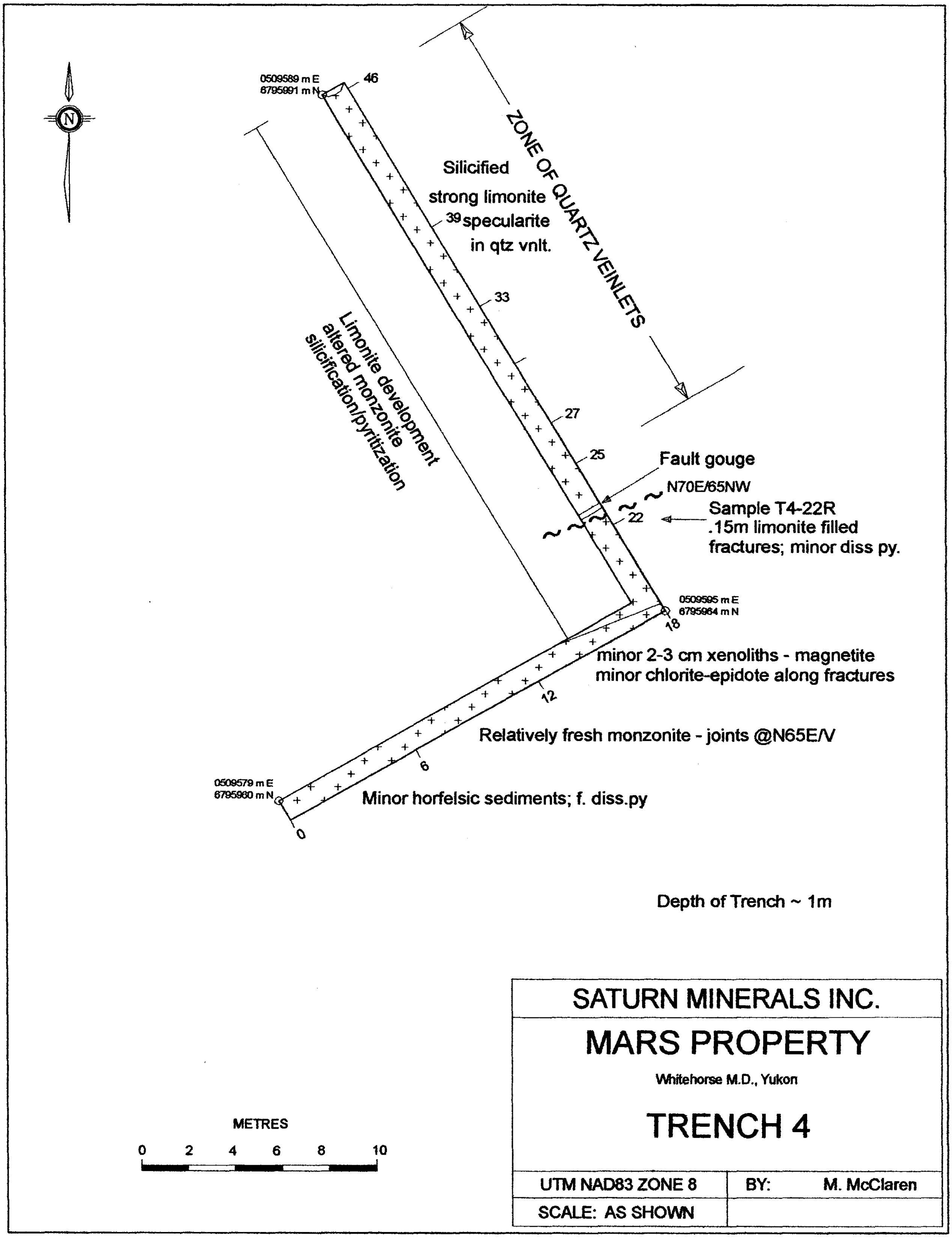


SATURN MINERALS INC.	
MARS PROPERTY Whitehorse M.D., Yukon TRENCH 1	
UTM NAD83 ZONE 8	BY: M. McClaren
SCALE: AS SHOWN	


N
0509423 m E
6795771 m N
24.0
NO SAMPLES
PERMAFROST
PERMAFROST
PERMAFROST
Depth of Trench ~ 1m
0509400 m E
6795762 m N
0
METRES
0 1 2 3 4 5
SATURN MINERALS INC.
MARS PROPERTY
Whitehorse M.D., Yukon
TRENCH 2
UTM NAD83 ZONE 8
BY: M. McClaren
SCALE: AS SHOWN



SATURN MINERALS INC.	
MARS PROPERTY Whitehorse M.D., Yukon **TRENCH 3**	
UTM NAD83 ZONE 8	BY: M. McClaren
SCALE: AS SHOWN	


N
0509589 m E
6795991 m N
46
ZONE OF QUARTZ VEINLETS
Silicified
strong limonite
39 specularite
in qtz vnlt.
33
Limonite development
altered monzonite
silicification/pyritization
27
25
Fault gouge
N70E/65NW
Sample T4-22R
.15m limonite filled
fractures; minor diss py.
22
0509595 m E
6795964 m N
18
minor 2-3 cm xenoliths - magnetite
minor chlorite-epidote along fractures
12
Relatively fresh monzonite - joints @N65E/V
6
0509579 m E
6795960 m N
Minor horfelsic sediments; f. diss.py
0
Depth of Trench ~ 1m
METRES
0 2 4 6 8 10
SATURN MINERALS INC.
MARS PROPERTY
Whitehorse M.D., Yukon
TRENCH 4
UTM NAD83 ZONE 8
BY: M. McClaren
SCALE: AS SHOWN

APPENDIX B

GEOCHEMICAL ANALYSIS CERTIFICATES

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Saturn Minerals Inc. PROJECT MARS File # A302936 Page 1
901 - 1030 Burnaby St., Vancouver BC V6E 1N8 Submitted by: James Lang

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	Sample gm
SI	<1	1	<3	1	<.3	<1	<1	7	.03	2	<8	<2	<2	3	<.5	<3	<3	<1	.12	<.001	<1	<1	<.01	3	<.01	<3	.01	.57	.01	<2	<2	-
JLG-1	21	381	10	10	<.3	4	5	66	1.21	8	<8	<2	7	79	<.5	<3	<3	33	.84	.081	24	6	.14	928	.07	3	.76	.09	.09	<2	69	1200
JLG-7a	2	34	10	28	<.3	5	8	327	2.47	3	<8	<2	6	183	<.5	<3	<3	85	.74	.126	25	8	.34	1156	.13	4	.71	.15	.16	<2	4	900
JLG-7b	3	57	9	25	<.3	5	5	252	1.94	4	<8	<2	7	120	<.5	<3	<3	81	.70	.142	33	11	.33	502	.11	3	.69	.11	.13	<2	7	1000
JLG-8	1	160	3	58	.4	30	25	829	11.18	<2	<8	<2	6	109	.5	<3	<3	249	.71	.124	23	8	.41	821	.13	3	.82	.08	.12	<2	20	1800
JLG-10	1	21	24	23	<.3	5	4	411	1.22	4	<8	<2	6	96	<.5	<3	<3	53	1.52	.110	26	8	.53	1044	.08	9	.60	.09	.09	2	6	1300
JLG-11	1	8	10	29	<.3	2	2	469	1.78	<2	<8	<2	3	144	<.5	5	<3	43	5.36	.014	4	3	2.03	416	<.01	<3	.26	.02	.03	<2	2	1100
JLG-14	16	518	5	21	.3	27	9	269	2.72	3	<8	<2	5	104	<.5	<3	<3	113	1.35	.097	24	64	.97	590	.15	3	.90	.12	.39	<2	44	1400
JLG-16	3	14	7	11	<.3	4	4	196	1.37	2	<8	<2	8	87	<.5	<3	<3	41	.47	.067	21	8	.10	791	.03	<3	.35	.09	.11	<2	3	1600
JLG-18	1	24	6	24	<.3	4	3	149	1.05	<2	<8	<2	8	77	<.5	<3	<3	38	.29	.033	19	4	.06	849	.02	<3	.32	.07	.13	<2	<2	1100
JLG-19	2	51	7	19	<.3	7	4	443	1.29	3	<8	<2	3	117	<.5	<3	<3	112	.87	.033	18	7	.14	1082	.01	<3	.23	.06	.09	<2	9	800
JLG-21	4	101	7	14	<.3	3	6	149	1.20	9	<8	<2	6	73	<.5	<3	<3	37	.61	.060	19	9	.24	745	.07	3	.47	.11	.10	3	7	1200
JLG-22	1	23	3	22	<.3	8	7	226	4.09	<2	<8	<2	5	42	<.5	<3	<3	115	.45	.087	17	20	.22	561	.11	<3	.40	.08	.10	<2	3	900
JLG-25	2	55	10	20	<.3	6	4	129	1.93	2	<8	<2	7	51	<.5	<3	<3	58	.51	.111	18	15	.12	390	.09	<3	.50	.08	.10	3	9	1300
JLG-26	1	28	5	12	<.3	5	4	279	1.49	<2	<8	<2	8	53	<.5	<3	<3	65	.35	.067	22	6	.08	472	.03	<3	.35	.06	.08	<2	2	1200
JLG-27	2	64	19	44	<.3	5	5	293	2.05	2	<8	<2	6	79	<.5	<3	<3	63	.58	.096	27	9	.20	354	.07	3	.50	.09	.09	<2	8	1500
JLG-28	2	47	10	35	<.3	6	7	289	2.33	2	<8	<2	6	267	<.5	<3	<3	81	.70	.120	21	9	.29	1303	.11	3	.87	.26	.11	<2	3	1300
RE JLG-28	2	48	10	36	<.3	6	7	292	2.35	3	<8	<2	7	273	<.5	<3	<3	82	.70	.122	22	8	.29	1334	.11	3	.88	.26	.12	<2	4	-
JLG-31	9	5444	54	32	8.6	4	4	209	1.35	2	<8	<2	13	44	<.5	<3	33	49	.39	.048	26	10	.11	194	.01	<3	.25	.05	.09	<2	39	1300
JLG-32	56	2706	58	30	4.0	5	5	366	1.38	<2	<8	<2	10	71	<.5	<3	16	119	1.26	.060	22	9	.11	879	.01	<3	.22	.05	.11	3	12	1500
JLG-33	4	172	9	20	<.3	5	5	345	1.51	<2	<8	<2	7	109	<.5	<3	<3	94	1.52	.104	30	9	.26	1186	.04	3	.40	.06	.16	3	2	1200
JLG-34	17	129	11	31	<.3	5	5	411	1.62	<2	<8	<2	8	88	<.5	<3	<3	82	1.74	.083	33	6	.08	821	.01	<3	.32	.05	.11	<2	2	900
JLG-35	3	798	32	21	1.4	4	3	195	.98	<2	<8	<2	2	40	<.5	<3	<3	28	.30	.035	13	12	.16	529	.03	<3	.20	.04	.05	2	7	1300
JLG-36	3	277	10	16	<.3	4	4	265	1.18	<2	<8	<2	5	48	<.5	<3	<3	45	.48	.061	21	7	.24	268	.05	<3	.36	.07	.09	2	3	600
JLG-37	27	148	102	112	1.7	4	4	520	.95	<2	<8	<2	3	126	1.2	3	4	48	3.76	.039	17	11	.64	2292	<.01	<3	.13	.03	.05	2	51	1200
JLG-39	3	57	10	9	<.3	4	2	130	.58	<2	<8	<2	3	41	<.5	<3	<3	39	.46	.034	7	8	.03	828	.01	<3	.18	.05	.08	<2	6	1300
JLG-41	3	109	9	13	<.3	7	3	102	1.70	2	<8	<2	5	61	<.5	<3	<3	57	.74	.098	20	14	.12	538	.08	<3	.64	.09	.08	<2	8	1000
JLG-42	1	2647	23	33	2.8	5	4	580	1.48	<2	<8	<2	7	64	<.5	<3	25	61	2.52	.088	42	10	.24	851	.01	<3	.34	.06	.05	<2	145	1200
JLG-46	180	5339	15	39	4.2	83	35	609	4.56	13	<8	<2	8	149	<.5	<3	3	67	2.71	.050	32	6	.70	123	.04	<3	.60	.08	.02	2	258	500
JLG-48	2	132	9	15	<.3	4	8	73	1.07	<2	<8	<2	4	65	<.5	<3	<3	9	.43	.065	19	3	.10	259	.06	<3	.44	.08	.06	<2	2	600
JLG-49	2	4025	31	86	6.8	32	18	475	2.51	3	<8	<2	8	48	.5	<3	<3	38	1.02	.042	160	7	.26	442	.01	<3	.46	.10	.02	<2	65	1500
JLG-50	5	287	4	11	<.3	7	4	153	.83	<2	<8	<2	4	67	<.5	<3	<3	22	1.36	.040	17	8	.09	670	.01	<3	.44	.08	.07	<2	24	1100
JLG-51	163	1115	<3	25	.8	71	13	108	2.23	<2	<8	<2	4	24	<.5	<3	<3	152	.45	.084	8	110	1.04	199	.23	<3	.98	.10	.69	<2	146	400
JLG-57	4	109	6	9	<.3	7	3	102	.77	2	<8	<2	3	43	<.5	<3	<3	21	.40	.044	12	14	.24	606	.08	<3	.35	.09	.12	2	8	500
JLG-59	>2000	1043	656	30	8.9	3	4	53	1.29	3	<8	<2	<2	20	<.5	4	82	100	.12	.021	10	14	.02	501	.01	<3	.12	.01	.06	4	25	1600
STANDARD DS5/AU-R	12	139	24	131	.3	24	12	745	2.86	18	<8	<2	3	47	5.4	4	6	58	.71	.094	12	182	.65	136	.09	15	2.02	.04	.13	2	475	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 29 2003 **DATE REPORT MAILED:** Aug 11/03 **SIGNED BY** C.L.......D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
JLG-60	41	201	7	15	<.3	5	14	259	2.58	<2	<8	<2	<2	15	<.5	<3	5	49	.92	.076	9	9	.28	99	.15	<3	.42	.06	.05	14	3	1800
JLG-61	40	204	23	12	<.3	4	5	153	1.25	<2	<8	<2	6	46	<.5	<3	5	139	.37	.063	17	10	.15	635	.03	<3	.37	.06	.15	2	5	1500
JLG-63	36	997	<3	91	.3	63	65	888	26.51	<2	<8	<2	6	15	<.5	<3	<3	4839	.35	.053	13	17	.13	211	.25	<3	.21	.03	.08	<2	44	700
JLG-64	>2000	1029	41	18	1.4	5	8	58	3.20	<2	<8	<2	2	20	<.5	<3	9	383	.10	.020	4	12	.04	395	.01	<3	.15	.02	.06	2	10	1300
JLG-69	34	626	5	130	.4	7	81	675	20.49	20	17	<2	4	40	<.5	<3	<3	1123	.06	.020	9	7	.02	1346	.01	<3	.13	.04	.07	<2	20	1800
JLG-71	24	39	3	22	<.3	6	3	85	.84	4	<8	<2	3	42	<.5	<3	<3	39	.39	.016	5	14	.05	483	.01	<3	.26	.06	.09	2	<2	1500
JLG-73	3	36	24	16	<.3	4	4	252	1.09	<2	<8	<2	8	56	<.5	<3	4	70	.12	.031	10	10	.05	616	.01	<3	.26	.06	.09	<2	<2	1100
T1-1	6	22	7	14	<.3	4	3	161	1.41	2	<8	<2	5	159	<.5	<3	3	53	.77	.094	20	11	.15	393	.10	<3	.77	.25	.09	<2	5	700
T1-2	2	36	5	23	<.3	5	5	304	2.18	<2	<8	<2	6	163	<.5	<3	3	96	1.14	.107	24	8	.24	568	.09	<3	.71	.19	.09	<2	6	900
T1-5	2	16813	47	31	9.0	5	6	232	2.43	4	9	<2	19	55	<.5	<3	97	146	.41	.131	55	11	.29	1763	.01	<3	.54	.08	.09	<2	155	700
T4 22	3	621	55	55	3.0	4	5	496	1.79	5	<8	<2	4	65	.8	<3	7	53	1.59	.079	38	3	.12	392	<.01	<3	.30	.06	.11	<2	43	1200
T4 0-6	3	52	6	12	<.3	5	4	256	1.18	2	<8	<2	7	103	<.5	<3	<3	46	1.34	.081	27	7	.37	1014	.03	<3	.48	.06	.09	3	3	3700
T4 6-12	1	19	6	11	<.3	4	3	223	1.21	<2	<8	<2	6	63	<.5	<3	<3	49	1.17	.084	21	6	.52	956	.06	<3	.48	.05	.07	<2	<2	2800
T4 12-18	1	11	6	13	<.3	6	3	227	1.35	<2	<8	<2	6	59	<.5	<3	<3	52	.91	.087	24	5	.36	741	.05	<3	.45	.06	.08	<2	2	2700
T4 18-22	1	42	8	18	<.3	3	4	368	1.75	<2	<8	<2	5	103	<.5	<3	<3	46	1.21	.106	32	2	.33	1117	<.01	3	.44	.04	.08	<2	5	1700
RE T4 18-22	1	43	9	18	<.3	4	4	376	1.77	2	<8	<2	6	105	<.5	<3	3	46	1.24	.108	33	2	.33	1137	.01	<3	.45	.04	.09	<2	5	-
T4 22-25	1	53	13	36	.3	4	4	318	1.49	2	<8	<2	5	67	<.5	<3	<3	50	1.09	.094	31	3	.07	1472	<.01	<3	.35	.03	.09	<2	9	2000
T4 25-27	1	20	7	18	<.3	5	4	324	1.47	<2	<8	<2	5	116	<.5	<3	<3	74	1.46	.091	27	5	.39	1026	.03	<3	.37	.05	.08	<2	5	2100
T4 27-33	1	14	8	16	<.3	5	4	315	1.28	3	<8	<2	7	101	<.5	<3	<3	52	1.45	.077	28	5	.19	1003	.01	<3	.31	.05	.08	<2	<2	2400
T4 33-39	1	15	16	14	<.3	2	2	181	.65	<2	<8	<2	6	59	<.5	<3	<3	43	.51	.015	6	2	.02	894	<.01	<3	.15	.05	.07	<2	2	2200
T4 39-46	2	154	8	12	<.3	5	3	204	.99	<2	<8	<2	4	64	<.5	<3	<3	64	.45	.061	17	5	.09	1019	.01	<3	.23	.05	.08	<2	71	2500
STANDARD DS5/AU-R	12	141	23	132	.3	24	12	751	2.91	20	<8	<2	2	48	5.4	4	7	58	.72	.091	12	189	.67	137	.10	13	2.05	.04	.13	3	485	-

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA ___

[illegible]
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Saturn Minerals Inc. PROJECT MARS File # A302937

901 - 1030 Burnaby St., Vancouver BC V6E 1N8 Submitted by: James Lang

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm
G-1	2.4	3.4	3.4	45	<.1	5.2	4.0	587	1.96	.5	2.1	<.5	5.0	112	<.1	<.1	.1	42
T1-S1	1.8	56.8	9.2	69	.1	30.8	11.1	454	2.85	11.8	.7	5.0	2.7	57	.2	.7	.3	72
T1-S2	1.6	75.1	11.3	69	.2	31.4	12.2	714	2.74	11.8	.8	3.0	1.6	72	.3	.8	.3	70
T1-S3	1.3	35.5	9.8	62	.1	27.0	12.4	401	2.71	11.7	.6	3.7	2.6	59	.2	.5	.2	76
T1-S4	1.8	61.5	10.2	80	.2	37.1	12.3	765	3.06	14.0	.7	6.3	3.6	54	.3	.9	.2	72
T1-S5	1.7	37.8	7.1	73	.1	32.0	8.7	381	2.83	11.5	.7	3.5	3.1	35	.1	.8	.1	62
T1-S6	1.7	52.8	9.6	43	.3	37.4	11.3	327	2.46	9.2	1.1	3.2	.5	44	.1	.6	.3	65
T3-S1	1.7	55.8	8.8	66	.1	28.1	12.2	471	2.92	11.2	.7	3.3	3.1	36	.1	.7	.3	73
T3-S2	1.9	81.2	13.1	75	.1	29.1	12.9	599	2.65	11.2	.7	4.3	3.5	110	.5	.7	.4	63
STANDARD DS5	12.5	132.4	25.2	129	.3	23.3	11.7	732	2.79	18.9	6.3	41.0	2.7	48	5.5	3.7	6.0	61

SAMPLE#	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm
G-1	.67	.090	11	19.8	.57	265	.163	<1	1.29	.215	.56	3.9	<.01	8.2	.4	<.05	6	<.5
T1-S1	.69	.074	13	30.6	.55	395	.041	<1	1.31	.027	.06	.1	.04	6.5	.1	<.05	4	.8
T1-S2	1.07	.094	14	30.1	.55	415	.032	<1	1.39	.020	.07	.1	.06	6.5	.2	<.05	5	.9
T1-S3	.82	.080	12	40.2	.68	348	.044	<1	1.57	.017	.08	.1	.04	5.9	.2	<.05	5	.5
T1-S4	.65	.109	17	32.1	.66	355	.065	<1	1.18	.028	.07	.1	.05	9.0	.2	<.05	4	<.5
T1-S5	.45	.097	14	32.1	.56	259	.063	<1	1.15	.028	.06	.1	.02	5.5	.1	<.05	4	.6
T1-S6	.48	.095	15	33.4	.50	375	.025	<1	1.87	.016	.06	.1	.06	4.5	.2	<.05	5	.8
T3-S1	.36	.047	14	31.8	.69	311	.059	<1	1.56	.022	.06	.1	.03	6.2	.2	<.05	4	.7
T3-S2	2.61	.102	14	25.0	.60	326	.061	<1	.99	.031	.09	.1	.06	6.5	.2	.06	3	.8
STANDARD DS5	.75	.095	11	177.5	.64	132	.105	16	2.05	.034	.13	4.6	.16	3.5	1.0	<.05	6	4.9

GROUP 1DX - 15.00 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SOIL SS80 60C

DATE RECEIVED: JUL 29 2003 **DATE REPORT MAILED:** Aug 11/03 **SIGNED BY**.......... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
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GEOCHEMICAL ANALYSIS CERTIFICATE

Saturn Minerals Inc. PROJECT MARS File # A302936 Page 1

901 - 1030 Burnaby St., Vancouver BC V6E 1N8 Submitted by: James Lang

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	Sample gm
SI	<1	1	<3	1	<.3	<1	<1	7	.03	2	<8	<2	<2	3	<.5	<3	<3	<1	.12	<.001	<1	<1	<.01	3	<.01	<3	.01	.57	.01	<2	<2	-
JLG-1	21	381	10	10	<.3	4	5	66	1.21	8	<8	<2	7	79	<.5	<3	<3	33	.84	.081	24	6	.14	928	.07	3	.76	.09	.09	<2	69	1200
JLG-7a	2	34	10	28	<.3	5	8	327	2.47	3	<8	<2	6	183	<.5	<3	<3	85	.74	.126	25	8	.34	1156	.13	4	.71	.15	.16	<2	4	900
JLG-7b	3	57	9	25	<.3	5	5	252	1.94	4	<8	<2	7	120	<.5	<3	<3	81	.70	.142	33	11	.33	502	.11	3	.69	.11	.13	<2	7	1000
JLG-8	1	160	3	58	.4	30	25	829	11.18	<2	<8	<2	6	109	.5	<3	<3	249	.71	.124	23	8	.41	821	.13	3	.82	.08	.12	<2	20	1800
JLG-10	1	21	24	23	<.3	5	4	411	1.22	4	<8	<2	6	96	<.5	<3	<3	53	1.52	.110	26	8	.53	1044	.08	9	.60	.09	.09	2	6	1300
JLG-11	1	8	10	29	<.3	2	2	469	1.78	<2	<8	<2	3	144	<.5	5	<3	43	5.36	.014	4	3	2.03	416	<.01	<3	.26	.02	.03	<2	2	1100
JLG-14	16	518	5	21	.3	27	9	269	2.72	3	<8	<2	5	104	<.5	<3	<3	113	1.35	.097	24	64	.97	590	.15	3	.90	.12	.39	<2	44	1400
JLG-16	3	14	7	11	<.3	4	4	196	1.37	2	<8	<2	8	87	<.5	<3	<3	41	.47	.067	21	8	.10	791	.03	<3	.35	.09	.11	<2	3	1600
JLG-18	1	24	6	24	<.3	4	3	149	1.05	<2	<8	<2	8	77	<.5	<3	<3	38	.29	.033	19	4	.06	849	.02	<3	.32	.07	.13	<2	<2	1100
JLG-19	2	51	7	19	<.3	7	4	443	1.29	3	<8	<2	3	117	<.5	<3	<3	112	.87	.033	18	7	.14	1082	.01	<3	.23	.06	.09	<2	9	800
JLG-21	4	101	7	14	<.3	3	6	149	1.20	9	<8	<2	6	73	<.5	<3	<3	37	.61	.060	19	9	.24	745	.07	3	.47	.11	.10	3	7	1200
JLG-22	1	23	3	22	<.3	8	7	226	4.09	<2	<8	<2	5	42	<.5	<3	<3	115	.45	.087	17	20	.22	561	.11	<3	.40	.08	.10	<2	3	900
JLG-25	2	55	10	20	<.3	6	4	129	1.93	2	<8	<2	7	51	<.5	<3	<3	58	.51	.111	18	15	.12	390	.09	<3	.50	.08	.10	3	9	1300
JLG-26	1	28	5	12	<.3	5	4	279	1.49	<2	<8	<2	8	53	<.5	<3	<3	65	.35	.067	22	6	.08	472	.03	<3	.35	.06	.08	<2	2	1200
JLG-27	2	64	19	44	<.3	5	5	293	2.05	2	<8	<2	6	79	<.5	<3	<3	63	.58	.096	27	9	.20	354	.07	3	.50	.09	.09	<2	8	1500
JLG-28	2	47	10	35	<.3	6	7	289	2.33	2	<8	<2	6	267	<.5	<3	<3	81	.70	.120	21	9	.29	1303	.11	3	.87	.26	.11	<2	3	1300
RE JLG-28	2	48	10	36	<.3	6	7	292	2.35	3	<8	<2	7	273	<.5	<3	<3	82	.70	.122	22	8	.29	1334	.11	3	.88	.26	.12	<2	4	-
JLG-31	9	5444	54	32	8.6	4	4	209	1.35	2	<8	<2	13	44	<.5	<3	33	49	.39	.048	26	10	.11	194	.01	<3	.25	.05	.09	<2	39	1300
JLG-32	56	2706	58	30	4.0	5	5	366	1.38	<2	<8	<2	10	71	<.5	<3	16	119	1.26	.060	22	9	.11	879	.01	<3	.22	.05	.11	3	12	1500
JLG-33	4	172	9	20	<.3	5	5	345	1.51	<2	<8	<2	7	109	<.5	<3	<3	94	1.52	.104	30	9	.26	1186	.04	3	.40	.06	.16	3	2	1200
JLG-34	17	129	11	31	<.3	5	5	411	1.62	<2	<8	<2	8	88	<.5	<3	<3	82	1.74	.083	33	6	.08	821	.01	<3	.32	.05	.11	<2	2	900
JLG-35	3	798	32	21	1.4	4	3	195	.98	<2	<8	<2	2	40	<.5	<3	<3	28	.30	.035	13	12	.16	529	.03	<3	.20	.04	.05	2	7	1300
JLG-36	3	277	10	16	<.3	4	4	265	1.18	<2	<8	<2	5	48	<.5	<3	<3	45	.48	.061	21	7	.24	268	.05	<3	.36	.07	.09	2	3	600
JLG-37	27	148	102	112	1.7	4	4	520	.95	<2	<8	<2	3	126	1.2	3	4	48	3.76	.039	17	11	.64	2292	<.01	<3	.13	.03	.05	2	51	1200
JLG-39	3	57	10	9	<.3	4	2	130	.58	<2	<8	<2	3	41	<.5	<3	<3	39	.46	.034	7	8	.03	828	.01	<3	.18	.05	.08	<2	6	1300
JLG-41	3	109	9	13	<.3	7	3	102	1.70	2	<8	<2	5	61	<.5	<3	<3	57	.74	.098	20	14	.12	538	.08	<3	.64	.09	.08	<2	8	1000
JLG-42	1	2647	23	33	2.8	5	4	580	1.48	<2	<8	<2	7	64	<.5	<3	25	61	2.52	.088	42	10	.24	851	.01	<3	.34	.06	.05	<2	145	1200
JLG-46	180	5339	15	39	4.2	83	35	609	4.56	13	<8	<2	8	149	<.5	<3	3	67	2.71	.050	32	6	.70	123	.04	<3	.60	.08	.02	2	258	500
JLG-48	2	132	9	15	<.3	4	8	73	1.07	<2	<8	<2	4	65	<.5	<3	<3	9	.43	.065	19	3	.10	259	.06	<3	.44	.08	.06	<2	2	600
JLG-49	2	4025	31	86	6.8	32	18	475	2.51	3	<8	<2	8	48	.5	<3	<3	38	1.02	.042	160	7	.26	442	.01	<3	.46	.10	.02	<2	65	1500
JLG-50	5	287	4	11	<.3	7	4	153	.83	<2	<8	<2	4	67	<.5	<3	<3	22	1.36	.040	17	8	.09	670	.01	<3	.44	.08	.07	<2	24	1100
JLG-51	163	1115	<3	25	.8	71	13	108	2.23	<2	<8	<2	4	24	<.5	<3	<3	152	.45	.084	8	110	1.04	199	.23	<3	.98	.10	.69	<2	146	400
JLG-57	4	109	6	9	<.3	7	3	102	.77	2	<8	<2	3	43	<.5	<3	<3	21	.40	.044	12	14	.24	606	.08	<3	.35	.09	.12	2	8	500
JLG-59	>2000	1043	656	30	8.9	3	4	53	1.29	3	<8	<2	<2	20	<.5	4	82	100	.12	.021	10	14	.02	501	.01	<3	.12	.01	.06	4	25	1600
STANDARD DS5/AU-R	12	139	24	131	.3	24	12	745	2.86	18	<8	<2	3	47	5.4	4	6	58	.71	.094	12	182	.65	136	.09	15	2.02	.04	.13	2	475	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 29 2003 **DATE REPORT MAILED:** Aug 11/03 **SIGNED BY**.......D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data ___ FA ___

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
JLG-60	41	201	7	15	<.3	5	14	259	2.58	<2	<8	<2	<2	15	<.5	<3	5	49	.92	.076	9	9	.28	99	.15	<3	.42	.06	.05	14	3	1800
JLG-61	40	204	23	12	<.3	4	5	153	1.25	<2	<8	<2	6	46	<.5	<3	5	139	.37	.063	17	10	.15	635	.03	<3	.37	.06	.15	2	5	1500
JLG-63	36	997	<3	91	.3	63	65	888	26.51	<2	<8	<2	6	15	<.5	<3	<3	4839	.35	.053	13	17	.13	211	.25	<3	.21	.03	.08	<2	44	700
JLG-64	>2000	1029	41	18	1.4	5	8	58	3.20	<2	<8	<2	2	20	<.5	<3	9	383	.10	.020	4	12	.04	395	.01	<3	.15	.02	.06	2	10	1300
JLG-69	34	626	5	130	.4	7	81	675	20.49	20	17	<2	4	40	<.5	<3	<3	1123	.06	.020	9	7	.02	1346	.01	<3	.13	.04	.07	<2	20	1800
JLG-71	24	39	3	22	<.3	6	3	85	.84	4	<8	<2	3	42	<.5	<3	<3	39	.39	.016	5	14	.05	483	.01	<3	.26	.06	.09	2	<2	1500
JLG-73	3	36	24	16	<.3	4	4	252	1.09	<2	<8	<2	8	56	<.5	<3	4	70	.12	.031	10	10	.05	616	.01	<3	.26	.06	.09	<2	<2	1100
T1-1	6	22	7	14	<.3	4	3	161	1.41	2	<8	<2	5	159	<.5	<3	3	53	.77	.094	20	11	.15	393	.10	<3	.77	.25	.09	<2	5	700
T1-2	2	36	5	23	<.3	5	5	304	2.18	<2	<8	<2	6	163	<.5	<3	3	96	1.14	.107	24	8	.24	568	.09	<3	.71	.19	.09	<2	6	900
T1-5	2	16813	47	31	9.0	5	6	232	2.43	4	9	<2	19	55	<.5	<3	97	146	.41	.131	55	11	.29	1763	.01	<3	.54	.08	.09	<2	155	700
T4 22	3	621	55	55	3.0	4	5	496	1.79	5	<8	<2	4	65	.8	<3	7	53	1.59	.079	38	3	.12	392	<.01	<3	.30	.06	.11	<2	43	1200
T4 0-6	3	52	6	12	<.3	5	4	256	1.18	2	<8	<2	7	103	<.5	<3	<3	46	1.34	.081	27	7	.37	1014	.03	<3	.48	.06	.09	3	3	3700
T4 6-12	1	19	6	11	<.3	4	3	223	1.21	<2	<8	<2	6	63	<.5	<3	<3	49	1.17	.084	21	6	.52	956	.06	<3	.48	.05	.07	<2	<2	2800
T4 12-18	1	11	6	13	<.3	6	3	227	1.35	<2	<8	<2	6	59	<.5	<3	<3	52	.91	.087	24	5	.36	741	.05	<3	.45	.06	.08	<2	2	2700
T4 18-22	1	42	8	18	<.3	3	4	368	1.75	<2	<8	<2	5	103	<.5	<3	<3	46	1.21	.106	32	2	.33	1117	<.01	3	.44	.04	.08	<2	5	1700
RE T4 18-22	1	43	9	18	<.3	4	4	376	1.77	2	<8	<2	6	105	<.5	<3	3	46	1.24	.108	33	2	.33	1137	.01	<3	.45	.04	.09	<2	5	-
T4 22-25	1	53	13	36	.3	4	4	318	1.49	2	<8	<2	5	67	<.5	<3	<3	50	1.09	.094	31	3	.07	1472	<.01	<3	.35	.03	.09	<2	9	2000
T4 25-27	1	20	7	18	<.3	5	4	324	1.47	<2	<8	<2	5	116	<.5	<3	<3	74	1.46	.091	27	5	.39	1026	.03	<3	.37	.05	.08	<2	5	2100
T4 27-33	1	14	8	16	<.3	5	4	315	1.28	3	<8	<2	7	101	<.5	<3	<3	52	1.45	.077	28	5	.19	1003	.01	<3	.31	.05	.08	<2	<2	2400
T4 33-39	1	15	16	14	<.3	2	2	181	.65	<2	<8	<2	6	59	<.5	<3	<3	43	.51	.015	6	2	.02	894	<.01	<3	.15	.05	.07	<2	2	2200
T4 39-46	2	154	8	12	<.3	5	3	204	.99	<2	<8	<2	4	64	<.5	<3	<3	64	.45	.061	17	5	.09	1019	.01	<3	.23	.05	.08	<2	71	2500
STANDARD DS5/AU-R	12	141	23	132	.3	24	12	751	2.91	20	<8	<2	2	48	5.4	4	7	58	.72	.091	12	189	.67	137	.10	13	2.05	.04	.13	3	485	-

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Saturn Minerals Inc. PROJECT MARS File # A302937

901 - 1030 Burnaby St., Vancouver BC V6E 1N8 Submitted by: James Lang

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm
G-1	2.4	3.4	3.4	45	<.1	5.2	4.0	587	1.96	.5	2.1	<.5	5.0	112	<.1	<.1	.1	42	.67	.090	11	19.8	.57	265	.163	<1	1.29	.215	.56	3.9	<.01	8.2	.4	<.05	6	<.5
T1-S1	1.8	56.8	9.2	69	.1	30.8	11.1	454	2.85	11.8	.7	5.0	2.7	57	.2	.7	.3	72	.69	.074	13	30.6	.55	395	.041	<1	1.31	.027	.06	.1	.04	6.5	.1	<.05	4	.8
T1-S2	1.6	75.1	11.3	69	.2	31.4	12.2	714	2.74	11.8	.8	3.0	1.6	72	.3	.8	.3	70	1.07	.094	14	30.1	.55	415	.032	<1	1.39	.020	.07	.1	.06	6.5	.2	<.05	5	.9
T1-S3	1.3	35.5	9.8	62	.1	27.0	12.4	401	2.71	11.7	.6	3.7	2.6	59	.2	.5	.2	76	.82	.080	12	40.2	.68	348	.044	<1	1.57	.017	.08	.1	.04	5.9	.2	<.05	5	.5
T1-S4	1.8	61.5	10.2	80	.2	37.1	12.3	765	3.06	14.0	.7	6.3	3.6	54	.3	.9	.2	72	.65	.109	17	32.1	.66	355	.065	<1	1.18	.028	.07	.1	.05	9.0	.2	<.05	4	<.5
T1-S5	1.7	37.8	7.1	73	.1	32.0	8.7	381	2.83	11.5	.7	3.5	3.1	35	.1	.8	.1	62	.45	.097	14	32.1	.56	259	.063	<1	1.15	.028	.06	.1	.02	5.5	.1	<.05	4	.6
T1-S6	1.7	52.8	9.6	43	.3	37.4	11.3	327	2.46	9.2	1.1	3.2	.5	44	.1	.6	.3	65	.48	.095	15	33.4	.50	375	.025	<1	1.87	.016	.06	.1	.06	4.5	.2	<.05	5	.8
T3-S1	1.7	55.8	8.8	66	.1	28.1	12.2	471	2.92	11.2	.7	3.3	3.1	36	.1	.7	.3	73	.36	.047	14	31.8	.69	311	.059	<1	1.56	.022	.06	.1	.03	6.2	.2	<.05	4	.7
T3-S2	1.9	81.2	13.1	75	.1	29.1	12.9	599	2.65	11.2	.7	4.3	3.5	110	.5	.7	.4	63	2.61	.102	14	25.0	.60	326	.061	<1	.99	.031	.09	.1	.06	6.5	.2	.06	3	.8
STANDARD DS5	12.5	132.4	25.2	129	.3	23.3	11.7	732	2.79	18.9	6.3	41.0	2.7	48	5.5	3.7	6.0	61	.75	.095	11	177.5	.64	132	.105	16	2.05	.034	.13	4.6	.16	3.5	1.0	<.05	6	4.9

GROUP 1DX - 15.00 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SOIL SS80 60C

DATE RECEIVED: JUL 29 2003 **DATE REPORT MAILED:** Aug 11/03 **SIGNED BY** C. L........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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