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1997 Gold Exploration, MART 1-44 Claim Group

Whitehorse Mining District, Yukon Territory, Canada

NTS 105C/5 and 105D/8

Latitude 60° 22' - 60° 23' 30" North

Longitude 133° 59' - 134° 04' West

Quartz Mineral Claim Assessment Report Prepared On Behalf Of:

HIGH VALLEY EXPLORATIONS LTD.

North Vancouver, BC

Prepared By:

Michael A. Beauregard

Whitehorse, Yukon

May, 1998

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This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 22,000.00.

M. B. ...
Regional Manager, Exploration and
Geological Services for Commissioner
of Mineral Resources.

**1997 Gold Exploration, MART 1-44 Claim Group
Assessment Report**

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INTRODUCTION

In the spring of 1997, Mr. Peter Roman was shown quartz-carbonate-graphite-mariposite mineralization adjacent to ultramafic rocks, four km northwest of Jakes Corner, Yukon Territory. He proceeded to stake and test this occurrence for listwaenite model gold. An access road was built in June, 1997. In the fall of 1997, a two tent camp, with wood frames and floors, was constructed on-property. During a month-long exploration program, a three man crew performed gridding, ground geophysics, geological mapping, prospecting and grab sampling. The occurrence was excavated by bulldozer and found to be gold-bearing from chip sampling and heavy mineral concentration.

CLAIM LOCATION AND ACCESS

The MART 1-16 claims, expiry date of June 5, 1998 and adjoining MART 17-44 claims, expiry date of June 23, 1998, are four km northwest of Jakes Corner, Yukon Territory on National Topographic System (NTS) mapsheets 105C/5 and 105D/8. The latitude and longitude for the claim block are from 60° 22' to 60° 23' 30" North and from 133° 59' to 134° 04' West. The Universal Transverse Mercator (UTM) coordinates for the MART showing are 554000 East, 6693500 North in Zone 8V-NB.

Mature spruce forest entirely covers the surface of the claim group. Elevation varies from 800 to 975 metres above sea level. The sloping terrain is well-drained due to sandy glacial alluvium with tag alder found in some wetter, flatter areas. Of the larger mammals, signs of moose, black bear, caribou and wolf were evident.

Ground access is from the paved Alaska Highway at Km 1401 via a one-lane dirt road, now used to access woodlots along the southeast side of the Judas Creek valley. The turn-off to the new mining road is five km north of the Alaska Highway. The four-wheel-drive mining road, about three km in length, was built entirely within the MART claim block and ends at the showing (Figure 1). The nearest services are at Jakes Corner. A helicopter may land at the occurrence. The claims are 75 km southeast of the Whitehorse Airport.

PREVIOUS WORK

Placer miners have briefly investigated the area. A collapsed shaft and pits of uncertain age can be seen in the gravel bars at a valley-bottom drainage intersection 750 m north-northwest of the MART occurrence. These workings may date from a small stampede to the Marsh Lake area by Whitehorse placer miners in 1911. The only result from the stampede was the naming of Judas Creek (Coutts, 1980).

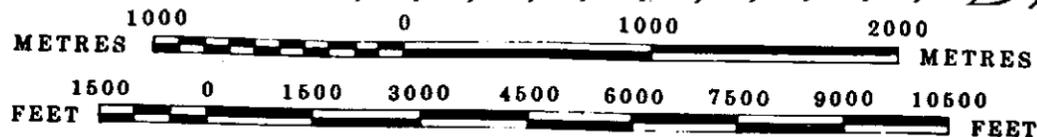
Geology at 1:250,000 scale was mapped by the Geological Survey of Canada on the Teslin NTS 105C sheet (Mulligan, 1963; Gordey and Stevens, 1994) and the Whitehorse NTS 105D sheet (Wheeler, 1961). A geological atlas of the NTS 105/115 sheets was later compiled at a 1:1,000,000 scale (H. Gabrielse et al, 1980). The most recent geology map available for the locale, a 1:50,000 scale geological interpretation of an airborne geophysical survey, was released by the Yukon Geology Program (Hunt et al, 1995).

Hunt et al inferred the presence of thrust faults and associated ultramafic rocks of ophiolitic origin, within Permian- to Triassic-aged volcanic and sedimentary rocks of the Cache Creek terrane. While ultramafic rocks are known to outcrop in the MART 1-44 claim group, the locale has never been ground-truthed by government geologists (C. Hart, personal communication).

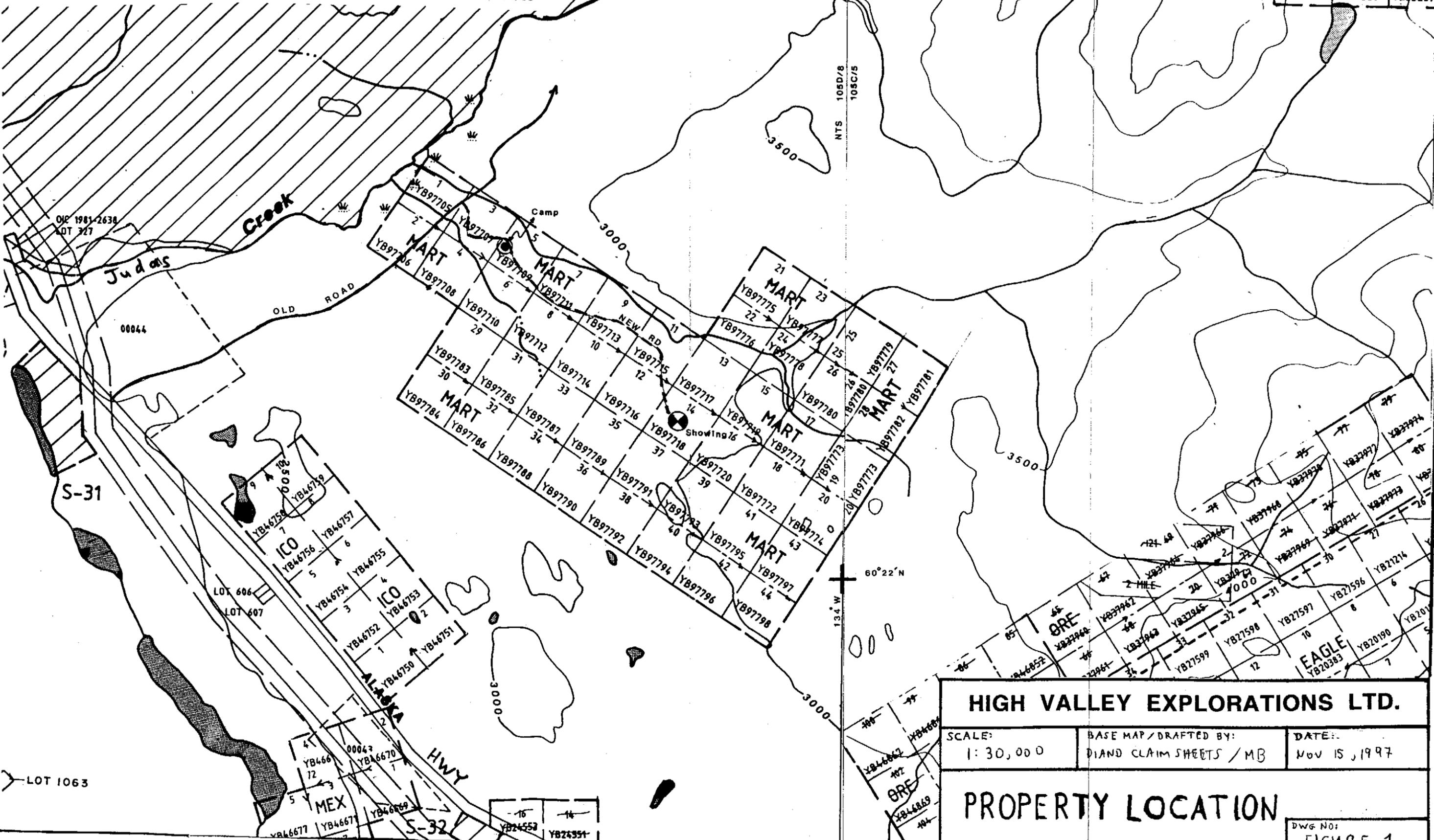
The Geological Survey of Canada performed reconnaissance-level stream silt sampling of NTS mapsheets 105C and 105D (Friske et al, 1985). Eight samples were collected up-drainage and to the east of the MART claim block. Four sites returned anomalous values up to 73 ppb Au, 17.4 ppm As, 250 ppm Ni, 150 ppm Cu and 320 ppm Hg.

A high-quality airborne geophysical (DIGHEM) survey was performed by government agencies specifically over Cache Creek Group rocks in the vicinity of Jakes Corner. The survey of 2764 line-kilometres, at a line spacing of 200 metres, was flown over an area of 500 square kilometres. More than 500 bedrock conductors were identified (Smith, 1994; Power, 1995). From this survey, two strong linear geophysical anomalies occur at the site of the MART showing. A three frequency resistivity low, trending 100° true azimuth, is coincidental with a magnetic high that trends 095°.

In 1987, G. McLeod staked the PHIL 1-12 claims to cover an aeromagnetic high outlined by GSC aeromagnetic map 1315G. McLeod, discoverer of the TOG (Tons Of Gold) Vein, optioned a claim package to Dunvegan Exploration Ltd. that included the TOG, BUG (Marsh Lake) and PHIL properties. Only the first of several assessment reports filed by Dunvegan Exploration Ltd. is available to the public from DIAND. At the PHIL property, an initial program of soil sampling returned 510 ppb Au along the claim line between the PHIL 7 and 8 claims. This gold anomaly in soil overlying till, could not be substantiated by later work (MINFILE, 1995). Elsewhere, up to 242 and 200 ppb Au were returned from soil sampling lines adjacent to and paralleling the creek in the PHIL 2 claim (Davidson, 1988). The PHIL claims lapsed in 1992. The ground remained open until the MART 1-44 claims were staked in 1997.



YB57521	YB57522	CAM
29	30	1
CAM		
YB57519	YB57520	YB57527



HIGH VALLEY EXPLORATIONS LTD.		
SCALE: 1: 30,000	BASE MAP / DRAFTED BY: DIAND CLAIM SHEETS / MB	DATE: Nov 15, 1997
PROPERTY LOCATION		
DWG NO: FIGURE 1		

TRENCHING

Three trenches were excavated by bulldozer. They are Cut #1 and Cut #2 at the MART Showing and the 1250 Cut. The total volume excavated was 6825 cubic meters. 1.25 hectares were cleared at the MART Showing and less than 0.25 hectares were cleared at the 1250 Cut.

<u>Excavation</u>	<u>Grid Coordinates</u>	<u>Dimensions (m)</u>	<u>Volume (m³)</u>
Cut #1	10+00W/10+50N	80 x 8 x 5 deep	3200
Cut #2	9+55W/10+35N	50 x 10 x 5	2500
1250 Cut	12+55W/10+80N	75 x 5 x 3	1125

Cut #1 uncovered an auriferous structure of quartz veins, graphitic clay seams and related alteration halo in chert. Cut #2 exposed graphitic alteration in chert. The 1250 Cut tested a coincidental mag/VLF anomaly, exposing a fault sliver of magnetic serpentinite.

GRIDDING

An area measuring one square kilometre, centred upon the occurrence, was prepared for further examination. Magnetic declination was set at 28° East. A two kilometre-long baseline, oriented by compass at 109° true, was chainsawed to one metre width. Baseline 10+00 North, measured by the horizontal break-chain method, runs from 4+00 West to 24+00 West. A total of 21.4 km of compass-and-topofil winglines were flagged at 25 m intervals. Winglines, oriented by compass at 019° true, were spaced 50 m apart. The winglines extend 500 m either side of Baseline 10+00 North from Lines 4+00 West to 14+00 West. The center of the MART occurrence is at grid coordinates 10+00 West, 10+50 North.

GEOPHYSICAL SURVEYING

An ENVI unit was rented from Scintrex Ltd. of Mississauga, Ontario. A total of 21.4 line-km were geophysically surveyed at intervals of 25m. The ENVI backpack system is a total field magnetometer plus an omni-directional VLF-EM unit. Neither a base station magnetometer nor a computer were deployed in the field. Magnetic variation was measured by looping back to previously read stations with readings hand-corrected for diurnal drift. The magnetometer was set at a base field strength of 57000 nT. Two stations, Jim Creek Washington at 24.8 Hz and Annapolis Maryland at 21.4 Hz, were selected for the VLF-EM survey. All readings were taken with the operator facing grid north.

Station readings comprise Appendix 3. Profiles for each VLF station and total field magnetics were plotted at 1:2500 scale (Figures 2,3 and 4 at end).

Jim Creek was, by far, the stronger VLF-EM station. Despite having the worst possible orientation with respect to the area of interest, its strength seemed sufficient to charge conductors that lay at right angles to its signal. The Annapolis station's signal strength was half that of Jim Creek. Annapolis was well-positioned with respect to the grid, enabling it to delineate subtle trends. A third available station, Cutler Maine, also on the eastern seaboard and with less than half the signal strength of Annapolis, was not used. In-phase, quadrature and field strength readings were collected. While not plotted, higher field strength readings were typical when crossing over conductors.

Discussion of Magnetic Results

The magnetometer survey showed two regimes of magnetic response. Magnetic ultramafic rocks occurs in the northern portion of the grid, while nonvarying, nonmagnetic metadolomite occurs in the south. They are separated by a high-angle fault that bears serpentinite slivers. Magnetically, this is the pronounced linear high that trends east-west across the grid. The mag linear high lies to the north of the MART Showing.

A linear anomaly occurs at 14+50 North from Lines 10+00 to 12+50 West. This mag high is coincidental with a VLF-EM conductor (Jim Creek station). The area lies within ultramafic rocks, on the basis of one outcrop of serpentinite.

Discussion of VLF-EM Results

Most importantly, the graphitic zone exposed by bulldozing at the MART occurrence showed no direct correlation to the VLF-EM signals of either station.

The Jim Creek Washington station yielded short, discordant conductors. Several conductors are coincidental with linear mag highs within ultramafic rocks. The longest conductor runs unexposed along Baseline 10+00 North to the east of the MART Showing. This conductor in metadolomite remains unexplained. A strong nnw-trending conductor continues as the extension of a pronounced lineament within metadolomite from Line 9+50 West, 5 North to Line 11+00 West, 7 North.

The Annapolis Maryland station showed one significant conductor. A grid crossing conductor trends 080° true and lies to the south of the MART Showing. It subparallels the mag linear high some 100 to 300 meters away. The conductor is not exposed except for outcropping intrusive granodiorite in the westernmost portion of the grid. This conductor may represent a recessive, groundwater-bearing fault that lacks ultramafic slivers. Its economic significance is not known.

Annapolis' only response to magnetic serpentinite was a two station VLF-EM conductor and coincidental mag high along 11+00 North from 12+00 to 14+00 West. Elsewhere, two short sw-trending conductors within metadolomite parallel shear zones mapped nearby.

Property Geology

Serpentinite occurs along the length of Bowl Creek. The bowl at the head of the creek is the result of a west-trending fault that provides up to 15 meters of relief, locally. Sedimentary rocks, mainly metadolomite, with subordinate chert and minor limestone are found uphill, i.e. south of the fault. The listwaenite mineralization occurs within chert, beneath and adjacent to a limestone block above and to the south of the bowl. Ultramafic rocks are found only in the very bottom of the tributary to the north of the fault. The northern contact of the serpentinite unit was not located.

Similar scarps and related geology were observed in drainages immediately to the east and west, off-grid. The next fourth-order tributary to the east, drains a pond several kilometres higher up. Where this creek encounters the fault, it steps down 15 meters exposing ultramafic rocks unconformably underlying a singular, perhaps unique, conglomerate bed.

Grid Geology

In general, 1:2500 mapping of a 1 km square area showed metasedimentary rocks of the Cache Creek terrane that, in turn, contain fault slivers of ultramafic rocks of ophiolitic origin (Figure 5 at end). Observations are from mapping and macroscopic examination of hand specimens. No thin sections or whole-rock lithogeochemical analyses were performed. Seven rock types were identified and are listed in chronological order:

Sedimentary Unit

1. Conglomerate, unconformably overlying serpentinite, was observed in one locale. It is exposed in a scarp on the northeastern side of a stream, off-grid a paced distance of 125 m beyond the northern end of Line 4+00 West. The polymictic conglomerate bed, up to 3 m thick, consists of rounded, gravel- to cobble-sized clasts within a sandy matrix. The bed dips shallowly to the north. A vertical joint exposes both the conglomerate bed and a 1.5 m deep erosional pothole beneath the bed. The top part of the pothole consists of an angular serpentinite pebble layer less than 1 m thick, consisting of mostly angular, serpentinite clasts in a sand matrix. The clasts are oriented parallel to the bed above and become chaotic with depth. The bottom part of the pothole is a 0.5 m thick layer mostly consisting of chaotic, angular serpentinite clasts within a sand matrix. The bottom layer may represent a lithified C-horizon. The conglomerate is the youngest sedimentary rock found in the area. Its age is uncertain.

Intrusive

2. Granodiorite, with irregular chilled, weakly sheared zones, intruding metadolomite. This rock is strongly carbonatized. It contains abundant feldspar phenocrysts and varying amounts of hornblende or other mafic minerals. It is probably Cretaceous in age. A quartz-diorite intrusive near the north end of Marsh Lake has been age-dated at 109 my (Hunt et al, 1995).

Occurrence Geology

Bulldozing at the MART Showing exposed narrow, white to gray quartz-carbonate veins, several graphite-bearing faults in the form of seams of black clay and a graphite-mariposite-ankerite alteration zone in chert. The alteration zone measures 40 m by 15 m. No visible gold and very little sulphides were seen by hand lens from the excavated material.

The larger quartz veins contain carbonate breccia, graphite chips and trace pyrite. Veins are typically bounded or split by graphitic black clay seams. Larger graphitic clay seams contain minor amounts of yellow kaolinite, which may have once been carbonate veinlets. And in one place only, small gash veinlets of yellow magnesite crosscut a quartz stockwork.

An irregular alteration halo exists in the fractured chert host-rock. The halo comprises black graphite, green mariposite and rusty ankerite, when moving outwards from the veins and/or graphite seams. Mariposite (or fuchsite) usually occurs as a slickensided mineral at the zonation boundary between graphite and ankerite.

Multiple deformation is suggested with the last movement being the graphite-kaolinite bearing, black and yellow clay-filled faults. Groundwater flowing from the black clay seams was noted. This slight flow of water ceased several days after the trenches were excavated.

Surficial Geology

While the surficial geology of the property was not mapped, two forms of glacial cover were observed: 1. a pervasive sandy till mantle and 2. small, intermittent eskers often comprised of pea-gravel. The narrow, steep-sided eskers generally occur within or flanking present day drainage.

The deepest portion of the 1250 Cut, at grid coordinates 12+55 West, 11+10 North, exposed up to 5 metres of alluvium atop bedrock. Large, rounded erratics up to 2 m in width were occasionally excavated. Three distinct layers, from top to bottom, consist of:

- 3.0 m of fine- to medium-grained sand,
- 1.5 m of boulder till, and
- 0.5 m of fissile, basal clay.

ANALYTICAL RESULTS

Grab Sampling

Grab samples No.'s 1 to 5 were collected during May, 1997 by P. Roman upon quartz-carbonate-mariposite mineralization in the vicinity of the MART showing. No gold was noted but one sample contained anomalous nickel. A total of 15 grab samples were collected during September, 1997. Assays ranged from <5 ppb to 12 ppb Au. All assays and methodology are reported in Appendix 4. Locations of grab samples are shown on Figure 5.

<u>Sample</u>	<u>Au Assay</u>	<u>Remarks</u>
<u>M701</u>	5 ppb	Boulder of quartz-carbonate with minor graphite, trace pyrite, bldr excavated from Cut #1 at MART Showing.
<u>M714Q</u>	12 ppb	Grab sample repeat of quartz portion of chip sample M714.
<u>M734</u> (13+50W,8+00N)	5 ppb	Quartz vein, up to 0.6 m wide, trace ccp, py, minor malachite, between outcrops of chert to grid west, feldspar porphyry granodiorite to grid east.
<u>M735</u>	<5 ppb	Pyritic chert, heavily iron-stained and adjacent to magnetic, aphanitic serpentinite, top of gully and off-grid some 560 m at azimuth 285° from the MART Showing.
<u>M736</u> (6+20W,4+00N)	<5 ppb	Quartz vein, up to 0.2 m wide, minor ccp, bornite, vein oriented 030°/80°E and traceable for 20 m, in altered metadolomite, near claim line.
<u>M737</u> (10+35W,10+55N)	<5 ppb	Quartz-carbonate vein in bottom of Cut No. 1, collected by G. McLeod.
<u>M738</u> (4+60W,13+30N)	<5 ppb	Quartz-carbonate veining in a 10 m by 10 m area of chert adjacent to foliated metadolomite, trace asp, ccp; collected by P. Roman and D. Granwich.
<u>M739</u>	<5 ppb	Split or duplicate of grab sample M738.
<u>M740</u>	<5 ppb	Conglomerate, polymictic layer, collected by P. Roman, 125 m grid north of Line 4+00 West.
<u>M741</u> (12+45W,11+00N)	<5 ppb	Chert, fine-grained, minor graphite coating fractures, trace pyrite, adjacent to serpentinite exposed in bottom of Line 1250 Cut.

M742	7 ppb	Quartz-carbonate with minor mariposite and graphite, exposed by rip-up along ridge, north of MART Showing.
(10+00W,10+80N)		
M743	<5 ppb	Small pod of quartz-carbonate in chert, 2 m from M742.
(10+00W,10+78N)		
M744	<5 ppb	Boulder of cryptocrystalline, unaltered dolomite, 2% fine-grained dess. pyrite, hairline frx sealed with manganese(?).
(5+03W,12+25N)		
M745	<5 ppb	Quartz, minor carbonate, chert clasts, trace graphite, hem. north side of veined area in chert.
(10+50W,8+70N)		
M746	<5 ppb	Quartz, minor chlorite, carb, graphite, trace py. south side of veined area in chert.
(10+49W,8+68N)		

Chip Sampling

A total of 32 chip samples from the MART Showing were collected Sept. 17, 1997. Four areas along the walls of the excavated Cut No. 1, selected on the basis of quartz veins or graphitic clay seams, were tested for gold. Assays ranged from <5 ppb to 90 ppb Au. All assays and methodology are reported in Appendix 4. Locations of chip samples are shown on Figure 5.

North Wall of Cut #1

M702-M709 is an eight chip section taken from west to east, centred on a quartz-carbonate vein with flanking graphite-mariposite-ankerite alteration. The vertically-dipping vein exposed in the north wall occurs at grid coordinates 10+58 North, 10+12 West.

<u>Sample</u>	<u>Au Assay</u>	<u>Width</u>	<u>Description</u>
M702	10 ppb	0.80 m	Graphitic chert with 5 cm wide qtz-carb vein and mariposite-coated slickensided fractures oriented 060°/65°SE.
M703	<5 ppb	0.84 m	Bleached ankerite alteration in fractured chert.
M704	9 ppb	0.40 m	Heavy graphitic shearing adjacent and parallel to vein, true width approx. 0.25 m.
M705	7 ppb	0.20 m	Qtz-carb breccia vein, footwall portion; vein at 095°/85°S, true width of 0.12m, this portion of the vein swells to 0.20 m true width higher up on the wall; graphite chips throughout vein plus minor pyrite adjacent to footwall contact; includes the 1 cm wide graphite seam that separates the vein into two distinct parts.
M706	9 ppb	0.15 m	Qtz-carb breccia vein, hanging wall portion; true width of 0.08 m, swelling to 0.12 m higher up the wall, rustier weathering, further brecciated by ankerite-healed seams, little to no sulphides seen.

Sample	Au Assay	Width	Description
M707	42 ppb	0.37 m	Sheared graphitic chert adjacent to vein, mariposite-coated slickensides; plunging fold axis oriented at 075°/35°E.
M708	39 ppb	1.12 m	Sheared graphitic chert, several small qtz-ankerite veinlets <2 cm width. Shearing planes oriented at 100°/80°N.
M709	23 ppb	0.95 m	Sheared graphitic chert, several small qtz-ankerite veinlets <2 cm width.

North Wall of Cut #1

M710-M711 is a two chip section, taken from west to east, on a rusty, graphitic fault zone at grid coordinates 10+54 North, 10+51 West.

M710	7 ppb	0.77 m	Weathered quartz-ankerite boudin in faulted graphitic schist.
M711	<5 ppb	0.95 m	Fault gouge, graphite-ankerite-5% mariposite. Decomposed bedrock immediately below till.

South Wall of Cut #1

M712-M716 is a five chip section, taken from east to west, centred on a fault plated with heavy graphite, some kaolinite, minor quartz-ankerite. The fault itself is sample M714 at grid coordinates 10+47 North, 10+50 West.

M712	13 ppb	0.50 m	Light gray chert with parallel fracturing oriented 146°/70°SW, which may represent original bedding planes, subsequently dilated by folding. Abundant light yellow alteration mineral (magnesite?) coating fracture planes.
M713	35 ppb	0.75 m	Fractured chert with irregular graphite.
M714	90 ppb	0.35 m	Fault oriented at 155°/65°SW, true width of 0.15 m, crosscutting chert. Fault plated by black graphitic gouge with minor, iron-stained veinlets. Ankerite decomposed to kaolinite leaving fragments of quartz behind.
M715	<5 ppb	0.68 m	Thin-bedded chert with minor graphite, occasional narrow veinlet of quartz-ankerite.
M716	14 ppb	0.84 m	Thin-bedded chert with several quartz-ankerite veins to 3 cm in width, oriented at 080°/vertical, crosscut by ankerite veinlets oriented at 075°/80°NW.

South Wall of Cut #1

M717-M733 is a 17 chip section, taken across an irregular stockwork of quartz veins and graphitized faulting in chert. Sampling started at grid coordinates 10+47 North, 10+42 West and proceeded west.

Sample	Au Assay	Width	Description
M717	18 ppb	0.84 m	Graphitic chert with irregular quartz-ankerite veins.
M718	<5 ppb	0.47 m	Chert to fine-grained dolomitic chert.
M719	<5 ppb	0.67 m	Irregular quartz veins with minor carbonate, trace graphite chips and semi-crystalline bluish barite noted in one spot. All in chert.
M720	<5 ppb	0.77 m	Half chert and half irregular veins; crosscut to brecciated by rusty ankerite-hematite veinlets.
M721	<5 ppb	0.37 m	Larger massive quartz-ankerite vein oriented at 075°/70°NW, vein bounded by graphite slickensides, crosscut by ankerite veinlets.
M722	6 ppb	0.57 m	Irregular quartz veining with abundant graphite fractures.
M723	8 ppb	0.49 m	Ibid.
M724	10 ppb	0.60 m	15 cm wide graphite seam bounding above quartz mineralization, graphite seam oriented at 096°/86°N. Minor ankerite-kaolinite slips within graphite with same orientation as seam.
M725	48 ppb	0.55 m	Faulted chert, abundant graphite, minor quartz veining.
M726	7 ppb	0.80 m	Ibid, but with less graphite than above.
M727	5 ppb	0.59 m	Thinly bedded gray chert with a near horizontal attitude. Narrow quartz gash veinlets oriented 025°/vertical. Minor iron staining from minor weathered pyrite?
M728	<5 ppb	0.66 m	Heavier iron staining in gray chert towards graphite clay seam.
M729	12 ppb	0.61 m	5 cm wide graphite seam/fault oriented 160° with dip varying from vertical at bottom of trench to 40°W at top of trench. Quartz gash veins in chert do not crosscut graphite seam.
M730	7 ppb	0.55 m	Quartz-minor ankerite stockwork trending 050° with a near vertical dip. Chert is now darker and more massive than previous gray chert.
M731	7 ppb	0.77 m	Further quartz-ankerite stockwork in chert with graphitized fractures trending 060°/25°W. The quartz stockwork/chert, in turn, are crosscut by subhorizontal veinlets of yellow magnesite.
M732	<5 ppb	0.90 m	Chert with bedding at 055°/40°W, further defined by graphitized fracturing.
M733	<5 ppb	0.17 m	Chert with a small 10 cm wide quartz-carbonate vein trending 052°/vertical.

HEAVY MINERAL CONCENTRATES

Selected samples were crushed in a 5 lb ball mill and heavy minerals were separated on a Gold Wheel by operator Herman Liedtke of Whitehorse. One of the six heavy mineral concentrates contained more than a half dozen flakes of gold, two others contained a flake of gold. All concentrates are stored with High Valley Explorations Ltd., North Vancouver.

The initial two heavy mineral concentrates, no.'s 1 and 2, were prepared in Nov/97 from material collected from the M724 chip sample site. Binocular microscope observations by G. McLeod and M. Beauregard:

1. kaolinite-quartz gouge portion,

resample of portion of chip sample M724 which assayed 10 ppb Au.

Contents: 1/2 dozen (+) gold flakes, largest piece 1 mm in length was flattened by crushing, rest are smaller with fresh, fragile appearance, several pieces partially striated indicating fault movement during or following deposition.

2. graphitic clay portion,

resample of portion of chip sample M724 which assayed 10 ppb Au.

Contents: pyrite, minor chalcopyrite and at least one gold flake in -80 mesh material.

An additional four samples, no.'s 3 through 6, were collected from the occurrence on December 7. These samples, 1 to 2 kg in size, consisted of:

3. Replicate of chip samples 705/6.

4. Replicate sample R714.

5. Replicate sample R724.

6. Replicate sample DQ724 (DQ denotes decomposed quartz).

Heavy mineral preparation was performed independently on duplicates of the last four samples by H. Liedtke of Whitehorse and by P. Roman of North Vancouver during December, 1997. Binocular microscope observations by G. McLeod and M. Beauregard, of the heavy mineral concentrates prepared by H. Liedtke, are as follows:

3. quartz-carbonate breccia vein,

replicate of chip samples M705/706 which assayed 7 ppb Au and 9 ppb Au.

Contents: pyrite grains, magnetite or magnetic ilmenite grains with one small speck identified as gold by McLeod versus chalcopyrite by Beauregard.

4. graphitic clay seam with minor quartz,

replicate of chip sample M714 which assayed 90 ppb Au.

Contents: much pyrite and rusty pyrite, minor chalcopyrite, minor magnetite or magnetic ilmenite, rare red sphalerite.

5. graphitic clay seam, same location as heavy mineral sample no. 2,

selected portion of chip sample M724 which assayed 10 ppb Au.

Contents: grains of pyrite, minor chalcopyrite, rare galena, some quartz.

6. decomposed quartz-kaolinite, same location as heavy mineral sample no. 1,

selected portion of chip sample M724 which assayed 10 ppb Au.

Contents: mostly quartz grains, abundant pyrite, minor chalcopyrite, rare sphalerite, one small platelet of fresh, striated gold.

CONCLUSIONS

A new gold occurrence in Cache Creek terrane, 4 km northwest of Jakes Corner, Yukon Territory was found. The MART Showing has the characteristics of a gold-in-listwaenite occurrence.

An exploration program of road construction, gridding, ground geophysics, geological mapping, trenching and sampling was performed on the MART 1-44 claim block during 1997. A three km access road was built and 6825 cubic metres from three trenches were excavated by bulldozer. 21.4 line-km were geophysically surveyed for total field magnetometry and 2 stations of VLF-EM signals. One square kilometre was mapped at 1:2500 scale. A total of 20 grab samples, 32 chip samples and 6 heavy mineral concentrates were collected.

The ground geophysical surveying found a linear magnetic high trending 090° some 100 to 300 metres north of a one station VLF-EM conductor trending 080°. The MART Showing lies between the two geophysical anomalies. VLF-EM surveying, in particular, yielded inconclusive results with respect to the graphite content of the showing.

Geological mapping showed ultramafic rocks to the north, separated from metadolomite to the south by an east-west trending high-angle fault. The fault contains slivers of magnetic serpentinite and blocks of limestone. The fault trace corresponds to the linear magnetic high. The VLF-EM conductor is not exposed and may be a second sub-parallel recessive fault in metadolomite.

All grab samples collected at and away from the showing returned little gold.

Bulldozing at the occurrence uncovered an area measuring 40 m by 15 m that contains quartz-carbonate breccia veins, seams of black graphitic clay and a graphite-mariposite-ankerite halo. All chip sample and heavy mineral concentrates were collected from the showing. The veins returned up to 9 ppb Au over 0.15 metres, the graphitic clay seams up to 90 ppb Au over 0.35 metres and the graphite partition of the alteration halo up to 48 ppb Au over 0.55 metres. One heavy mineral concentrate of quartz-kaolinite material from a graphite seam returned a significant number of gold flakes. Two other heavy mineral concentrates returned a flake of gold each. Gold at the MART Showing is erratic and, as yet, not of economic tenor.

RECOMMENDATIONS

Further work on the MART Showing, the MART claim block and the Cache Creek terrane within the Yukon is recommended.

Occurrence

A small bulk sampling program should be performed on the auriferous quartz-graphite zone exposed at the showing. Crushing of 5 lb- or 2 kg-sized samples followed by heavy mineral recovery is recommended in order to test individual veins, graphite seams and the alteration halo. All sample weights and amounts of recovered gold should be recorded in order to determine grade. Fire assaying's small sample cannot provide accurate valuation of gold in this listwaenite occurrence due to "nugget effect".

A test resistivity survey program should be performed across the graphitic zone of the occurrence to see if this method could delineate a conducting structure.

Claim Block

The extension of the fault that hosts the MART Showing should be examined, particularly to the east. Less than two kilometres of strike length are contained within the present claim boundaries. The northern contact of the serpentinite unit remains a target neither found nor tested for gold. This fault contact should be located by ground magnetic surveying.

Region

The Cache Creek terrane within the southern Yukon remains underexplored for listwaenite model gold. A small program should be carried out, as inexpensively as possible, with a lesser portion of funds directed to a compilation and a greater portion directed towards ground-checking of targets. Coincidental low resistivity and high magnetic anomalies from the DIGHEM airborne geophysical survey as well as anomalous geochemical sites from the GSC stream silt sampling program should be compiled onto the available 1:50,000 scale geological interpretation. Prioritized targets would be prospected using an ATV for access and a GPS survey instrument for location. If a larger program with helicopter access is contemplated, then efforts should be made to approach a mining company with a joint venture program.

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FOR THE RECORD

This report was prepared on behalf of High Valley Explorations Ltd. It concerns quartz mineral claim assessment work performed on the MART 1-44 claim block (NTS mapsheets 105C/5 and 105D/8). Said claims are 100% owned by High Valley Explorations Ltd. of North Vancouver. All work reported herein was either performed or supervised by the author. The statement of expenditures was provided by High Valley Explorations Ltd.

I, Michael A. Beauregard, a geologist residing in Whitehorse, declare that I have no interest in the MART claim group nor will I ever hold any such interest. Furthermore, I will not perform mineral exploration within 15 kilometres of the MART 1-44 claim block for a period of two years after the date of June 5, 1998 without the express written consent of High Valley Explorations Ltd.

I have been employed within the Canadian mineral exploration industry throughout most of the provinces and both territories since 1978. A Mining Technologist Diploma was granted to me by Haileybury School of Mines in 1980. A Bachelor of Science Degree in Geological Engineering was granted to me by South Dakota School of Mines and Technology in 1985. I am not registered as a Professional Geologist.

Michael A. Beauregard

Michael A. Beauregard
May 30, 1998.

Report Reference:

Beauregard, M.A. (1998)

High Valley Explorations Ltd.'s 1997 Gold Exploration
of the MART 1-44 Mineral Claim Group,

Whitehorse Mining District, Yukon Territory, Canada

NTS 105C/5 and 105D/8

Latitude 60° 22' to 60° 23' 30" N, Longitude 133° 59' to 134° 04' W

80 pages, 13 references, 4 maps at 1:2500 scale

Appendix 1

Personnel and Days Worked

(Man-days of Work on MART 1-44 Claims)

Name	Occupation and Address	Field Work	Total
<i>High Valley Explorations Ltd.</i>			
Mike Beauregard	Geologist, Whitehorse	31 Aug - 30 Sept/97	31
		7 Dec/97	1
Dave Gramwich	Field Assistant, Kelowna	3 - 26 Sept/97	24
Peter Roman	President, Vancouver	1 - 24 June/97	25
		31 Aug - 26 Sept/97	27
		7 Dec/97	1
<i>H. Coyne & Sons Ltd.</i>			
Larry Gilroy	Catskinner, Marsh Lake	20 - 24 June/97	5
		9 - 11 and 23 Sept/97	4
		total man-days	118

Appendix 2
Statement of Expenditures

Wages	14,200.00
Assays and Shipping	1,300.00
Camp Equipment	8100.00
Food and Fuel	6,368.14
Subcontractor (H. Coyne & Sons)	16,630.65
Geophysical/Radio Rentals & Shipping	<u>1,536.21</u>
TOTAL	\$48,135.00

Appendix 3
Mag/VLF Readings

47 pages, incl. cover sheet

MART GRID

Sept 13/97

Operator: MB

BASE LINE 10+00N

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
4+00W	58274	-7	-11	28.9	-13	-5	11.1
+25	58301	-9	-11	30.1	-12	-4	11.6
4+50W	58327	-5	-9	30.6	-16	-8	16.8
+75	58300	-7	-8	29.3	-18	-10	11.2
5+00W	58312	-7	-9	27.9	-16	-10	10.9
+25	58302	-7	-11	28.2	-11	-9	10.5
5+50W	58351	-7	-11	28.3	-8	-9	10.6
+75	58383	-6	-11	28.9	-4	-6	10.6
6+00W	58373	+1	-8	29.7	-4	-8	10.8
+25	58397	+4	-6	28.5	-2	-8	11.1
6+50W	58410	+4	-7	28.3	-2	-9	11.5
+75	58404	+9	-4	27.5	-3	-10	11.6
7+00W	58389	+10	-7	28.5	-3	-9	11.9
+25	58407	+11	-10	26.2	-4	-6	12.4
7+50W	58435	+14	-10	26.6	-8	-7	12.6
+75	58436	+17	-9	26.4	-11	-10	12.3
8+00W	58466	+28	-2	25.5	-14	-13	11.4
+25	58473	+22	-5	23.6	-4	-10	10.9
8+50W	58506	+18	-6	23.7	+1	-6	11.2
+75	58520	+16	-5	24.4	+1	-5	11.7
9+00W	58565	+11	-5	24.3	+3	-4	12.3
+25	58617	+5	-7	23.8	-5	-6	12.8
9+50W	58638	+4	-6	23.4	-10	-7	13.0
+75	58665	+1	-9	22.3	-13	-5	13.1
10+00W	58664	-2	-14	22.5	-20	-4	12.9
+25	58662	-1	-12	22.3	-22	-3	12.0
10+50W	58649	-1	-13	21.9	-19	+1	11.5
+75	58618	-2	-13	21.8	-14	+4	11.7

MART GRID

Sept 23/97

Operator: DG

L 4W - N 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
L4W							
BL 10+00N	58315	-8	-11	29.4	-12	-7	10.8
+25	58334	-12	-10	27.0	-14	-8	10.9
+50	58357	-8	-8	25.0	-11	-7	10.7
+75	58392	-3	-5	24.1	-8	-7	10.7
11N	58402	+3	-1	23.9	-7	-6	10.9
+25	58439	+10	0	24.6	-5	-6	11.1
+50	58476	+12	-1	25.5	-4	-7	11.4
+75	58494	+12	+1	26.4	-6	-8	11.6
12N	58555	+10	+1	27.1	-9	-10	11.2
+25	58614	+8	+1	26.8	-12	-6	11.1
+50	58699	-4	-5	26.3	-14	-6	10.5
+75	58777	-2	-5	23.6	-14	-3	9.9
13N	58923	+8	-4	23.2	-9	-2	9.9
+25	59113	+14	-5	24.8	-4	-3	10.2
+37.5	59318	+16	-5	25.2	-3	-1	10.4
+50	59429	+15	-3	26.4	-5	-1	10.7
+62.5	60255	+13	-2	27.3	-6	-1	10.7
+75	59991	+13	-1	27.2	-6	-1	10.7
etc.	59752	+11	0	28.2	-4	-1	10.7
14N	60007	+7	0	28.3	-4	-1	10.8
	60228	+4	+1	28.4	-5	-1	11.0
+25	59954	0	+1	28.0	-5	+1	11.2
	59371	-2	+2	27.4	-6	+1	11.4
+50	59724	-4	+1	27.5	-7	+1	11.4
	59377	-7	+1	27.0	-9	0	11.4
+75	59504	-10	0	26.8	-10	+1	11.2
15+00N	59471	-10	+2	26.2	-10	0	11.4

MART GRID

Sept. 23 / 97

Operator: DG

L 4+50 W - N^{1/2}

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
L 4+50 W							
BL 10+00 N	58327	-8	-9	30.2	-16	-6	9.8
+25	58327	-12	-11	25.9	-13	-7	9.6
+50	58358	-6	-6	24.0	-12	-7	9.6
+75	58391	0	-2	24.3	-9	-6	9.6
11 N	58442	8	0	23.7	-8	-6	9.9
+25	58467	+14	0	23.0	-8	-9	9.8
+50	58493	+17	+1	25.0	-8	-7	10.1
+75	58544	+13	+1	25.8	-11	-7	10.3
12 N	58597	+8	+2	27.6	-14	-7	10.1
+25	58653	-3	+1	26.3	-15	-7	9.7
+50	58740	-3	0	24.3	-10	-5	9.3
+75	58824	0	-3	24.2	-2	-3	9.6
13 N	58954	+6	-3	22.8	-4	-4	10.4
	59041	+10	-1	22.8	-10	-7	10.4
+25	59130	+14	-1	24.3	-12	-11	9.5
	59293	+17	+2	24.0	-9	-8	7.9
+50	59655	+18	+3	25.0	-5	-4	9.4
	60014	+15	0	26.2	-4	-3	10.2
+75	59655	+12	0	26.6	-3	-1	10.0
	59886	+9	+1	26.7	-4	-1	10.5
14 N	59725	+3	+2	27.4	-6	-1	10.3
	60017	0	+3	26.5	-7	0	10.1
+25	59960	-1	+3	26.4	-10	-2	10.9
	59943	-2	+3	26.1	-10	-2	11.0
+50	59825	-2	+4	26.4	-9	-1	10.3
	59543	-4	+3	26.7	-7	-1	10.4
+75	59466	-7	+4	26.2	-6	-1	10.4
14+87.5	59482	-9	+3	26.0	-5	-1	10.5
15 N	59514	-9	+2	25.5	-3	-1	10.6

MART GRID

Sept 22/97

Operator: DG

L5W-N 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL10+00N	58312	-8	-9	27.3	-16	-13	10.9
+25	58345	-7	-5	25.3	-12	-10	10.8
+50	58391	-5	-5	24.6	-7	-7	10.9
+75	58428	-1	-4	23.1	-5	-7	11.3
11N	58471	+2	-5	22.9	-3	-6	11.2
+25	58528	+8	-1	23.4	-5	-8	11.8
+50	58575	+9	-3	23.8	-7	-9	11.1
+75	58647	+11	-1	24.3	-1	-6	10.7
12N	58687	+7	-1	25.5	-1	-7	10.9
+25	58782	-6	0	25.0	-1	-9	10.8
+50	58842	-5	+1	23.9	+3	-6	11.4
+75	58923	+1	+6	24.7	0	-9	11.5
13N	59087	0	+1	23.1	-1	-9	11.4
+12.5	59005	-1	+2	23.2	0	-10	11.4
+25	59152	0	+2	23.1	+1	-8	11.3
+37.5	59700	+3	0	22.9	+4	-4	11.5
+50	59615	+7	+2	23.1	+4	-4	11.7
etc	60390	+8	+1	24.3	+6	-4	11.9
+75	59677	+6	-1	24.7	+2	-5	12.3
	59460	+4	-1	24.7	0	-5	12.3
14N	59530	+3	+1	25.1	-2	-3	12.2
	59717	+3	+2	26.0	-3	-2	12.2
+25	59767	+1	+4	26.4	-4	-2	12.1
	59837	-3	+4	26.3	-4	-1	11.9
+50	59838	-5	+4	26.2	-2	0	11.8
	60019	-5	+3	26.1	0	0	11.9
+75	59642	-3	+4	25.5	-1	0	11.8
	59598	-2	+4	25.2	0	-1	12.1
15N	59510	-1	+4	26.0	0	-1	12.1

MART GRID

Sept 22 / 97

Operator: DG

L5 + 50 W - N 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL 10+00N	58344	-7	-10	27.2	-9	-9	8.8
+25	58360	-7	-7	25.7	-6	-7	8.8
+50	58408	-7	-6	24.3	-5	-8	9.4
+75	58472	-5	-4	24.4	-5	-7	9.9
11N	58515	-1	-2	29.5	-4	-10	10.5
+25	58590	+8	+1	23.3	0	-10	10.8
+50	58673	+9	0	25.0	+4	-6	11.2
+75	58774	+7	-1	26.2	+3	-5	11.7
12N	58916	+3	0	27.1	+1	-6	12.0
+25	59146	-7	0	27.5	-1	-7	12.4
	59204	-9	-1	27.3	+1	-6	12.2
+50	59272	-9	-2	26.1	+5	-4	12.1
	59414	-7	0	25.5	+6	-3	12.4
+75	59537	-9	-1	25.6	+4	-4	12.4
	59613	-7	+1	24.4	+4	-3	12.5
13N	59577	-5	+2	24.5	+4	-4	12.5
	59592	+1	+2	23.9	+4	-4	12.3
+25	60048	+7	+6	24.3	+1	-6	12.4
	59827	+9	+5	25.2	0	-6	12.2
+50	59594	+6	+4	26.2	-2	-6	12.1
	59287	+2	+1	26.4	-4	-5	11.9
+75	59370	+2	+3	25.6	-4	-3	12.0
	59572	+2	+4	26.5	-5	-2	11.8
14N	59585	+1	+5	26.1	-6	-1	11.7
	59303	+2	+5	26.5	-6	-1	11.6
+25	59749	+2	+6	26.6	-6	-2	11.7
	59550	0	+5	26.9	-6	-2	11.7
+50	59420	-1	+6	26.3	-5	-2	11.7
+62.5	59639	-1	+5	26.4	-5	-2	11.9
+75	59608	0	+6	26.4	-6	-1	11.9
+87.5	59339	+1	+5	26.9	-7	-1	11.6
15N	59270	+2	+6	27.0	-7	-1	11.7

MART GRID

Sept 22 / 97

Operator: DG

L 6W - S $\frac{1}{2}$

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
3N	57903	+3	+7	23.5	-6	-3	12.5
+25	57916	+6	+9	23.0	-5	-1	12.8
+50	57923	+10	+11	23.1	-6	-1	12.8
+75	57923	+12	+13	23.2	-9	-2	12.8
4N	57948	+16	+13	24.4	-10	-2	12.5
+25	57962	+18	+13	24.5	-8	-1	12.5
+50	57974	+18	+14	23.6	-9	-2	12.3
+75	57987	+22	+14	25.1	-11	-2	12.4
5N	58001	+24	+15	24.3	-10	-2	12.2
+25	58013	+21	+14	25.7	-16	-5	12.2
+50	58026	+20	+12	27.1	-16	-5	11.9
+75	58037	+16	+8	29.8	-16	-4	11.8
6N	58064	+8	+5	27.8	-15	-2	11.8
+25	58062	+4	+2	27.8	-13	-2	11.7
+50	58085	+4	+1	26.4	-13	-3	11.7
+75	58105	+3	-1	26.3	-13	-2	11.8
7N	58135	+1	-3	26.0	-13	-3	11.7
+25	58139	0	-3	25.8	-13	-4	11.6
+50	58181	+1	-5	25.5	-12	-5	11.5
+75	58158	-2	-8	25.7	-12	-5	11.3
8N	58177	-2	-10	24.5	-12	-6	11.3
+25	58197	-2	-11	24.4	-12	-7	11.3
+50	58218	-1	-12	24.1	-12	-8	11.1
+75	58230	+1	-13	23.9	-13	-7	11.0
9N	58252	+4	-12	23.5	-10	-8	11.0
+25	58285	+10	-10	23.7	-10	-7	11.1
+50	58318	+11	-8	25.7	-9	-8	11.0
+75	58325	+9	-7	26.4	-7	-7	11.1
BL 10 100N	58376	0	-7	29.1	-4	-8	11.2

MART GRID

Sept 22/97

Operator: DG

L6W - N1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL 10 toon	58373	0	-7	29.4	-4	-7	10.8
+25	58415	-9	-9	27.2	-1	-7	10.9
+50	58413	-12	-10	25.0	+1	-8	10.9
+75	58495	-6	-5	23.1	+2	-9	10.7
11N	58579	-4	-5	24.2	+6	-6	11.0
+25	58664	0	-4	24.4	+9	-3	11.7
+50	58829	+4	+2	23.7	+6	-6	12.1
+75	59062	+5	+1	24.1	-1	-7	12.4
	59255	+2	0	24.8	-8	-8	12.2
12N	59553	+4	+1	23.9	-11	-9	11.9
	60035	+7	+2	24.0	-11	-8	11.4
+25	60144	+9	+2	25.0	-8	-6	11.4
	60063	+7	+1	25.9	-7	-6	11.6
+50	60305	+5	+2	25.8	-7	-4	11.6
	60170	+3	+4	25.6	-5	-4	11.7
+75	60012	+1	+4	25.7	-4	-5	11.6
	59910	0	+5	24.9	-4	-6	11.6
13N	59819	0	+4	24.3	-2	-6	11.9
	59964	+2	+3	24.2	-1	-5	11.8
+25	59594	+5	+4	23.9	0	-5	12.0
	59792	+7	+4	24.2	0	-5	11.5
+50	59723	+9	+4	24.8	0	-3	11.9
	59385	+5	+4	26.4	-3	-3	12.0
+75	59371	+1	+3	25.7	-7	-3	11.8
	59406	+1	+3	25.2	-8	-4	11.6
14N	59538	+3	+5	25.2	-8	-3	11.5
	59572	+4	+4	25.6	-5	-1	11.4
14+25	59467	+3	+5	25.9	-5	-1	11.4
+37.5	59600	+2	+6	26.4	-5	-2	11.5
14+50	59313	-4	+2	26.4	-3	-1	11.2
+62.5	59477	-3	+3	25.0	-1	-1	11.2
14+75	59394	0	+6	25.3	-2	0	11.4
+87.5	59263	+2	+5	25.7	-5	-2	11.6

MART GRID

Sept 20/97 Operator: DG

L 6+50 W - S 1/2

← Sept. 22 →
 ← Sept. 20 ←

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
3N	57948	0	+6	25.4	-9	-5	12.5
+25	57932	-2	+6	23.8	-10	-6	12.4
+50	57929	+5	+10	22.7	-6	-2	11.8
+75	57940	+9	+13	23.0	-5	-1	12.0
4N	57958	+10	+12	23.3	-5	-2	11.9
+25	57968	+12	+13	23.6	-5	-1	11.9
+50	57978	+12	+13	23.8	-7	-2	12.2
+75	57990	+15	+13	25.1	-8	-3	12.0
5N	57984	+16	+12	26.0	-10	-4	11.7
+25	58010	+16	+14	25.4	-10	-2	11.6
+50	58004	+18	+15	25.6	-13	-5	11.4
+75	58019	+13	+12	26.9	-13	-5	11.4
6N	58035	+9	+8	27.1	-12	-6	11.0
+25	58070	+8	+7	27.4	-12	-5	11.1
+50	58074	+5	+4	27.0	-12	-4	11.0
+75	58103	+4	+3	27.1	-12	-6	11.1
7N	58120	+2	+1	26.9	-12	-5	10.9
+25	58131	+1	0	26.8	-10	-7	10.9
+50	58147	-1	-3	26.9	-9	-5	10.9
+75	58175	-2	-5	26.5	-8	-5	10.9
8N	58188	-3	-7	26.2	-8	-7	10.8
+25	58205	-4	-8	26.3	-9	-6	10.7
+50	58229	-4	-11	25.2	-8	-7	10.6
+75	58257	-3	-12	25.1	-8	-7	10.5
9N	58265	0	-12	24.4	-6	-7	10.4
+25	58291	+3	-11	23.8	-5	-8	10.5
+50	58311	+8	-11	24.7	-4	-6	10.7
+75	58402	+10	-7	26.4	-6	-8	10.4
BL 10+00N	58421	+4	-5	29.0	-4	-9	10.9

MART GRID

Sept. 22/97

Operator: DG

L6+50 W-N 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL 10+00N	58505	-1	-7	28.0	-6	-11	7.0
+25	58510	-3	-7	28.2	-6	-11	7.1
+50	58556	-7	-5	27.0	-5	-10	7.5
+75	58584	-4	0	26.0	-6	-12	8.4
11 N	58732	0	-2	25.4	-3	-8	8.9
+25	58887	0	-4	24.8	+2	-1	9.4
+50	59145	-2	-3	25.4	-2	-3	9.9
	59296	-2	-2	24.7	-4	-3	9.8
+75	59575	0	-2	24.3	-5	-4	10.6
	59810	+1	-1	24.2	-6	-3	10.2
12 N	59822	+2	+1	24.4	-7	-3	10.0
	59868	+3	+3	25.0	-9	-3	10.2
+25	59981	+8	0	24.4	-7	-3	10.0
	59926	+8	-1	24.4	-4	-2	10.7
+50	59815	+6	0	26.6	-2	-1	10.3
	59586	+4	-1	25.0	-3	-1	10.5
+75	59352	+1	-1	24.4	-4	0	10.6
	59749	+3	+1	23.8	-5	-1	10.7
13 N	59435	+4	+2	23.5	-7	-2	10.6
	59603	+7	+3	23.6	-7	-2	10.5
+25	59570	+10	+5	24.9	-6	-1	10.3
	59351	+6	+4	25.3	-6	-1	10.5
+50	59445	+3	+3	25.1	-5	-1	10.4
+75	59234	+4	+3	24.7	-5	+2	10.5
14 N	59518	+3	+1	24.1	-6	+3	10.8
+25	59479	+6	+2	24.7	-10	+2	10.5
+50	59385	+6	+3	25.4	-10	+1	10.2
+75	59447	+2	+2	25.4	-6	+2	10.2
15 N	59687	+1	+3	25.1	-5	+3	10.5

MART GRID

Sept 22/97

Operator: DG

L 7 W - N 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL 10to00N	58389	+14	-10	26.0	-9	-8	9.5
+25	58450	+11	-5	28.6	-9	-7	9.7
+50	58489	-1	-10	27.8	-9	-4	9.9
+75	58539	0	-11	28.1	-8	-4	9.8
11N	58610	0	-12	27.2	-7	-1	10.0
+25	58737	+5	-9	26.3	-12	-1	9.6
+50	58961	+5	-4	24.8	-14	-1	9.3
+75	59386	+7	-3	25.5	-12	-2	9.0
	59604	+5	-1	25.2	-8	-2	8.8
12N	59502	+4	-1	25.3	-5	-1	8.8
	59762	+3	0	25.0	-4	-2	8.9
+25	59726	+3	-1	24.9	-2	-1	8.9
	59755	+2	0	24.8	-2	0	9.1
+50	59859	+3	0	24.7	-2	-1	9.0
	59859	+3	-1	24.2	-4	-1	9.0
+75	59700	+4	0	24.0	-5	-1	9.1
13N	59551	+4	+2	23.4	-8	-1	9.1
+12.5	59492	+4	+2	23.9	-6	-1	9.0
+25	59490	+5	-3	25.1	-6	0	9.0
+50	59474	+8	+5	24.6	-3	+2	9.0
+75	59150	+2	+4	23.5	-9	+3	9.4
14N	59436	+2	+4	23.5	-12	+3	9.5
+25	59474	+4	+3	23.4	-10	+2	9.2
+50	59572	+6	+4	24.8	-7	+2	9.3
	59391	+7	+4	24.0	-7	+2	9.5
+75	59478	+5	+2	24.2	-5	+3	9.6
	59590	+5	+4	23.9	-4	+4	10.0
15N	59691	+5	+4	24.8	-5	+5	10.2

MART GRID

Sept. 20/197

Operator: DG

L7+50W-S¹/₂

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
5N	58019	+7	+12	25.0	-4	-2	10.3
+25	58026	+8	+13	25.4	-7	-3	10.2
+50	58041	+9	+14	26.4	-7	-3	10.0
+75	58052	+9	+13	26.1	-8	-3	10.2
6N	58081	+7	+10	26.9	-9	-5	10.0
+25	58089	+6	+9	26.8	-8	-4	10.1
+50	58112	+5	+7	27.2	-8	-7	10.4
+75	58121	+4	+5	26.5	-11	-10	10.5
7N	58139	+1	+2	26.5	-11	-12	10.1
+25	58163	0	+2	26.7	-8	-9	10.0
+50	58171	-1	-1	26.3	-5	-9	10.0
+75	58195	-1	-1	26.4	-3	-9	9.9
8N	58214	-7	-7	26.8	+1	-6	10.1
+25	58226	-11	-12	25.6	+2	-4	10.2
+50	58264	-6	-10	24.0	+6	-1	11.0
+75	58285	-7	-14	24.1	-4	-7	12.2
9N	58310	-4	-15	23.5	-6	-9	11.8
+25	58348	+4	-11	23.5	-6	-8	11.6
+50	58364	+12	-8	23.9	-7	-8	11.7
+75	58407	+16	-7	26.0	-12	-10	11.8
BL 1000N	58435	+14	-9	27.7	-9	-7	11.6
BL 1000N	58440	+13	-9	26.2	-8	-7	12.8
+25	58501	+10	-6	29.3	-8	-8	12.8
+50	58542	-2	-10	28.3	-7	-5	13.1
+75	58588	+1	-6	26.7	-7	-3	13.3
11N	58658	+2	-7	25.6	-5	0	13.5
+25	58781	+5	-3	25.8	-10	-2	12.9

MART GRID

Sept 22/97

Operator : DG

L7+50W - N 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
11+50N	59013	+6	-3	25.4	-13	-2	12.5
+75	59405	+5	-4	27.0	-11	-3	12.1
11+87.5	59605	+5	-2	25.3	-8	-3	12.0
12N	59768	+4	0	24.9	-4	-2	11.8
	59547	+3	0	24.8	-1	-1	12.0
+25	59765	+3	+1	24.9	-1	-1	12.2
	59746	+3	+1	24.7	-1	-2	12.3
+50	59650	+2	0	24.3	-1	-2	12.4
	59737	+1	-1	24.3	-2	-2	12.4
+75	59734	+4	+1	23.9	-4	-1	12.3
	59710	+3	+1	24.0	-6	-2	12.0
13N	59593	+3	+2	23.7	-7	-1	12.0
	59516	+4	+2	24.1	-6	-1	12.0
+25	59520	+5	+3	24.0	-5	0	12.0
	59425	+7	+2	23.9	-2	+1	12.0
+50	59505	+7	+5	24.3	-2	+2	12.2
	59379	+4	+4	24.4	-4	+2	12.5
+75	59165	+2	+4	24.1	-7	+4	12.5
	59258	+2	+5	23.7	-9	+4	12.5
14N	59462	+2	+4	23.7	-11	+3	12.3
	59345	+3	+5	23.5	-11	+2	12.0
+25	59490	+3	+3	23.6	-9	+1	11.9
	59547	+5	+3	23.5	-7	+2	11.7
+50	59598	+7	+5	23.8	-6	+2	11.9
	59418	+7	+4	24.2	-5	+2	12.0
+75	59505	+6	+3	24.2	-5	+2	12.2
	59576	+6	+3	24.6	-3	+4	12.5
15N	59710	+5	+4	24.8	-4	+5	12.9

MART GRID

Sept 20/97

Operator: DG

L 8W - S 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
5N	58014	+5	+13	25.6	-5	-4	10.2
+25	58033	+5	+13	25.3	-4	-4	10.2
+50	58049	+7	+14	26.0	-6	-4	10.1
+75	58068	+7	+13	26.0	-5	-5	10.2
6N	58051	+6	+11	26.9	-6	-5	10.1
+25	58090	+5	+8	27.0	-6	-5	10.0
+50	58115	+3	+6	27.0	-6	-5	9.9
+75	58126	-1	+3	26.7	-5	-9	10.0
7N	58152	-1	+2	26.7	-2	-6	9.7
+25	58170	-1	+1	26.0	+1	-5	9.8
+50	58200	0	+1	26.1	+4	-2	10.1
+75	58215	0	0	26.0	+3	+4	10.8
8N	58236	-1	0	26.6	-3	-7	11.6
+25	58260	-9	-7	27.2	-14	-12	12.0
+50	58268	-9	-10	25.1	-23	-16	11.1
+75	58306	-4	-9	24.1	-20	-15	10.4
9N	58337	-2	-11	24.3	-17	-15	9.9
+25	58377	+6	-7	22.5	-15	-14	9.6
+50	58413	+13	-6	22.3	-12	-13	9.4
+75	58436	+19	-5	23.1	-16	-14	9.5
BL 10+00N	58469	+27	-1	26.2	-15	-14	9.5
BL 10+00N	58466	+27	-2	26.9	-15	-14	11.4
+25	58532	+14	-8	29.2	-12	-7	12.0
+50	58594	+8	-9	26.8	-18	-7	12.1
+75	58643	+15	-3	25.7	-24	-9	11.4
11N	58810	+16	-4	26.9	-17	-3	11.7

MART GRID

Sept 17/97

Operator: MB

L 8+50^W - N 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL10+00N	58506	+17	-6	24.5	0	-5	11.7
+25	58453	+8	-9	25.9	-9	-7	12.5
+50	58661	+6	-9	25.3	-12	-6	11.9
+75	58758	+6	-8	25.6	-9	-3	11.6
11 N	58952	+12	-5	26.0	-13	-7	11.5
	59222	+15	-2	25.6	-11	-6	11.4
+25	59831	+17	0	26.5	-10	-4	11.5
	59982	+9	-6	29.0	-8	-1	11.7
+50	59999	+4	-5	27.5	-7	+2	11.6
	59531	+7	-4	27.5	-4	+3	11.5
+75	59472	+4	-4	28.1	-1	+2	12.0
	59375	+4	-4	26.6	-1	+1	12.1
12 N	59443	+4	-4	26.1	-2	-1	12.3
	59295	+2	-2	27.6	-3	-1	12.2
+25	59501	+3	-2	27.3	-3	-1	12.2
	59403	+4	-2	26.0	-2	-1	12.2
+50	59442	+3	-2	25.9	-3	0	12.2
+75	59460	+3	-1	25.7	-4	0	12.4
13 N	59436	+3	+1	25.4	-5	0	12.2
+25	59391	+4	+2	25.4	-4	0	12.2
+50	59367	+4	+4	26.8	-4	0	12.4
+75	59251	-3	+6	27.7	-6	-3	12.1
14 N	59614	-2	+3	25.0	0	-1	12.0
+25	58885	+3	+4	25.3	+2	+1	12.7
+50	59339	0	+8	26.9	-4	+3	12.9
+75	59521	-10	+7	26.5	-11	+6	12.6
15 N	59217	-13	+8	24.6	-17	+5	12.0
15+25 N	57584	-9	+9	23.7	-15	+7	11.5

MART GRID

Sept. 17/97

Operator: MB

L9W - N1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
B210400N	58565	+12	-5	25.7	+2	-3	12.8
+25	58726	0	-12	24.2	-10	-6	12.7
+50	58786	+3	-9	24.2	-11	-7	12.3
+75	58942	+5	-7	24.6	-6	-4	11.8
+87.5	59076	+3	-8	25.3	-3	-3	11.6
11N	59330	+5	-6	25.1	-3	-2	11.9
	59816	+11	-3	23.8	-1	-1	12.2
+25	60018	+10	0	25.5	-7	-4	12.4
	60268	+12	+1	26.2	-10	-6	12.1
+50	59789	+10	-1	26.3	-7	-4	12.1
	59986	+11	0	26.6	-7	-4	12.2
+75	59476	+13	+3	25.5	-4	-4	12.3
	59650	+12	+2	26.1	-5	-4	12.4
12N	59485	+7	0	26.6	-5	-4	12.7
+25	59424	+6	0	26.2	-4	-1	12.8
+50	59304	+4	-1	26.0	-4	0	12.8
+75	59222	+3	-2	27.4	-5	0	12.9
13N	59201	+3	-1	25.8	-4	0	12.8
+25	59198	+3	0	26.6	-5	+1	12.8
+50	59204	+4	+2	25.5	-5	0	12.9
+75	59164	+4	+3	26.3	-5	0	12.7
14N	59136	+2	+3	25.8	-5	-1	12.9
+25	59086	+4	+5	25.8	-4	0	12.9
+50	59369	+2	+8	26.7	-4	+2	13.0
+75	59446	-5	+9	27.4	-10	+5	13.1
15N	59295	-16	+5	26.6	-12	+6	12.6

MART GRID

Sept 17/97

Operator: MB

L9+50 W-N¹/₂

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL 10 to 00N	58624	+4	-7	24.4	-10	-7	13.9
+25	58788	-1	-10	25.6	-19	-9	13.1
+50	59041	+5	-8	24.4	-10	-4	12.5
	59217	+6	-8	25.6	-7	-3	12.2
+75	59530	+7	-7	26.1	-5	-3	12.4
	60439	+6	-5	25.5	-3	-3	12.4
11N	60203	+2	-6	25.0	-2	-4	12.4
	60569	-1	-5	24.6	-2	-5	12.4
+25	59161	0	-2	24.7	-3	-5	12.1
	59590	+4	0	24.0	-2	-4	12.0
+50	60569	+7	+3	22.9	-1	-3	12.0
	59689	+9	+2	25.0	0	-3	12.1
+75	59673	+10	+1	23.9	0	-2	12.4
	59588	+9	0	24.7	-1	-2	12.8
12N	59524	+9	+1	25.2	-5	-2	12.8
+25	59357	+7	0	26.4	-9	-2	12.9
+50	59271	+8	+2	25.6	-8	-1	13.0
+75	59190	+6	-1	25.7	-7	-1	12.9
13N	59234	+7	0	25.8	-6	-1	12.7
+25	59291	+4	0	25.9	-6	-1	12.9
+50	59238	+2	+1	25.2	-6	0	12.8
+75	59234	+5	+2	24.8	-7	0	12.8
14N	59291	+6	+2	27.1	-7	+1	13.0
+25	59191	+5	+2	26.3	-4	+1	12.9
+50	59261	+3	+5	28.0	-4	+3	13.2
14+75N	59120	-3	+9	26.8	-7	-5	13.1

MART GRID

Sept. 17/97

Operator: MB

L10W - N1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL10+00N	58664	-2	-13	23.5	-20	-3	14.1
+12.5	58770	+2	-11	23.0	-21	-3	13.0
+25	58882	+7	-10	23.1	-18	-2	12.7
	59022	+11	-8	23.4	-16	-1	12.7
+50	59202	+14	-7	24.5	-13	+1	12.7
	59519	+12	-8	25.6	-9	+1	12.8
+75	60078	+13	-6	26.1	-7	0	12.9
	60283	+10	-6	26.5	-5	-1	13.0
11N	59181	+6	-4	28.4	-6	-3	12.9
	59399	+2	-3	27.6	-5	-2	12.9
+25	59851	+2	-4	25.8	-4	-2	12.8
	58955	0	-2	26.5	-4	-1	13.3
+50	59237	+2	-2	24.1	-3	-1	13.0
+75	59225	+4	+1	22.9	-6	-3	12.9
12N	59241	+7	+4	22.9	-11	-4	12.7
+25	59032	+10	+6	22.7	-10	-1	12.5
+50	59188	+12	+6	23.9	-12	-2	12.7
+75	59371	+11	+3	24.6	-10	-3	12.7
13N	59438	+11	0	25.0	-7	0	12.7
+25	59414	+7	0	25.6	-7	+2	13.1
+50	59102	+4	0	25.2	-10	+3	13.1
+75	58974	+5	+1	24.4	-12	+3	12.8
14N	59210	+8	+1	23.8	-12	+3	12.6
+25	59103	+15	+3	24.8	-9	+2	12.5
+50	59149	+11	+4	27.1	-7	+2	12.9
+62.5	59555	-	-	-	-	-	-
+75	59786	+1	+7	27.6	-8	+4	13.3
15+00N	59330	-6	+11	26.3	-16	+1	13.4

MART GRID

Sept 17/97

Operator: MB

L 10 + 50 W - N 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL 10to00N	58628	-2	-13	22.5	-20	+1	11.9
	58695	+2	-13	22.4	-16	+3	11.6
+25	58768	+4	-16	22.7	-14	+5	11.5
	58865	+10	-15	21.8	-13	+5	11.6
+50	59041	+17	-12	22.5	-14	+3	11.8
	59248	+22	-7	23.9	-16	0	12.2
+75	59462	+22	-8	27.0	-17	-2	12.1
	59676	+23	-3	27.6	-15	-1	11.8
11N	59771	+14	-5	28.9	-11	0	11.6
	59739	+8	-4	28.1	-7	-1	11.3
+25	59293	+3	-3	26.9	-5	-1	11.2
	59040	+1	-4	26.1	-2	-1	11.5
+50	59007	-1	-4	25.2	-1	0	11.6
+75	59878	-2	-2	23.5	-4	+2	11.9
12N	59226	0	-3	21.8	-4	+3	11.7
+25	59055	+4	0	21.6	-9	+1	11.7
+50	59571	+11	+4	21.2	-11	-2	12.0
+75	59739	+14	+8	23.7	-10	-1	12.4
13N	59760	+11	+4	24.6	-10	+1	12.7
+25	59348	+6	+2	24.9	-11	+2	12.7
+50	59619	+4	+1	24.3	-12	+3	12.7
+75	59688	+6	+1	24.3	-10	+2	12.2
14N	59323	+10	0	25.1	-5	+2	12.2
+25	59213	+10	+4	24.7	-7	+1	12.7
+50	59452	+7	+9	26.9	-10	+2	12.9
+75	59978	-6	+9	26.0	-16	+2	12.9
15N	59406	-8	+12	24.5	-17	0	12.6

MART GRID

Sept 17/97

Operator: MB

L11 W - N¹/₂

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL10+00N	58598	-4	-10	24.2	-12	+6	11.5
+25	58735	+5	-12	23.5	-12	+2	11.5
+50	58903	+11	-13	24.0	-12	-1	11.3
	59049	+16	-11	23.6	-9	0	11.1
+75	59222	+20	-8	24.6	-8	+1	11.2
	59539	+21	-6	25.8	-5	+4	11.2
11N	60078	+18	-8	28.5	-4	+3	11.2
	60726	+15	-6	28.9	-2	+3	11.3
+25	59976	+5	-9	28.5	-1	+2	11.6
	59569	+1	-7	27.2	-1	+3	11.8
+50	59402	-2	-6	27.0	-2	+3	12.0
+75	59220	-4	-3	25.6	-2	+3	12.0
12N	59241	-7	-7	25.1	-2	+4	11.9
+25	59323	-9	-11	23.2	0	+3	11.6
+50	59039	-6	-6	21.6	+3	0	11.4
+75	59766	-1	-1	21.0	0	+1	11.9
13N	59868	0	+7	21.2	-11	-2	11.4
+25	59412	+5	+9	22.4	-13	-1	11.5
+50	59457	+7	+6	22.7	-14	-2	11.5
+75	59512	+11	+3	23.2	-10	-1	11.5
14N	59212	+11	+3	24.4	-8	-1	11.9
+25	59655	+8	+2	25.0	-7	0	11.7
+50	59329	+4	+9	26.3	-8	+2	11.8
	59687	-1	+10	26.6	-10	+1	11.9
+75	59871	-7	+12	25.6	-13	-2	11.8
+87.5	59048	-	-	-	-	-	-
15N	57591	-6	+13	25.4	-15	-3	11.7

MART GRID

Sept 17 /97

Operator: MB

L11+50W - N1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL 10+00N	58582	+5	-6	23.1	-14	+1	10.6
	58666	+5	-8	23.4	-11	+1	10.5
+25	58707	+5	-10	22.9	-11	0	10.5
	58767	-	-	-	-	-	-
+50	58837	+11	-11	22.4	-9	-1	10.2
	58924	+13	-11	24.1	-6	-1	10.3
+75	59023	+16	-11	24.5	-4	-1	10.3
	59157	+21	-6	24.0	-3	-1	10.4
11N	59365	+22	-3	25.2	-2	-1	10.4
	59540	+20	-2	26.8	-4	0	10.7
+25	60055	+12	-4	27.9	0	-1	11.0
	59871	+7	-5	27.9	-3	-1	11.0
+50	59380	+2	-4	27.0	-3	-1	11.3
	59315	-1	-2	26.1	-4	-1	11.4
+75	59270	-2	-1	25.3	-6	0	11.6
12N	58764	-5	-5	25.3	-3	0	11.5
+25	59144	-7	-6	24.5	+1	-1	11.5
+50	59371	-7	-7	23.7	+2	+3	11.6
+75	59480	-9	-5	22.6	+1	+5	11.4
13N	58513	-9	0	21.0	-6	+3	11.4
+25	58217	-7	+1	21.3	-7	+1	11.4
+50	59045	0	0	19.9	-5	+1	10.9
+75	59520	+11	+7	21.5	-7	-2	11.2
14N	59359	+12	+7	22.7	-9	-4	11.3
+25	59124	+15	+6	26.0	-8	-1	11.7
+50	59380	+6	+8	26.3	-9	-1	11.9
+75	59502	-6	+8	26.8	-13	-2	11.7
15N	58882	-10	+10	23.8	-12	-5	11.4
15+25N	58008	-6	+11	23.6	-13	-7	11.4

MART GRID

Sept 15/97

Operator: MB

L12 W - N 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL 10100N	58569	+4	-7	22.7	-8	+2	8.6
+25	58717	+7	-12	22.1	-3	-1	8.4
+50	58887	+13	-10	22.2	+1	0	8.6
+75	59211	+18	-7	23.3	+3	0	8.9
+87.5	59486	+19	-6	24.3	+5	-1	9.1
11N	59999	+16	-4	25.3	+4	0	9.3
+12.5	59960	+9	-6	26.3	+3	-2	9.6
+25	59715	+1	-7	26.0	-2	-3	9.8
+37.5	59617	-5	-7	25.2	-5	-4	9.7
+50	59566	-6	-5	24.0	-6	-5	9.6
+62.5	59492	-4	-2	23.2	-4	-4	9.5
+75	59298	-3	-1	23.2	-4	-4	9.6
12N	59138	0	0	23.8	-4	-6	9.7
+12.5	59218	-1	-1	24.0	-1	-4	9.8
+25	59409	-3	-2	24.1	0	-3	9.8
+37.5	59662	-4	-2	23.9	+1	0	10.1
+50	59813	-3	0	23.3	0	0	10.2
+75	59470	-5	+3	23.7	-5	0	10.2
13N	59253	-9	0	23.2	-5	+1	9.9
+25	59242	-7	-4	22.0	-2	+4	9.7
+50	59279	-1	-5	21.2	-1	+3	9.8
+75	59062	+2	-5	21.2	0	+3	10.0
14N	58257	+2	-1	20.8	-3	-3	10.1
+25	58650	+7	+6	20.9	-6	-1	10.2
+37.5	59436	+9	+12	21.9	-9	-1	10.2
+50	59530	+9	+14	23.5	-12	-2	10.0
+62.5	59673	+7	+13	24.3	-12	-2	10.0
+75	59695	+2	+10	24.7	-14	-3	10.0
+87.5	59357	-4	+7	24.4	-13	-4	9.9
15N	58831	-10	+6	23.7	-10	-5	9.8

MART GRID

Sept. 14/97

Operator: MB

L 12 + 50W - N 1/2

STN & LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL 10 + 00N	58614	+11	0	24.0	-10	-6	11.4
+25	58683	+6	-6	23.0	-4	-6	11.1
+50	58831	+11	-7	22.3	+1	-5	11.2
+75	59167	+16	-6	22.9	+5	-4	11.4
	59494	+18	-5	23.6	+7	-1	11.7
11N	60058	+17	-5	24.3	+7	+1	11.9
	60226	+13	-5	25.3	+4	-2	12.0
+25	59866	+6	-5	25.6	-2	-5	12.5
	59657	0	-4	25.4	-6	-5	12.5
+50	59542	-3	-5	24.5	-7	-5	12.3
	59495	-2	-5	24.0	-8	-5	12.7
+75	59264	-4	-1	24.0	-7	-4	12.3
	59391	-4	-1	23.7	-5	-4	12.1
12N	59247	-1	-1	23.6	-3	-3	12.3
+25	59254	0	0	23.5	-5	-2	12.6
+50	59276	0	+3	23.5	-8	0	12.7
+75	59315	-1	+4	23.5	-9	0	12.5
13N	58974	-1	+5	24.1	-7	+1	12.3
+25	58855	-5	+4	23.5	-5	0	12.1
+50	58858	-5	0	22.4	-3	0	12.1
+75	58890	-2	-3	22.1	-2	0	12.1
14N	58744	-1	-7	21.8	-2	0	12.1
+25	58845	-2	-1	20.5	-7	0	12.5
+50	58891	+5	+13	21.5	-15	-1	12.8
	60168	+11	+14	22.3	-17	-2	12.4
+75	60108	+9	+15	22.6	-15	-3	12.2
	59767	+6	+12	23.9	-13	-4	12.1
15N	59276	0	+9	24.5	-11	-4	12.1

MART GRID

Sept 15/97

operator: MB

L13W - N1/2

STN & LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL10+00N	58663	+8	-2	22.6	-5	-9	5.6
+25	58747	+9	-3	22.6	-1	-9	4.6
+50	58953	+9	-6	23.3	0	-9	4.0
	59294	+11	-5	23.3	+1	-7	3.6
+75	60429	+14	-2	22.6	-3	-12	3.3
	60081	+16	-2	23.1	-3	-16	2.8
11+00N	59761	+10	+1	24.2	-9	-16	2.9
	59475	+13	-2	25.4	-13	-15	3.1
+25	59499	+7	-4	26.0	-16	-14	3.1
	59320	+2	-5	26.0	-14	-12	3.6
+50	59230	-2	-5	25.1	-12	-7	4.0
+75	59137	-1	-2	23.9	-10	-4	4.7
12+00N	59012	-2	-1	23.4	-13	-2	5.3
+25	58951	0	0	22.7	-14	0	5.1
+50	58974	0	+2	22.8	-12	0	6.3
+75	59029	+2	+4	22.8	-9	+1	6.9
13+00N	59155	+4	+5	24.4	-10	0	7.6
	59160	+2	+3	23.6	-10	-1	7.9
+25	59026	+3	+4	23.9	-9	-3	8.4
+50	58971	0	+1	23.8	-5	-2	8.6
+75	59014	0	+1	23.2	-4	-3	9.0
14+00N	58910	-3	0	23.4	-6	-3	9.3
+25	58956	-9	-4	22.5	-9	-1	9.3
+50	58148	-12	-3	20.5	-12	-1	9.1
+75	57412	-1	+5	18.7	-13	-3	9.0
15+00N	58725	+7	+15	22.6	-14	-7	9.4

Weak signal
on Apr 2
VLF-FM

signal gain

signal gain

MART GRID

Sept. 14/97

Operator: MB

L 13 +50 W-S 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
5+00N	58118	+9	+4	24.2	-4	-4	10.3
+25	58136	+10	+3	23.3	-6	-5	10.8
+50	58161	+16	+5	23.6	-5	-4	10.7
+75	58194	+19	+7	27.0	-7	-4	10.8
6+00N	58216	+10	+1	27.8	-1	-2	11.0
+25	58256	-4	-4	27.5	-5	-6	10.6
+50	58282	-12	-10	27.9	-2	-5	10.4
+75	58315	-10	-13	23.5	+1	-4	10.3
7+00N	58321	-6	-12	23.0	+3	-1	10.0
+25	58333	-5	-10	22.8	+2	0	10.2
+50	58335	-8	-9	22.0	-3	-4	10.4
+75	58369	-6	-3	20.8	-4	-5	10.2
8+00N	58372	-5	+4	20.8	-7	-4	10.4
+25	58429	-8	+8	20.5	-23	-11	9.9
+50	58448	-9	+5	21.6	-21	-12	8.6
+75	58499	-1	+4	21.1	-14	-7	8.3
9+00N	58537	+6	+7	21.1	-11	-7	8.2
+25	58604	+9	+7	20.6	-8	-7	8.2
+50	58638	+13	+5	22.4	-5	-9	8.0
+75	58712	+12	+4	21.6	-3	-9	7.9
10+00N	58776	+11	0	22.0	0	-8	6.6

Fade of
Signal VLF 2
Strength

MART GRID

Sept 14/97

Operator: MB

L 14 W - N 1/2

STN&LINE	CORR. MAG	VLF1 QUAD	IN-PHASE	TOTAL FLD	VLF2 QUAD	IN-PHASE	TOTAL FLD
BL 10+00N	58902	+9	-1	20.9	+6	-7	10.0
	58970	-	-	-	-	-	-
+25	59155	+12	-1	21.3	+7	-6	10.5
	59374	+13	+1	21.3	+6	-7	10.7
+50	59915	+14	+1	21.6	+3	-7	11.4
	59805	+15	+1	21.8	0	-10	11.0
+75	59564	+20	+7	22.5	-3	-10	11.2
	59448	+18	+5	25.0	-5	-9	11.3
11+00N	59326	+6	-3	25.8	-4	-6	11.1
+25	59029	-4	-11	23.3	-7	-4	10.7
+50	58936	0	-1	21.7	-14	-5	10.3
+75	58886	+3	+5	22.2	-17	-5	10.2
12+00N	58800	+5	+6	22.7	-17	-2	10.2
+25	58894	+4	+3	22.4	-15	-1	10.2
+50	58895	+5	+2	22.5	-15	-3	10.1
+75	58925	+6	+4	23.0	-11	-3	10.1
13+00N	58920	+6	+3	23.0	-7	-2	10.1
+25	58917	+6	+3	23.3	-6	-3	10.1
+50	58921	+3	+4	23.8	-9	-2	10.0
+75	58883	+1	+4	24.2	-9	-1	9.9
	58836	-	-	-	-	-	-
14+00N	58972	-5	+2	23.6	-8	+1	9.6
	59079	-	-	-	-	-	-
+25	59131	-5	-1	22.6	-4	+3	9.5
	59028	-	-	-	-	-	-
+50	59127	-2	-2	22.5	-1	+4	9.4
	58803	-	-	-	-	-	-
+75	58184	-10	-8	23.3	-1	+5	9.8
	57606	-	-	-	-	-	-
15+00N	57228	-15	-9	20.6	-1	+7	9.6

Appendix 4
Assays & Methodology

8 pages, incl. cover sheet

25/09/97

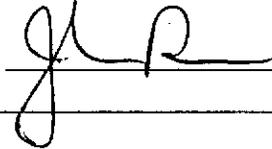
Assay Certificate

Page 1

High Valley Exploration

WO# 07931

Certified by



Sample #	Au ppb
M 701	<5
M 702	10
M 703	<5
M 704	9
M 705	7
M 706	9
M 707	42
M 708	39
M 709	23
M 710	7
M 711	<5
M 712	13
M 713	35
M 714	90
M 715	<5
M 716	14
M 717	18
M 718	<5
M 719	<5
M 720	<5
M 721	<5
M 722	6
M 723	8
M 724	10
M 725	48
M 726	7
M 727	5
M 728	<5
M 729	12
M 730	7



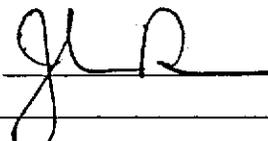
25/09/97

Assay Certificate

Page 2

High Valley Exploration

WO# 07931

Certified by 

Sample #	Au ppb
M 731	7
M 732	<5
M 733	<5
M 734	5
M 735	<5
M 736	<5
M 737	<5



07/10/97

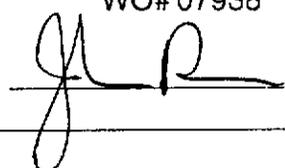
Assay Certificate

Page 1

High Valley Exploration

WO# 07938

Certified by



Sample #	Au ppb	
504738	<5	} 3000
504739	<5	
504740	<5	
504741	<5	



07/10/97

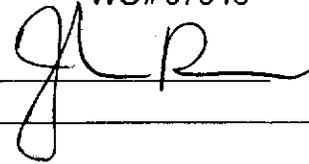
Assay Certificate

Page 1

High Valley Explorations
(Mike Beauregard)

WO# 07946

Certified by



Sample #	Au ppb
M 714 Q	12
M 742	7
M 743	<5
M 744	<5
M 745	<5
M 746	<5



FIRE ASSAY

The purpose of fire assay is to quantitatively extract the precious metals from geological samples using a process known as "lead collection".

The sample pulp (15 or 30 grams for geochemical analysis or one assay ton =29.166 grams for assay) is mixed with a litharge based flux in a crucible. Flux components are added in quantities appropriate to the nature of each individual sample, determined by an experienced fire assayer, in order to produce a proper fusion. Silver is added to help collect the gold and to facilitate later dissolution of the gold. If a gravimetric silver assay is being done an "inquart" containing a consistent, precise amount of silver is used. Standard pulps and blanks are included with the sample sets as well as 10% to 15% duplicate samples (checks) except in cases where there is insufficient sample for checks, which often occurs with soils and concentrates.

The samples are fused in a furnace at 1900F for 40 to 60 minutes until fusion is complete. The contents of each crucible is poured into a mould and allowed to cool, then the slag is broken off and discarded. If the melt is of poor consistency or lumpy, or the slag sticks to the lead button or the button is not a suitable size, then a new sample portion is fused with appropriately adjusted flux components.

The lead button is pounded into a cube and placed into a bone ash cupel which has been preheated to 1800F. When the lead is completely molten, the temperature is dropped to 1750F. The dampers are opened to allow air inside the furnace. The cupels are removed from the furnace when they have absorbed all the lead. A dore bead consisting of silver, gold and any other precious metals is the remaining product.

Throughout the procedure the samples in crucibles and cupels are placed in a standard, consistent arrangement to keep them in order and prevent mix-ups.

To prevent contamination of subsequent samples, fusion crucibles are discarded if samples contain over 500ppb gold (geochem). Sufficient sets of marked crucibles are cycled so that this can be determined before a set of crucibles is reused.

If standards and/or blanks do not produce satisfactory results, then entire sets of samples are refired.



GOLD BY AAS AFTER FIRE ASSAY

The dore bead is placed in a new disposable test tube. 0.3 mls of nitric acid is added and the test tubes are placed in a hot water bath above 85C for one hour to part out the silver. 0.7 mls of hydrochloric acid is added to form aqua regia, which dissolves the gold. The test tubes are briefly returned to the hot water bath, carefully shaken and left for one hour to ensure complete dissolution of the gold. The volume is made up to 4 mls with deionized water and the samples are mixed on a vortex mixer. They are analysed with an atomic absorption spectrophotometer, calibrated with an appropriate set of standard solutions containing the same aqua regia matrix as the samples.

Any samples are re-fired if the gold bead does not dissolve or if silver chloride precipitate does not form in the solution.



Map Folder Insert

Figure 2

Total Field Magnetometer Profiles

1:2500 scale map

Figure 3

VLF-EM Profiles, Station: Jim Creek

1:2500 scale map

Figure 4

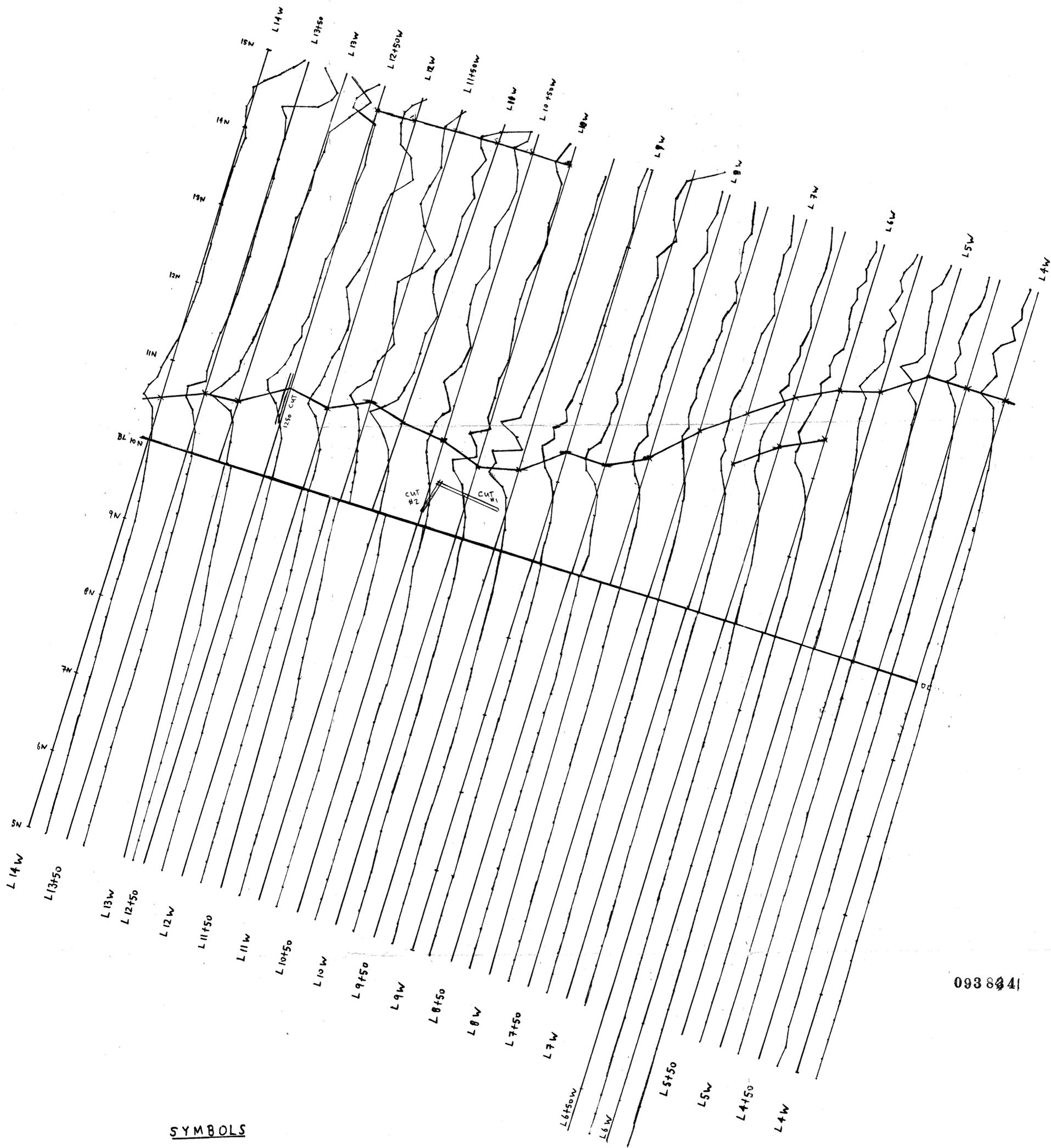
VLF-EM Profiles, Station: Annapolis

1:2500 scale map

Figure 5

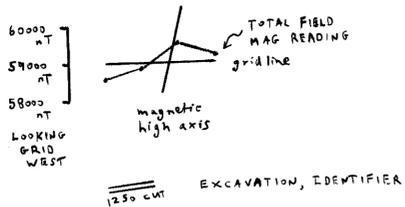
Geology, MART Grid

1:2500 scale map

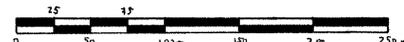


0938041

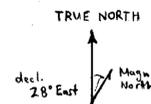
SYMBOLS



BASE FIELD STRENGTH : 57000 nT
 INSTRUMENT : SCINTREX ENVI UNIT
 INTERVALS : 25 m or 12.5 m with operator facing grid north
 SURVEYED : SEPT/17 BY DG, MB



1:2500 Scale



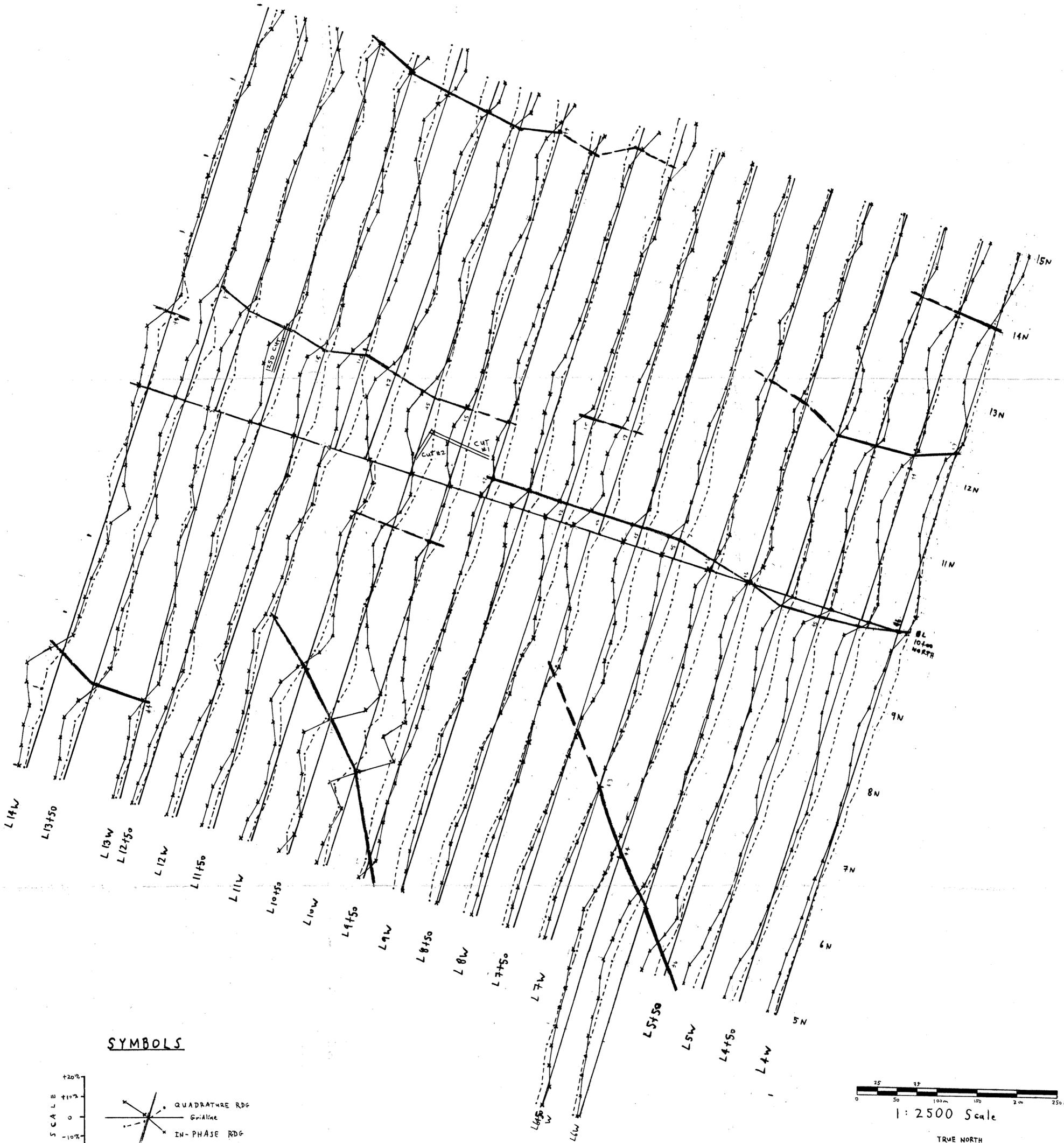
Dwg ①

HIGH VALLEY EXPLORATIONS LTD.

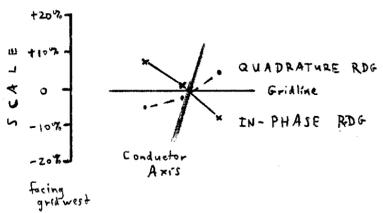
SCALE: 1:2500	BASE MAP/DRAFTED BY: MART GRID/MB	DATE: MAY/18
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TOTAL FIELD MAGNETOMETER PROFILES

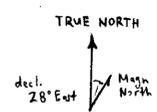
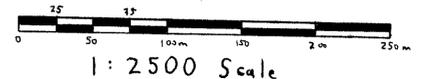
DWG NO:
FIGURE 2



SYMBOLS

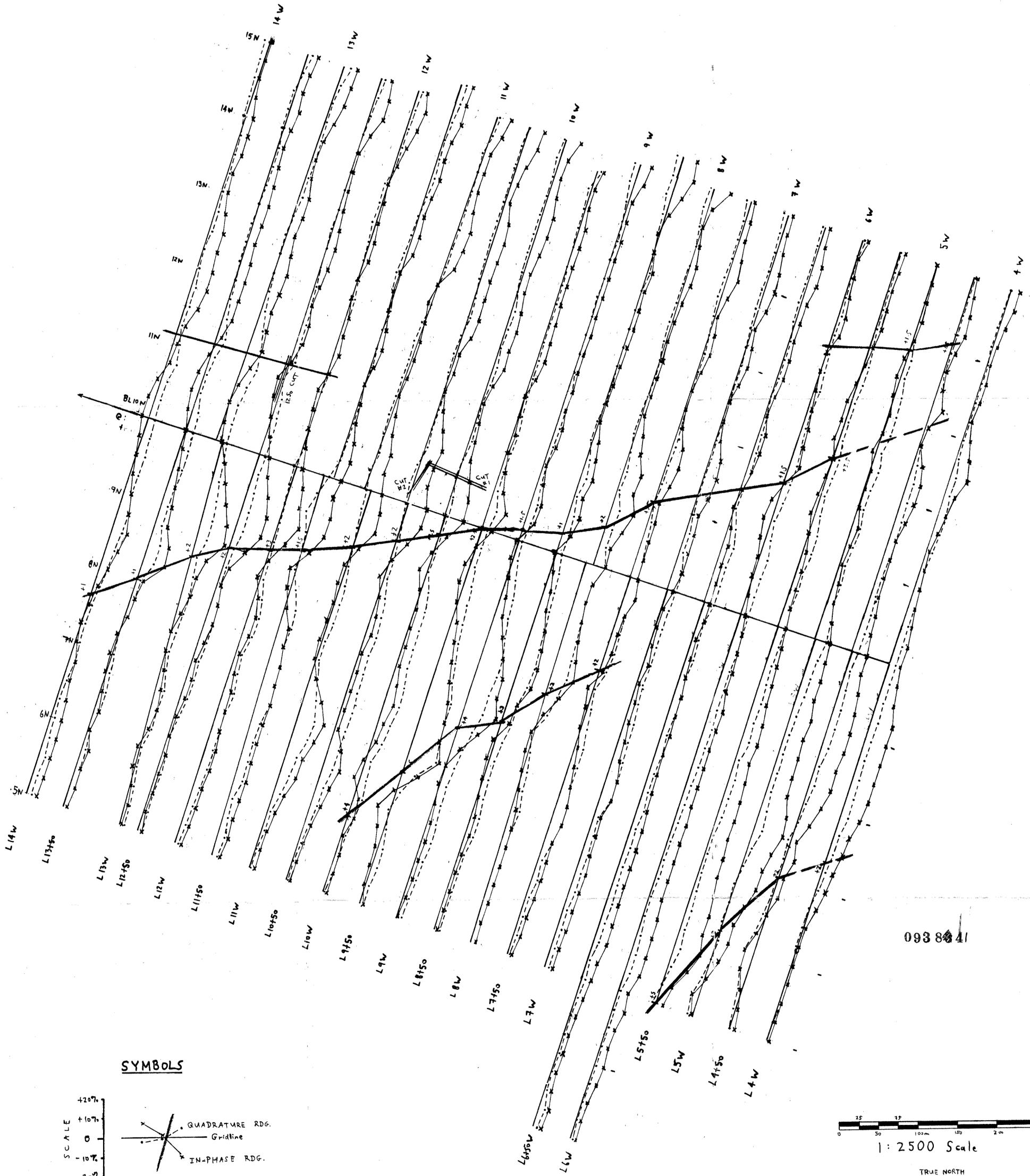


STATION : JIM CREEK, WASHINGTON
 AT FREQ. 24.8 Hz
 INSTRUMENT: SCINTREX ENVI UNIT
 INTERVALS : 25 m or 12.5 m WITH
 OPERATOR FACING GRID-NORTH
 SURVEYED : SEPT/97 BY DG, MB
 EXCAVATION, IDENTIFIER



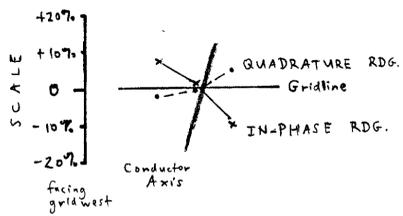
Data 2

HIGH VALLEY EXPLORATIONS LTD.		
SCALE: 1:2500	BASE MAP/DRAFTED BY: MART GRID/MB	DATE: MAY/98
VLF-EM PROFILES STN: JIM CREEK		DWG NO: FIGURE 3



093 80 41

SYMBOLS



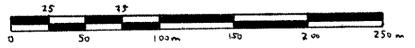
STATION : ANNAPOLIS, MARYLAND
AT FREQ. 21.4 Hz

INSTRUMENT : SCINTREX ENVI UNIT

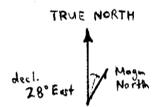
INTERVALS : 25 m or 12.5 m WITH
OPERATOR FACING GRID-NORTH

SURVEYED : SEPT/97 BY DG, MB

EXCAVATION, IDENTIFIER
CUT 1250



1:2500 Scale



DWG ③

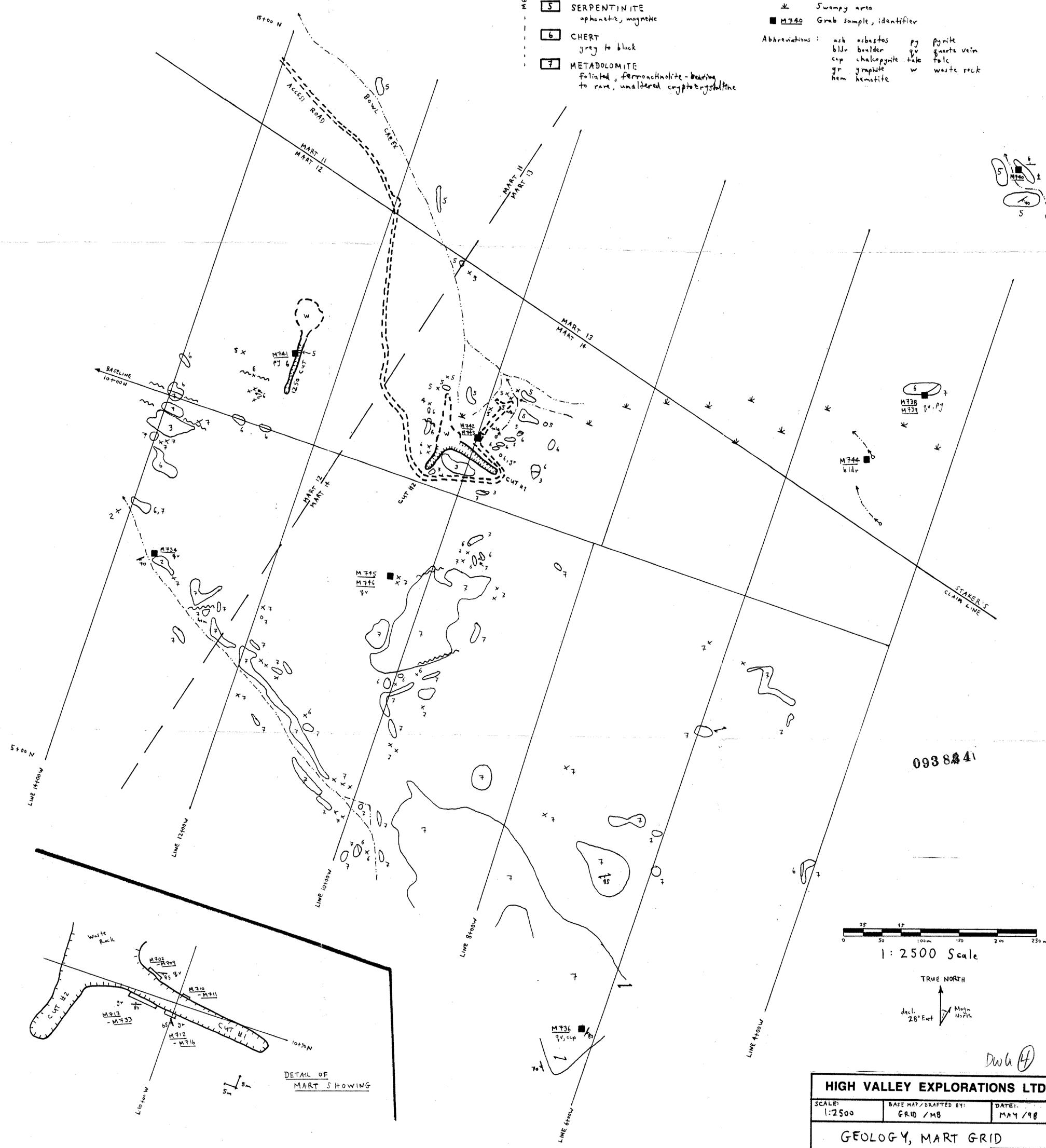
HIGH VALLEY EXPLORATIONS LTD.		
SCALE: 1:2500	BASE MAP/DRAFTED BY: MAGNET GRID /MB	DATE: MAY/98
VLF-EM PROFILES STN: ANNAPOLIS		DWG NO: FIGURE 4

LEGEND

- 1 CONGLOMERATE
polymictic to serpentinite clasts
- 2 GRANODIORITE
carbonatized feldspar porphyry
- 3 LIMESTONE
sparry
- 4 ANDESITE
fine-grained
- 5 SERPENTINITE
aphanitic, magnetic
- 6 CHERT
grey to black
- 7 METADOLMITE
foliated, ferroactinolite-bearing
to rare, unaltered cryptocrystalline

SYMBOLS

- Outcrop: large, rock type; small, rock type
 - Fault: well-sheared rock
 - Bedding, dip
 - Joint, dip
 - Foliation, dip; undeterminable dip
 - Excavated cut and waste material
 - Tote trail
 - Spring/steep; creek/drainage
 - Swampy area
 - Grab sample, identifier
- Abbreviations:
- | | | | |
|-----|--------------|-----|-------------|
| asb | asbestos | py | pyrite |
| bls | boulder | qv | quartz vein |
| cap | chalcopyrite | tal | talc |
| gr | graphite | w | waste rock |
| hem | hematite | | |



093 8841

0 25 50 100m 150 200 250 m
1:2500 Scale

TRUE NORTH
decl. 28° East

Dwln (H)

HIGH VALLEY EXPLORATIONS LTD.		
SCALE: 1:2500	BASE MAP/DRAFTED BY: GR10 /MB	DATE: MAY /98
GEOLOGY, MART GRID		
		Dwg No: FIGURE 5