PROPERTY AND ASSESSMENT REPORT

for the

1990 WORK PROGRAM

on the

WINDY PROPERTY

CARIBOO AND OMINECA MINING DIVISIONS

N.T.S. 93-J-13W

Latitude 54° 57' North Longitude 123° 50' West

Owners: R. Haslinger, Box 355, Fort St. James, B.C. V0J 1P0
and D. Halleran, Box 793, Fort St. James, B.C. V0J 1P0

Operator: Placer Dome Inc.
401 - 1450 Pearson Place,
Kamloops, B.C.
V1S 1J9

Marc Deschenes, B.A.Sc., Geol. Eng.

May 1991

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1.0 SUMMARY

The Windy property is owned by R. Haslinger and D. Halleran, both of Fort St. James, B.C. and is currently under option to Placer Dome Inc. The property is located 65 kilometres northeast of Fort St. James, B.C. The target is a structurally controlled gold and copper deposit generated by a porphyry-type system of mineralization.

The field work focused on drill testing strong, linear and coincident soil geochemical anomalies in copper, gold and arsenic with coincident I.P. chargeability anomalies and VLF-EM conductors. The new discovery of high grade gold and copper values in semimassive sulphide, glacially transported boulders resulted in further geochemical and geophysical surveys followed up by a back-hoe trenching program.

The diamond drilling of six holes showed low-levels of anomalous, structurally-related gold and copper mineralization in the southernmost two holes. The pyrite content in all holes appears to be sufficient to explain the observed chargeability anomalies. The drilling was completed prior to the new discovery of the massive sulphide boulders.

The trenching results indicated highly anomalous bedrock concentrations of gold, copper, silver, and arsenic most commonly associated with narrow, sulphide-bearing fault gouges. Trenching failed to locate the source of the massive sulphide boulders but succeeded in exposing a boulder train elongated parallel to the ice flow direction. The boulder train has been eroded to the south near the edge of a large swamp. In summary, these activities revealed a 25 metre wide train of sulphidic boulders and an overburden geochemical train about 140 metres wide, both glacially transported from a bedrock source to the south.

Drilling and trenching intersected rocks of diorite and andesite composition which generally displayed a strong chlorite, quartz, sericite, epidote, and carbonate alteration assemblage. Moderate to strong foliation, shearing, and fault zones are also common and often host quartz-carbonate veins. Abundant fracture fillings and veins of quartz-carbonate, epidote, and lesser sericite and chlorite were intersected. Mineralization occurs as minor disseminations with lesser clots and fracture fillings of pyrite and chalcopyrite.

A winter program consisting of a time domain EM survey, followed with a drill program should be undertaken in the area south of the new showing. The objective would be to establish the trend and size of a target possibly as the source of the massive sulphide boulders.

2.0 INTRODUCTION

The target type on the property is structurally controlled gold and copper mineralization possibly generated by a porphyry type system.

The objective of the 1990 work program was to drill test a strong, linear, gold-copper-arsenic geochemical anomaly with coincident I.P. and VLF-EM anomalies. The program also involved trenching geochemical anomalies following the discovery of a new high grade gold and copper showing in semimassive sulphide-bearing float samples. The work was performed in the southwestern portion of the property and also consisted of the construction of an access road, magnetometer and VLF-EM surveys, and soil sampling.

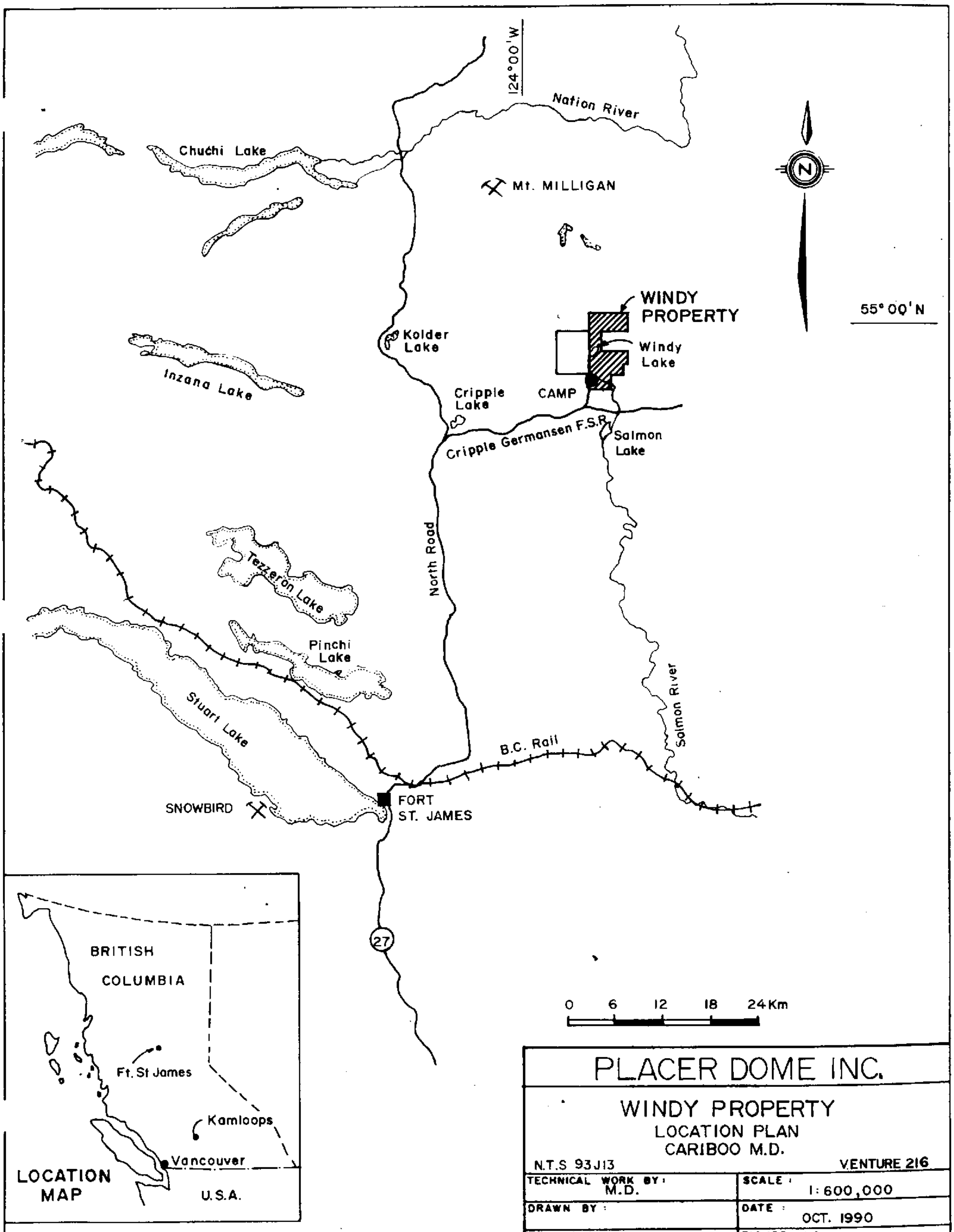
The work program as described in this report was conducted during the periods of 4 July to 29 July 1990, and 12 September to 27 September 1990.

3.0 DESCRIPTION OF PROPERTY

3.1 Location and Access

The Windy property is located in north central British Columbia and lies 65 kilometres northeast of Fort St. James, B.C. (See Figure 1). The claims are situated mostly within the Cariboo Mining Division except for the northeast corner of the property which lies within the Omineca Mining Division. The claims are roughly centered at latitude 54° 57' North and longitude 123° 50' West on NTS map sheet 93-J-13W.

Access to the property is gained by four wheel drive vehicle along the Takla North Road (Manson Creek Road) to Kilometre 48 north of Fort St. James. Continue east along the Germansen-Cripple Lake forestry road for 20 kilometres and then north along the newly constructed "600" logging road for six kilometres. Otherwise, access is by means of helicopter from either Fort St. James or Mackenzie which are equidistant from the property and are 20 minutes flying time away.



To accompany report by M. Deschene, B. Sc.

3.2 Physiography and Climate

The property is located on a topographic high with a moderate gradient in all directions from a maximum elevation of 1130 metres, to a low of 915 metres on the Salmon River at the southeast corner of the property.

The Salmon River flows southward along the western property boundary before angling southeast across the southern part of the claims. Salmon Lake is located seven kilometres south of the claim group.

The main grid extends northward from the river to a topographic high in the north central part of the property and then down to a small lake north of this high. The ground south of the river is generally flat with swampy areas. Small rock outcrops are fairly common along the Salmon River, however, outcrop is rare elsewhere.

Forest cover on the property consists of spruce, balsam, fir, and pine mixed with patches of poplar, tag alder, and willow with occasional open meadows.

The property lies within a district of moderate precipitation where winters are cold and summers are mild, with rather abrupt seasonal changes. Exploration work is recommended between early June and early October. Winter snowpack can reach one and a half metres.

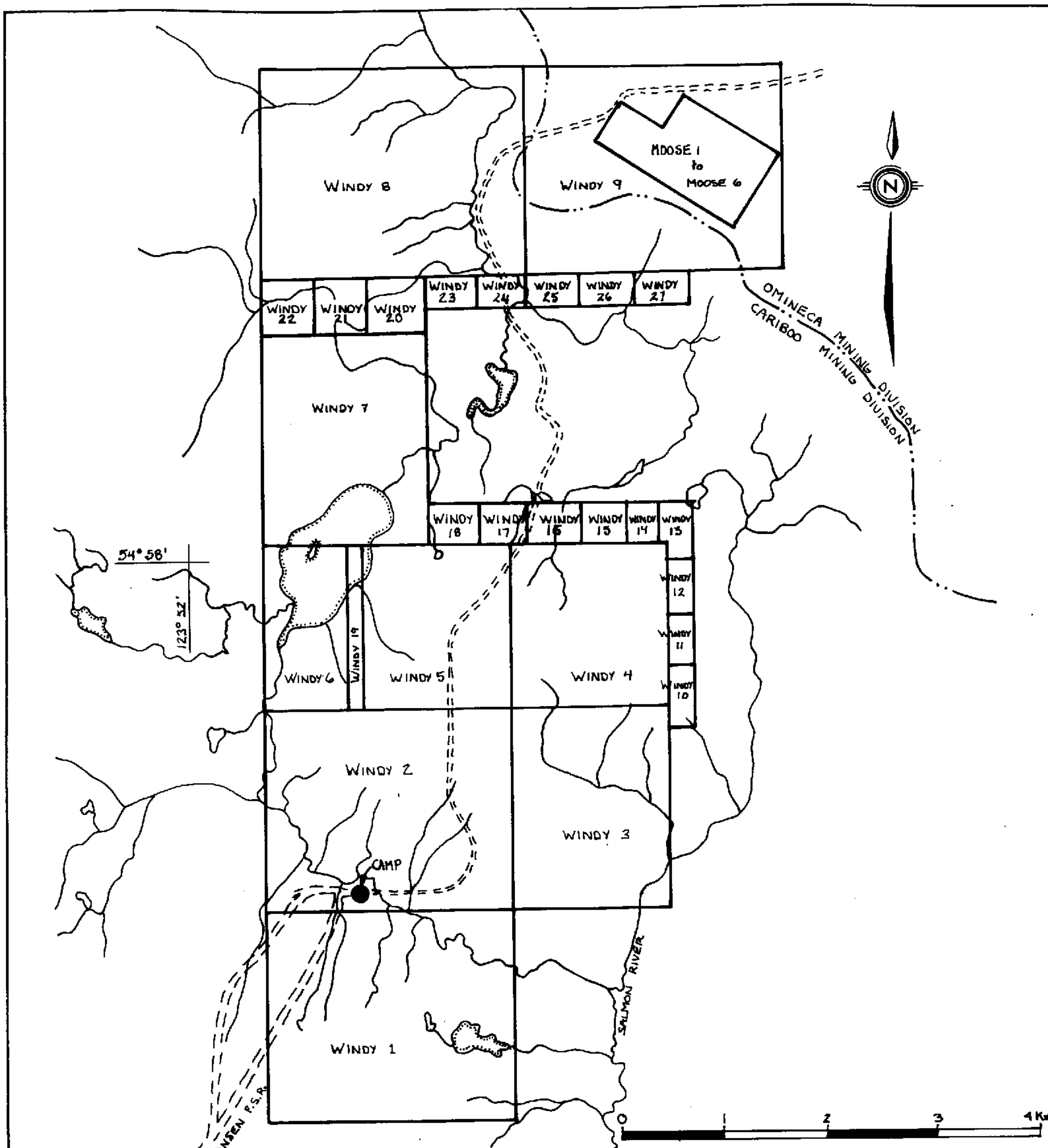
3.3 Claim Status

The Windy property consists of nine metric grid claims, 17 two-post claims and one fractional claim, totalling 146 units as shown on Figure 2. All of the claims are wholly owned by R. Haslinger and D. Halleran of Fort St. James, B.C. and are under option to Placer Dome Inc. The expiry dates shown do not take into account the work discribed in this report being filed for assessment credit.

Table 1

Mineral Claim Schedule

CLAIM NAME	NUMBER OF UNITS	RECORD NO.	EXPIRY DATE
Windy 1	20	6831	May 16, 1997
Windy 2	20	6840	June 3, 1997
Windy 3	12	7836	June 9, 1997
Windy 4	9	7837	June 9, 1997
Windy 5	9	7835	June 9, 1997
Windy 6	6	9599	March 2, 1994
Windy 7	12	9600	March 5, 1994
Windy 8	20	9703	May 12, 1997
Windy 9	20	9704	May 10, 1997
Windy 10	1	9847	June 25, 1997
Windy 11	1	9848	June 25, 1997
Windy 12	1	9849	June 25, 1997
Windy 13	1	9850	June 25, 1997
Windy 14	1	9851	June 25, 1997
Windy 15	1	9852	June 25, 1997
Windy 16	1	9853	June 25, 1997
Windy 17	1	9890	July 4, 1997
Windy 18	1	9891	July 4, 1997
Windy 19 Fr.	1	9892	July 4, 1997
Windy 20	1	10071	Sept. 20, 1997
Windy 21	1	10072	Sept. 20, 1997
Windy 22	1	10073	Sept. 20, 1997
Windy 23	1	10074	Sept. 21, 1997
Windy 24	1	10075	Sept. 21, 1997
Windy 25	1	10076	Sept. 21, 1997
Windy 26	1	10077	Sept. 21, 1997
Windy 27	1	10078	Sept. 21, 1997



PLACER DOME INC.

WINDY PROPERTY
CLAIM LOCATIONS
CARIBOO M.D.

NTS 93J13	VENTURE 216
TECHNICAL WORK BY: M.D.	SCALE: 1:50,000
DRAWN BY:	DATE: OCT. 1990
REVISIONS:	FIGURE NO.: 2

To accompany report by M. Deschene, B. Sc.

3.4 History

The original prospectors active in the area are unknown but some exploration pits have been noted along the banks of the Salmon River. Current interest was started by Richard Haslinger of Fort St. James who located small amounts of chalcopyrite with low gold and silver values on the north bank of the Salmon River. These showings were examined by W. Pentland of Placer Development Limited (now Placer Dome Inc.). The property was rejected with the suggestion that more prospecting be done.

Additional pits dug by R. Haslinger 200 metres north of the initial discovery contained gold values of 3.51 g/t and palladium values of 0.50 g/t. Copper values were also higher in these pits.

In October 1985, a soil sampling survey was conducted by Cassiar Mining Corporation (Brinco Mining Ltd.) on a small grid with 400 metre line intervals. R. Haslinger dug more pits in an area of anomalous gold and copper 800 metres northeast of the discovery pits. Gold has been repeatedly panned from the overburden in the area.

In June 1986, the property was examined by R. Boyce of Placer Development Limited. The check sampling and conclusions reached were favourable and resulted in the property being optioned by Placer Dome Inc. (formerly Placer Development Ltd.) in August 1986.

In September 1986, Placer Dome established a 20 kilometre grid over the area of most apparent interest and conducted soil sampling, VLF-EM and magnetic surveys, mapping, and sampling of outcrops and test pits. This program outlined three soil geochemical anomalies.

In September 1987, 6.8 kilometres of Induced Polarization was conducted over the three geochemical anomalies. The grid was extended 2.5 kilometres with additional soil sampling, VLF-EM and magnetic surveys to further delineate the northern copper-arsenic anomaly. Five east-west trending trenches were excavated over coincident geochemical and I.P. anomalies for a total of 426 metres. The highest values obtained were from the trench samples on Line 102 N; these returned 0.84 g/t gold and 0.27% copper over 10.0 metres.

From May to July of 1988, the exploration program consisted of 26 kilometres of line cutting, 16.2 kilometres of flagged line, 24.6 kilometres of I.P., soil sampling (557 samples) and geological mapping. Although drill targets had been defined, due to lack of funding from the joint venture partner, a diamond drill program was not undertaken.

The work program in the summer of 1989 consisted of extending the grid 63 line-kilometres on the northern claim group and conducting additional I.P., VLF-EM, magnetometer, and soil sampling surveys. A diamond drill program consisted of nine holes totalling 1500 metres. The most significant gold intersection was 0.38 g/t over 9.38 metres coming from zones of brecciation and quartz-carbonate veining. The soil geochemistry survey outlined a strong, linear gold-copper-arsenic anomaly with coincident I.P. and VLF-EM anomalies trending north-south over two kilometres along the southwestern property boundary.

4.0 GEOLOGY

4.1 Regional Geology

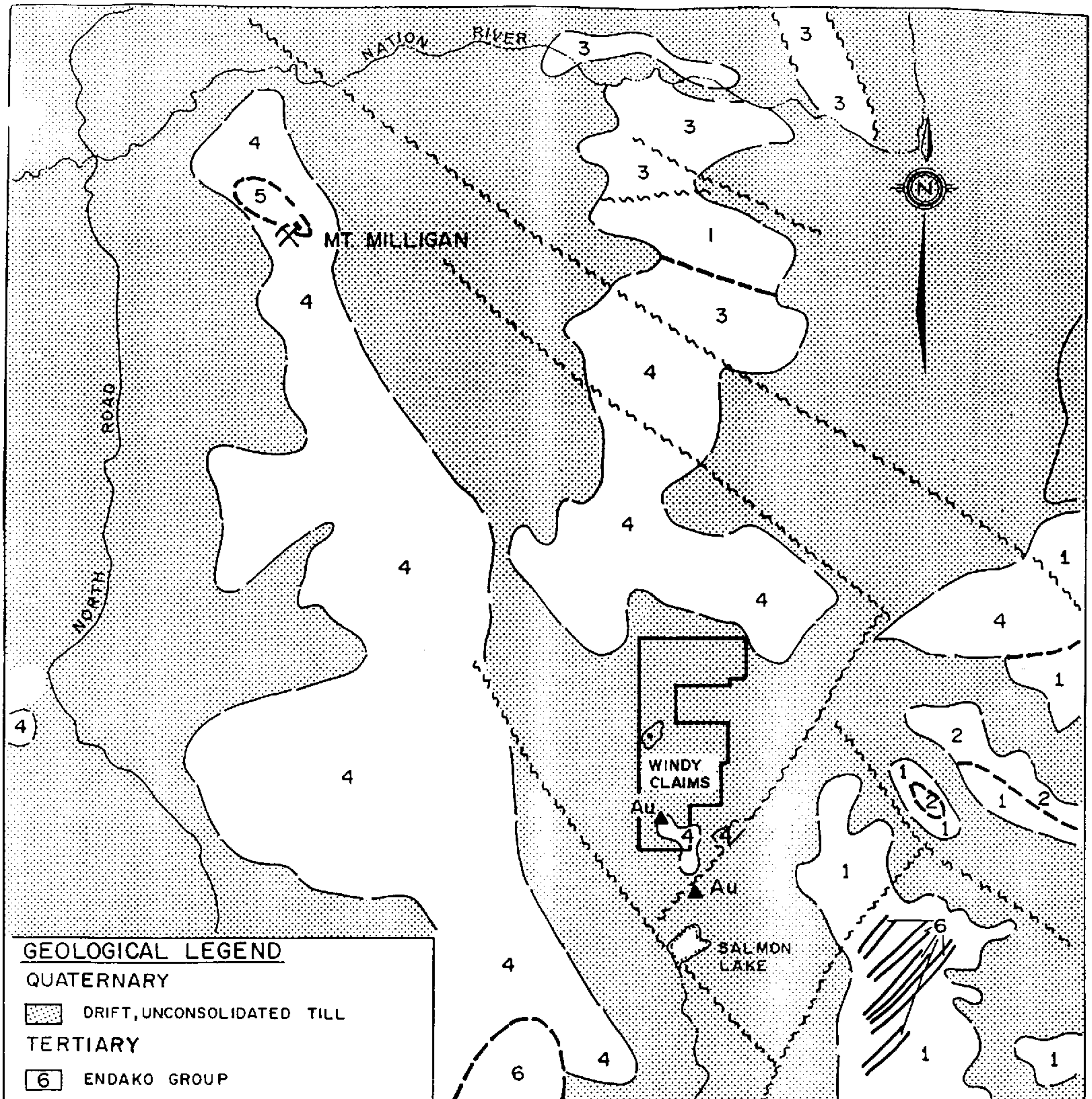
The Windy property is located within the northwestern extension of the Quesnel Trough underlain by volcano-sedimentary rock units of Mesozoic Takla Group. The Takla Group consists mainly of andesitic and basaltic flows, tuffs, and breccias, which have been mapped as Upper Triassic and/or Lower Jurassic in age (see Figure 3).

To the east of this belt of Takla group volcanics, Lower Cambrian through to Pennsylvanian rocks of the Cariboo and Cache Creek groups have been mapped as being in fault contact with the younger Takla group volcanics. Approximately six kilometres to the southeast of the property lies the Wolverine gneiss complex. This complex consists of granite, gneiss, and schist believed to be derived in part from Lower Cambrian Cariboo group rocks. Metamorphism and granitization occurred at some time between Lower Cambrian and Mesozoic times.

Overlying the Takla group rocks and forming prominent knolls are younger Endako group (Tertiary) volcanics often consisting of basaltic flows.

The assemblage is intruded by comagmatic, frequently zoned alkaline plutons. These plutons are most frequently diorite but range from syenogabbro to syenite. The chemical compositions of the plutons are similar to the volcanic rocks they intrude. The plutons occur along linear trends and appear to be controlled by major faults. The size of the plutons varies from small dykes and plugs to batholiths.

As illustrated on Figure 3, this area of north-central B.C. is heavily drift covered and consequently geological contacts are often interpreted through use of regional aeromagnetic data and limited field observations.



GEOLOGICAL LEGEND

QUATERNARY

DRIFT, UNCONSOLIDATED TILL

TERTIARY

6 ENDAKO GROUP

UPPER JURASSIC - LOWER CRETACEOUS

5 OMINECA INTRUSIONS

UPPER TRIASSIC - LOWER JURASSIC

4 TAKLA GROUP VOLCANICS

¯NNSYLVANIAN - PERMIAN

3 CACHE CREEK GROUP

LOWER CAMBRIAN OR LATER

2 CARIBOU GROUP

1 WOLVERINE GNEISS COMPLEX

CONTACT

FAULT

▲ MINFILE OCCURRENCES

0 5 10 15 Km

SCALE : 1 : 250,000

PLACER DOME INC.

WINDY V - 216

REGIONAL GEOLOGY

TECHNICAL WORK BY : DAL	SCALE : 1: 250,000
DRAWN BY : DBM	DATE : OCT. 1990
REVISIONS :	FIGURE NO. 3

4.2 Property Geology

4.2.1 Lithologies and Distribution

The southern claim group is mainly underlain by dioritic rocks which have intruded the overlying Takla Group volcanics. The geology of the rock in outcrops, in the trenches, and the drill core is consistent with the predominance of diorite on the property subjected to varying levels of alteration and metamorphism.

The Takla volcanics consist of a sequence of andesitic flows and pyroclastics. The flows are mainly porphyritic while the pyroclastics are comprised of agglomerates and tuffs. Late stage quartz-diorite and granodioritic dykes along with faulting and shearing cut the dioritic and volcanic rocks.

The following rock unit descriptions are based on a field classification employed in earlier PDI rports, eg. Frostad (1989). The property-scale geology, shown on Figure 4, is taken mostly from previous exploration reports with details of the 1990 trenching and pitting program on Figure 5.

Unit 1 - Andesitic Flows and Pyroclastics - AN/F

These rocks are medium to dark green to greyish-green, fine to medium grained with the andesitic flows being porphyritic. Hornblende phenocrysts are common and may reach 6.0 millimetres in size. Rocks are commonly sheared and foliated. The alteration is predominantly chloritic with epidote common.

Unit 1a - Hornblende Porphyritic Flows - PPAN

Rocks medium to dark green, fine to medium grained with 10 to 20% subhedral hornblende (average size 1 to 2 mm). Occasional leucoxene is developed.

Unit 1b - Agglomerates - AGLM

Light grey to greyish green bombs are 50 to 60 centimetres in size and comprised of 25 to 30% hornblende crystals (average size 3 to 4 mm) within a fine grained matrix. The bombs are contained within a crystalline matrix 40 to 50% amphiboles (average size 1 mm) and 50 to 60% plagioclase (average size 1 mm).

Unit 1c - Crystal Tuffs - ANXL

These rocks are medium grey to green, and comprised of 10 to 20% subhedral amphibole crystals (average size 1 to 2 mm), 10 to 20% plagioclase as subhedral/anhedral crystals and laths (average size 1 mm) within an aphanitic matrix. They are massive to poorly bedded. The bedded nature of this unit is generally recognized by grading and variation in phenoclast size and abundance. Bedding planes have been recognized. The matrix, as identified by petrographic study, is 60 to 70% plagioclase and 30 to 50% amphiboles. This unit was observed bearing 10 to 15% quartz eyes on the northern claim group.

Unit 1d - Quartz-eye Tuffs - ANQE

This rock is a crystal tuff as previously described which contains 5 to 10% subrounded quartz eyes (average size 3 to 4 mm).

Unit 1e - Ash Tuffs - ANAT

These rocks are medium to dark grey, very fine grained and commonly sheared with strong chlorite alteration. This unit may occur with a small percentage of fine mafic and feldspar crystals or display good bedding.

Unit 2 - Dioritic Intrusions - DIOR

The diorites are light grey to greyish green, coarse to fine grained, occasionally porphyritic with hornblende (up to 6 mm) and/or plagioclase (up to 3 mm). Textural and compositional variations are gradational. Observed alteration is primarily propylitic style with pervasive and vein controlled chlorite, epidote $\pm$ sericite $\pm$ silica $\pm$ hematite. The diorite hosts broad zones of pyrite (1 to 3%, occasionally up to 10%) and occasional chalcopyrite blebs within quartz-carbonate veins. Local intense shear zones contain increased quartz veining and sulphides.

Unit 2a - Porphyritic Diorite - PPDR

This rock unit is light to medium grey and contains 30 to 40% subhedral/euhedral amphiboles with average size >3 millimetres and up to four centimetres (megacrystic). It may occur with phenocrysts of feldspar (up to 3 mm) as euhedal crystals or laths. Porphyritic diorite dykes ranging from three to ten metres in width are observed cutting volcanic units.

Unit 2b - Coarse Grained Diorite - CGDR

Rock is light to medium grey in colour and massive to strongly sheared. It commonly occurs as a large unit with a gradational change to porphyritic or medium grained diorite. Modal composition is generally 65 to 70% plagioclase as subhedral crystals (<3mm) or laths and 20 to 25% subhedral/euhedral amphibole (average size of 2 to 3 mm).

Unit 2c - Fine and Medium Grained Diorite - FGDR, MGDR

This unit is medium grey to greyish green and may occur with a mottled appearance. Medium grained diorite is classified as occurring with average amphibole size of 1.0 to 3.0 millimetres. Fine grained diorites have an average amphibole size of less than 1.0 millimetres. Also occurs as dykes (up to 3 metres) and dyklets (10 to 20 cm) crosscutting diorite and volcanic rock units with sharp contacts. With the exception of dykes, this unit is difficult to distinguish from the volcanic rocks due to gradational contacts.

Unit 3 - Quartz Diorite - QZDR

This rock type was observed as an outcrop on the Salmon River near the eastern property boundary. The quartz diorite is leucocratic, medium grained, equigranular and comprised of 60 to 70% subhedral plagioclase, (1 to 5 mm) and 10% quartz grains. The outcrop is weakly foliated, has crackle brecciation, weak sericite alteration and is unmineralized. The fractures and breccia voids are filled with carbonate, chlorite, minor muscovite and trace K-feldspar.

Unit 4 - Granodiorite/Quartz Monzonite Dykes - GRDR, QZMZ

These dykes are light grey, fine to medium grained, massive and equigranular. These dykes are 1.0 to 2.0 metres wide. Model composition is 40 to 50% subhedral plagioclase (1 to 2 mm), 30 to 40% anhedral K-feldspar (up to 2 mm), 15 to 20% quartz grains, 10% biotite and chlorite. The dykes are relatively unaltered and contain 1.0 to 2.0% disseminated pyrite.

4.2.2 Quaternary Geology

Overburden on the Windy property is variable and includes glacial till, glaciofluvial sands and gravels, lacustrine clays and more recent fluvial deposits. Overburden depth encountered in trenches and in drill holes varies from one to 24 metres.

Glacial till consists of locally eroded bedrock lithologies whose source is likely less than one kilometre distant. Till appears to occur as pockets on the topographic highs and along the upper slopes. Glacial striae and oriented cobbles indicate that the direction of the ice movement in the area was approximately 010° azimuth.

Both the glaciofluvial and recent fluvial materials have relatively complex transportation histories. The soils of the most southerly claims are glaciofluvial in origin, comprised mainly of sand and gravel, while zones of silt, washed sands, and lacustrine clays were encountered in the vicinity of the Salmon River. The fluvial materials may represent old stream channels and are not readily traced to source.

4.2.3 Structure

The southern claim group is extensively sheared by subparallel steeply dipping faults that strike north-northwest to north-northeast. Dioritic rocks vary from weakly to intensely sheared with a general trend of 060° to 075° azimuth. The numerous fault zones trending sub-parallel to the general structure are evidenced in drill core, trenches and interpreted from VLF-EM survey data and may be up to 30 metres wide (Cannon, 1989 and Frostad, 1989). The fault zones encountered by diamond drilling and trenching reached 30 metres in width and are associated with strong chlorite/sericite/carbonate alteration, quartz-carbonate vein material (up to 70%) and patchy silicification. Zones of pasty gouge are chloritic with trace to 10% disseminated pyrite. The gouge may host angular to subrounded, occasionally silicified, rock fragments. The fragments may contain up to 40% quartz carbonate fracture fillings, and up to 10% pyrite as disseminations and/or fracture filings. The host rock on either side of the gouge is commonly weak to moderately brecciated. The contacts of gouge occasionally host quartz-carbonate veins.

Faulting in the northern claims is not as extensive as the south as evidenced from the outcrops and low number of VLF-EM conductors (Cannon, 1989).

The veins observed within drill core are predominantly quartz-carbonate shear veins that range up to one metre in width. This style of veining occurs within moderate to strongly sheared host rock. Some veins within shear zones are folded and therefore post-date the latest fault movement. The shear veins may contain up to 40% chloritic host rock fragments commonly mineralized with disseminated pyrite, and wisps of black chlorite.

The tensional style of veining (up to 30 cm) occurs within massive rock with sharp, usually parallel, contacts. This style of veining may display sericitic envelopes (bleaching) along with pyrite mineralization within the host rock at vein contacts.

The veins are commonly unmineralized but may contain chalcopyrite as blebs.

4.2.4 Mineralization and Alteration

The sulphide mineralization is mainly composed of broad zones of disseminated and fracture filling pyrite (1 to 3%, occasionally up to 10%) associated with zones of shearing, brecciation and silicification. Blebs and fracture fillings of chalcopyrite, with lesser pyrrhotite and rare bornite were also noted and are associated with quartz-carbonate veins and breccia zones proximal to shear zones.

Alteration on the property consists of extensive, weak propylitic alteration occurring pervasively, as veinlets and as disconnected patchy networks. The alteration assemblage is typically chlorite-epidote $\pm$ sericite $\pm$ carbonate $\pm$ hematite $\pm$ biotite $\pm$ K-feldspar, quartz-carbonate veins commonly develop sericitic envelopes.

5.0 DESCRIPTION OF WORK PROGRAM

Placer Dome Inc. executed the work program during the periods of 4 July to 29 July, and 12 September to 27 September, 1990. Work was concentrated near the southwest property boundary and consisted of the following activities:

- construction of approximately 3.5 kilometres of 4x4 access road;
- diamond drilling of six holes totalling 684 metres of NQ core;
- excavation of six trenches totalling 260 metres;
- collection of 488 rock and drill core samples for geochemical analysis;
- collection of 295 soil samples from a 1.5 kilometre fill-in grid and from trench overburden profiles; and
- 1.8 kilometres of magnetometer and VLF-EM surveys.

Road and drill pad construction, and drill moves were done under contract by M.B. Contracting of Fort St. James, B.C. using a Cat TD-15. The access road was built just east of camp, on the north side of Salmon River, northward across the Windy 2 and 6 claims up to Windy Lake. Ground conditions in several areas were very wet due to groundwater seepage and a skidder was required for some drill moves and for transporting core back to camp.

6.0 DIAMOND DRILLING

The program consisted of 684 metres of NQ wireline diamond drilling spread over six holes. The drilling contractor was Leclerc Drilling of Beaverdell, B.C. A skid-mounted Longyear Super-38 rig was utilized. Drill roads and pads were constructed for all drill sites. Drilling commenced 9 July and was completed 20 July, 1990.

6.1 Sample Collection

The core was transported to the field camp for logging and sampling. A total of 322 core samples was collected. The core was sampled continuously in geologically controlled intervals generally averaging one and a half to two metres. Marked intervals were split using a core splitter, with one half placed in plastic sample bags and the other half returned to the core box. The core is stored on the Windy property.

A total of 26 sludge samples was also collected where recovery was poor, from two of the six holes at the drill sites using a partitioned pipe splitter to collect a one-eighth split. Sample intervals averaged 3.0 metres and were placed in plasticated cloth bags.

6.2 Preparation and Analysis

Rock samples were shipped to the Placer Dome Research Centre in Vancouver for geochemical analysis of gold, copper, silver, and arsenic.

Samples were dried in a hot-air dryer, crushed, pulverized, and sieved to extract the -150 mesh fraction.

For gold analysis a 10 gram portion of the -150 mesh fraction is mixed with aqua regia and heated at 600°C for three hours, then HBr solution is added and allowed to stand overnight. Following a solvent extraction, the solution is analyzed for gold by atomic absorption. The detection range for gold is 5 to 4000 ppb.

For copper, silver, and arsenic analyses, a 0.5 gram portion of the -150 mesh fraction was digested in a hot solution of $HClO_4$ and HNO_3 for four hours, then cooled, diluted and analyzed by atomic absorption, except for arsenic which was analyzed by Direct Current Plasma (similar to ICP). The detection range for copper is 2 to 4000 ppm, for silver 0.2 to 20 ppm, and for arsenic 2 to 2000 ppm.

Three character core samples were sent to Vancouver Petrographics Ltd. of Vancouver, for petrographic analysis. A detailed report is included in Appendix VIII.

Sludge samples were shipped to the PDI Research facility in Vancouver for geochemical analysis of gold, copper and silver. The samples were dried in a hot-air dryer and sieved to extract the -80 mesh fraction. After digestion in aqua-regia solution, gold, copper, and silver analyses were completed by atomic absorption.

6.3 Data Handling

Drill holes were surveyed using a Brunton compass and a hip chain and tied into the field grid. Survey, geologic, recovery and RQD (rock quality designation) data, and sample data were logged using the GEOLOG System, a software package developed by International Geosystems Corporation of Vancouver, B.C. The core logging was recorded on Geoform II, which allows the user to create a graphic log, code pertinent information and add written descriptions entered as remarks. GEOLOG codes are explained in Appendix I. Information was entered into a Zenith microcomputer and transferred to a Sun Microsystems work station for data processing and plotting of cross-sections.

6.4 Map Preparation

Individual cross-sections displaying the drill hole trace, geologic data, target data, trench profiles, gold, copper, and arsenic values were plotted at 1:500 scale using PDI's Sections program. The final maps were produced by a drum-type plotter with additional information drafted by hand.

6.5 Results

Drill logs, sample data, and geochemical results are listed in Appendix II. Geologic cross-sections and target data are included in Figures 6 to 8.

It should be noted that gold values lower than the detection limit of five ppb were posted with a value of three ppb gold for statistical purposes. Rock type codes and other coded geologic data are explained in Appendix I.

Analylitical data for rock samples collected from drill core, trenches, and test pits (float) were combined to conduct statistical evaluations of the determined gold, copper, silver, and arsenic values. The threshold levels determined were used to separate the anomalous populations from background values. Statistical summaries correlation matrix, scatter plots, and histogram plots for each metal are included in Appendix V.

The following ranges of values are considered to be background, anomalous, and highly anomalous concentrations for each element, as selected from the histograms:

ELEMENT	BACKGROUND	ANOMALOUS	HIGHLY ANOMALOUS
Gold	<30 ppb	30 - 100 ppb	>100 ppb
Copper	<50 ppm	50 - 250 ppm	>250 ppm
Silver	<0.35 ppm	0.35 - 1.2 ppm	>1.2 ppm
Arsenic	<7 ppm	7 - 35 ppm	>35 ppm

Examination of the correlation matrix (Appendix V) for this element suite reveals a moderate statistical correlation between gold and silver values (0.45), and gold and arsenic values (0.47), and gold and copper values (0.5), and silver and copper values (0.51). A scatter plot of gold versus arsenic, silver versus copper, do demonstrate a correlation between these elements, but a plot of gold versus silver shows little correlation.

The following discussion assesses the 1990 drilling results on a cross-section by cross-section basis. Anomalous assay results and related intervals are listed in the following table.

TABLE 2

Significant Drill Intersections

HOLE	FROM	TO	LENGTH (M)	GOLD (ppb)	COPPER (ppm)	ARSENIC (ppm)	EQUIVALENT COPPER, %*
DDH90-1	51.0	53.3	2.3	55	920	1	0.147
	84.3	98.6	14.3	115	371	111	0.152
DDH90-2	21.9	24.0	2.1	115	1320	6	0.247
	50.0	72.7	22.7	62	215	31	0.084
DDH90-3	46.2	49.8	3.6	3	445	5	0.048
	59.8	97.0	37.2	11	356	4	0.047
DDH90-4	26.4	40.6	14.2	87	274	15.1	0.114
	94.8	103.9	9.1	31	179	1	0.049
DDH90-5	10.3	16.2	5.9	175	135	1	0.188
	32.6	36.9	4.3	240	130	14	0.253
	82.1	96.7	14.6	21	214	99.3	0.042
DDH90-6	71.5	76.5	5.0	145	351	19.3	0.180
	103.7	115.1	11.4	191	141	14	0.205
	126.9	139.4	12.5	85	408	18.3	0.126

* Copper equivalent percentage is arbitrarily taken as the sum of copper in percent and gold in grams per tonne.

Section 12400N

DDH90-1 and DDH90-2 were drilled on Line 12400N to test multiple gold-copper-arsenic soil anomalies and coincident VLF-EM and a >15 millisecond chargeability (n = 2) anomalies (see Figure 6).

DDH90-1 was drilled to a depth of 100.6 metres at a dip of 50° east. Overburden was calculated to be only 2.4 metres thick. Hole 90-1 intersected mainly an altered hornblende-plagioclase andesite porphyry which has undergone moderate to intense alteration and shearing. This unit is principally composed of angular to sub-rounded phenocrysts of hornblende (up to 5 mm wide) and plagioclase (1-3 mm wide), which make up to 30% of the rock, grading down to groundmass size. Original textures are commonly obliterated by alteration. Foliation is common throughout at angles of 070° - 080° to the core axis. A core angle of 75° translates to a true poliation dip of either 55 or 25° to the west.

Alteration is predominantly chloritic throughout with lesser epidote and quartz. The rock contains abundant medium to high angle cross-cutting fractures and veins. These structures are commonly healed by quartz-carbonate, epidote and lesser chlorite, K-feldspar, and hematite and tend to increase in frequency in proximity of shear zones.

Shear zones and fault gouges occur locally up to 3.6 metres wide and commonly appear brecciated, occasionally containing silicified clasts of the host rock.

Mineralization occurs as trace to 3% disseminated and fracture filling pyrite. Chalcopyrite was noted in trace amounts.

Higher gold and copper values were encountered near the bottom of the hole with composite values up to 115 ppb gold and 371 ppm copper over 14.3 metres (Table 2). It was also noted that the arsenic content commonly increases with gold and copper values. This interval is associated with an intensely sheared and altered andesite hosting abundant quartz-carbonate veins and up to 3% sulphides.

Petrographic analysis of a sample taken at 99.8 metres was determined to be an altered medium-grained diorite with veins and veinlets dominated by calcite with less K-feldspar and chlorite (Appendix VIII).

Sludge samples with anomalous gold, silver, and copper values were encountered. An interval from 12.8 - 15.6 metres returned values of 32 ppm silver and 180 ppb gold which appear to correlate with values in drill core yielding 1260 ppm arsenic and 70 ppb gold near the top of the hole.

DDH90-2 was drilled 85 metres to the east of hole 90-1 to a depth of 101.2 metres and intersected porphyritic andesites. The rock is similar in composition to the andesite in hole 90-1 but is much more faulted and brecciated with common inclusions of volcanic and silicified rock fragments. Numerous shear zones and fault gouges were noted which contain abundant fracture fillings and veins of quartz-carbonate and epidote. Quartz-carbonate veins often host chloritic rock fragments which commonly contain pyrite. The angle of the shears and veins is usually between 060° and 080° to the core axis.

Pyrite occurs up to 3% as disseminations and fracture fillings associated with zones of fracturing, faulting, brecciation, silicification, and along vein contacts. Traces of chalcopyrite were noted in quartz-carbonate veins.

Higher gold (up to 200 ppb) and copper (up to 1320 ppm) values are associated with fault- breccia zones containing abundant quartz-carbonate veining. Arsenic values also appear to increase in correlation with gold values. The highest copper value of 1320 ppm is related to an interval of quartz containing a 1.5 centimetre bleb of chalcopyrite.

Sludge samples with anomalous silver and gold values were encountered midway in the hole from 58.5 to 79.9 metres and returned values of up to 59 ppm silver and 290 ppb gold. These intersections appear to correlate with the gold mineralized fault breccia zone, however, core samples throughout this interval contained only about 0.2 ppm silver.

It is unclear whether the gold, copper, and arsenic values in holes 90-1 and 90-2 could explain the observed soil anomalies. The pyrite content appears to be sufficient to explain the observed chargeability anomaly over the section. The observed VLF-EM conductors are believed to be caused by the fault zones in hole 90-2, as indicated from the broken and clay-gouged core.

Section 11600 N

DDH90-3 and DDH90-4 were drilled on a east-west fence to test a gold-copper-arsenic soil anomaly and a coincident VLF-EM conductor.

Hole 90-3 intersected mainly altered andesitic flows and porphyritic andesites after passing through 21.8 metres of overburden. The hole also intersected a 34.6 metres interval of fine to medium grained altered diorite. Alteration in this hole consists of a propylitic suite. The rocks display a moderate foliation at angles of 050° to 080° to the core axis. Abundant fracture fillings and veins of quartz-carbonate, chlorite, epidote, sericite, and pyrite were found, at angles of

040° to 070° to the core axis. Narrow shear and fault zones were noted which commonly contain quartz-carbonate veins up to 70 centimetres wide.

Mineralization occurs mainly as 2-3% disseminated pyrite and traces of chalcopyrite associated with zones of increased fracturing and shearing, and also occurs within chloritic rock fragments hosted by quartz-carbonate veins.

No significant gold intersected in this hole but anomalous copper values up to 830 ppm were encountered within propyliticly altered shear zones hosting quartz-carbonate veins and veinlets and increased pyrite content.

Petrographic analysis of a sample taken at 50.4 metres was determined to be a medium-grained, recrystallized diorite with veins and veinlets of plagioclase and calcite, with less abundant chlorite, K-feldspar, and quartz (Appendix VIII).

Hole 90-4 was drilled 86 metres east of hole 90-3. The hole intersected mainly a series of andesitic flows and porphyritic andesites but also encountered narrow dykes and brecciated fault zones. The hole was ended in a moderately sheared quartz diorite. Alteration is predominantly propylitic; while some intervals display more intense silicification. Foliation is moderate to strong throughout at angles of 040° to 060° to the core axis. Shear and fault zones are common and host quartz carbonate veinlets and veins up to 60 centimetres wide, generally striking parallel to the foliation.

Up to 5% disseminated and fracture filling pyrite and traces of chalcopyrite were found associated with shear, fault and breccia zones, and quartz veins.

Higher gold values were intersected in brecciated fault zones and fault gouges within the altered andesite porphyry. Copper values were generally weaker throughout but one anomalous value yielding 910 ppm was detected within a quartz vein containing traces of chalcopyrite. Higher arsenic values appear to correlate with higher gold values.

The copper and arsenic values in holes 90-3 and 90-4 may explain the observed soil anomalies although doubtfil because of the thick overburden. However, the gold-in-soil anomalies are not likely related to the determined gold values intersected in these holes. The observed VLF-EM conductor is believed to be caused by the fault zone at the top of hole 90-4.

Section 10990N

Holes 90-5 and 90-6 were drilled on a east-west fence to test a zone with a multiple gold-copper-arsenic soil anomaly and coincident VLF-EM anomaly.

Unfortunately, as shown on Figure 8, the I.P. anomaly on this line lies just west of the area tested by the drill holes.

DDH90-5 was collared into a siliceous porphyritic andesite before intersecting mainly fine to medium grained altered diorites. Sheared and brecciated fault zones up to eight metres wide were also encountered. Alteration is predominantly chloritic with lesser quartz, epidote, sericite, and carbonate. Localized zones of moderate propylitic alteration were also noted. Fracture fillings and veins of quartz-carbonate, with lesser epidote and sericite, are common. Foliation is weak to moderate at angles of 050° to 070° to the core axis. Quartz-carbonate veins are more common in zones of increased fracturing and shearing.

Mineralization occurs mainly as disseminated pyrite in amounts of 2-4% and lesser amounts as clots and fracture fillings. Amounts appear to increase in zones of increased fracturing, quartz-carbonate veining, and silicification. Magnetite was also noted in amounts up to 5% occurring as disseminations and associated mainly with porphyritic andesites and andesitic flow units.

Gold and copper values were generally low throughout the entire hole. However, higher gold values were associated with a zone of intense fracturing in the upper part of the hole containing quartz-carbonate veins hosted by a porphyritic andesite which returned a value of 175 ppb gold over 5.9 metres. A brecciated fault zone at about 35 metres containing up to 7% pyrite and 3% magnetite returned a gold value of 240 ppb over 4.3 metres.

Higher copper values deeper in the hole appear to correlate with zones of increase fracturing, shearing, brecciation, and higher sulphide content. Values up to 410 ppm copper were noted.

Hole 90-6 was drilled 75 metres east of hole 90-5. The overburden thickness increases from three metres in hole 90-5 to 16 metres in hole 90-6. DDH90-6 intersected mainly altered and moderately foliated, fine to coarse grained diorites throughout. A 6.2 meter brecciated fault zone hosting a 20 centimetre quartz vein was encountered near the top of the hole. Alteration consists of chlorite, quartz, sericite, epidote, and carbonate. Numerous fractures and veins of quartz-carbonate, epidote and lesser sericite, limonite, and hematite were found. Foliation is weak to moderate at 060° to 080° to the core axis. Abundant quartz-carbonate veins were encountered near the bottom of the hole in a zone of increased silicification and fracturing.

Mineralization consists of 1-3% disseminated pyrite, locally up to 5% disseminated magnetite, and traces of chalcopyrite. Higher sulphide content appears to be associated with zones of silicification, fracturing, and quartz-carbonate veining.

Anomalous gold and copper values were encountered in the lower half of the hole. These values were associated with silicified zones containing quartz-carbonate veins and up to 5% pyrite. Gold values are up to 191 ppb over 11.4 metres and copper to 408 ppm over 12.5 metres. Higher arsenic values to 50 ppm appear to correlate with anomalous gold values.

Petrographic analysis of a sample taken at 97 metres was determined to be a metamorphosed andesite flow or tuff containing replacement patches and veins of calcite (Appendix VIII).

The gold and copper values in holes 90-5 and 90-6 appear high enough to explain the observed soil anomalies. The observed VLF-EM conductor is believed to be caused by the sheared and brecciated fault zone near the top of hole 90-6.

6.6 Interpretation

Rocks intersected in the diamond drilling program indicate a change in lithology from altered andesitic flows and porphyritic andesites in the north to altered fine to medium grained diorites in the south. However, petrographic analysis of rocks taken from holes 90-1 and 90-3 were determined to be altered and metamorphosed diorites. This difference in interpretation is believed to be caused by the difficulty to distinguish the diorites from the volcanic rocks due to gradational contacts and the intensity of alteration.

The drilling intersected only a few anomalous gold and copper values. The best intersections were in the most southerly holes 90-5 and 90-6. Anomalous gold and copper values are most commonly associated with sheared and brecciated fault zones hosting quartz-carbonate veins with up to 5% disseminated pyrite and lesser chalcopyrite. Zones with increased propylitic alteration also seem to be associated with copper mineralization as seen in holes 90-2, 90-3, and 90-4. Anomalous arsenic values have a good correlation with anomalous gold values.

The determined gold and copper values in the drill holes may explain some of the observed soil anomalies. However, gold-in-soil anomalies in holes 90-3 and 90-4 are not reflected in the underlying bedrock, suggesting glacial or hydromorphic transport of the anomalies.

The pyrite content in holes 90-1 and 90-2 appears to be sufficient to explain the observed chargeability anomalies. The observed VLF-EM conductors in all the sections are attributed to the fault zones encountered in holes 90-2, 90-4, and 90-6 as indicated from the broken and clay-gouge core.

The restriction of gold-copper mineralization to structural control suggests that VLF-EM conductors may be better exploration targets than I.P. or soil geochemistry.

7.0 GEOCHEMICAL SURVEY OVER THE NEW SHOWING

A limited soil geochemical survey was conducted over the new showing area near the western boundary of the property following discovery of high grade gold mineralization in float samples.

Approximately 1.8 kilometres of fill-in soil sample lines were constructed and tied into the 1989 grid (see Figure 4 for location). Lines were positioned at 50 metre intervals between lines 10400N and 10700N from 8560E to 8860E with a Base Line at 8700E. Stations were marked with black felt pens on orange flagging or white Tyvex tags, and established at 20 metre intervals. Lines were surveyed using a Silva compass and hip chain measurements.

7.1 Sample Collection

A total of 145 soil samples was collected at 20 metre intervals along 50 metre spaced lines (Figures 9-11). Samples of B-horizon material were collected from 20 to 40 centimetre deep holes excavated with narrow-bladed, short-handled shovels. The B-horizon was generally well developed and easily recognized as a tan to orange-brown silty sand (gravel) beneath the shallow organic enriched horizon. Soils in this area were generally well drained and appear to have developed on fluvial sand and gravels.

Twenty-two of these samples were collected from 20 to 80 centimetre deep test pits using a narrow bladed shovel. One sample was collected from the B-horizon (labelled A on Figrues 9-11) and a second from the bottom of the pit (labelled B). The purpose of the deeper sampling was to expose and examine more rock fragments and hopefully determine if glacial till might be found in the "C" horizon.

Samples were placed in brown kraft paper envelopes, and labelled with line and station for identification. Notes were recorded at each sample site regarding site conditions, sample depth, soil composition and grain size, and rock fragment composition.

7.2 Preparation and Analysis

Samples were shipped to the Placer Dome laboratory in Vancouver for geochemical analysis of arsenic, gold, and copper. The samples were dried in a hot-air dryer and sieved to extract the -80 mesh fraction.

For arsenic and copper analyses, a 0.5 gram portion of the -80 mesh fraction was digested in an aqua-regia solution for four hours and then copper was analyzed by atomic absorption, and arsenic by a direct current plasma technique. The detection range for copper is 2 to 4000 ppm, and for arsenic 2 to 2000 ppm.

For gold analysis, a 10 gram portion of the -80 mesh fraction was mixed with aqua-regia for three hours, then HBr solution was added and allowed to stand overnight. Following a solvent extraction, the solution was analyzed for gold by atomic absorption. The detection range for gold is 5 to 4000 ppb.

7.3 Data Handling

Soil geochemical data were entered into a Zenith microcomputer and transferred to a Sun Microsystems work station for data processing and plotting of location plot maps.

7.4 Map Preparation

Soil sample locations were digitized using field coordinates and plotted at 1:1,000 scale using the PDI MAPS program. The final maps were produced by a drum-type pen plotter with additional information drafted by hand.

7.5 Results

The geochemical results of the 1990 soil samples from the new showing grid and test pit overburden profiles are listed in Appendix VI and as symbol plots in Figures 9-11. Results from the grid soil survey were combined to produce basic statistics, scatter plots, correlation matrix and histograms to examine the structure of the results for each element (Appendix VII).

Threshold levels were then determined which were applied to separate the anomalous, if present, populations from the background values.

The following range of values are considered to be background, anomalous, and highly anomalous concentrations for each element:

Element	Background	Anomalous	Highly Anomalous
Gold	<30 ppb	30-60 ppb	>60 ppb
Copper	<50 ppm	50-120 ppm	>120 ppm
Arsenic	<10 ppm	10-120 ppm	>120 ppm

Plots illustrating the spatial relationships of the soil sample data are presented in Figures 9, 10, and 11 at a scale of 1:1000. Figure 4 shows the location of the 1990 new showing grid. Element concentrations at each sample site are classified into fixed ranges (class intervals) as determined from the histograms. Symbols of fixed dimension were assigned to each class interval.

Examination of the correlation matrix (Appendix VII) for this element suite reveals good correlation between gold and arsenic values (0.72), and gold and copper values (0.71), and copper and arsenic values (0.70). Scatter plots of arsenic versus gold, and copper versus gold, and copper versus arsenic, do demonstrate correlations between these elements.

Gold values range from less than the detection limit of 5 ppb to a maximum of 3420 ppb. Approximately 52% of the samples returned values less than the detection limit, and 39 samples had values in excess of the 30 ppb anomaly threshold level. The anomalous gold values define one general trend 60 metres wide and 230 metres long, through the centre of the grid. The trend strikes approximately 010° to 015° azimuth. There are also a few single station "spot" anomalies on lines 10400N, 10500N, and 10700N (see Figure 9).

It should be noted that where two samples (A and B) were collected from the same site, the deeper (B sample) C-horizon sample usually returned a higher value.

Copper values range from 20 to 2110 ppm. Approximately 81 samples had values in excess of the 50 ppm threshold level. These samples define a trend very similar to that of gold. Again B samples collected in the deeper sample sites were higher in value than the shallower A samples.

Arsenic values range from 1 to 4100 ppm. Approximately 70 samples had values in excess of the 10 ppm anomaly threshold level. These samples also define a trend similar to the pattern displayed by gold and copper.

7.6 Interpretation

Plots of the geochemical results for the various elements illustrate that underlying bedrock lithology does not appear to control element distribution.

Anomalous concentrations of gold, copper, and arsenic define a multi-element geochemically anomalous trend parallel to the ice flow direction (about 010°-015° azimuth). The position of the trend between lines 10400 and 10450N overlies the massive sulphide boulder train exposed in the trenching program. Overburden depth increases substantially from one metre at line 10400N to over five metres at line 10600N which could cause some suspicion as to the source of the anomalous metal values north of line 10450N along the trend. Therefore it is likely that the source of the anomalous metal values originates from the massive sulphide boulders or a common source to the south and soil anomalies farther north on the grid have been glacially transported. The fact that the soil anomalies are scattered over a width of 140 metres while the mineralized boulder train, to be discussed later, is only about 20 metres wide, suggests a broader source or lateral glacial dispersion from a common source some distance south of the trenched area.

Samples collected along line 10400N which lies on the edge of a large swamp, should be considered suspect due to the fluvial nature of the overburden.

8.0 GEOPHYSICAL SURVEYS OVER THE NEW SHOWING

8.1 Magnetometer/VLF-EM

VLF-EM and magnetic surveys were conducted along 1.8 kilometres of line over the new showing grid. The VLF survey was conducted using the Seattle, Washington transmitting station with readings being taken at 10 metre stations except for lines 10600N which had readings taken at 20 metre stations. Magnetometer readings were taken at 10 metre intervals.

8.2 Instrumentation and Procedures

Magnetometer

The magnetometer survey was conducted using a UniMag Proton Precision portable magnetometer. The Uni-Mag measures the total field magnetics in nanoteslas.

The survey was completed in loops where the first station would be read at the beginning and at the end of the loop. No significant variations in magnetic readings were observed in the short time of loop intervals. Drift corrections of under 23 nanoteslas were made to the data. The corrected results were transferred to a Sun Microsystems work station for final plotting.

VLF-EM

The VLF-EM survey employed a Sabre Electronics EM-27 unit. VLF readings were entered onto a Sun Microsystems work station for processing and plots were made of the In-Phase, Quadrature and Fraser Filter data.

8.3 Results

The magnetometer survey results were plotted as a plan map of stacked profile data at a scale of 1:1000 shown on Figure 12.

The VLF-EM survey results were plotted as stacked In-Phase and Fraser Filter profiles on a plan map at a scale of 1:1000 (see Figure 13). The Fraser Filter data was calculated as per the method put forth by Fraser (1969).

8.4 Interpretation

Magnetometer

The magnetometer survey results are of limited use because of the small grid size. However, Figure 12 shows a poorly defined zone of higher magnetic susceptibility crossing the grid in a northwest-southeast direction and flanked by a zone of low magnetic readings to the northeast. This may represent a contact between the porphyritic andesites exposed in trenches 90-03 and 90-04 (Figure 15) and the altered diorites exposed in trenches 90-01, 02, 05, and 06 (Figure 14). This linear zone also correlates with a parallel zone of low magnetic readings detected during the 1989 magnetic survey (Cannon, 1989).

VLF-EM

The predominant directions of the conductors, as interpreted on Figure 13, were from north northwest to north northeast, of between 330° and 030° azimuth. This appears to correlate with schist zones and foliation trends observed in trenches. The apparent concentration of VLF conductors in the area of anomalous soil geochemical values may be coincidental as the conductors are linked to bedrock structures and the geochemistry to glacially transported metals.

9.0 SURFACE TRENCHING OVER THE NEW SHOWING

Six trenches totalling 260 metres were excavated in the new showing area on the Windy 2 claim to test geochemical anomalies. A total of 17 test pits were dug to depths of approximately 7.0 metres and immediately reclaimed. Excavation was done by Hat Lake Logging Ltd. of Fort St. James, B.C. All trenches were dug using a Cat D240 backhoe with an 18 inch toothed bucket and a smooth edge bucket for cleaning. Trench and test pit locations are shown on Figures 4 and 5.

Bedrock was attained in most of the trenches although irregular rock surfaces and deep overburden sometimes slowed progress. Depth of trenches varied from 0.5 to 5.0 metres.

The trenching program was sometimes plagued by problems with relatively thick overburden and/or a shallow water table. Many areas which were targeted by soil geochemistry could not be adequately tested. A practical limit to the overburden thickness which can effectively be trenched is approximately 5.0 metres. Trenches were then mucked out and dewatered using a water pump.

Most of the trenches were reclaimed except those displaying favourable looking bedrock. These include TR90-6 and a section of TR90-2. Trenches are identified in the field with a wooden stake located at the collar position. The fluorescent red painted stakes have an aluminum tag stating the trench name and length.

9.1 Sample Collection

A total of 143 rock samples was collected from the trenches. Continuous chip samples were systematically taken over intervals averaging 2.0 metres in areas of favourable looking bedrock. Sample intervals were marked with red flagging along the trench walls. Each sample contained approximately 5.6 kilograms of rock chips which were double bagged and labelled.

A total of 92 overburden sample profiles was collected from the trench walls at 10 metre intervals. In each profile, samples were collected from the B-horizon (rusty-brown soil) labelled A; the C-horizon (glacial till) labelled B, and the XC-horizon (decomposed bedrock interface) labelled C. Samples were placed in brown kraft paper envelopes and labelled with the trench number, location within the trench, and depth, denoted by a letter (A, B, or C).

A total of 77 overburden profile samples was also collected from test pits. In most pits, samples were collected from the B-horizon, and then every metre down the wall of the pit. Samples were placed in brown kraft paper envelopes and identified with grid coordinates and depth location (A, B, or C).

A total of 45 rock samples (grabs) was collected from outcrops, prospect pits, float, and old trenches in various locations on the property. The majority are from the "new showing" area. Sample locations were identified in the field with flagging tape, and are plotted on Figures 4 and 5. Brief descriptions and geochemical results of rock samples are included in Appendix IV.

9.2 Preparation and Analysis

Rock samples were shipped to Eco-Tech Laboratory in Kamloops where they were oven dried, crushed, pulverized, and sieved to produce a -150 mesh fraction. A sub-sample was weighed for geochemical analysis. Each sample was analyzed for gold, silver, copper, zinc, lead, and arsenic. The digestion and detection techniques used for each element are given in Table 3.

TABLE 3

Analytical extraction and detection techniques used by
Echo-Tech Laboratories Ltd.

Element	Unit	Grams	Digestion	Detection Limit	Instrumentation
Copper	ppm	0.5	Aqua-Regia	1 ppm	Atomic Absorption
Zinc	ppm	0.5	Aqua-Regia	1 ppm	Atomic Absorption
Lead	ppm	0.5	Aqua-Regia	2 ppm	Atomic Absorption (background corrected)
Silver	ppm	0.5	Aqua-Regia	0.1 ppm	Atomic Absorption (background corrected)
Gold	ppb	10.0	Fire Assay	5 ppb	Atomic Absorption
Arsenic	ppm	0.5	Aqua Regia	1 ppm	Hydride Gen. A.A.

Four character rock samples were sent to Vancouver Petrographics Ltd. for analyses. The petrographic descriptions are included in Appendix VIII.

The overburden samples from trench and test pit profiles and basal till samples were also shipped to Eco-Tech Laboratory in Kamloops for geochemical analysis of copper, lead, zinc, silver, arsenic, and gold. The samples were dried in a hot-air dryer and sieved to extract the -80 mesh fraction. The digestion and detection techniques used for each element are the same as those listed in Table 3.

9.3 Data Handling

Trenches were surveyed using a Silva compass and a 30 metre fibreglass chain and tied into the field grid. Survey, geologic, recovery, and

RQD (Rock Quality Designation) data, and sample data were logged using the GEOLOG System identical to the one used for drill holes (see Section 6.3).

Information was entered into a Zenith microcomputer and transferred to a Sun Microsystems work station for data processing and plotting of trench plans.

9.4 Map Preparation

Trench plans were plotted at 1:200 scale using PDI's Sections program, and maps were produced by a drum-type pen plotter with additional information drafted by hand. The trench plans display the trench traces, geologic data, target data, gold, copper, and arsenic values.

Trench overburden profiles were hand drafted at 1:200 scale. The sketches display the nature of the overburden, sample locations, and geochemical results.

9.5 Results

Trench logs, geochemical results and overburden profile data are listed in Appendix III. Trench plans and target data are included in Figures 14 and 15. Trench overburden profiles are shown on Figures 16 through 22. It should be noted that gold values lower than the detection limit of 5 ppb were posted with a value of 3 ppb gold.

Statistical analysis for gold, copper, silver, and arsenic from trench samples was combined with drill core samples and is discussed in Section 6.5.

The following discussion assesses the 1990 surface trenching program on a trench by trench basis. Selected anomalous rock samples in trenches are listed in the following table:

TABLE 4

Selected Anomalous Rock Samples in Trenches

Trench	From	To	Length (m)	Lith	Au ppb	Cu ppm	As ppm	Cu %* Equivalent
TR90-01	20.0	26.0	6.0	AN/F	-	651	-	0.065
"	24.0	26.0	2.0	AN/F	590	448	16	0.635
"	30.4	32.0	1.6	AN/F	435	301	55	0.465
"	43.3	43.5	0.2	GOUG	1310	247	11	1.335
Tr90-02	8.0	18.0	10.0	AN/F	112	387	112	0.151
"	34.0	36.0	2.0	AN/F	400	221	11	0.422
* "	42.0	44.9	2.9	FECR	835	2100	1190	1.045
"	48.6	53.8	5.2	AN/F	875	2000	44	1.075
"	47.7	49.0	1.3	GOUG	6010	4400	112	6.450
TR90-03	10.0	12.0	2.0	MGDR	345	105	9	0.356
"	28.0	30.0	2.0	MGDR	380	141	18	0.394
"	39.0	-	GRAB	MGDR	415	303	25	0.445
TR90-04	29.0	30.7	1.7	PPAN	405	209	23	0.426
TR90-05	8.0	20.0	12.0	FGDR	59	716	46	0.131
TR90-06	6.0	14.0	8.0	QZDFR	185	841	648	0.269
"	17.2	18.4	1.2	QZDR	1130	76	34	1.138
"	10.0	12.5	2.5	GOUG	1560	3298	75	1.890
"	14.2	14.5	0.3	QZDR	2360	615	57	2.422
"	10.5	-	GRAB	QZDR	1680	3640	82	2.044

* See Table 2 for explanation

Trench 90-01

This trench was excavated to test a gold-copper-arsenic soil geochemical anomaly and possibly the source of a massive sulphide boulder train. The trench was 55 metres in length with overburden depth averaging 1.0 metres which consisted of clays and fluvial sand and gravels. Trench 90-01 lies close to a swamp at the southern end of the grid.

Trenching exposed mainly altered andesitic flows interfingered with narrow bands of porphyritic andesite flows and chloritic schist. Original textures are commonly obliterated by intense alteration. Foliation is moderate to strong and trends 010° to 020° azimuth.

Alteration assemblage is typically chlorite, sericite, quartz and lesser calcite, and K-feldspar. Localized zones of increased silicification were noted. The lower half of the trench displays a higher density of fractures and veins. These structures are filled by quartz-carbonate, chlorite and lesser sericite. Shear zones and fault gouges were also noted in this section of the trench and they commonly display quartz-carbonate vein material occasionally hosting chloritic fragments and increased sulphide content. Other quartz-carbonate veins, up to 20 centimetres, are unmineralized. These structures generally strike 035° to 050° azimuth.

Mineralization occurs as 2-3% disseminated pyrite and clots of chalcopyrite in amounts of less than one percent. Sulphide content commonly increases in zones of silicification, quartz-carbonate veining, shearing, and fault gouges.

Chip sampling determined anomalous gold, copper, arsenic, and silver values. A two metre sample taken in a siliceous andesitic flow containing disseminated pyrite and traces of chalcopyrite bordering a chloritic schist, returned values of 590 ppb gold and 448 ppm copper. A 40 centimetre fault gouge hosting quartz material and disseminated pyrite and chalcopyrite, yielded a gold value of 435 ppb. A 10 centimetre fault gouge striking 040° returned an anomalous gold value of 1310 ppb.

Overburden profile sampling showed that gold and copper values are more anomalous in the lower half of the trench (Figure 16) which is still intact. Samples 70 centimetres and one metre deep returned values up to 275 ppb gold and 881 ppm copper. The source of the anomalous values may be the mineralized structures in the underlying bedrock , but all the overburden is transported.

Petrographic analysis of a sample taken at 23 metres was determined to be a metamorphosed, fine to medium grained quartz-diorite, deformed and sheared slightly (Appendix VIII) as opposed to andesite flow as logged the trench.

Trench 90-02

This trench was dug to test a zone geochemically anomalous in gold, copper, and arsenic, and to test for the source of massive sulphide boulders uncovered in two separate prospect pits along the trench. Overburden depth ranged from 1.5 metres of fluvial deposits in the west to five metres of fluvial deposits overlying glacial till in the east. A massive sulphide boulder concentration was encountered over a 20 metre width and a 2.5 metre depth. The boulders appear to occur within the upper portion of the till horizon just below the sand and gravel horizon (Figure 17).

Analyses of material from numerous sulphidic boulders are included in Appendix IV. Metal values are variable but some specimens are rather rich with highest values as follows: gold 32 g/t, copper 1.8%, silver 35 g/t and arsenic 23%. Zinc was not determined, but it was moderately anomalous in some of the overburden profile samples.

Highly altered andesitic flows were exposed along the entire trench. An interrupted interval occurs from 42 to 45 metres caused by a ferricrete zone consisting of limonitic and hematitic massive sulphide boulders cemented together through oxidization. Moderate to intense foliation occurs throughout the rock and strikes 020° to 035°. Alteration consists predominately as silicification and increases from west to east.

Shear zones, fault gouges and quartz-carbonate veins occur locally and commonly host chloritic fragments and a higher sulphide content. They generally trend along 060° or 090° direction.

Mineralization occurs as disseminated and fracture filling pyrite in amounts up to 4% and lesser chalcopyrite occurring as disseminations and clots up to 2% locally. Narrow lenses of pyrite and chalcopyrite were noted in some fault gouges.

Chip sampling determined anomalous concentrations of gold, copper, silver, and arsenic commonly within shear-fault structures. A two metre sample, at about 37 metres, taken along a fault gouge returned an anomalous gold value of 400 ppb. Sampling across the ferricrete interval yielded anomalous values of 835 ppb gold, 2100 ppm copper, 3.7 ppm silver, and 1190 ppm arsenic. However, these values are not in-situ. An intensely altered and foliated andesite at about 50 metres returned values of 875 ppb gold and 2000 ppm copper over 5.2 metres. A 10 centimetre wide, sulphide-bearing fault gouge at about 58 metres striking 056° yielded values of 6010 ppb gold, 6.5 ppm silver, and 440 ppm copper over 1.3 metres which could explain the nearby observed soil anomaly (Figure 14).

Overburden profile sampling determined highly anomalous gold, silver, copper, and arsenic values over a 60 metre width (Figure 17). Surprisingly, several of the higher values were detected outside the massive sulphide boulder train. Anomalous metal values were obtained from all three horizons (A, B, and C), yielding values of up to 7052 ppb gold, 1762 copper, and 7190 ppm arsenic. As concluded in discussion of the surface soil geochemical anomlies (page 27), the geochemical train in the till is much wider than the mineralized bouler train, and the west edge of the till is eroded away in Trench 90-02. Therefore a larger bedrock source for the till geochemical values must lie some distance up-ice, to the south of this trench.

Petrographic analysis of a sample taken at 70 metres was determined to be a metamorphosed and moderately foliated porphyritic (plagioclase) diorite.

Trench 90-05

This trench was dug in a west to east direction between trenches 90-01 and 90-02 to test a zone of gold, copper, and arsenic soil anomalies. Overburden depth ranged from 1 to 1.8 metres and consisted of lacustrine clays and sand and gravels overlying glacial till. A 0.5 to 0.75 metre thick horizon of intensely limonitic and hematitic material was noted just above the till.

Bedrock consisted of a weakly foliated, non-descript fine-grained diorite. This unit is composed of interlocking crystals of plagioclase, hornblende, and lesser quartz with up to 10% of sub-rounded hornblende phenocrysts two to three millimetres in diameter. Foliation strikes approximately 040°. Fracturing is moderate with fractures commonly healed by quartz, epidote, chlorite, and lesser sericite and limonite. Mineralization occurs as three to four percent finely disseminated pyrite and lesser chalcopyrite. Sulphide content appears to increase with level of silicification.

Chip sampling determined low-level anomalous gold values and anomalous copper values. A composite value of 716 ppm copper over 12 metres was associated with a zone of siliceous diorite with three to four percent pyrite and about one percent chalcopyrite. Gold values averaged 59 ppb in this zone.

Overburden profile sampling determined anomalous gold, copper, and arsenic values in the first 10 metres of the trench (Figure 20). Samples taken below one and two metre depths returned values up to 145 ppb gold, 3835 ppm copper, and 4456 ppm arsenic. These anomalous values do not reflect the immediate underlying bedrock which again suggests a glacially transported source.

Trench 90-06

This trench was excavated between trenches 90-05 and 90-02 to better expose the massive sulphide boulder train (Figure 14). Overburden depth ranged from 1.5 metres in the south to five metres in the north and exposed some sand and gravels overlying glacial till as shown on Figure 22. The massive sulphide boulder train is up to three metres thick at the north end of the trench and clearly shows erosion down to less than one metre as it approaches trench 90-05. It's position lies within the till just below the sand and gravel horizon.

The exposed bedrock consists of a weakly foliated, moderately altered, medium-grained quartz diorite. Alteration is predominantly pervasive chlorite with lesser quartz and sericite. Silicification increases from south to north. Fractures are filled by quartz-carbonate and lesser epidote and chlorite. Fault gouges occur locally up to 15 centimetres wide and strike between 060° and 090°. They commonly host massive pyrite lenses and lesser chalcopyrite. Disseminated pyrite also occurs throughout the trench in amounts up to three percent and lesser chalcopyrite, which increases in content in more siliceous zones.

Chip sampling determined anomalous concentrations of gold, copper, silver, and arsenic in the 8 to 18.5 metre interval. A 1.2 metre sample in a highly siliceous chloritic rock returned 1130 ppb gold. Two highly anomalous samples yielded values of 1560 ppb gold, 3.6 ppm silver, and 3298 ppm copper over 2.5 metres and 2360 ppb gold, 2.9 ppm silver, and 615 ppm copper over 30 centimetres, respectively. Both were associated with sulphide-bearing fault gouges.

Overburden profile sampling determined highly anomalous gold, copper, silver, and arsenic values throughout the trench. The higher values were associated with samples collected within the massive sulphide boulder train and returned values of up to 13,415 ppb gold, 37 ppm silver, 7337 ppm copper, and 15,497 arsenic (Figure 22). Some of the anomalous values could reflect the immediate underlying bedrock but several of them are likely related to the massive sulphide boulders.

Petrographic analysis of a sample taken at 11 metres was determined to be a metamorphosed potassic quartz diorite.

Line 10450 N

Four test pits dug along this line revealed overburden thicknesses in excess of six metres and bedrock was not reached. The geochemical results of overburden profile sampling are shown on Figure 21. The train of sulphide bearing boulders has risen to a higher level in the overburden section. The overburden is anomalous in gold, copper, arsenic, and to some degree zinc, over the full 40 metres distance of the test pits, again indicating the wide dispersion of metals in the till from a source to the south.

Trench 90-03

Location of trenches 90-03 and 90-04 are shown on Figures 5 and 15 (Trench Plan 2). Trench 90-03 was excavated to test a gold, copper, and arsenic soil anomaly. Overburden depth averaged 2.5 metres and consisted of a well developed B-horizon overlying glacial till. A lens of lacustrine clay overlies the till for the eastern-most 10 metres of the trench.

Bedrock consisted of a weakly foliated medium grained diorite interfingered with moderately foliated, highly siliceous andesitic flows. The last nine metres encountered a hornblende porphyritic andesite containing a two metre interval of strongly chloritized and foliated rock, and occasional two centimetre rounded clasts of diorite.

Foliation generally strikes 030° to 040°. Alteration assemblage is composed of chlorite, sericite, quartz, lesser epidote, and carbonate. Fractures are commonly healed by quartz and chlorite and lesser sericite. The porphyritic andesite displays a more propylitic alteration. Mineralization consists primarily of 2-3% disseminated and lesser clots of pyrite and appears to increase in zones of silicification.

Chip sampling determine a few scattered moderately anomalous gold and copper values. A two metre sample across a siliceous diorite containing up to 10% coarse pyrite at about 29 metres returned a value of 380 ppb gold. Another two metre sample across a siliceous andesite with 2-3% pyrite at about 43 metres returned 661 ppm copper. Anomalous metal values in the rocks may explain the observed soil anomalies.

Overburden profile sampling determined anomalous gold, copper, and arsenic values over the most westerly 20 metres. Values up to 130 ppb gold, 451 ppm copper, and 114 ppm arsenic were detected from the deeper samples (B and C Figure 18). These anomalous values may reflect the underlying mineralized bedrock or may be lateral dispersion from the source of the sulphide boulders which may lie some distance to the south.

Trench 90-04

This trench was dug to test a gold, copper, and arsenic soil anomaly. Overburden depth averaged 2.3 metres and consisted of a B-horizon overlying glacial till. Localized clay lenses were found between the two main horizons.

Bedrock consisted mainly of weakly porphyritic (hornblende) andesite similar to the one encountered in the east end of trench 90-03. The rock contains common inclusions and dyke-like bodies of quartz diorite. Alteration shows a weak propylitic signature. Fracturing is weak to moderate with structures healed by epidote, quartz and lesser sericite and carbonate. Mineralization consists of 1-2% disseminated pyrite.

Chip sampling revealed only one anomalous sample which returned 405 ppb gold and 209 ppm copper along the most westerly 1.7 metres of the trench.

Overburden profile sampling determined weakly anomalous gold and copper values as shown on Figure 19.

9.6 Interpretation

Rocks encountered in the trenching program failed to locate the source of the massive sulphide boulders. The bedrock consisted mainly of highly altered and moderately foliated andesitic flows and fine to medium grained diorites and quartz diorites. However, petrographic analysis of samples taken in trenches 90-01, 90-02, and 90-06 indicate a more dioritic composition. This difference in interpretation is believed to be caused by the difficulty to distinguish the diorites from the volcanic rocks due to gradational contacts and the intensity of alteration. All rocks appear to have undergone some degree of strain, evidenced by the level of foliation and shearing, which may indicate nearby large underlying structures. Numerous fault gouges striking approximately 060° and 090° may reflect these larger structures. It is possible that one of these 090° structures may control the abrupt change in the direction of the Salmon River just south of the grid.

Trenching succeeded in exposing a massive sulphide boulder train approximately 25 metres wide and 55 metres long centred over trench 90-02 and 90-06. It appears to lie within the upper level of a glacial till that is overlain by a sand and gravel horizon and reaches up to five metres in thickness in test pits 90-13 and 90-14 (Figure 22) to the north. The southern extremity has clearly been eroded as the fluvial deposits dominate the topographic low near the edge of the swamp.

Chip sampling determined highly anomalous concentrations of gold, copper, silver, and arsenic commonly associated with sulphide-bearing fault gouges and zones of increased silicification and sulphide content. These values could explain some of the observed soil anomalies.

Overburden profile sampling determined highly anomalous concentrations of gold, copper, silver, and arsenic in trenches 90-02, 90-06, parts of trenches 90-01 and 90-05 and test pits 90-12, 13, and 14. This can be best seen in a longitudinal section shown on Figure 22.

These overburden anomalies are believed to derive from the same source as the massive sulphide boulder train, and perhaps some of the mineralized structures in the underlying bedrock. Anomalous values detected in trench 90-01 and the west end of trench 90-02 might have been caused by downslope dispersion or through glacial transport from a larger bedrock source to the south.

Trenches 90-03 and 90-04 located 40 metres to the east detected only a few scattered anomalous metal values in the bedrock which would indicate the lack of mineralized structures in the area. However, the overburden was somewhat anomalous possibly reflecting lateral dispersion in a train of glacially transported metals about 120 meters wide.

10.0 CONCLUSIONS

1. Diamond drilling indicated structurally controlled gold and copper mineralization in the southern most drill holes. Anomalous gold and copper values are most commonly associated with shear /fault zones hosting quartz-carbonate veins and increased sulphide content. Arsenic values show a strong correlation with gold and copper values.

   Determined metal values generally seemed sufficient to explain most of the observed soil anomalies.

   The observed VLF-EM conductors are believed to be caused by fault zones. The restriction of gold and copper mineralization to structural control suggests that these conductors may be better exploration targets.

2. Massive sulphide boulders hosting high grade gold and copper mineralization were discovered on the western part of the property on line 10450N.

3. The New Showing grid contains anomalous coincident gold, copper, and arsenic soil geochemistry defining a trend about 140 metres wide and beyond the limits of the 300 metre long grid. This is shown in the surface geochemistry, Figures 9-11, and overburden profiles of trenches 90-02 and 90-03 (Figures 17 and 18). The trend strikes approximately parallel to the ice flow direction and overlies the massive sulphide boulder train. A bedrock source for both the mineralized boulders and the geochemical dispersion tain must lie somewhere south of line 10400N.

4. The VLF-EM survey detected a few conductors on the New Showing grid, trending between 330° and 030°. These may be reflecting sheared or schistose zones within the host rocks. There is also a connection between the VLF-EM conductors and the anomalous soil values.

5. Trenching on the New Showing grid failed to locate the source of the massive sulphide boulders but did expose a boulder train 25 metres wide by 55 metres long, striking parallel to the ice flow direction. The boulder train lies within the upper part of a glacial till horizon overlain by a sand and gravel horizon and reaches up to five metres in thickness.

Chip sampling of bedrock in the trenches determined anomalous concentrations of gold, copper, silver, and arsenic most commonly associated with sulphide-bearing fault gouges.

11.0. RECOMMENDATIONS

Further exploration in the new showing area should be undertaken during a winter work program to try and locate the source of the massive sulphide boulders.

The objective would be to establish the trend and size of a target by means of a time domain EM survey, followed up with a drill program. A fill-in grid should be constructed over the swamp area for survey control.

If a geophysical anomaly is detected, a diamond drill program should be conducted in a series of fences over the anomaly. If the survey is inconclusive, a reverse circulation drill program should be undertaken in the swamp area in a series of closely-spaced fences and drilled down to bedrock.

12.0 REFERENCES

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13.0 STATEMENT OF EXPENDITURES

The following lists the approximate expenditures which Placer Dome Inc. incurred on the Windy property during the 1990 work program.

TABLE 5

Statement of Expenditures

Personnel		
Marc Deschenes (Project Geologist) 43 days @ $247/day	$ 10,621.00	
Doug Leishman (Project Geologist) 17 days @ $371/day	6,307.00	
Bruno Barde (District Geologist) 1 day @ $470/day	470.00	
Neil Martin (Technician) 6 days @ $231/day	1,386.00	
Gilles Demers (Field Assistant) 41 days @ $194/day	7,954.00	
Scott Knight (Field Assistant) 12 days @ $155/day	1,860.00	
Dave Turner (Field Assistant) 4 days @ $155/day	620.00	
Arnd Burgert (Field Assistant) 4 days @ $155/day	620.00	
Marc McGinnis (Field Assistant) 1 day @ $151/day	151.00	
Olive Dodd (Cook) 35 days @ $140/day	4,900.00	$ 34,889.00
Total forward		34,889.00

Total forward		34,889.00
Road and Site Preparation		
M.B. Contracting: TD-15 Cat and operator 14 days @ $750/day	$ 10,500.00	
Luckyhouse Contracting: D-6 Cat and operator 3 days @ $835/day	2,505.00	13,005.00
Diamond Drilling		
Leclerc Drilling Ltd.: Longyear S-38 rig 684 metres @ $60/metre	41,040.00	
Other costs	6,695.00	47,735.00
Trenching		
Hat Lake Logging Ltd.: Cat D240 backhoe and operator 11 days @ $1,068/day		11,748.00
Labour		
SKD Contracting 20 days @ $136/day		2,720.00
Consulting		
Vancouver Petrographics Ltd. 7 samples @ $98 each		682.00
Camp Costs		
PDI 164 man days Contractors 81 man days 245 man days @ $50/man/day		12,250.00
Total forward		123,029.00

Total forward		123,029.00
Analytical		
Rock and drill core; geochem for Au, Ag, Cu, Pb, Zn, As 488 samples @ $15 each	7,320.00	
Sludge: geochem for Au, Ag, Cu 26 samples @ $8 each	208.00	
Soils: geochem for Au, Ag, Cu, Pb, Zn, As 295 samples @ $12 each	3,540.00	11,068.00
Vehicle rentals: 3 4x4 trucks 32 days @ $35/day	3,360.00	
Vehicle repairs & maintenance ATV's & trucks	3,315.00	6,675.00
Fuel: Gas, diesel, propane, oil		2,148.00
Expediting & Freight		2,228.00
Communications		406.00
Equipment & Supplies		1,407.00
Travel & Accommodations		1,512.00
Miscellaneous: Fine for avoidable waste		3,429.00
Total forward		151,902.00

Total forward		151,902.00
<u>Report Preparation</u>		
Compilation and Writing	3,000.00	
Drafting & typing	1,000.00	
Map Reproductions	500.00	4,500.00
Total		$ 156,402.00

14.0 STATEMENT OF QUALIFICATIONS

I, Marc Deschenes, of the city of Castlegar, B.C., do hereby certify that:

1. I am a graduate from l'Ecole Polytechnique de Montreal, Montreal, Quebec, where I received a B.A.Sc. in Geological Engineering (Exploration Option), in May 1984.

2. From 1980 until the present, I have been involved in studying geology or working in the mineral exploration field in various regions of Canada. I have been employed by Placer Dome Inc. temporarily since May 1988.

3. I am a member of the Order of Engineers of Quebec.

4. I personally participated in the field work described in this report, and have compiled, reviewed, and assessed the resulting data.

Respectfully Submitted,

Marc Deschenes, B.A.Sc., Geol. Eng.

APPENDIX I

EXPLANATION

OF

DRILL AND TRENCH LOG CODES

LOGGING CODE EXPLANATION

Column 1 is a key which indicates the type of data or information on each line.

I - Identity information/data
S - Survey data
/ - Upper tier geologic data
L - Lower tier geologic data
R - Free form remarks
A - Assay and analysis data

I DATA

Each Drill Hole or trench has two I lines at the start.

The first line indicates:
Col. 11 to 16 - ID of Project
Col. 17 to 24 - Drill Hole or Trench Name
Col. 29 to 35 - Day/Month/Year Logged
Col. 36 to 38 - Logger's Initials
Col. 39 to 41 - Helper's Initials (if any)
Col. 60 to 62 - Coordinate system
Col. 63 to 68 - Grid Azimuth (0.0 if True North)

The second line indicates.

Col. 5 to 45 - Company Name
Col. 46 to 69 - Property or Project or Sub Project Name

S DATA

The S000 line is the collar survey data. Subsequent S Lines (S001, S002, etc.) are down-the-hole surveys.

Col. 5 to 10 - From (a decimal point is inferred between column 8 and 9)
Col. 11 to 16 - To (a decimal point is inferred between column 14 and 15)
Col. 17 to 18 - Units; MT (metres), FT (feet)
Col. 20 to 26 - Total Length
Col. 27 to 32 - Azimuth
Col. 33 to 38 - Dip
Col. 51 to 60 - Northing
Col. 61 to 70 - Easting
Col. 71 to 80 - Elevation

Logging Code Explanation, continued

/ AND L DATA

Two lines are available to describe a geologic interval, the upper line (/) and the lower line (L). The /NAM line defines the mineral fields for the upper line.

ST Geocode - upper (/NAM) line

TRENCHING	DRILLING
Col. 57, 58 CL - Chlorite	CL - Chlorite
Col. 59, 60 CB - Carbonate	CB - Carbonate
Col. 61, 62 SI - Quartz	SI - Quartz
Col. 63, 64 KF - K-Feldspar	KF - K-Feldspar
Col. 65, 66 CY - Clay	P1 - Disseminated Pyrite
Col. 67, 68 PY - Pyrite	P2 - Blebs of Pyrite
Col. 69, 70 CP - Chalcopyrite	P3 - Fracture Filling Pyrite
Col. 71, 72 AP - Arsenopyrite	MG - Magnetite
Col. 73, 74 GL - Galena	

ST Geocode - Lower (LNAM) Line

TRENCHING	DRILLING
Col. 57, 58 EP - Epidote	EP - Epidote
Col. 59, 60 SE - Sericite	SE - Sericite
Col. 61, 62 HE - Hematite	HE - Hematite
Col. 63, 64 LI - Limonite	LI - Limonite
Col. 65, 66 MA - Malachite	MA - Malachite
Col. 67, 68 PL - Pyrolusite	PL - Pyrolusite

Upper (/) Geologic Data

- Col. 5 to 10 - From (decimal inferred between 8 and 9)
- Col. 11 to 16 - To (decimal inferred between 14 and 15)
- Col. 24 to 27 - Rock Type Code - See Rock Type Chart
- Col. 28 to 29 - Typifying Mineral 1 - see Mineral Chart
- Col. 30 to 31 - Typifying Mineral 2 - see Mineral Chart
- Col. 32 to 33 - Main Rock Forming Mineral 1 - See Mineral Chart
- Col. 34 - Rock Forming Mineral Field, Amount of Occurrences, See G Scale Chart
- Col. 35 to 36 - Texture 1 - see Texture Chart
- Col. 37 to 38 - Texture 2 - see Texture Chart
- Col. 47 - Essentially always a "P" which stands for Principle Geologic Interval. If "N", it stands for Nested Interval

		which means all of the above interval description applies, except as noted.
Col. 49 to 50	-	Structure 1 - see Structure Chart
Col. 51 to 53	-	Azimuth of Structure 1.
Col. 54 to 56	-	Dip of Structure 1.
Col. 57	-	Mineral Field, Mode of Occurrence - See H Scale Chart
Col. 58	-	Mineral Field, Amount of Occurrence - See G Scale Chart
Col. 59 to 74	-	Mineral Fields, sample pattern continues (ie. G. Scale How, Amount) as in columns 57, 58.

Lower (L) Geologic Data

Col. 28 to 29	-	Colour Code - See Colour Chart
Col. 30 to 31	-	Typifying Mineral 3 - See Mineral Chart
Col. 32 to 33	-	Main Rock Forming Mineral 2 - See Mineral Chart
Col. 34	-	Rock Forming Mineral Field - Amount of Occurrence - See G Scale Chart
Col. 35 to 36	-	Texture 3 - see Texture Chart
Col. 43	-	Count of Fractures at Steep Angle to Core Axis - See F Scale
Col. 44	-	Count of Fractures at Medium Angle to Core Axis - See F Scale
Col. 45	-	Count of Fracture at Low Angle to Core Axis - See F Scale
Col. 49 to 50	-	Structure 2 - See Structure Chart
Col. 51 to 53	-	Azimuth of Structure 2
Col. 54	-	Dip of Structure 2
Col. 55 to 56	-	Angle to Core Axis of Structure 2
Col. 57 to 64	-	Mineral Fields, as in upper (/) Data

Note: Columns 43 to 46 not always used

R DATA

These are free form remarks written by the logger to further describe the geologic interval. Note that Rock Type Codes (see Rock Type Charts are often used.

A DATA

This last type of data lists the assay information for the trench or drill hole.

Note that remarks are also used.

Logging Code Explanation, continued

Drilling

A001 Split core samples, assay results
A002 Recovery, RQD
A003 Sludge samples, assay results

Trenching

A001 Chip samples, assay results
A002 Structure samples, assay results
A003 Grab samples, assay results

The following lines describe and list the assay data.

```
ALAB Col. 17 to 80 - Define Laboratory
ATYP Col. 17 to 30 - Define Type of Determination
AUMM Col. 17 to 80 - Define Assay Fields
A00? Col.  1 to  4 - Defines Sample Type
     Col.  5 to 10 - From (decimal inferred between 8 and 9)
     Col. 11 to 16 - To (decimal inferred between 14 and 15)
     Col. 21 to 26 - Sample Number
A001 Col. 27 to 32 - Gold ppb
     Col. 33 to 38 - Silver ppm
     Col. 39 to 44 - Arsenic ppm
     Col. 45 to 50 - Copper ppm
     Col. 51 to 56 - Lead ppm
     Col. 57 to 62 - Zinc ppm
```

CHARTS

1. Rock Type Chart

A four letter code is used to describe rock types. The first four letters of a rock type name is its preferred code. If the fourth letter is a vowel, the vowel is replaced by the next consonant.

Letter Code	Lithology
OVBD	OVERBURDEN
BRXX	BRECCIA
FABX	FAULT BRECCIA
FWBX	FLOW BRECCIA
VEIN	VEIN
DIOR	DIORITE
QZDR	QUARTZ DIORITE
PPDR	PORPHYRITIC DIORITE
FGDR	FINE GRAINED QUARTZ DIORITE

Logging Code Explanation, continued

MSSF	MASSIVE SULFIDE
PGDK	PEGMATITE DYKE
MSSF	MASSIVE SULPHIDE
QZMZ	QUARTZ MONZONITE
MZDI	MONZO DIORITE
FE/D	FELSIC DYKE
SIBX	SILICA BRECCIA
MONZ	MONZONITE
SYEN	SYENITE
IM/D	INTERMEDIATE DYKE
MGDR	MEDIUM GRAINED DIORITE
MF/D	MAFIC DYKE
CGDR	COARSE GRAINED DIORITE
AGLM	AGGLOMERATE
ANLT	LAPILLI TUFF
ANAT	ASH TUFF
ANXL	CRYSTAL TUFF
AN/F	MASSIVE FLOWS
PPAN	PORPHYRITIC ANDESITE
CLPH	CHLORITIC PHYLLITE
ANQE	QUARTZ-EYE TUFF
QZVN	QUARTZ VEIN
QCVN	QUARTZ-CARBONATE VEIN
CBVN	CARBONATE VEIN
FECR	FERRICRETE
FALT	FAULT
SHER	SHEAR
BRXX	BRECCIA
GOUG	GOUGE
STKW	STOCKWORK
CASE	CASING
LOST	LOST CORE GROUND CORE
MCOR	MISSING CORE

2. Mineral Chart (ie. Mineral short-forms)

PL	PYROLUSITE
HS	SPECULAR HEMATITE
AC	ACTINOLITE
AK	ANKERITE
AX	AMPHIBOLE
BI	BIOTITE
CL	CHLORITE
CA	CALCITE
CB	CARBONATE
CY	CLAY
EP	EPIDOTE
FX	FELDSPAR
KF	ORTHOCLASE FELDSPAR

Logging Code Explanation, continued

PF	PLAGIOCLASE
HB	HORNBLENDE
QZ	QUARTZ
SE	SERICITE
SI	SILICA
CP	CHALCOPYRITE
GL	GALENA
AU	GOLD
HE	HEMATITE
MG	MAGNETITE
MO	MOLYBDENITE
PY	PYRITE
P1	DISSEMINATED PYRITE
P2	BLEBS OF PYRITE
P3	FRACTURE FILLING PYRITE
PO	PYRRHOTITE
MC	MALACHITE
AG	AUGITE
MF	MAFIC MINERALS
PX	PYROXENE
TA	TALC
AP	ARSENOPYRITE
GR	GRAPHITE
CU	COPPER
LI	LIMONITE
DR	DIORITE
CV	CALCITE VEIN
QZ	QUARTZ VEIN
C1	CHLORITE VEIN
CE	CHLORITE ENVELOPE
E1	EPIDOTE VEIN
E2	EPIDOTE ENVELOPE

3. Texture Chart (ie. Texture Short Forms)

SC	SCHISTOSE
BN	BANDED
MX	MEGACRYSTIC
VG	VUGGY
LM	LAMINATED
BR	BRECCIATED
PP	PORPHYRITIC
EQ	EQUIGRANULAR
VF	VERY FINE GRAINED
FG	FINE GRAINED
MG	MEDIUM GRAINED
CG	COARSE GRAINED
SH	SHEARED

Logging Code Explanation, continued

S3	WEAKLY SHEARED
S5	MODERATELY SHEARED
S7	INTENSELY SHEARED
R2	SLIGHTLY REWORKED
R5	MODERATELY REWORKED
R7	STRONGLY REWORKED
RW	REWORKED
AG	AUGEN STRUCTURED
SW	STOCKWORKED
BK	BLOCKY
KR	CRACKLED
VV	VEINED
PA	PATCHY
FO	FOLIATED
F3	WEAKLY FOLIATED
F5	MODERATELY FOLIATED
F7	INTENSELY FOLIATED
FF	FRACTURE FILLED
FZ	FAULTED
SL	SLICKENSLIDED
AM	AMYGDULES
GT	GRANITIC
FR	FRAGMENTAL

4. Structure Chart (ie. Structure Short-Forms)

BN	BANDED
BD	BEDDED
BR	BRECCIATED
QV	QUARTZ VEINS
SH	SHEAR ZONE
<<	MICROVEINS
>>	MACROVEINS
FZ	FAULT
C/	CONTACT
D/	DYKE
FS	FRACTURE SET
GN	GNEISSOSITY
LS	LENS
MX	MASSIVE
V/	VEIN
VE	EPIDOTE VEIN
VC	CALCITE VEIN
VP	PYRITE VEIN
VQ	QUARTZ VEIN
VG	GYPSUM VEIN
FO	FOLIATION
SC	SCHISTOSITY
LN	LINEATED
H	SHEAR

Logging Code Explanation, continued

5. How Chart or H Scale

Symbol	Most Dominant Mode of Occurrence
A	Amygdaloids, cavity fillings
B	Blebs
#	Breccia Fillings
C	Coatings & Encrustations
*	Clasts
D	Disseminations & Scat.x'ls
E	Envelopes
F	Framework Crystals
G	Gouge
H	Halos
I	Eyes, Augen
J	Interstitial
K	Stockwork
L	Laminated/bedded
M	Massive
N	Nodules
O	Spots
Q	Patches, as in quilts'
R	Rosettes & x'tls clusters
S	Salvages
$	Sheeting
T	Stainings, as in tarnish
U	Euhedral
V	Veins
>	Macroveins
<	Microveins
W	Boxwork
X	Massive and/or laminated/bedding
Y	Dalmationite
Z	Fresh, primary rock
+	Flooding

6. G Scale or Amount Chart

Code	Assigned Value	Range
X	100	100 %
9	90	85 to 99
8	80	75 to <85
7	70	65 to <75
6	60	55 to <65
5	50	45 to <55
4	40	35 to <45
3	30	25 to <35
2	20	15 to <25
1	10	7 to <15
=	5	4 to < 7
+	3	2 to < 4
)	1	.5 to < 2
*	.3	.2 to <.5
(	.1	.05 to <.2
-	.03	.02 to <.05
.	.01	Trace = <.02
0	0	Nil, Absent
/	.07	Present: Estimate impossible
?	0	Possibly Present

7. Colour Chart

The colour chart can be used in two ways. A lightness can be combined with colour, or two colours can be combined.

eg. 3U - Dark Brown
or
RU - Reddish Brown

Lightness Symbol	Lightness Value	Colour Symbol	Colour
9	palest	R	Red
8	pale	U	Brown (Umber)
7	light	O	Orange
6	lighter	T	Tan (khaki)
5	medium	Y	Yellow
4	darker	L	Lime (Y-G)
3	dark	G	Green
2	very dark	Q	Aqua (B-P)
1	darkest	B	Blue
		V	Violet (B-P)
		P	Purple
		M	Mauve
		W	White
		A	Grey
		N	Black (Noir)

8. F Scale or Fractures and Joints Intensity Chart

Range Values		Assigned Values	Symbol	Description
	0	0		Unfractured
0 - 2	1	1		Extremely low intensity
2 - 4	3	2		Very low intensity
4 - 8	6	3		Low intensity
8 - 12	10	4		Moderately low intensity
12 - 18	15	5		Moderate
18 - 24	21	6		Fairly high intensity
24 - 32	28	7		High intensity
32 - 40	36	8		Very intense
40 - 50	45	9		Extremely intense
> 50	55	X		Shattered

APPENDIX II

DIAMOND DRILL LOGS

AND

ASSAY RESULTS

Diamond Drill Hole 90-1

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IDEN6B0201 V216 DDH90-1  NQ 10JUL90 MD   LECLJUL90S38   DALGRD  0.0
IPRJ      PDI                            WINDY PROPERTY
S000   00   503 MT  100.6 090.0 -50.0           6090339.0  445946.0    1052.0
S001  503  1006     100.6  90.0 -46.7
/SCL        MT.2
LSCL                   LCTM
/NAM                                                 CLCBSIKFP1P2P3MG
LNAM                                                 EPSEHECYCPLIMA
R               THIS DDH COLLARED TO TEST CU-AU-AS SOIL ANOMALIES AND COINCIDEN
R               VLF-EM  CONDUCTOR & WEAK IP ANOMALY
R      00    37 CASING TO 3.7M
/      00    37       OVBD                 P
/      37   122       PPANHBPFMF*PPFG      P VC      P3<1    D)
L                          AG     FF      3324          O*P1      T(
R               PALE GREYISH-GREEN, STRONGLY ALT'D HORNBL.ANDESITE PORPHYRY
R               VERY BROKEN CORE PIECES, ALT. PARTIALLY OBLITERATED TEXT.,
R               PHENOCRYSTS OF ALT'D HORNB. & LESSER PLAG GRADING DOWN TO
R               GROUNDMASS SIZE.  ALTERATION PREDOMINANTLY CHLORITE (PERV. &
R               PHENOS W. LESSER FRACT. FILL.; CARB OCCURS AS FRACT. FILL
R               (10%), SERICITE ALT. OF PLAG X-TALS
R               PY O;CCURS AS FINELY DISS X-TALS (1%)
/     122   133       FABXHBPFSI4BXFG      P VC      <1<2*5  D*
L                          4A  MF*FF      3435           P2
R               DARK-GREY, F.G., HIGHLY ALT'D ZONE OF FAULT BRECCIA, VERY
R               BROKEN CORE, GREY SILICIFIED CLASTS IN A F.G. BLEACHED MATRIX
R               CUT BY MICROVEINS OF CARB.  ALT'N IS CHLORITE IN FRACTURES
R               AND SERICITIC IN MATRIX, PYRITE OCCURS AS FINELY DISS X-TALS
R               (<1%)
/     133   424       CLPHHBPFMF F7S5      P FO080   P8<3V*  D)
L                          AG     SCFF    2578  SH060     P2  G1
R               MED. GREYISH-GREEN CALCAREOUS CHLORITIC PHYLLITE DISPLAYING
R               LOCAL ZONES OF INTENSE SHEARING/FRACTURING, CLAY ALT'D FAULT
R               GOUGES & QUARTZ VEINS (UP TO 40 CM WIDE)
R               TEXT. DOMINANTLY FOLIATED SHOWING ALTERNATING BANDS OF CHLOR.
R               & CARB 30-80 TO C.A.
R               INTENSE SHEARING ALONG GOUGE ZONES
R               FOLIATED PHENOCRYSTS OF ALT'D HORNB & PLAG THROUGHOUT, POSS
R               ORIGINAL PORPH. ANDESITE.
R               ALT. PREDOM. PERVASIVE & FRACTURE FILL CHLO;R. & CARB. W.
R               LESSER PERVASIVE SERICITE.  PY OCCURING AS FINELY DISS. W.
R               LESSER FRACTURE FILL.
R               14.1-16.2  INTENSELY FRACTURED, BLEACHED ZONE.
R               19.6-23.1     "        "     , & ALT'D ZONE.
R               23.6-24.8  QZ(CARB)VEIN BOUNDED BY GOUGE ZONES
R               26.0-26.4  BLEACHED QZ-CARB ALT'D ZONE
R               27.8-28.3  FAULT GOUGE (60 TO C.A.)
R               28.6-29.1  BLEACHED QZ-CARB ALT'D ZONE
R               30.2-40.3  INTENSELY FOLIATED & ALT'D & SHEARED ZONE
R               32.1-32.3  FAULT GOUGE
R               33.1-33.3  BLEACHED QZ-CARB ALT'D ZONE
R               37.1-38.0  CLAY ALT'D FAULT GOUGE
R               40.3-42.4  WEAKLY PORPH., MOD ALT'D ANDESITE
/     424   536       PPANHBPFMF PPFF      P VE065   P5<1>*  D)
L                          3G     SH      2333  <<      R2P=<=G1
R               DARK GREEN HORNB(PLAG)PORPHYRITIC ANDESITE DISPLAYING TYPICAL
R               PROPYLLITIC ALT
R               PHENO'S OF HORNB (0.5CM) W LESSSER & SMALLER PLAG MAKE UP
```

R 30-40% OF ROCK (ANGULAR TO SUB-ROUNDED), CARB ALT. OCCURS AS
R FRACT. FILL & VEINS (UP TO 1.5CM)
R CHLOR. ALT PERVASIVE
R EPID. ALT OCCURS AS GRAIN CLUSTERS & LESSER AS VEINS (UP TO
R 5 CM) 45-80 TO C.A. +FRACT. FILL
R HEM ALT OCCURS AS FRACT. FILL
R 43.9 10CM EP VEIN @80 TO C.A. FOLLOWED BY 1.5CM CARB VEIN
R 45.7 3CM EP VEIN 50 TO C.A.
R 48.2 3CM EP VEIN 50 TO C.A.
R 48.7 20 CM EP VEIN 60 TO C.A.
R 50.0 3CM EP VEIN 70 TO C.A.
R 51.0-53.6 INTENSELY ALT'D & FRACT'D ZONE W. LOCALIZED FAULT
R GOUGES
R 51.7 20 CM QZ-CB VEIN @ 0 TO C.A.
/ 53.6 56.7 PPANHBPFMF F3FF P FO070 P3<2>) D*
L AG SH 2345 << R)P* G*
R GREYISH-GREEN, F. GR'D, WEAKLY FOLIATED, CALCAREOUS PORPH.
R ANDESITE, ORIGINAL TEXTURE OBLITERATED BY STRONG ALT.,
R QZ-CARB ALT. OCCURS AS FRACT. FILL & VEINS
R MINOR AMOUNTS OF DISS PY
R 54.6-54.8 FAULT GOUGE @ 70 TO C.A.
R 55.2 1 CM QZ. CARB VEIN
/ 56.7 67.4 PPANHBPFMF*PPFF P VC070 P2>1>+R(<*
L AG F3SH 2333 << <1P1<)G+
R LIGHT GREYISH-GREEN MOD ALT'D HORNB (PLAG) PORPH. ANDESITE
R ANGULAR HORNB. PHENO'S & LESSER 1-3 MM PLAG. PHENO'S IN A
R MATRIX OF SIMILAR COMP?
R QZ-CARB ALT OCCURS AS FRACT FILL. & MACROVEINS 50-80 TO C.A.
R MINOR EPID ALT. AS FRACT. FILL & PATCHES
R TRACES OF KF ALT AROUND 67.4 OCCURING AS PATCHES
R 57.5-58.2: BLEACHED INTENSELY ALT'D F.G. PORPH. ANDESITE W.
R 1.2% DISS PY
R 58.2-59.0: INTENSELY ALT'D ZONE, VERY BROKEN CORE
R 61.8-63.3: DARKER GREEN, WEAKLY FOLIATED ZONE W. LOCALIZED
R NARROW FAULT GOUGES
R 64.4-64.8: MORE INTENSE ALT ZONE OBLITERATING TEXTURE
/ 674 710 SHERCYCL S7BX P SH P2<1<1 <(
L AGSE F3 5889 << R1 P4 V
R LIGHT,GREYISH-GREEN,INTENSELY ALT'D SHEAR ZONE W. LOCALIZED
R BRECCIA ZONES.ORIGINAL HB/PF ANDESITE PORPH. TEXT GENERALY
R OBLITERATED BY ALT;LOCALY FOLIATED
R ALT DOMINANTLY CLAY,SER,CHLOR & QZ-CARB VEINING
R PY OCCURS <1% AS F.F. & STRINGERS
R SILICIFIED CLASTS UP TO 3CM OCCUR IN A CLAY MATRIX
R UNIDENTIFIED WHITE,SOFT MINERAL @ 69.1 & 69.3:POSS.GYPSUM?
/ 710 823 PPANHBPFMF1PPBX P VQ P2<=>=Q* <)
L 5G S5FF 1234 SH E*P2<*G1
R PALE GREEN,MOD ALT'D,C.G. HORNB/PLAG ANDESITE PORPHYRY
R LOCALY SHEARED & CLAY ALT'D & LOCALY SHOWING FLOW BRECCIA W.SUB
R ROUNDED MAFIC FRAGS UP TO 10 CM
R QZ-CARB ALT IS MOD,OCCURING ALONG FRACT;SOME MINOR K-SPAR ASSOC
R (<1%)AS PATCHES & F.F. CHLOR ALT OF PHENOS,MATRIX & ALONG FRACT
R W.SOME MINOR PERV SERIC ALT. MINOR EPID ALT (ENV.ALONG QZ-CHLOR
R VEINLETS) & HEM ALT (F.F.)
R ~1% PY OCCURING AS F.F.& GRAIN CLUSTERS IN MAFIC FRAGS & LESSER
R AS FINE DISS
R 77.5-78.7: FLOW BRECCIA
/ 823 966 PPANHBPFCL4S7BX P VQ P4>=V1R*D) <)R)
L 3G MF=FFPP 5677 VC <+P1<*G2
R DARK-GREEN INTENSELY SHEARED & CHLORITIC ALT'D ANDESITE (WEAKLY

```
R              PORPH).ABUNDANT QZ-CARB ALT OCCURING AS IRREG FRACT & VEINS (UP
R              TO 2 CM).INTENSE CHLOR ALT THROUGHOUT & LESSER SERIC,EPID & HEM
R              ALT AS F.F. & GRAIN CLUSTERS
R              INTERMITTENT FAULT GOUGES & FAULT BRECCIAS
R              1-2% PY OCCURING AS GRAIN CLUSTERS,1% AS DISS & 1% AS F.F.
R              82.9-83.5: FAULT GOUGE
R              84.5     : 6 CM QZ VEIN
R              86.6     : 2 CM QZ VEIN
R              87.3     : 12 CM QZ VEIN
R              87.5-89.5: FAULT GOUGE W.3 CM QZ VEIN @ 89.3
R              96.1     : 3 CM QZ-CARB VEIN
/     966  1006       PPANHBPFCL2PPS7        P VQ      P2>+V1  D*  <)R*
L                           AG  MF=BXFF    7657  >>       P2<=G3
R              M.G.GRAYISH-GREEN,INTENSELY ALT'D & FRACT'D HORNB(PLAG)AND PORPH
R              MINERALIZATION COMMON.ASSOC W.FRACT'D & ALT'D FAULT ZONES W.ASSO
R              QZ-CARB VEINING
R              97.4-98.5: FAULT ZONE W.QZ-CARB VEINING & 2-3% F.F.& BLEBS OF PY
R              98.5-99.6: INTENSELY FRACT'D & CHLOR ALT'D ZONE
R              E.O.H.
R              SAMPLES
A001
AUMM                SAMPLE    Au    Ag    As    Cu
R                             ppb   ppm   ppm   ppm
ALAB           PDI RESEARCH
ATYP           SPLIT CORE
AMTH           WET GEOCHEM A.A.
R      00    37  CASING - NO RECOVERY
A001   37    67     14176      3   0.1    20    63
A001   67    87     14177     70   0.4  1260   122
A001   87   107     14178      3   0.1    20   151
A001  107   122     14179     10   0.1   300    64
A001  122   133     14180     10   0.1    24   207
A001  133   159     14181     15   0.1   128   136
A001  159   179     14182     10   0.1    12   100
A001  179   199     14183     15   0.1    66   156
A001  199   220     14184     45   0.1    44   330
A001  220   236     14185     30   0.1    16   310
R              QZ VEIN
A001  236   248     14186     10   0.1     2    94
A001  248   268     14187     10   0.1    10    96
A001  268   288     14188     10   0.1    20    40
A001  288   308     14189     15   0.1    10    89
A001  308   328     14190      5   0.1     4    58
A001  328   348     14191     10   0.1     6   132
A001  348   368     14192     20   0.1     1   310
A001  368   388     14193     35   0.1     4   212
A001  388   408     14194     15   0.1     1   172
A001  408   424     14195     20   0.1     8   128
A001  424   444     14196     15   0.1     6   110
A001  444   464     14197      5   0.1     6   116
A001  464   484     14198      3   0.1     6   130
A001  484   510     14199      3   0.1     1   120
A001  510   536     14200     55   0.1     1   920
A001  536   556     14201     15   0.1     1   246
A001  556   567     14202      3   0.1     2    90
A001  567   582     14203      3   0.1     1    98
A001  582   602     14204      3   0.1     1   150
A001  602   619     14205      3   0.1     1   111
A001  619   640     14206     30   0.1     1   176
A001  640   660     14207     10   0.1     1   130
```

A001	660	674	14208	5	0.1	1	155
A001	674	694	14209	15	0.1	1	183
A001	694	710	14210	10	0.1	1	105
A001	710	730	14211	10	0.1	1	154
A001	730	750	14212	5	0.1	6	78
A001	750	770	14213	10	0.1	6	78
A001	770	790	14214	20	0.1	12	232
A001	790	810	14215	15	0.1	14	84
A001	810	823	14216	25	0.1	10	97
A001	823	843	14217	20	0.1	14	210
A001	843	863	14218	70	0.2	44	390
A001	863	872	14219	75	0.4	52	440
A001	872	895	14220	150	1.0	90	540
A001	895	915	14221	40	0.3	108	273
A001	915	936	14222	40	0.1	74	312
A001	936	958	14223	100	0.4	152	330
A001	958	966	14224	65	0.2	50	140
A001	966	986	14225	380	1.7	320	540
A001	986	1006	14226	15	0.2	4	176
R			E.O.H.				
A002							
AUMM				RECOVY	RQD		
R	00	37	CASING -	NO RECOVY			
A002	37	67		32.8	0.0		
A002	67	82		72.4	6.6		
A002	82	98		52.6	8.6		
A002	98	107		65.2	0.0		
A002	107	128		56.3	4.7		
A002	128	143		58.8	9.8		
A002	143	156		26.3	0.0		
A002	156	174		69.1	6.6		
A002	174	189		55.6	0.0		
A002	189	204		65.8	14.5		
A002	204	220		55.6	7.1		
A002	220	235		78.9	19.7		
A002	235	250		49.3	0.0		
A002	250	265		52.3	7.2		
A002	265	280		39.5	0.0		
A002	280	288		-	-		
A002	288	311		57.5	4.9		
A002	311	320		82.4	0.0		
A002	320	338		84.7	0.0		
A002	338	354		94.8	8.5		
A002	354	369		78.9	0.0		
A002	369	384		95.4	0.0		
A002	384	399		98.0	6.5		
A002	399	408		97.8	0.0		
A002	408	424		85.5	6.6		
A002	424	430		98.0	25.8		
A002	430	445		85.5	7.2		
A002	445	451		100.0	0.0		
A002	451	463		69.7	18.9		
A002	463	475		69.7	0.0		
A002	475	491		98.7	30.9		
A002	491	506		94.8	15.0		
A002	506	521		100.0	36.2		
A002	521	536		92.1	0.0		
A002	536	552		98.0	29.4		
A002	552	555		100.0	0.0		
A002	555	567		92.0	0.0		

A002	567	570		74.0	0.0	
A002	570	582		95.0	12.0	
A002	582	594		95.0	0.0	
A002	594	607		98.0	14.0	
A002	607	610		95.0	0.0	
A002	610	619		70.0	0.0	
A002	619	646		95.0	20.0	
A002	646	661		98.0	25.5	
A002	661	674		93.0	0.0	
A002	674	689		90.0	11.0	
A002	689	701		94.0	8.0	
A002	701	710		100.0	56.0	
A002	710	722		50.0	0.0	
A002	722	735		90.0	11.0	
A002	735	738		100.0	0.0	
A002	738	750		90.0	8.0	
A002	750	762		94.0	8.0	
A002	762	771		67.0	0.0	
A002	771	789		97.0	22.0	
A002	789	799		100.0	26.0	
A002	799	808		98.0	30.0	
A002	808	823		96.0	57.0	
A002	823	829		100.0	33.0	
A002	829	835		100.0	0.0	
A002	835	850		100.0	71.0	
A002	850	860		100.0	19.0	
A002	860	875		100.0	40.0	
A002	875	887		70.0	40.0	
A002	887	893		100.0	42.0	
A002	893	914		80.0	11.0	
A002	914	921		82.0	0.0	
A002	921	935		96.0	63.0	
A002	935	945		92.0	51.0	
A002	945	966		90.0	36.0	
A002	966	982		100.0	13.0	
A002	982	994		62.0	0.0	
A002	994	1006		100.0	33.0	
R			E.O.H.			
A003						
AUMM			SAMPLE	Ag	Au	Cu
R				ppm	ppb	ppm
ALAB			PDI RESEARCH			
ATYP			SLUDGE			
AMTH			WET GEOCHEM A.A.			
A003	128	156	15101	32.0	180	245
A003	156	189	15102	0.3	3	143
A003	189	216	15103	0.6	45	760
A003	216	250	15104	0.1	40	323
A003	250	280	15105	0.1	15	141
A003	280	341	15106	0.1	3	161
A003	341	372	15107	0.1	30	296
A003	372	402	15108	0.1	5	239
A003	402	433	15109	0.1	10	172
A003	771	805	15110	0.1	3	232
A003	805	829	15111	0.1	3	176
A003	829	856	15112	0.1	5	250
A003	887	936	15113	10.0	35	360
A003	951	982	15114	3.8	30	320

/END

Diamond Drill Hole 90-2

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IDEN6B0201 V216 DDH90-2  NQ 15JUL90 MD   LECLJUL90S38   DALGRD  0.0
IPRJ      PLACER DOME INC                        WINDY PROPERTY
S000   00   506 MT  101.2 090.0 -50.0              6090339.0  446035.0     1067.0
S001  506  1012     101.2  90.0 -46.5
/SCL        MT.2
LSCL                       LCTM
/NAM                                                        CLCBSIKFP1P2P3MG
LNAM                                                        EPSEHECYCPLIMA
R                THIS DDH COLLARED TO TEST CU-AU-AS SOIL ANOMALIES AND COINCIDEN
R                WEAK IP ANOMALY
R       00   134 CASING TO 13.4 M
/       00    43        OVBD                  P
/       43   137        AN/FHBPFBI=S7BX       P SH      P3<=V1  D*
L                           4G      FGPP    5678  VQ080    <(P+<*G4  T+
R                DARK GREEN,INTENSELY ALT'D (CHLOR-QZ-CARB) ANDESITIC FLOW,LOCALY
R                SHEARED,BRECC'D W. QZ-CARB VEINING
R                PY,<1% OCCURS AS FINE DISS ASSOC W.SHEAR ZONES & QZ-CARB VEINING
R                FIRST 10 CM ARE PART'Y OXYDIZED
R                6.6-9.8  : FAULT GOUGE W,DISS PY
R                8.5-9.8  : FRACT'D QZ-CARB VEIN
R                12.7-12.8: FAULT BRECC W.2-3 CM SILIC'D FRAGS
/      137   240        FALTPFHB   S7FO        P FO050   P3<1Q1  D)  <)
L                           5ABI    RWFF    5868  VQ070     <1<*G3B(
R                INTENS'Y SHEARED & ALT'D (CHLOR-SER-QZ/CARB-SIL),HIGHLY FRACT'D
R                ANDESITIC FLOW, GREYISH-GREEN IN COLOUR
R                TEXT DISPLAYED AS TENSIONAL FRACT'G INFILLED W.CHLOR,QZ,CARB &
R                SERIC MATERIAL, STRONGLY FOLIATED
R                QZ-CARB VEINS UP TO 15 CM WIDE,COMMONLY WITHIN FAULT GOUGES W.
R                ASSOC HOST CHLOR ROCK FRAGS,SOMETIMES MINERAL'D (DISS PY),60-80
R                DEGREES TO C.A.; 1.5CM BLEB CP @ 22.1
R                SILICIFICATION IS PATCHY
R                1-2% PY OCCURS AS FINE DISS & F.F.COMMONLY ASSOC W.GOUGES &
R                QZ-CARB VEINING
R                BEGIN'G & END OF INTERV.CHARACT'D BY INTENSE TENSIONAL FRACT'G,
R                FOLIATION & MICRO FOLDING
R                15.3-16.0: SILIC'D ZONE W.TENSIONAL FRACT'G ~10 DEGREES TO C.A.
R                16.3-22.0: ZONE OF INTENSE SHEARING W.ASSOC QZ-CARB VN & GOUGES
/      240   285        FWBXHBPFMF1PPBX        P >>060   P2<+P1  D(  <=
L                           5G      FF      2122           Q=<)<*
R                LIGHT,MED GREEN,ALT'D FLOW BRECCIA CONSISTING MAINLY OF ALT'D
R                HORNB ANDESITE PORPH FRAGS,OTHERS ARE ALT'D PLAG ANDESITE (WEAK)
R                PORPH; CONTACTS ARE GRADATIONAL
R                PHENOS RANGE FROM 2MM TO 1CM,MOD ALT'D TO CHLOR
R                CHLOR ALT IS PERV; QZ-CARB VN'G IS WEAK; SILIC IS PATCHY; EPID
R                IS DOMINANTLY F.F. W.LESSER PATCHES
R                25.3-26.4: 1-2CM WIDE FRACT (~10-20 DEGR TO C.A.)FILLED W.QZ-CB
R                           & CHLOR MATER. W.ASSOC 30-40% PY;EPID OCCURS AS ENV.
/      285   410        FALTPFHBMF=S7RW        P SH060   P3<=V1  D)  <)
L                           AG      FFFO    3767  >>       *)<+<)G1
R                MED GREY TO DARKER GREEN,INTENS'Y SHEARED & ALT'D (CHLOR-QZ/CARB
R                SIL-SERIC) & FRACT'D ANDESITE PORPHYRY
R                SHEARING HAS PRODUCED TENSIONAL FRACT'G RESULTING IN WEAK-MOD
R                FOLIATION WHILE MOST OF INTERV HAS BEEN INTENS'Y ALT'D (GOUGE)
R                HOSTING SUB-ROUNDED SILIC'D,CHLOR'D & EPID'D FRAGS
R                A NETWORK OF QZ-CARB PATCHES & FRACT IS CONCENTRATED IN SHEARS
R                SILIC IS SELECTIVELY PERV & SEEMS TO CAUSE BRITTLE FRACT'G
R                PY OCCURS DISS (1-2%),F.F. (1-2%) INCREASING IN ZONES OF SHEAR'G
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R              & BRECC,COMMONLY ALONG VEIN CONTACTS,IN CHLOR FRAGS & F.F./DISS
R              IN SILIC'D ZONES
R              28.5-35.1: INTENS'Y FRACT'D & ALT'D SHEAR ZONE
R              35.1-36.5: WEAKLY ALT'D ANDESITE PORPH
R              36.5-37.4: FAULT GOUGE
R              37.4-40.4: HIGHLY FRACT'D SILIC'D ZONE
/    410  533        FWBXPFHBMF=FRRW        P VQ070   P2<)P2  D)  <)
L                         AG      PPFF    3455  <<       <=<=<)
R              LIGHT,GREYISH-GREEN,FRAGMENTAL,SELECTIVELY SILIC'D FLOW BRECCIA
R              OF ANDESITIC COMP. COARSE FRAGS OF ALT'D HORNB & PLAG ANDESITE
R              PORPHYRIES,MOD-STRONGLY SILIC'D,SOME ARE PART'Y EPID'D
R              NUMEROUS FRACT FILLINGS OF CHLOR,QZ W.LESSER SER,CARB & EPID
R              QZ-CARB VEINS W.HOST CHLOR ROCK FRAGS
R              PY OCCURS AS 1-2% DISS (FINE-COARSE)& F.F. ASSOC W. CHLOR FRAGS
R              & QZ-CARB VEINING
R              CONTACTS BTW FRAGS ARE USUALLY SHARP
R              43.0     : 3 CM QZ-CARB VEIN
R              43.7     : 5 CM "   "    "
R              46.5-48.0: STRONG CHLOR ZONE W. GRAIN CLUSTERS OF FINE-COARSE PY
R                         & CUT BY A 10 CM QZ-CARB VEIN @ 47.6
R              48.0-53.3: HIGHLY SILIC'D ZONEW. INCREASED FRACT'G,EPID & PY
/    533  817        FWBXPFHBMF+SHBX        P VQ045   P3<=V2  D)D*<+
L                         AG      FFRW    4556  SH      Q+<=<*G1D(
R              VARIABLE COLOUR RANGE FROM LIGHT GREY TO DARK GREEN
R              INTENSELY ALT'D.FRACT'D & SHEARED ANDESITE
R              MOST OF INTERV MAY BE DESCRIBED AS A FAULT ZONE W.ASSOC MOD-
R              STRONG CHLOR-SERIC W.LESSER CARB-EPID ALT; QZ-CARB VEINING (UP
R              TO 30%) & PATCHY SILIC ALSO OCCUR
R              SHEAR ZONES & FAULT GOUGES OCCUR INTERMITT.CHARACT'D BY INTENSE
R              FRACT'G,A HOST OF SILIC'D FRAGS,QZ-CARB VEINING (PATCHES & F.F.)
R              & BRITTLELY FRACT'D SILICIFICATION
R              GOUGE ZONES ARE OFTEN BOUNDED BY 20-30 CM SEGMENTS OF TENSIONAL
R              VEINING W.ASSOC CHLOR-SER-CARB ALT
R              WEAKER FRACT'D SHEAR ZONES DISPLAY A BRECCIATED FLOW TEXT W.UP
R              TO 10 CM FRAGS OF ALT'D ANDESITE PORPH W.ASSOC MOD-STRONG CHLOR
R              SER-CARB ALT, A DECREASE IN QZ-CARB VN'G, SELECT'Y PERV SILIC,
R              LOCALIZED GOUGE ZONES (5-10 CM)
R              PY OCCURS AS FINE-COARSE DISS 1-2%,F.F. 2-3% THROUGHOUT ROCK &
R              INCREASES IN ZONES OF SHEAR'G,FRACT'G & SILIC. TRACES OF CP
R              IN QZ-CARB VNS,PY IS COMMONLY ASSOC W.CHLOR FRAGS & F.F.
R              54.7-63.5: INTENS'Y SHEARED-FRACT'D ZONE W.ABUNDANT QZ-CARB VN'G
R                         & SILIC'D FRAGS W.ASSOC 3-4% PY
R              67.0-68.7: AS ABOVE
R              74.1-74.9: 1-2 CM QZ VEIN(~20DEGR TO C.A.)W.ABUNDANT CHLOR MATER
R              74.9-81.7: INTENS'Y ALT'D SHEAR ZONE
R              76.1-80.3: 60-70% QZ-CARB VN'G W.ASSOC 3-5% PY
/    817  859        AN/FHBPFMF=FFSH        P <<      P4<=<1  D)
L                         4G      FGPP    3455           <+  G+
R              DARK GREEN-GREY,STRONGLY CHLOR'D,MOD FRACT'D & SHEARED ANDESITIC
R              FLOW? W. QZ-CARB VEINLETS & STRINGERS
R              WEAK PORPH TEXT OBLITERATED BY INTENSE CHLOR ALT
R              ZONES OF INCREASED FRACT'G DISPLAY SILIC'D FRAGS & CHLOR-SER-QZ-
R              CARB ALT AS F.F.(20-30%)
R              PY (<1%) IS FINELY DISS THROUGHOUT
R              83.7-85.9: INCREASED FRACT'G W.ASSOC SILIC'D FRAGS
/    859 1012        PPANHBPFMF=PPSH        P <<      P5<+>=  D)
L                                 FFBX    5445  SH      Q=<+<+G1
R              INTENSELY ALT'D HORNB ANDESITIC PORPHYRY W. A WEAK PROPYLLYTIC
R              SIGNATURE. ROCK HAS BEEN MOD FRACT'D & F.F. BY CHLOR-SER-EPID-
R              QZ/CARB & HEM
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R LOCALIZED SHEAR/GOUGE ZONES ARE CHARACT'D BY INTENSE FRACT'G
R AND A BRECCIATED TEXT W.SOME SILIC'D,EPID'D & CHLOR'D FRAGS
R PY OCCURS AS FINE-MED DISS MAINLY IN THE SHEAR/BRECC'D ZONES(1%)
R 85.9-88.2 : INTENS'Y ALT'D SHEAR ZONE
R 93.6-95.9 : AS ABOVE
R 94.8-98.4 : INCREASED EPID-HEM ALT
R 100.8-101.2: SHEAR/GOUGE ZONE
R 97.1-97.4 : CORE PIECES IN PLASTIC BAG DUE TO SPILLAGE DURING
R TRANSPORTATION
R E.O.H.
R SAMPLES
A001

AUMM			SAMPLE	Au	Ag	As	Cu
R				ppb	ppm	ppm	ppm
ALAB			PDI RESEARCH				
ATYP			SPLIT CORE				
AMTH			WET GEOCHEM A.A.				
R	00	43	CASING - NO RECOVERY				
A001	43	66	14227	3	0.2	1	163
A001	66	97	14228	3	0.1	1	79
A001	97	137	14229	3	0.1	1	74
A001	137	157	14230	3	0.1	1	42
A001	157	177	14231	10	0.3	10	192
A001	177	197	14232	3	0.3	1	141
A001	197	219	14233	10	0.3	1	228
A001	219	240	14234	115	1.2	6	1320
A001	240	253	14235	3	0.1	12	40
A001	253	265	14236	25	0.4	26	348
A001	265	285	14237	3	0.2	2	30
A001	285	305	14238	5	0.2	1	172
A001	305	325	14239	20	0.3	18	323
A001	325	348	14240	10	0.2	1	75
A001	348	366	14241	15	0.3	1	224
A001	366	386	14242	10	0.2	1	154
A001	386	410	14243	15	0.1	1	179
A001	410	430	14244	3	0.1	2	92
A001	430	450	14245	3	0.1	14	24
A001	450	465	14246	3	0.1	6	56
A001	465	480	14247	3	0.1	8	69
A001	480	500	14248	5	0.1	16	132
A001	500	520	14249	15	0.2	20	205
A001	520	535	14250	10	0.1	12	131
A001	535	555	14251	15	0.2	10	134
A001	555	575	14252	3	0.2	20	301
A001	575	595	14253	200	0.1	28	212
A001	595	615	14254	10	0.2	40	226
A001	615	635	14255	10	0.2	20	134
A001	635	655	14256	75	0.5	26	670
A001	655	670	14257	5	0.2	30	98
A001	670	687	14258	25	0.2	80	168
A001	687	707	14259	200	0.3	76	177
A001	707	727	14260	210	0.2	14	125
A001	727	749	14261	3	0.2	28	75
A001	749	769	14262	40	0.1	140	78
A001	769	789	14263	3	0.2	1	156
A001	789	817	14264	3	0.2	14	164
A001	817	837	14265	3	0.2	12	91
A001	837	859	14266	3	0.2	1	114
A001	859	879	14267	3	0.2	20	142
A001	879	899	14268	3	0.1	1	91

A001	899	920	14269	3	0.1	2	52
A001	920	940	14270	3	0.1	2	43
A001	940	960	14271	3	0.1	1	101
A001	960	980	14272	3	0.1	1	170
A001	980	996	14273	3	0.2	16	213
A001	996	1012	14274	3	0.4	10	149
R			E.O.H.				
A002							
AUMM				RECOVY	RQD		
R	00	43	CASING - NO RECOVY				
A002	43	52		14.0	0.0		
A002	52	67		46.0	0.0		
A002	67	82		83.0	15.0		
A002	82	98		39.0	10.0		
A002	98	122		12.0	0.0		
A002	122	128		57.0	0.0		
A002	128	137		33.0	0.0		
A002	137	143		90.0	17.0		
A002	143	146		95.0	0.0		
A002	146	158		78.0	11.0		
A002	158	174		56.0	11.0		
A002	174	189		53.0	0.0		
A002	189	195		66.0	0.0		
A002	195	210		50.0	0.0		
A002	210	219		44.0	0.0		
A002	219	235		53.0	0.0		
A002	235	250		92.0	65.0		
A002	250	265		93.0	64.0		
A002	265	271		83.0	40.0		
A002	271	277		100.0	0.0		
A002	277	293		87.0	19.0		
A002	293	307		88.0	20.0		
A002	307	320		65.0	0.0		
A002	320	335		97.0	31.0		
A002	335	341		41.0	0.0		
A002	341	354		69.0	0.0		
A002	354	363		97.0	0.0		
A002	363	366		83.0	0.0		
A002	366	378		75.0	0.0		
A002	378	396		38.0	0.0		
A002	396	411		100.0	45.0		
A002	411	433		85.0	45.0		
A002	433	439		100.0	33.0		
A002	439	442		73.0	0.0		
A002	442	454		75.0	12.0		
A002	454	466		100.0	45.0		
A002	466	482		85.0	23.0		
A002	482	494		92.0	37.0		
A002	494	506		85.0	21.0		
A002	506	521		90.6	40.0		
A002	521	536		70.0	44.0		
A002	536	549		85.0	23.0		
A002	549	561		69.0	29.0		
A002	561	570		55.0	0.0		
A002	570	582		67.0	0.0		
A002	582	585		100.0	0.0		
A002	585	600		47.0	0.0		
A002	600	616		75.0	26.0		
A002	616	622		83.0	0.0		
A002	622	637		78.0	0.0		

A002	637	646			94.0	33.0	
A002	646	658			89.0	42.0	
A002	658	674			84.0	12.0	
A002	674	680			42.0	0.0	
A002	680	695			87.0	13.0	
A002	695	698			90.0	0.0	
A002	698	707			78.0	0.0	
A002	707	710			90.0	0.0	
A002	710	728			77.0	19.0	
A002	728	738			85.0	11.0	
A002	738	753			93.0	31.0	
A002	753	765			83.0	30.0	
A002	765	780			89.0	14.0	
A002	780	789			88.0	24.0	
A002	789	802			53.0	0.0	
A002	802	817			64.0	0.0	
A002	817	829			75.0	18.0	
A002	829	841			76.0	0.0	
A002	841	856			87.0	33.0	
A002	856	872			85.0	20.0	
A002	872	887			90.0	27.0	
A002	887	902			93.0	27.0	
A002	902	917			95.0	54.0	
A002	917	933			81.0	0.0	
A002	933	948			90.0	15.0	
A002	948	963			90.0	15.0	
A002	963	980			79.0	23.0	
A002	980	997			79.0	24.0	
A002	997	1012			81.0	16.0	
R			E.O.H.				
A003							
AUMM				SAMPLE	Ag	Au	Cu
R					ppm	ppb	ppm
ALAB			PDI RESEARCH				
ATYP			SLUDGE				
AMTH			WET GEOCHEM A.A.				
A003	67	98		15115	0.6	3	183
A003	98	128		15116	0.7	3	179
A003	128	158		15117	0.3	3	190
A003	158	189		15118	0.1	3	168
A003	189	219		15119	0.1	3	136
A003	219	250		15120	0.1	3	266
A003	372	402		15121	0.1	35	278
A003	402	433		15122	0.1	3	299
A003	433	494		15123	1.4	3	225
A003	585	616		15124	59.0	20	510
A003	616	646		15125	28.0	55	560
A003	768	796		15126	34.0	290	243
/END							

Diamond Drill Hole 90-3

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IDEN6B0201 V216 DDH90-3  NQ 17JUL90 MD   LECLJUL90S38   DALGRD  0.0
IPRJ      PLACER DOME INC                   WINDY PROPERTY
S000   00   514 MT  102.7 090.0 -50.0            6089595.0  445740.0    1021.0
S001  514  1027     102.7  90.0 -48.0
/SCL        MT.2
LSCL                      LCTM
/NAM                                                      CLCBSIKFP1P2P3MG
LNAM                                                      EPSEHECYCPLIMA
R                THIS DDH COLLARED TO TEST CU-AU-AS SOIL ANOMALY
R       00   213 CASING TO 21.3 M
/       00   218        OVBD                    P
/      218   295        AN/FPFMFQZ+LNS3         P FO050   P3<)>1  D*  <*
L                             AG      FF       3434  <<       <+P2<+G1
R                MED. GREYISH GREEN LATITIC,ALT'D (PLAG) ANDESITIC FLOW CHARACT'D
R                MOD-INTENSE CHLOR-SER ALT & MOD.FOLIATED TEXT; QZ-SER-CARB
R                VEINLETS(10-15%) OCCUR IRREG.THROUGHOUT. 2-4 MM SER-QZ LATHES,
R                MOD.FOLIATED OCCUR IN A CHLORITIC ALT'D MATRIX
R                SHEAR ZONES OCCUR LOCALY & ARE INTENSELY ALT'D TO CHLOR W.INCREA
R                SED FRACT'G,HEM,EPID & PY
R                PY <1% OCCURS AS FINE DISS (<1%) & F.F.(<1%) INCREASING IN SHEAR
R                & FRACT ZONES
R                23.4      : 4 CM FAULT GOUGE
R                25.8-26.5: INTENS'Y ALT'D SHEAR ZONE; 1% DISS PY,<1% F.F.PY; 40%
R                           CHLOR,10% QZ-SER,5% EPID,3% HEM
R                28.0-29.5: IRREG.PATCHY QZ-SER (CARB) ALT W.CHLOR,EP,MINOR PY
/      295   369        PPANPFMF    PPVV        P VQ050   P4>+V1  D.D-
L                             YG      LNF3     2434  VE060    V1P1
R                DARK,YELLOWISH-GREEN,PROPYLLITICLY ALT'D PLAG ANDESITE PORPHYRY
R                POSSIBLY A F.G. DIORITE?
R                2-4 MM PLAG X-TALS ALT'D TO SER & EPID IN A VERY F.G. PLAG-CHLOR
R                ALT'D MATRIX; TEXT IS SELECTIVELY PORPH & FOLIATED W.ABUNDANT
R                QZ-CARB & EPID VEINING & LESER PATCHES (UP TO 20 CM)
R                EPID OCCURS AS F.F. & DISS GRAINS IN MATRIX & AS VEIN & PATCHES
R                ASSOC W.COARSER PORPH (PLAG) ANDESITE
R                QZ-CARB ALT OCCURS AS VEINS & PATCHES (5-10%) & HOSTING CHLOR
R                ALT'D IRREG FRAGS
R                TRACES OF PY OCCUR AS FINE-COARSE DISS
R                30.4-30.6 : QZ-CARB VEIN (45 DEGR TO C.A.) W.CHLOR HOST FRAGS
R                32.3-32.7 : INTENSE EPID/QZ-CARB VEINING & PATCHES
R                33.8-34.5 : INCREASED EPIDOTIZED LINEATION
R                34.8-35.4 : QZ-CARB PATCHES W.COARSER GR'D CHLOR-EPID ALT'D GOUG
R                35.4-36.9 : DECREASING EPID ALT
/      369   430        AN/FPFMF    F3SH        P SH      P4<=G+  D+
L                             5A      FFFG     1323  FO060     P2
R                MED GREY,LATITIC,ALT'D ANDESITIC FLOW,WEAKLY FOLIATED & LOCALY
R                SHEARED; SMALL 1-3 MM PLAG(PART'Y SER'D) GRAINS DOWNSIZING TO
R                GROUNDMASS SIZE & FLOODED BY CHLOR ALT
R                WEAK CARB ALT IN F.F.(~2-3%),PERV SER ALT OF PLAG (~20%)
R                PY OCCURS AS FINE DISS (~2%)
R                40.7-43.0 : INTENS'Y ALT'D SHEAR ZONE W.CHLOR-SER-QZ/CARB ALT
R                            W.ASSOC DISS PY. CONTACTS SHOW INCREASE IN FRACT'G
R                            & FOLIATION
/      430   532        AN/FPFMF    F3PA        P VQ060   P4<)Q1  D+  <)
L                             AG      VVLN     3434  LN040    P2P=<)  D.
R                SIMILAR INTERV TO PREVIOUS ONE BUT DISPLAYING MORE PROPYLLITIC
R                ALT,INCREASED PATCHY SILIC & QZ-CARB VEINING W.ASSOC CHLOR HOST
R                FRAGS. DARKER GREYISH-GREEN LATITIC (PLAG PORPH) ANDESITIC FLOW
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R SELECTIV'Y LINEATED,PATCHY & VEINED
R ALTERATION:
R CHLOR IS PERV & LESSER AS F.F. & GRAIN CLUSTERS
R QZ-CARB OCCURS AS VEINS (5 CM) 3-5% & LESSER AS F.F. IRREG.SHAP
R SILIC IS PATCHY (~2-3%) & ASSOC W.QZ-CARB VEINS & INCR'D.EP ALT
R EPID OCCURS AS GRAIN CLUSTERS,CLOTS PATCHES & LESSER AS F.F.
R SERIC OCCURS AS PERV ALT IN MATRIX & AS MINOR F.F.
R HEMATITE OCCURS AS F.F. (~1-2%)
R PY OCCURS AS FINE DISS (2-3%) & F.F.(~1%),INCREASING IN ZONES OF
R STRONGER FRACT'G W.ASSOC QZ-CARB VEINING HOSTING CHLOR FRAGS
R TRACES OF CHALCOPYRITE
R 44.8-45.6 : SILIC'D ZONE W.ASSOC QZ-CARB VN'G HOSTING CHLOR FRAG
R 46.2-47.8 : PATCHY SILIC'D,QZ-CARB VN'G & INCREASING EPID ALT
R 50.4 : 1 CM CHLOR VEIN
R 51.7-53.2 : LINEATED & SELECTIVELY PORPH ZONE W.STRONG PROPYL'C
R FEATURES, LINEATION ~40 DEGR TO C.A.
/ 532 878 FGDRPFMF FGF3 P VQ070 P3<+V1 D+B)<)
L GA S5RW 3566 FO080 P=P2<)G1
R MED,GREENISH-GREY,FINE TO MED GR'D DIORITE (POSS AN ALT'D ANDE-
R SITE PORPH),CHARACT'D BY A GRAINIER TEXT,LOCALIZED ZONES OF WEAK
R TO MOD FOLIATION, MOD-STRONG SHEARING W.ASSOC FAULT GOUGE,BRECC
R & QZ-CARB VN'G, WEAK SILIC OCUURING SELECT'Y
R ALTERATION:
R CHLOR: PERV (~30%) BTW INTERLOCKING GRAINS OF PLAG W.LESSER F.F
R CARB : MINOR F.F. (~2-3%)
R EPID : SELECTIVE ZONES OF PERV & F.F. (~4-5%)
R SERIC: PERV (~5-7%) W. LESSER F.F.
R HEM : AS F.F. (~1-2%) IN ZONES OF SHEARING W.ASSOC EPID ALT
R CLAY : PERV IN FAULT GOUGES
R QZ-CARB VN'G OCCURS MAINLY IN HIGHLY FRACT'D SHEAR ZONES AS IRRE
R SHAPED VEINS & PATCHES HOSTING CHLOR ALT'D FRAGS
R SHEAR ZONES COMMONLY DISPLAY INTENSE FRACT'G,MINOR FOLDING & A
R HOST OF CHLORITIC & SILIC'D ROCK FRAGS,OFTEN MINERALIZED
R PY OCCURS AS DISS (2-3%),BLEBS (1%),F.F.(1%),INCREASING IN ZONES
R OF MORE INTENSE FRACT'G & FOLIATION & SHEARING
R CHLOR ALT'D ROCK FRAGS & QZ-CARB VEIN CONTACTS COMMONLY MINER'D
R 53.2-55.7: M.G. DIORITE
R 55.7-59.8: INTENS'Y ALT'D SHEAR ZONE W.ASSOC QZ-CARB VEINING
R 61.9-62.6: MOD ALT'D SHEAR ZONE W.INCREASED MINERALIZATION
R 64.7-68.1: MOD-STRONG ALT'D SHEAR ZONE W.INCREASING EPID-HEM ALT
R & WEAKER FOLIATION
R 72.2 : 10 CM QZ-CARB VEIN (UNMINERALIZED)
R 73.2-79.6: STRONGLY FOLIATED ZONE W.INCREASING QZ-CARB VN'G &
R MINERALIZATION (4 CM QZ VEIN @ 74.5)
R 79.6-82.0: INTENS'Y ALT'D SHEAR ZONE DISPLAYING INTENSE FRACT'G,
R SILIC,BRECC,MICRO-FOLDING ,QZ-CARB VN'G & MINER.(30
R CM QZ VEIN @ 82.9)
R 82.5-86.6: AS ABOVE; QZ-CARB VEINS @ :83.9(2CM), 85.5 (30CM),
R 85.8 (10CM), 86.5 (2CM)
/ 878 1027 PPANPFMF PPRW P VQ060 P3<*P2 D+ <)
L 4A FGVV 2323 VE040 P2P1<*
R DARKER GREENISH-GREY,F.G. PLAG ANDESITE PORPHYRY CHARACT'D BY A
R ZONE OF PROPYLLITIC ALT & A ZONE OF PARTIAL SILIC, POSSIB'Y AN
R ALT'D VARIETY OF F.G. DIORITE?
R VEINING & FRACT'G OCCUR THROUGHOUT AS QZ-CARB (HOSTING CHLOR
R FRAGS) VEINS UP TO 10 CM & EPID F.F. (10-15%)
R PY OCCURS AS DISS (3-4%) & F.F.(1-2%) COMM'Y ASSOC W.CHLOR FRAGS
R 87.8-98.7: STRONG PROPYLLITIC ALT, QZ-CARB VEINS @: 92.6 (6CM),
R 92.9 (2 & 3CM),93.1 (13CM),95.0 (2CM),97.3 (12CM)
R 88.8-90.8: STRONGLY ALT'D SHEAR ZONE W.A 20 CM QZ-CARB VN @ 90.5

R			91.3-92.0: 70 CM QZ-CARB VEIN,UNMINER'D				
R			98.7-102.7: MORE SILIC'D ZONE W.10 CM QZ-CARB VEIN @ 99.8				
R			E.O.H.				
R			SAMPLES				
A001							
AUMM			SAMPLE	Au	Ag	As	Cu
R				ppb	ppm	ppm	ppm
ALAB			PDI RESEARCH				
ATYP			SPLIT CORE				
AMTH			WET GEOCHEM A.A.				
R	00	218	OVBD - NO RECOVERY				
A001	218	240	14275	3	0.2	8	281
A001	240	256	14276	3	0.1	4	127
A001	256	265	14277	3	0.2	1	113
A001	265	284	14278	3	0.1	4	107
A001	284	295	14279	3	0.1	6	98
A001	295	315	14280	3	0.1	8	79
A001	315	335	14281	3	0.1	1	71
A001	335	355	14282	20	0.1	1	213
A001	355	369	14283	3	0.1	1	225
A001	369	390	14284	3	0.1	2	52
A001	390	407	14285	3	0.1	1	7
A001	407	430	14286	3	0.1	1	20
A001	430	450	14287	3	0.1	1	56
A001	450	462	14288	3	0.1	16	102
A001	462	478	14289	3	0.2	6	340
A001	478	498	14290	3	0.4	4	550
A001	498	517	14291	3	0.1	1	90
A001	517	532	14292	3	0.1	1	56
A001	532	557	14293	3	0.1	4	11
A001	557	577	14294	3	0.1	4	9
A001	577	598	14295	3	0.2	4	106
A001	598	619	14296	3	0.3	16	276
A001	619	626	14297	3	0.7	20	830
A001	626	647	14298	3	0.5	20	510
A001	647	667	14299	10	0.2	1	381
A001	667	681	14300	20	0.2	1	530
A001	681	701	14301	3	0.1	1	195
A001	701	716	14302	5	0.2	1	180
A001	716	732	14303	3	0.1	1	167
A001	732	752	14304	15	0.3	1	364
A001	752	772	14305	15	0.3	1	369
A001	772	796	14306	3	0.2	1	176
A001	796	816	14307	10	0.4	1	490
A001	816	836	14308	3	0.2	1	132
A001	836	856	14309	10	0.2	1	329
A001	856	878	14310	3	0.1	1	88
A001	878	888	14311	15	0.1	1	202
A001	888	908	14312	50	0.4	1	680
A001	908	930	14313	10	0.3	1	500
A001	930	950	14314	20	0.3	1	378
A001	950	970	14315	15	0.2	1	350
A001	970	987	14316	3	0.2	1	116
A001	987	1007	14317	3	0.1	1	32
A001	1007	1027	14318	3	0.1	1	7
R			E.O.H.				
A002							
AUMM				RECOVY	RQD		
R	00	218	OVBD - NO RECOVY				
A002	218	229		74.0	0.0		

A002	229	244	93.0	16.0
A002	244	250	100.0	17.0
A002	250	280	93.0	0.0
A002	280	296	87.0	20.0
A002	296	311	93.0	12.0
A002	311	326	87.0	50.0
A002	326	341	100.0	86.0
A002	341	357	85.0	37.0
A002	357	372	90.0	48.0
A002	372	402	94.0	15.0
A002	402	418	94.0	0.0
A002	418	433	67.0	0.0
A002	433	448	100.0	23.0
A002	448	463	87.0	50.0
A002	463	479	87.0	38.0
A002	479	494	93.0	31.0
A002	494	509	93.0	21.0
A002	509	524	95.0	64.0
A002	524	539	98.0	20.0
A002	539	555	94.0	31.0
A002	555	570	86.0	0.0
A002	570	585	86.0	0.0
A002	585	600	80.0	0.0
A002	600	616	88.0	38.0
A002	616	631	90.0	6.0
A002	631	646	93.0	17.0
A002	646	661	93.0	0.0
A002	661	677	93.0	13.0
A002	677	692	97.0	0.0
A002	692	707	100.0	23.0
A002	707	722	97.0	27.0
A002	722	738	91.0	6.0
A002	738	753	97.0	10.0
A002	753	768	95.0	47.0
A002	768	783	100.0	7.0
A002	783	799	94.0	27.0
A002	799	814	97.0	23.0
A002	814	829	98.0	33.0
A002	829	844	97.0	17.0
A002	844	856	96.0	17.0
A002	856	873	88.0	24.0
A002	873	878	90.0	24.0
A002	878	890	92.0	38.0
A002	890	908	83.0	0.0
A002	908	920	67.0	17.0
A002	920	936	91.0	31.0
A002	936	951	100.0	67.0
A002	951	966	100.0	60.0
A002	966	981	90.0	70.0
A002	981	997	91.0	50.0
A002	997	1012	90.0	67.0
A002	1012	1027	93.0	56.0

R END OF HOLE

/END

Diamond Drill Hole 90-4

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IDEN680201 V216 DDH90-4  NQ 19JUL90 MD   LECLJUL90S38   DALGRD  0.0
IPRJ      PLACER DOME INC                        WINDY PROPERTY
S000   00   520 MT  103.9 090.0 -50.0            6089630.0  445830.0    1044.0
S001  520  10390    103.9 090.0 -53.0
/SCL        MT.2
LSCL                       LCTM
/NAM                                                       CLCBSIKFP1P2P3MG
LNAM                                                       EPSEHECYCPLIMA
R                THIS HOLE WAS COLLARED TO TEST A CU-AU-AS SOIL ANOMALY AND
R                A COINCIDENT VLF CONDUCTOR
R                CASING TO 15.8 METRES
/      00   158        OVBD               P
/     158   205        FE/DPFMF   VFMX        P SH060   <)  >=  D+B)<*
L                          AWQZ   S3F3     1323  F0050     P3  G1  <+
R                LIGHT GREYISH WHITE, VERY F.G. WEAKLY FRACTURED FELSIC DYKE
R                TEXT. IS MASSIVE AND WEAKLY FOLIATED AND LOCALLY SHEARED WITH
R                SPOTTY F.G. MAFIC MINERALS
R                ALTERATION IS MOSTLY SERICITIC (PERV. & F.F.) & SELECTED
R                PERV. SILIC, MINOR LIMONITEIC STAIN IN FRACT.
R                PY(2-3%) OCCURS AS DISS(2-3%), BLEBS (~1%), F.F.(<1%); AND
R                INCREASES IN FRACTURED SHEAR ZONES
R                16.0-16.2: SHEAR ZONE, INTENSE ALT'N
R                19.0-20.2: HIGHLY FRACT'D, ALT'D SHEAR ZONE WITH INCREASED
R                           PY CONTENT
/     205   264        PPANPFMF   PPF5        P F0050   P3<*>1  D+B)<+
L                          GA     FF       2545  <<050    P1D+
R                MED. GREYISH GREEN, MOD. FOLIATED & FRAC'D, WEAKLY PORPH.
R                PLAG ANDESITE (POSS. ALT'D F.G. DIORITE)
R                F.G. PLAG X-TALS(~40%) IN FINER GRAINED PLAG-CHLOR-SER MATRIX
R                BANDS OF QZ(CB) & CHLOR DISPLAY A FOLIATED TEXTURE
R                ALT'N IS DOMINATELY CHLOR. (PERV.) & LESSER SER.-EPIDOTE IS
R                SELECTIVELY PERV.
R                PY(3-5%) OCCURS AS DISS(~1%), BLEBS(2-3%), F.F.(2-3%) AND IS
R                COMMONLY ASSOC. WITH CHLOR FILLED FRAC'S
R                23.4-24.2: INCREASED EPIDOTE ALT'N(~30%)
/     264   347        FALTMFPF   S7BX        P SH      P6<+*1  D+B)
L                          3G              4767            P1<)G3
R                DARK GREEN, INTENSLY SHEARED, ALT'D, & BRECCIATED FAULT ZONE
R                CHARACTER'D BY STRONG CHLOR. ALT'N, FAULT GOUGE & BRECCIA ZONES
R                WITH SILIC'D & CHLOR'D FRAGS; QZ-CB VEINING OCCURS IN LESSER
R                ALTER'D ROCK
R                PY OCCURS DOMINANTELY IN BREECC'D % GOUGED ZONES AS DISS(2-3%)
R                AND BLEBS(~1%)
R                26.5-28.0: INTENSLY SHEARED WITH MICRO-FOLDING & BRECC ZONE
R                33.9-34.5: GOUGE
/     347   386        PPANPFMF   PPF5        P VQ070   P3<(V=  D+  <)
L                          GA     VV       1323  F0050     P+    D)
R                SAME AS INTERVAL 20.5-26.4 BUT DISPLAYING OPBVIOUS QZ VEINS
R                (UP TO 60 CM WIDE) WITH ASSOC. CHLOR FRAGS
R                PY OCCURS MOSTLY AS DISS X-TALS THROUGHOUT (2-3%) & LESSER AS
R                F.F. ASSOC WITH CHLOR ALT'N
R                35.0-35.6: QZ VEIN WITH ~1-2% F.F. PY
R                35.8-36.0: QZ VEIN
R                36.7      : 5 CM QZ VEIN
R                37.0      : 3 CM QZ VEIN
R                CP OCCURS ASSOC WITH PY IN QZ VEIN (F.F.) (~1%)
/     386   427        AN/FMFPF   F7VF        P F0060   P6<=V)  D)  <*
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L                     4G     PPS5    1323  SH060     P1  G+
R              DARKER GREEN INTENSLY ALT'D, STRONGLY FOLIATED & WEAKLY PORPH.
R              ANDESITE FLOW
R              STRONG FOLIATION CHARACT'D BY BANDS OF CHLOR (SER.-QZ)
R              FG PLAG X-TALS GIVE A SLIGHT PORPH. LOOK
R              ALT'N IS DOMINANTELY CHLOR (PERV) WITH MINOR SER. & CARB (3-5%)
R              IN F.F.
R              PY OCCURS AS DISS(~1%) THROUGHOUT & F.F.(<1%) INCREASING IN
R              FRACTURED SHEAR ZONES
R              42.2-42.7: SHEAR ZONE WITH INCREASING QZ-CB VEINING & PY CONTENT
/    427  464         PPANPFMF   RWPP        P VQ040   P2<*P1  D*  <)
L                     GA     VVS3    1212  SH060    <=P1<*
R              LIGHT GREYISH-GREEN, PARTIALLY REWORKED PLAG ANDESITE PORPHYRY
R              CHARACT'D BY FINE-MED. PLAG IN A FINER GR'D MATRIX WITH TEXTURE
R              OBLITERATED BY ALT'N (SILIC)
R              QZ-CB PATCHES & VEINS WITH ASSOC CHLOR HOST ROCK FRAGS OCCUR
R              THROUGHOUT & APPEAR TO HOST THE MINERALIZATION
R              PY OCCURS AS DISS & F.F. (~1-2%)
R              43.6 : 15 CM QZ-CB VEIN (MINOR PY)
R              44.7 : 5 CM VUGGY QZ-CB VEIN WITH CHLOR FRAGS & COARSE DISS PY
R              45.9 : ALT'D SHEAR ZONE WITH MINOR PY
/    464  486         FE/DQZPF   KRVF        P VQ050   O2>1P3  D=B)<=
L                     7AMF   VV      3767             P+
R              LIGTH GREY, CRACKLED & SPOTTED SILICIFIED FELSIC DYKE
R              CHARACT'D BY ABUNDENT DISS & F.F. PY (~8-10%)
R              STRONG FRACT'G FILLED BY IRREG SHAPED QZ-CB VEINS & PATCHES
R              HOSTING CHLOR'D FRAGS
/    486  545         PPANPFMF   PPF3        P VQ050   P4<+V1  D)  <(
L                     4G     VV      2434  FO060   P2P1<*
R              DARKER GREEN, PROPYLITICALLY ALT'D, M.G. PLAG ANDESITE PORPHYRY
R              CHARACT'D BY 30-40% PLAG GRAINS IN A FINER GR'D CHLOR'D AND
R              EPIDOT'D MATRIX; QZ-CB & EPIDOTE VEINLETS & PATCHES OCCUR
R              THROUGHOUT, FOLIATION IS WEAK
R              PY OCCURS IN MINOR AMOUNTS AS DISS(~1%) AND F.F.(<1%)
R              49.6 : 20 CM QZ-CARB VEIN WITH CHLOR FRAGS
R              51.8 : 4 CM QZ-CB VEIN
R              53.4 : 3 CM   "     "
/    545  588         AN/FMFPF   F7S5        P FO040   P6<1>2  D+
L                     4G     FFVF    2646  <<040     D=
R              DARKER GREEN INTENSLY ALT'D (CHLORITIC) & STRONGLY FOLIATED
R              (~40 DEGREES TO C. A.) ANDESITIC FLOW
R              FOLIATION ALSO DISPLAYED BY NUMEROUS PARALLEL QZ-CB-SER
R              VEINLETS DISPLAYING FINE TO MED. GRAIN SIZE
R              SHEARING AND GOUGES OCCUR IN SELECTIVE AREAS
R              PY OCCURS DISS (~2-3%) THROUGHOUT
R              FAULT GOUGES @ 56.4 (5 CM) & 58.7 (10 CM)
/    588  615         BRXXQZCL   BXSH        P         #2<1P5  D+
L                     5APF           6868             #1  G5
R              MED. GREY HIGHLY FRAC'D STRONGLY SILIC'D BRECCIA WITH CHLORITIC
R              AND SERICITIC BX FILLINGS
R              FRAGS (.5-4 CM) ARE SILICIFIED & CHLORITIZED. QZ-CB VEINING
R              AND PATCHES OCCUR SPORADICALLY
R              PY IS MINOR & OCCURS AS DISS (~1-2%)
R              59.1-59.4: FAULT GOUGE
/    615  984         AN/FMFPF   F7S5        P FO040   P6<1>2  D+  <)
L                            FFVF    2646  <<040   V+D=<)G+
R              SAME AS INTERVAL 54.5 - 58.8
R              QZ-CB VEINING IS SOMETIMES VUGGY & HOSTS CHLOR FRAGS (VEINS UP
R              TO 10 CM WIDE)
R              SHEAR (GOUGE) ZONES OCCUR SELECTIVELY THROUGHOUT & DISPLAY
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R CONTACTS WITH INCREASING PARALLELQZ-CB VEINLETS
R PY OCCURS AS DISS (2-3%) & F.F. (~1%) WITH INCREASING AMOUNTS
R IN MORE FRACTURED AREAS.
R EPIDOTE OCCURS SELECTIVELY AS F.F. PATCHES & VEINS (~3-5%)
R 63.1-63.5 : SHEAR/GOUGE ZONE
R 64.2-64.6 : EPIDOTIZED ZONE WITH TWO 5 CM QZ-CB VEINS
R 65.5-66.1 : FAULT GOUGE INTRUDED BY A BRECC'D QZ-CB VEIN (30 CM)
R 69.4 : 8 CM FAULT GOUGE
R 70.0-70.2 : INTENSLY ALT'D FAULT BRECCIA
R 79.1 : 3 CM VUGGY QZ-CB VEIN
R 81.0-82.3 : SHEAR ZONE DISPLAYING INCREASING PARALLEL QZ-CB
R VEINLETS FOLLOWED BY A 20 CM SILICIFIED ZONE THEN
R FAULT GOUGE FROM 81.5 TO 82.1
R 82.8-83.6 : FAULT BRECCIA WITH 0.5-3 CM SILIC'D FRAGS & CHLOR
R BRECCIA FILLINGS
R 83.9-84.3 : FAULT GOUGE
R 85.7-86.0 : " "
R 89.9-90.3 : " "
R 91.2-92.1 : INTENSLY ALT'D SHEAR ZONE WITH INCREASING EPIDOTE
R 97.8-98.1 : FAULT GOUGE
/ 984 1039 QZDRPFMF MGF3 P FO050 J2<*V1 D)
L 5AQZ BXVV 2434 VQ040 P1 G=
R MEDIUM GREY, M.G., WEAKLY FOLIATED, MOD. SHEARED QZ DIORITE
R CONTACT WITH ANDESITE FLOW IS GRADATIONAL
R 2-4 MM GRAINS OF PLAG & QZ WITH ALTERED GRAINS OF CHLORITE
R (INTERSTITIAL) & SERICITE ARE CUT BY QZ-CB VEINS
R SHEARED ZONES DISPLAY INTENSE ALT'N & WEAK BRECC'N
R PY IS MINOR & OCCURS AS FINE DISS (~1%)
R 99.2-99.5 : SHEAR (GOUGE) ZONE FOLLOWED BY A 5 CM ANDESITE
R FLOW FRAG.
R 100.1-101.1 : HIGHLY ALT'D & FRAC'D ANDESITE FLOW (FOLIATED)
R 101.3-101.5 : SILICIFIED BRECCIA
R 103.3-103.5 : QZ VEIN
R END OF HOLE
A001
AUMM SAMPLE Au Ag As Cu
R ppb ppm ppm ppm
ALAB PDI RESEARCH
ATYP SPLIT CORE
AMTH WET GEOCHEM A.A.
R CASING TO 15.8 M

			SAMPLE	Au	Ag	As	Cu
A001	158	183	14319	3	0.1	10	14
A001	183	205	14320	3	0.1	4	14
A001	205	225	14321	15	0.1	12	234
A001	225	245	14322	3	0.1	14	168
A001	245	264	14323	3	0.1	16	134
A001	264	284	14324	20	0.1	30	275
A001	284	304	14325	60	0.1	22	200
A001	304	324	14326	200	0.1	20	188
A001	324	347	14327	150	0.1	26	146
A001	347	367	14328	3	0.6	1	910
A001	367	386	14329	70	0.1	1	137
A001	386	406	14330	105	0.1	6	60
A001	406	427	14331	30	0.1	6	73
A001	427	447	14332	3	0.1	6	142
A001	447	464	14333	3	0.1	1	147
A001	464	486	14334	3	0.1	1	218
A001	486	506	14335	30	0.1	1	143
A001	506	526	14336	3	0.1	2	150
A001	526	545	14337	3	0.1	8	143

A001	545	565	14338	3	0.1	4	147
A001	565	588	14339	3	0.1	1	72
A001	588	603	14340	3	0.1	1	102
A001	603	615	14341	3	0.1	1	64
A001	615	635	14342	115	0.1	1	174
A001	635	655	14343	15	0.1	6	92
A001	655	675	14344	3	0.1	6	229
A001	675	695	14345	3	0.1	4	124
A001	695	715	14346	3	0.1	1	165
A001	715	735	14347	3	0.1	8	63
A001	735	755	14348	3	0.1	6	103
A001	755	775	14349	3	0.1	16	58
A001	775	795	14350	3	0.1	10	89
A001	795	810	14351	110	0.1	1	111
A001	810	828	14352	3	0.1	18	88
A001	828	848	14353	3	0.1	6	48
A001	848	868	14354	3	0.1	16	97
A001	868	888	14355	10	0.1	1	133
A001	888	908	14356	10	0.1	1	58
A001	908	928	14357	10	0.1	1	112
A001	928	948	14358	15	0.1	1	80
A001	948	968	14359	25	0.2	1	201
A001	968	984	14360	55	0.1	1	342
A001	984	1001	14361	3	0.1	1	121
A001	1001	1011	14362	20	0.1	1	202
A001	1011	1021	14363	3	0.1	1	32
A001	1021	1039	14364	80	0.1	1	174
R			END OF HOLE				
A002							
AUMM				RECOVY	RQD		
R			CASING TO 15.8 M -NO RECOVERY				
A002	158	171		92.0	15.0		
A002	171	177		100.0	0.0		
A002	177	189		95.0	43.0		
A002	189	204		93.0	0.0		
A002	204	210		95.0	17.0		
A002	210	216		92.0	0.0		
A002	216	232		81.0	25.0		
A002	232	244		92.0	17.0		
A002	244	250		100.0	33.0		
A002	250	265		80.0	6.0		
A002	265	280		93.0	0.0		
A002	280	293		54.0	0.0		
A002	293	305		83.0	0.0		
A002	305	311		75.0	0.0		
A002	311	326		80.0	0.0		
A002	326	335		50.0	0.0		
A002	335	347		83.0	0.0		
A002	347	372		92.0	28.0		
A002	372	387		100.0	20.0		
A002	387	402		96.0	33.0		
A002	402	415		61.0	0.0		
A002	415	424		100.0	44.0		
A002	424	433		67.0	17.0		
A002	433	448		100.0	47.0		
A002	448	457		89.0	66.0		
A002	457	472		87.0	27.0		
A002	472	488		75.0	31.0		
A002	488	503		100.0	60.0		
A002	503	515		83.0	42.0		

A002	515	524	95.0	11.0
A002	524	539	93.0	47.0
A002	539	555	88.0	31.0
A002	555	564	95.0	11.0
A002	564	579	100.0	30.0
A002	579	588	83.0	0.0
A002	588	604	94.0	44.0
A002	604	616	66.0	25.0
A002	616	631	100.0	20.0
A002	631	646	100.0	53.0
A002	646	661	97.0	27.0
A002	661	677	100.0	64.0
A002	677	692	90.0	33.0
A002	692	707	90.0	40.0
A002	707	719	84.0	25.0
A002	719	735	88.0	25.0
A002	735	750	93.0	53.0
A002	750	759	89.0	17.0
A002	759	768	100.0	22.0
A002	768	777	100.0	22.0
A002	777	783	95.0	0.0
A002	783	799	56.0	0.0
A002	799	808	77.0	0.0
A002	808	814	67.0	0.0
A002	814	829	87.0	0.0
A002	829	841	92.0	8.0
A002	841	856	93.0	33.0
A002	856	872	94.0	13.0
A002	872	887	93.0	33.0
A002	887	902	100.0	27.0
A002	902	917	93.0	40.0
A002	917	933	94.0	0.0
A002	933	948	87.0	13.0
A002	948	963	94.0	13.0
A002	963	978	100.0	33.0
A002	978	994	91.0	25.0
A002	994	1009	80.0	27.0
A002	1009	1024	97.0	40.0
A002	1024	1039	90.0	20.0

R END OF HOLE

/END

Diamond Drill Hole 90-5

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IDEN6B0201 V216 DDH90-5  NQ 22JUL90 MD   LECLJUL90S38   MD GRD  0.0
IPRJ       PLACER DOME INC                    WINDY PROPERTY
S000   00   628 MT  125.6 090.0 -50.0             6088990.0  445765.0    1021.0
S001  628  1256     125.6 090.0 -50.5
/SCL        MT.2
LSCL                       LCTM
/NAM                                                         CLCBSIKFP1P2P3MG
LNAM                                                         EPSEHECYCPLIMA
R                THIS HOLE WAS COLLARED TO TEST A CU-AU-AS SOIL ANOMALY &
R                COINCIDENT VLF CONDUCTOR & A WEAK IP ANOMALY
R                CASING TO 4.3 M
/      00    43        OVBD                P
/      43   206        PPANPFMF    PPVV        P VQ070    P2<+P1  D)  <*D=
L                          GA      FFS3     4324  <<         O+  G+  >1
R                DARK GREENISH-GREY F.G. PLAG ANDESITE PORPHYRY CHARACT'D BY A
R                WEAK TO STRONG PORPH. TEXTURE
R                SPORADIC GOUGE ZONES, QZ-CB VEINING, WEAK TO MOD SILICIFICATION
R                & ~5% DISS. MAGNETITE
R                FIRST 19.6 M DISPLAYS OXIDATION AS PATCHY, F.F. & SELECT'Y
R                PERVASIVE LIMONITIC COATINGS, INCREASING IN AREAS OF MORE
R                INTENSE FRACT'G
R                ROCK CONSISTS OF 2-3 MM GRAINS OF PLAG WEAKLY SERICIT'D IN A
R                FINER GRAINED CHLORT'D MATRIX. PORPHYRITIC TEXTURE IS COMMONLY
R                OBLITERATED BY ALTERATION
R                QZ-CB VEINING COMMONLY OCCUR IN MORE FRACT'D & SHEARED ZONES &
R                MAY HAVE HOST CHLOR ROCK FRAGS
R                SHEAR ZONES (GOUGES) MAY DISPLAY A BRECCIAT'D TEXT. CONTAINING
R                SILIC'D FRAGS
R                MAGNETITE X-TALS (1-2 MM) OCCUR DISS THROUGHOUT ~5%
R                PY OCCUR AS ~1% DISS & AS F.F. <1%
R                5.8-6.8 : INTENSE FRACT'G (OXID'D)
R                8.1-11.2 :   "       "     WITH INCREASED QZ-CB VEINING
R                          (10 CM QZ VN @ 9.2)
R                14.9-16.2 : AS ABOVE
R                17.6-19.6 : INCREASING SILICIFICATION
R                19.6-20.6 : VERY BROKEN CORE - FAULT GOUGE ?
/     206   220        MGDRPFMF    MGKR        P <<       P4<+P1  D)
L                          GAQZ    S5       5767          <+P+  G1
R                DARK GREENISH-GREY, M.G., STRONGLY ALT'D FRACTURED (QZ) DIORITE
R                UPPER CONTACT DEFINED BY FAULT GOUGE, LOWER ONE IS GRADATIONAL
R                APPROX 50-50 FELSIC (PLAG-QZ) GRAINS WITH INTERSTITIAL MAFICS
R                (ALL CHLOR.), SLIGHTLY CARB'D, EPIDOT'D, & SERIC'D WITH
R                MINOR DISS (~1%) PY
/     220   246        PPANPFMF    PPFG        P VQ070    P5<=V+  D)    D)
L                          3G      S3VV     3566  SH060     O1
R                DARK GREEN, F.G., PLAG ANDESITE PORPHYRY CHARACT'D BY INTENSE
R                CHLORITE ALT'N
R                2-3 MM OF ALT'D PLAG X-TALS IN A CHLORITIC MATRIX WITH QZ-CB VN
R                PORPH. X-TALS SOMETIMES SHOW WEAK FOLIATION
R                MINOR DISS (~1%) PY, MINOR DISS (~1-3%) MG
/     246   277        CLPHCLPF    SCS3        P SC       P7<2#)  D(
L                          3G      F3FF     2466  SH060          G+
R                DARK GREEN, CARBON'D CHLORITIC PHYLLITE (PROBABLY ORIGINALLY
R                ANDESITE FLOW) CHARACT'D BYSTRONG PERV CHLOR ALT'N, A
R                SCHISTOSE TEXTURE & FLOODED BY WISPS OF CB
R                FAULT ZONE OCCUR AT CONTACTS & DISPLAY INTENSE CHLOR ALT'N
R                & WEAKER SILICIFICATION & BRECCIATION
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R              <1% DISS PY, INCREASING SLIGHTLY IN FAULT ZONES
R              24.6-25.3 : FAULT ZONE
R              27.5-27.7 :  "    "
/    277  293        QZDRPFMF   MGF3       P VQ070   <2<)P+  D(  <(D(
L                         AGQZ   VV      1233          O+
R              GREYISH-GREEN, M.G., QZ-DIORITE; 2-4 MM INTERLOCKING GRAINS
R              OF PLAG & QZ WITH INTERSTITIAL CHLOR.
R              SILICA FLOODING OCCUR AROUND A QZ-CB VEIN @ 28.3 ; SER-CARB
R              ALT'N ARE MINOR
R              PY OCCUR FINELY DISS (<1%) & F.F. ALONG CONTACTS OF QZ VEIN
/    293  306        PPANPFMF   PPVV       P VQ040   P3<+V+  D)  <.D=
L                         5AQZ           2222          P+      <)
R              MED GREY PLAG ANDESITE PORPHYRY CHARACT'D BY 2-4 MM PLAG GRAINS
R              IN A VERY F.G. CHLORITIC MATRIX WITH MICROVEINS OF QZ & CARB
R              QZ-CARB VEIN OCCURS @ 29.6 (2 CM)
R              PY OCCUR AS MINOR (~1%) DISS & LESSER F.F.
R              MAGN OCCUR AS FINE DISS UP TO 5%
/    306  383        FALTPFQZ   PPF5       P FO050   P3<1P1  D+    D+
L                         5AMF   S7BX    4678          P1  G2  <+
R              MED GREY INTENS'Y ALT'D SHEARED & BRECCIAT'D FAULT ZONE
R              CONTACTS SHOW A LATITIC ANDESITIC FLOW OR A PORPH F.G. DIORITE?
R              ROCK IS EXTREMELY SHATTERED WITH PERV CHLOR, SERIC & CLAY
R              ALTERATION WITH LESSER SELECTIVE SILIC & QZ-CB VEINLETS
R              FELDSPAR LATHES DISPLAY MINOR FOLIATION INCREASING IN SHEAR
R              ZONES. SHEARING HAS PRODUCED MICRO-FOLDING IN SELECTIVE AREAS &
R              ALSO BRECCIAT'N WITH SILIC'D FRAGS LEFTOVER
R              PY OCCUR AS FINE TO COARSE (EUHEDRAL X-TALS) ~5-7% THROUGHOUT,
R              INCREASING IN ZONES OF SHEARING (GOUGES)
R              MAGNETITE OCCURS AS DISS (~2-3%)
/    383  415        QZDRPFMF   MGVV       P         P3<)P1  D)B)<)
L                         GAQZ   S3      2323          P=      T)
R              GREENISH-GREY,VERY BROKEN UP,M.G. QZ-DIORITE @ LOWER CONTACT W.
R              FAULT ZONE;WEAKLY SHEARED
R              STRONG CHLORITIC ALT W.LESSER PERV.SERIC & WEAK PERV SIL(SELECT)
R              PY OCCURS AS DISS,BLEBS & F.F. THROUGHOUT (2-3%)
R              10 CM QZ VEIN @ 39.0 & 40.7
/    415  432        AN/FMFPF   MXF3       P         P7>1    D)    D=
L                         3G     FF      3213                T+
R              VERY DARK GREEN,MASSIVE,CARBONATIZED ANDESITIC FLOW (LATITIC)
R              ALT IS MAINLY CHLOR W.WISPS & F.F.CARB (~10-15%)
R              MAGN OCCURS DISS THROUGHOUT (~5-7%)DISPLAYING A WEAK FOLIATION
R              PY OCCURS DISS IN MINOR AMOUNTS (~1%)
/    432  455        MGDRPFMF   MGF3       P FO050   P4<=>=  D+  <+
L                         AG     FF      2344          P+
R              DARK,GREYISH-GREEN,FINE TO MED GR'D DIORITE W.MOD-STRONG CHLOR
R              ALT & LESSER SER ,QZ-CARB ALT
R              QZ-CARB VEINS UP TO 1 CM OCCUR IN MORE FRACT'D ZONES W.INCREA'G
R              PY CONTENT
R              PY OCCURS AS FINE-COARSE DISS (COMMONLY AS CLUSTERS)& AS F.F.
R              WITHIN & ALONG THE QZ-CARB VEIN CONTACTS
/    455  484        FALTPFMF   S7BX       P         P7<1>1  D+
L                         6GQZ   FF      6878          P1  G1
R              LIGHT,MED GREEN,INTENSELY ALT'D & SHEARED & MOD BRECC'D FAULT ZN
R              INTENSE ALT HAS DESTROYED ALL ORIGINAL TEXT LEAVING A BRECC'D,
R              SHEARED ROCK HOSTING SILIC'D & CARB'D FRAGS IN A CHLOR'D MATRIX,
R              LESSER FRACT'D ROCK DISPLAYS LOCALIZED MICRO-FOLDING OF QZ-CB VN
R              PY IS FINELY DISS THROUGHOUT (~2-3%)
/    484  587        MGDRPFMF   MGMX       P FO050   P3<=P2  D+    D+
L                         GAQZ   F3FF    1233          <)P+    <)
R              DARK,GREENISH-GREY,MASSIVE,WEAKLY FRACT'D & MOD ALT'D MG DIORITE
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R              FOLIATION IS WEAK & SELECTIVELY PREV, ALT OCCURS AS PERV CHLOR
R              (30-40%)W.LESSER PERV CARB (ALSO AS F.F.)
R              SILICIFICATION IS WEAK & PERV & INCREASES TOWARDS THE END OF THE
R              INTERV.W. ASSOC MINOR F.F. EPIDOTE
R              PY OCCURS AS MINOR (2-3%)DISS (POSSIBLY PRIMARY?)
R              MAGN OCCURS AS DISS (2-3%) THROUGHOUT
R              48.9-49.4:XENOLITH OR DYKE? OF DARK GREEN,CHLOR & CARB'D ANDE-
R                        SITIC FLOW
R              55.5-58.7:INCREASED SILICIFICATION & EPID ALT
/    587  651        PPANHBPF   PPMX        P <<       P5<+<)  D-
L                        3GMF   FF      1222           P2P+<)     <)
R              DARK GREEN,MOD PROPYLLITIC ALT,F.G. HORB-PLAG ANDESITIC PORPHYRY
R              W.SHARP EPIDOTIZED CONTACTS
R              SMALL 1-2 MM PLAG GRAINS & 2-4 MM HORNB GRAINS COMPRISE UPTO 50%
R              ROCK IN A FINER GR'D PROPYLLITIC MATRIX
R              ALT IS DOMINANTLY CHLOR (~50%) & EPID (ALT OF PLAG X-TALS)~20%
R              W. LESSER PERV SER & MINOR QZ-CARB & HEM F.F.ALT
R              TRACES OF PY
/    651  706        MGDRPFMFPY+MGF3        P FO060   P3<)V+  D)B)<*
L                        5AQZ   FF      2333           P2P1<)     T)
R              MED GREY,MOD ALT'D M.G.DIORITE CHARACT'D BY SELECTIVE AREAS OF
R              WEAK FOLIATION & INCREASED PROPYLLITIC ALT
R              FRACTURES ARE FILLED BY QZ-CARB & EPID W.LESSER LIM & HEM
R              PY OCCURS AS DISS (~1%),BLEBS (~1%) & F.F. (<1%) THROUGHOUT
R              67.1-68.0: INCREASED CHLOR & EPID ALT
R              68.8-69.0: AS ABOVE
R              68.5     : 13 CM INTERV OF QZ-CARB VEIN'G W.ASSOC EPID & SILIC
R                         & INCREASED PY AS BLEBS & F.F. (~5-7%)
/    706  750        FGDRPFMFPY)FGF3        P FO060   P2  P1  D)     D.
L                        7AQZ   FF      1222  VQ060    P1
R              LIGHT GREY,MOD ALT'D F.G. DIORITE CHARACT'D BY WEAK SILIC & WEAK
R              FOLIATION. QZ ALSO OCCURS IN VEINS UP TO 1 CM (60-70 DG TO C.A.)
R              BUT APPEAR UNMINERALIZED
R              ALT CONSISTS OF PERV CHLOR,PERV SILIC (~10%) & LESSER SERIC
R              PY OCCURS DISS( ~1%) & TRACES OF MAGN
R              70.6-71.2: XENOL OR DYKE? OF DARK FOLIATED,CHLOR'D ANDESITIC
R                         FLOW W. WISPS OF QZ
R              72.4     : 1 CM QZ VEIN
R              73.6-74.2: COARSER GR'D ALT'D & FOLIATED M.G. DIORITE
/    750  947        MGDRPFMFPY=MGF3        P FO070   P3<*P1  D=B+<)D.
L                        GAQZ   FFS3    2333  VQ070    P1  G+D.
R              MED GREY TO DARK GREENISH-GREY,MOD ALT'D M.G. DIORITE CHARACT'D
R              BY WEAK FOLIATION & QZ VEINS
R              FOLIATION IS LOCALIZED,GENERALY WEAK & COMMONLY INCREASING IN
R              PROXIMITY OF SHEAR/FAULT ZONES
R              SHEAR ZONES OCCUR SELECTIVELY THROUGHOUT & DISPLAY INCREASED
R              FRACT'G,INTENSE ALT & QZ VEIN'G HOSTING CHLORITIC FRAGS
R              QZ VEIN'G OCCURS AS IRREG'Y SHAPED PATCHES &VEINS
R              ALT IS MAINLY CHLOR W.LESSER SER OF PLAG
R              PY OCCURS AS FINE-COARSE DISS (~4-5%),BLEBS (~2-3%)W.LESSER F.F.
R              (~1%),INCREASING IN ZONES OF STRONGER FOLIATION & FRACT'G
R              75.2-75.9: INCREASED CHLOR ALT
R              76.4-76.6: 20 CM QZ VN HOSTING CHLOR FRAGS (TRACE OF CP)
R              78.7-80.3: DARK GREY,MOD ALT'D,MOD FOLIATED F.G.DIORITE W.5-7%
R                         QZ-CARB VEIN'G
R              82.1-94.7: INCREASED FOLIATION W.ASSOC INCREAS'G PY (~7%)
R              84.8-85.7: INTENSELY FRACT'D & ALT'D SHEAR ZONE
R              86.9-89.2: INCREASED SILIC ~20%
R              89.2-91.0: INCREASED CHLOR ALT
R              93.0-93.9: FINER GR'D DIORITE
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/     947   993        FGDRPFMFPY)FGF3        P F0060   P2<)P1  D)  <*
L                            5AQZ   FF      1344          P1
R              MED GREY,MOD ALT'D,F.G.DIORITE CHARACT'D BY SLIGHT INCREASE IN
R              FRACT'G & WEAK FOLIATION
R              QZ-CARB ALT OCCURS AS F.F.THROUGHOUT; CHLOR IS PERV (AS ALT OF
R              MAFIC MIN.)~20% W.WEAKER SILIC
R              PY OCCURS DISS (~1%) THROUGHOUT
/     993  1020        MGDRPFMFPY)MGF5        P F0070   P3<)P1  D)
L                            GAQZ   S3FF    2455          P1
R              MED GREENISH-GREY,STRONGLY ALT'D,MOD FRACT'D,LATITIC M.G.DIORITE
R              MOD FOLIATION (~70 DEG TO C.A.)OCCURS THROUGHOUT W.LESSER SHEA'G
R              PREDOMINANT CHLOR ALT W.LESSER SER-QZ-CARB ALT
R              PY OCCURS AS DISS (~1%)
R              100.0       : 5 CM DYKE? OF ALT'D ANDESITIC FLOW
R              100.2-101.0 : MOD SHEARED ZONE
/    1020  1078        FALTPFMF   BXS7        P F0045   P3<+V2  D+
L                            4AQZ   F5VV    4677          P2  G1
R              DARKER GREY,INTENSELY ALT'D & FRACT'D FAULT BRECCIA
R              ZONE DISPLAYS BRECCIATION W.CHLORITIC,SILIC'D & DIORITIC FRAGS
R              AS WELL AS MICRO-FOLDING IN FOLIATED ROCK; FAULT GOUGE IN SELEC-
R              TIVE AREAS & ABUNDANT QZ-CARB VEIN'G
R              PY OCCURS AS DISS (~1-2%) THROUGHOUT
/    1078  1256        FGDRPFHBQZ+FGF3        P F0060   P5<+V+  D)
L                            6GMF   PPFF    2333  VQ060   P3P=
R              MED-DARK GREEN,MOD PROPYLLITIC ALT F.G.DIORITE W.WEAK PORPH. &
R              FOLIATED TEXT
R              2-3 MM X-TALS OF PLAG & MAFICS (~25%) IN A FINER GR'D MATRIX OF
R              SIMILAR COMP.
R              ALT CONSISTS OF PERV CHLOR (~50%) & EPID ALT OF PLAG GRAINS & FF
R              FRACT & VEINLETS INFILLED BY QZ-CARB W. LESSER EPIDOTE
R              WEAK SHEARING OCCURS IN SELECTIVE AREAS DISPLAYED BY INCREASED
R              FRACT'G & FOLIATION
R              PY OCCURS AS FINE DISS THROUGHOUT( ~1%)
R              107.8-110.2: ABSENCE OF PROPYLLITIC ALT
R              114.3-115.1: WEAKLY SHEARED ZONE
R              116.0      : 6 CM,SUB-ROUNDED M.G.DIORITE FRAGS,PROPYL'CLY ALT'D
R              118.9      : 10 CM PROPYL'CLY ALT'D FRAG BOUNDED ON ONE SIDE BY
R                             A 1 CM QZ VEIN
R              125.5-125.6: SILIC'D,M.G.DIORITE W.A SHARP CONTACT
R              END OF HOLE
A001
AUMM                  SAMPLE    Au    Ag    As    Cu
R                               ppb   ppm   ppm   ppm
ALAB           PDI RESEARCH
ATYP           SPLIT CORE
AMTH           WET GEOCHEM A.A.
R              CASING TO 4.3 M - NO RECOVERY
A001   43    63     14365    25   0.1     1   100
A001   63    83     14366    20   0.1     1   110
A001   83   103     14367    45   0.1     1   109
A001  103   123     14368   190   0.1     1   150
A001  123   149     14369   110   0.3     1   126
A001  149   162     14370   225   0.1     1   130
A001  162   182     14371    35   0.1     1    74
A001  182   206     14372    30   0.5     1    34
A001  206   220     14373     3   0.1     6    34
A001  220   246     14374    10   0.3     1    94
A001  246   253     14375     3   0.4     1    90
A001  253   277     14376     3   0.2     1   122
A001  277   293     14377     3   0.1     1    33
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A001	293	306	14378	165	0.1	1	116
A001	306	326	14379	30	0.2	20	114
A001	326	349	14380	280	0.3	8	162
A001	349	369	14381	200	0.1	20	128
A001	369	383	14382	15	0.1	44	86
A001	383	400	14383	10	0.1	1	51
A001	400	415	14384	3	0.1	1	52
A001	415	432	14385	3	0.1	1	80
A001	432	442	14386	3	0.1	1	115
A001	442	455	14387	3	0.1	1	62
A001	455	475	14388	3	0.1	1	47
A001	475	484	14389	3	0.1	1	121
A001	484	504	14390	25	0.1	1	130
A001	504	524	14391	3	0.1	10	58
A001	524	544	14392	20	0.1	20	61
A001	544	564	14393	15	0.2	16	53
A001	564	587	14394	5	0.1	12	74
A001	587	607	14395	3	0.1	16	81
A001	607	627	14396	10	0.1	20	82
A001	627	651	14397	3	0.1	22	88
A001	651	671	14398	3	0.1	18	63
A001	671	691	14399	15	0.1	16	45
A001	691	706	14400	10	0.1	20	72
A001	706	712	14401	20	0.1	16	45
A001	712	732	14402	10	0.1	12	16
A001	732	750	14403	30	0.1	14	34
A001	750	770	14404	3	0.1	16	94
A001	770	788	14405	20	0.1	16	51
A001	788	803	14406	30	0.1	20	78
A001	803	821	14407	10	0.1	14	60
A001	821	841	14408	140	1.0	6	410
A001	841	861	14409	75	0.4	20	72
A001	861	881	14410	15	0.2	54	208
A001	881	893	14411	3	0.1	26	217
A001	893	910	14412	35	0.4	72	285
A001	910	930	14413	30	0.1	36	200
A001	930	947	14414	10	0.1	540	140
A001	947	967	14415	35	0.2	40	233
A001	967	980	14416	25	0.1	14	138
A001	980	993	14417	25	0.1	10	43
A001	993	1020	14418	105	0.1	16	34
A001	1020	1040	14419	25	0.1	14	22
A001	1040	1060	14420	95	0.1	20	142
A001	1060	1078	14421	95	0.1	70	68
A001	1078	1098	14422	15	0.1	6	75
A001	1098	1118	14423	5	0.1	1	74
A001	1118	1138	14424	3	0.1	8	23
A001	1138	1158	14425	10	0.2	12	47
A001	1158	1178	14426	5	0.1	2	74
A001	1178	1198	14427	20	0.1	1	20
A001	1198	1218	14428	5	0.1	1	100
A001	1218	1238	14429	3	0.1	4	67
A001	1238	1256	14430	10	0.1	1	56

R END OF HOLE

A002

AUMM			RECOVY	RQD
R			CASING TO 4.3 M - NO RECOVERY	
A002	43	58	30.0	87.0
A002	58	67	67.0	0.0
A002	67	82	97.0	33.0

A002	82	98	91.0	38.0
A002	98	110	75.0	25.0
A002	110	125	97.0	27.0
A002	125	142	94.0	53.0
A002	142	152	90.0	30.0
A002	152	158	83.0	0.0
A002	158	174	84.0	31.0
A002	174	186	100.0	25.0
A002	186	204	78.0	11.0
A002	204	216	100.0	0.0
A002	216	232	88.0	19.0
A002	232	247	93.0	13.0
A002	247	262	97.0	16.0
A002	262	271	13.0	11.0
A002	271	280	88.0	0.0
A002	280	296	94.0	31.0
A002	296	311	100.0	20.0
A002	311	323	83.0	0.0
A002	323	338	93.0	0.0
A002	338	354	100.0	0.0
A002	354	369	95.0	0.0
A002	369	384	100.0	0.0
A002	384	390	67.0	0.0
A002	390	393	67.0	0.0
A002	393	399	88.0	0.0
A002	399	402	100.0	0.0
A002	402	411	100.0	0.0
A002	411	415	95.0	0.0
A002	415	427	92.0	0.0
A002	427	433	95.0	0.0
A002	433	442	100.0	11.0
A002	442	454	100.0	8.0
A002	454	463	95.0	11.0
A002	463	475	100.0	0.0
A002	475	482	100.0	0.0
A002	482	494	95.0	13.0
A002	494	509	97.0	11.0
A002	509	515	100.0	0.0
A002	515	524	67.0	11.0
A002	524	533	95.0	0.0
A002	533	549	81.0	19.0
A002	549	564	93.0	27.0
A002	564	579	100.0	33.0
A002	579	594	100.0	53.0
A002	594	610	93.0	25.0
A002	610	625	100.0	20.0
A002	625	640	93.0	37.0
A002	640	655	100.0	47.0
A002	655	671	94.0	44.0
A002	671	680	100.0	7.0
A002	680	695	100.0	40.0
A002	695	707	75.0	33.0
A002	707	722	100.0	20.0
A002	722	738	94.0	44.0
A002	738	753	100.0	44.0
A002	753	768	93.0	47.0
A002	768	774	66.0	0.0
A002	774	786	95.0	17.0
A002	786	799	77.0	0.0
A002	799	805	75.0	33.0

A002	805	817	100.0	50.0
A002	817	829	75.0	50.0
A002	829	844	100.0	53.0
A002	844	860	94.0	50.0
A002	860	875	100.0	67.0
A002	875	890	97.0	30.0
A002	890	905	100.0	40.0
A002	905	920	97.0	40.0
A002	920	936	97.0	44.0
A002	936	951	100.0	67.0
A002	951	966	93.0	26.0
A002	966	981	90.0	0.0
A002	981	997	91.0	16.0
A002	997	1012	93.0	0.0
A002	1012	1027	100.0	33.0
A002	1027	1036	88.0	11.0
A002	1036	1042	100.0	0.0
A002	1042	1049	96.0	0.0
A002	1049	1058	100.0	0.0
A002	1058	1073	73.0	0.0
A002	1073	1088	87.0	40.0
A002	1088	1103	93.0	70.0
A002	1103	1119	87.0	44.0
A002	1119	1134	100.0	60.0
A002	1134	1149	93.0	33.0
A002	1149	1164	100.0	47.0
A002	1164	1180	87.0	25.0
A002	1180	1195	100.0	60.0
A002	1195	1210	100.0	67.0
A002	1210	1225	100.0	80.0
A002	1225	1241	97.0	68.0
A002	1241	1256	100.0	87.0

R END OF HOLE

/END

Diamond Drill Hole 90-6

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IDEN6B0201 V216 DDH90-6  NQ 26JUL90 MD   LECLJUL90S38    MDGRD  0.0
IPRJ       PLACER DOME INC                       WINDY PROPERTY
S000   00   750 MT  150.0 090.0 -50.0               6088985.0  445840.0    1021.0
S001  750  1500      150.0  90.0 -50.5
/SCL        MT.2
LSCL                        LCTM
/NAM                                                       CLCBSIKFP1P2P3MG
LNAM                                                       EPSEHECYCPLIMA
R                THIS HOLE COLLARED TO TEST A AU-CU-AS SOIL ANOMALY
R                CASING TO 25.3 M - BASAL TILL & ASSORTED BOULDERS
/      00   253         OVBD                    P
/     253   261         MGDRPFMF   MGKR         P          P2  V=  U)
L                           UAQZ   VV     3545               P3
R                RUSTY BROWN-GREY,VERY BROKEN UP,MOD ALT'D M.G.DIORITE CHARACT'D
R                BY OXYDIZATION OF MAFIC MIN.
R                FRACT ARE INFILLED BY CHLOR,QZ & LIM; SERIC ALT OF PLAG X-TALS
R                W.LESSER PERV CHLOR ALT
R                PY OCCURS AS OXYDIZED EUHEDRAL X-TALS DISS IN THE MORE BLEACHED
R                ZONES (~1%)
/     261   323         FALTPFMF   S7BX         P          <1  P3  D(
L                           UAQZ   VVFF   6878               P2  G2  P3
R                RUSTY BROWN-GREY;INTENSELY SHEARED,BRECC'D,ALT'D,FRACT'D & OXYD'
R                FAULT ZONE. FAULT GOUGE OCCURS SELECTIVELY THROUGHOUT,COMMONLY
R                HOSTING QZ VEIN MATERIAL & SILIC'D FRAGS
R                QZ VEIN (UP TO 20 CM) ARE CHARACT'D BY BRITTLE FRACT'G,LIMONITIC
R                VUGS & PATCHES (ALT.OF CHLOR.FRAGS)
R                SILIC. OCCURS PERV'Y IN UNBRECC'D AREAS ASSOC W. INTENSE FRACT'G
R                QZ PATCHES & VEINS DISPLAY OXYD'D CHLOR.FRAGS,PERV.SERIC.ALT.
R                PY OCCURS FINELY DISS (<1%).
/     323   365         FGDRPFMF   F5FG         P          <2<+P2  D(
L                           OUQZ   S3FF   3656               P2      P4
R                RUSTY ORANGE-BROWN,INTENSELY ALT'D & MOD.FOLIATED F.G.DIORITE
R                CHARACT'D BY STRONG OXYDIZATION (~40%)OF MAFICS & A PROMINENT
R                FOLIATION (~45 DEG.TO C.A.)
R                ALT. CONSISTS OF F.F.CHLOR.,F.F.CARB & QZ (~2-5%).PERV.SERIC ALT
R                OF PLAG & PERV SILIC.
R                SHEARING IS LOCALIZED & WEAK,DISPLAYED BY INCREASED FRACT'G,MOD.
R                SILIC.& QZ-CARB VEINING
R                PY OCCURS FINELY DISS (<1%).
/     365   482         MGDRPFMF   MGF5         P          P4<+V=  D(    D+
L                           GAQZ   S3FF   3566               P1  G+  P1
R                MED.GREENISH-GREY,MOD.FOLIATED & WEAKLY SHEARED M.G.DIORITE
R                CHARACT'D BY ZONES OF VARYING OXYD.INTENSITY,QZ-CARB F.F. W.LES-
R                SER CHLOR.& SER. F.F.
R                ALT.IS MAINLY PERV CHLOR (~40%) W.LESSER SER ALT. OF PLAG.IN
R                OXYDIZED AREAS. MAFICS COMMONLY LIMONITIC
R                QZ VEINS (UP TO 3CM) DISPLAY CHLOR ROCK FRAGS,COMMONLY OXYDIZED
R                NARROW SHEAR ZONES DISPLAY INTENSE ALT,INCREASED FOLIATION &
R                OCCASIONAL BRECCIATION
R                PY IS VERY MINOR,MAGN OCCURS DISS (~2-3%) IN SELECTIVE AREAS
R                36.5-38.6: INTENSELY OXYDIZED & MOD.FOLIATED
R                40.7-41.4: FOLIATED & INTENSELY OXYD.ZONE
R                42.3-45.5: 2-3% DISS MAGN
R                45.5-46.7: STRONGLY FOL,ALT'D & FRACT'D;WEAKLY BRECC'D SHEAR ZN
R                47.8-48.2: INTENSELY ALT'D SHEAR ZONE
/     482   551         MGDRPFHBQZ+MGF3         P F0060    P2>+>+  D.
L                           7GBI   FFBN   4545             P3P2<+    <1
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R              LIGHT GREEN,MOD.ALT'D,WEAKLY FOLIATED,EPIDOTIZED M.G.DIORITE
R              WEAKLY BANDED,:ALTER'G FINE-MED GR'D DIORITE,OCCASIONALY HOSTING
R              F.G.,SUB-ROUNDED,CHLORITIC FRAGS (@53.1 M).
R              ALT.IS DISPLAYED AS PERV.EPID ALT OF PLAG W.LESSER SER; PERV
R              CHLOR ALT OF MAFICS. QZ-CARB ALT OCCURS AS IRREG. VEINLETS &
R              WISPS (~2-3%). LIM & HEM OCCUR IN OXYDIZED FRACT.
R              2-3 MM MAFIC GRAINS (HORNB OR BIOT?),~30% ALT'D TO CHLOR,INTER-
R              LOCKING W. 60-70% PLAG LARGELY ALT'D TO EPID & SER W.LESSER CARB
R              QZ IS MINOR.  TRACES OF PY.
/    551  586       FGDRPFMF   FGF5        P F0080   P3<)P1  D.
L                       5AQZ   BNVV    1233  VQ070   Q1P=<)    <+
R              MED.GREY,FINE-MED GR'D,MOD.FOLIATED,WEAKLY BANDED F.G.QZ-DIORITE
R              MOD.FOLIATION (~80 DEG.TO C.A.) IRREG.THROUGHOUT
R              WEAK BANDING DISPLAYED AS ALTERNATING BANDS OF F.G.DIORITE & M.G
R              QZ DIORITE
R              PERV.CHLOR ALT.OF MAFICS W.LESSER PERV.& PATCHES OF SERIC ALT &
R              F.F. EPID ALT. QZ-CARB ALT IS WEAK BUT OCCURS AS F.F.
R              WEAK LIM & HEM STAINING IN FRACT.
R              TRACES OF PY
R              55.2-55.9: SILIC'D & EPID'D F.G.DIORITE W.F.F.& WISPS OF QZ-CARB
R                         ALT HOSTING CHLOR FRAGS
R              57.8     : 6 CM QZ VEIN
R              57.2-58.6: INCREASED EPID.ALT.& LIM/HEM STAINING
/    586  663       PPDRPFMF   PPVF        P         P2>+P2  D.
L                       7GBI   RWFF    1222          P3P1<+    <=
R              LIGHT GREEN,M.G.HORNB DIORITE PORPHYRY
R              3-5 MM ANGULAR HORNB? X-TALS (~30%) IN A FINER GR'D EPIDOTIZED &
R              PARTLY SILIC'D MATRIX
R              ALT OF MAFIC PHENOS TO CHLOR W.SOME OXYDIZ.,SILIC.OF MATRIX(20%)
R              & EPID.(~30%)W.LESSER SER. LIM STAIN'G IN FRACT.
R              TRACE OF PY
R              QZ-CARB ALT OCCURS AS VEINS & PATCHES HOSTING CHLOR FRAGS
R              63.1-66.3:DECREASE IN QTY OF MAFIC XENOS & INCREASE OF QZ-CARB-
R              65.0-66.3:DECREASE IN SILIC.ABSENCE OF PORPH.TEXT. F.G.DIORITE
R                        W.INCREASE IN MAFIC CONTENT.
/    663  765       FGDRPFMF   FGF3        P F0080   P2<(P1  D*
L                       4AQZ   BNFF    3545  VQ070   Q=P=      <1
R              DARKER GREY,MOD ALT'D,FINE-MED GR'D DIORITE CHARACT'D BY VARYING
R              INTENSITIES OF ALT,GRAIN SIZE W.SELECTIVE AREAS OF WEAK TO MOD
R              FOLIATION; BANDING IS RESTRICTED TO STRONGER FOLIATED AREAS
R              WHERE F.G.MAFIC FRAGS & OXYD.BANDS ARE INTERCALATED W.THE FOL'D
R              DIORITE
R              ALT.CONSISTS OF PERV.CHLOR.OF MAFICS,SELECT.PERV.SILIC.,PATCHY &
R              LOCALIZED EPID.& LESSER PERV.SERIC.
R              FRACT.IS MOD. & MOSTLY FILLED W. QZ-CARB & LESSER EPID & SER.
R              66.3     : 10CM FRAG OF M.G.MONZONITE?
R              66.4-68.5: INCREASE IN EPID.ALT.
R              69.2-71.7: STRONGER FOLIATION W.A HIGHLY SILIC'D ZONE FROM 70.5-
R                         71.6 M (5 CM QZ VEIN @ 71.0)
R              73.8-75.2:VERY BROKEN CORE
R              75.7-76.5: INTENSELY ALT'D FAULT ZONE
/    765  788       ANLTPFMF   VFF5        P F0080   P5<+<)  D(
L                       GA     PPS3    3434            P=<)    <+
R              GREENISH-GREY,INTENSELY ALT'D,MOD.FOLIATED LAPPILLI TUFF (OR F.G
R              DIORITE?).2-6MM FRAGS (ALT'D TO A LIGHT GREEN) IN A VERY F.G.
R              CHLORITIC & FOLIATED MATRIX.
R              STRONG ,PREV.CHLORITIC ALT.W.LESSER SER ALT. OF PLAG. QZ-CARB
R              VEINING & F.F.,IRREG THROUGHOUT. WEAK LIM/HEM STAINING IN FRACT
R              MOD.SHEARING IN SELECT.AREAS (COMMONLY NEAR CONTACTS)
R              MINOR DISS PY (<1%)
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R              76.5-77.4: INTENSELY ALT'D SHEAR (FAULT?)ZONE
/     788  1051       FGDRPFMF   FGF5        P FO080   P3<+<=  D)  <(D)
L                           4AQZ   S5FF    4677  VQ070   E(P1  G=D.<+
R              DARKER GREY,MOD.ALT'D,FINE-MED.GR'D DIORITE CHARACT'D BY WEAK
R              TO MOD.FOLIATION; VERY SHATTERED CORE,MOD.SHEARING & QZ-CARB
R              VEINLETS. FOLIATION VARIES FROM 60-80 DEG TO C.A.INCREASING IN
R              PROXIMITY OF SHEAR ZONES (VERY F.G.)
R              ALT.CONSISTS OF PERV.(~30%),LESSER PERV SER.(~10%),QZ-CARB F.F.
R              USUALLY PARALELL TO FOLIATION BUT OCCASION'Y SUB-PARALELL TO
R              C.A.,INCREASING IN SHEAR ZONES
R              PY OCCURS AS DISS THROUGHOUT (~1-2%),SOME GRAIN CLUSTERS (~0.5%)
R              & LESSER F.F. ASSOC.W.QZ-EPID VEIN'G
R              TRACE OF CP,MINOR DISS MAGN (~1-2%) THROUGHOUT
R              81.2-83.0: SHEAR ZONE DISPLAYING 2-3CM WIDE QZ-CARB VEIN PARALEL
R                         TO C.A. & MOD OXYD'D
R              87.0-87.7: SHEAR ZONE,INTENSELY FRACT'D W.INCREASED QZ-CARB VN'G
R              89.6-90.4: AS ABOVE
R              91.3-91.9: AS ABOVE
R              91.3-96.4: VERY BROKEN CORE
R              95.6-96.1: FAULT GOUGE
R              99.4-105.1: VERY BROKEN CORE
R              101.7-103.3:DECREASE IN MAFIC CONTENT,COARSER GR'D ZONE
/    1051  1190       FGDRPFMF   VFKR        P VQ060   P3<+V1  D+  <)D+
L                           5AQZ   VVF3    3444            P1    D.
R              MED.GREY,V.F.-F.G. DIORITE CHARACT'D BY A CRACKLED NATURE,QZ VNS
R              & WEAK TO MOD SILIC.
R              ALT. CONSISTS OF PERV.CHLOR (~30%),W. LESSER SER.,SILIC IS SELEC
R              TIVELY PERV. QZ-CARB VEINS OCCUR IRREG THROUGHOUT,DISPLAYED AS
R              FINE NETWORKS IN MORE FRACT'D AREAS
R              PY OCCURS DISS (~2-3%) THROUGHOUT & F.F.~1% ASSOC W.INCREASED
R              FRACT'G & VEIN CONTACTS
R              SILIC'D ZONES ALSO SHOW AN INCREASE IN PY CONTENT
R              MAGN OCCURS DISS IN SELECTIVE AREAS. TRACE OF CP.
R              QZ VEINS @:105.1 (1CM),105.5(1CM),106.3(7CM),108.4(1CM),108.7
R                         (2CM),108.8(8CM),108.9(2CM),109.1(2CM),109.2(2CM)
R                         110.1(2CM),111.5(10CM),111.9(4CM),118.0(2CM)
R              114.3-116.0: STRONGLY SILIC'D ZONE
/    1190  1269       MGDRPFMF   RWMG        P VQ070   P3  P3  D+B)<(D)
L                           6AQZ   VV      1222            P1
R              LIGHTER GREY,INTENSELY SILIC'D M.G. DIORITE CHARACT'D BY STRONG
R              SILIC.& QZ VN'G. TEXT ALMOST COMPLETELY OBLITERATED BY INTENSE
R              ALT. ALT.IS PERV.SILICEOUS (~30%)& CHLORITIC (~30%)W.LESSER EPID
R              QZ VEINS OCCUR IRREG THROUGHOUT (UP TO 20CM),OCCASION'Y HOSTING
R              CHLORITIC MATERIAL
R              PY OCCURS DISS THROUGHOUT (~1-2%),BLEBS ~1% & F.F.<1%, INCREA'G
R              IN SILICEOUS ZONES.
R              MAGN OCCURS DISS IN SELECT.AREAS W.ASSOC INCREASE IN PY CONTENT
R              QZ VEINS @: 120.8(2CM),121.4(2CM),123.8(20CM),126.0(2CM),126.9
R                          (4CM)
R              122.0-122.8: INCREASED MAGN.~3-5% & PY ~5-7% (DISS & CLUSTERS)
R              124.0-125.4: VERY BROKEN CORE
/    1269  1500       CGDRPFMFPY+RWCG        P FO080   P4<+P2  D+B)<+
L                           4A     F3VV    3344  VQ070     P1
R              DARKER GREY,MOD-STRONGLY SILIC'D C.G. DIORITE CHARACT'D BY SILIC
R              QZ-CARB VN'G & 3-5% PY
R              2-5 MM(50-50%) PLAG & MAFIC MINERALS,PARTLY SILIC'D,MOD.FRACT'D
R              SILIC.IS SELECT'Y PERV.& OCCAS'Y OBLITERATES ORIGINAL TEXT
R              SELECT.ZONES OF HIGHER MAFIC CONTENT & FINER GR'D DISPLAY MOD.
R              FOLIATION. HIGHLY FRACT'D ZONES DISPLAY QZ-CARB PATCHES & VEINS
R              HOSTING CHLORITIC FRAGS
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R PERV.CHLOR.ALT (~40%) W. LESSER SER
R PY OCCURS THROUGHOUT DISS 2-3%,(PRIMARY?),BLEBS1-2%,& F.F.-2-3%
R OFTEN ASSOC W.MAFICS & CHLOR.MATERIAL
R 126.9-127.5: INTENS'Y FRACT'D & MOD.BRECC'D W.ASSOC QZ VN'G
R 131.3-136.2: INTENS'Y SILIC'D ZONE W.QZ-CARB VEIN NETWORK & OC-
R CASION. FELSIC FRAGS?
R 137.2-139.4: AS ABOVE
R 143.4-147.6: F.G.,MAFIC,MOD.FOLIATED W.C.G.DIORITE FRAGS. PY
R VEIN (1CM) 144.5-145.0
R END OF HOLE
A001

AUMM			SAMPLE	Au	Ag	As	Cu
R				ppb	ppm	ppm	ppm
ALAB			PDI RESEARCH				
ATYP			SPLIT CORE				
AMTH			WET GEOCHEM A.A.				
R			CASING TO 25.3 M - OVBD				
A001	253	261	14431	25	0.1	1	107
A001	261	280	14432	45	0.2	12	140
A001	280	300	14433	10	0.2	14	108
A001	300	323	14434	15	0.3	18	202
A001	323	343	14435	65	0.2	20	151
A001	343	365	14436	75	0.2	14	306
A001	365	386	14437	30	0.1	4	204
A001	386	406	14438	40	0.1	1	310
A001	406	426	14439	10	0.1	1	84
A001	426	446	14440	3	0.1	1	43
A001	446	462	14441	25	0.1	6	36
A001	462	482	14442	10	0.1	2	50
A001	482	502	14443	10	0.1	14	23
A001	502	522	14444	25	0.1	10	36
A001	522	551	14445	15	0.1	6	46
A001	551	559	14446	10	0.1	4	42
A001	559	572	14447	3	0.1	12	86
A001	572	586	14448	20	0.1	2	71
A001	586	606	14449	15	0.1	10	32
A001	606	626	14450	10	0.1	8	53
A001	626	646	14451	10	0.1	6	28
A001	646	663	14452	30	0.1	2	55
A001	663	683	14453	10	0.1	1	32
A001	683	705	14454	20	0.1	2	72
A001	705	715	14455	30	0.1	20	120
A001	715	735	14456	110	0.1	6	110
A001	735	757	14457	200	0.5	36	560
A001	757	765	14458	125	0.3	16	383
A001	765	788	14459	10	0.1	8	110
A001	788	814	14460	45	0.1	16	100
A001	814	831	14461	180	0.3	10	235
A001	831	851	14462	35	0.1	14	192
A001	851	868	14463	65	0.1	18	38
A001	868	878	14464	160	0.5	22	650
A001	878	898	14465	70	0.1	8	120
A001	898	917	14466	45	0.1	14	56
A001	917	937	14467	25	0.1	1	37
A001	937	957	14468	10	0.1	1	77
A001	957	977	14469	25	0.1	1	117
A001	977	997	14470	25	0.1	1	50
A001	997	1017	14471	20	0.1	1	45
A001	1017	1037	14472	3	0.3	2	40
A001	1037	1051	14473	425	15	18	177

A001	1051	1071	14474	60	0.4	20	234
A001	1071	1091	14475	70	0.2	12	110
A001	1091	1111	14476	250	0.1	10	122
A001	1111	1131	14477	220	0.1	16	100
A001	1131	1151	14478	120	0.1	8	105
A001	1151	1171	14479	20	0.1	8	31
A001	1171	1190	14480	15	0.1	1	34
A001	1190	1210	14481	40	0.6	20	520
A001	1210	1230	14482	160	0.5	50	630
A001	1230	1250	14483	5	0.1	8	52
A001	1250	1269	14484	15	0.1	18	70
A001	1269	1289	14485	55	0.5	20	600
A001	1289	1313	14486	60	0.4	6	510
A001	1313	1333	14487	55	0.1	10	303
A001	1333	1353	14488	100	0.6	24	340
A001	1353	1372	14489	200	0.2	28	392
A001	1372	1394	14490	40	0.1	22	303
A001	1394	1414	14491	30	0.1	12	265
A001	1414	1434	14492	15	0.1	1	136
A001	1434	1454	14493	55	0.1	2	261
A001	1454	1476	14494	40	0.1	6	357
A001	1476	1500	14495	345	0.1	1	170

R END OF HOLE

A002

AUMM			RECOVY	RQD
R			CASING TO 25.3 M - NO RECOVERY	
A002	253	271	61.0	0.0
A002	271	280	68.0	11.0
A002	280	296	50.0	0.0
A002	296	311	87.0	13.0
A002	311	326	93.0	60.0
A002	326	341	93.0	40.0
A002	341	357	73.0	25.0
A002	357	372	97.0	27.0
A002	372	384	83.0	30.0
A002	384	399	90.0	43.0
A002	399	415	88.0	19.0
A002	415	430	95.0	0.0
A002	430	445	100.0	33.0
A002	445	460	77.0	7.0
A002	460	472	92.0	8.0
A002	472	485	92.0	12.0
A002	485	491	100.0	0.0
A002	491	500	89.0	11.0
A002	500	515	97.0	37.0
A002	515	524	88.0	33.0
A002	524	539	97.0	37.0
A002	539	555	94.0	50.0
A002	555	570	97.0	40.0
A002	570	585	95.0	27.0
A002	585	600	90.0	13.0
A002	600	616	94.0	56.0
A002	616	631	90.0	37.0
A002	631	646	87.0	40.0
A002	646	661	100.0	66.0
A002	661	677	81.0	33.0
A002	677	692	94.0	30.0
A002	692	707	100.0	30.0
A002	707	722	100.0	60.0
A002	722	738	81.0	56.0

A002	738	750	75.0	0.0
A002	750	759	94.0	24.0
A002	759	768	100.0	11.0
A002	768	783	97.0	16.0
A002	783	799	88.0	20.0
A002	799	814	97.0	27.0
A002	814	829	90.0	87.0
A002	829	844	100.0	29.0
A002	844	860	88.0	19.0
A002	860	875	97.0	8.0
A002	875	890	90.0	21.0
A002	890	905	93.0	43.0
A002	905	920	97.0	17.0
A002	920	936	25.0	0.0
A002	936	948	83.0	0.0
A002	948	960	100.0	0.0
A002	960	975	100.0	23.0
A002	975	991	91.0	28.0
A002	991	1003	71.0	0.0
A002	1003	1012	97.0	0.0
A002	1012	1027	95.0	0.0
A002	1027	1042	100.0	6.0
A002	1042	1058	94.0	8.0
A002	1058	1064	100.0	0.0
A002	1064	1073	89.0	11.0
A002	1073	1082	83.0	11.0
A002	1082	1097	93.0	22.0
A002	1097	1113	93.0	0.0
A002	1113	1128	82.0	0.0
A002	1128	1155	93.0	24.0
A002	1155	1167	92.0	0.0
A002	1167	1183	72.0	14.0
A002	1183	1195	92.0	75.0
A002	1195	1210	97.0	20.0
A002	1210	1225	100.0	43.0
A002	1225	1241	94.0	44.0
A002	1241	1250	78.0	0.0
A002	1250	1265	100.0	45.0
A002	1265	1280	93.0	35.0
A002	1280	1295	100.0	33.0
A002	1295	1305	70.0	16.0
A002	1305	1317	100.0	47.0
A002	1317	1332	93.0	27.0
A002	1332	1347	97.0	53.0
A002	1347	1362	93.0	25.0
A002	1362	1378	81.0	23.0
A002	1378	1393	93.0	27.0
A002	1393	1408	93.0	27.0
A002	1408	1423	100.0	73.0
A002	1423	1439	97.0	69.0
A002	1439	1454	100.0	90.0
A002	1454	1469	100.0	53.0
A002	1469	1484	87.0	27.0
A002	1484	1500	94.0	54.0

R END OF HOLE

/END

APPENDIX III

TRENCH LOGS, ASSAY RESULTS

AND

OVERBURDEN PROFILE DATA

Trench 90-01

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IDEN6B0201V216  TR90-01     17SEP90 MD    HLLGSEP90240    MDGRD  0.0
IPRJPLACER DOME INC. KAMLOOPS                    WINDY
S000   00    140 MT    55.0  86.0    3.0              6088415.0  445616.0      970.0
S001  140    250       55.0 110.0    4.0
S002  250    550       55.0 116.0   -3.0
/SCL         MT.2
LSCL                         LCTM
/NAM                                                             CLCBSIKFCYPYCPAPGL
LNAM                                                             EPSEHELIMAPL
R                THIS TRENCH WAS EXCAVATED TO TEST AN AU-CU-AS SOIL GEOCHEM
R                ANOMALY.  OVBN DEPTH IS 1.0 - 1.3M CONSISTING OF 0.7M B-HORIZON
R                OVERLYING 0.55M SANDY-CLAY HORIZON OVERLYING 0.2M SANDY-GRAVEL
R                (FLUVIAL) HORIZON.  THICKNESS OF THESE HORIZONS IS HIGHLY
R                VARIABLE.  WEATHERED BEDROCK CAN REACH A DEPTH OF 0.4M AND
R                DISPLAY INTENSE LOCAL LIMONITIC STAINING.  BEDROCK SURFACE IS
R                GENTLY ROLLING AND OCCURS AT BASE OF SLOPE AT CREEK LEVEL.
R                THERE IS MODERATE WATER SEEPAGE.  SANDY-GRAVEL HORIZON PINCHES
R                OUT AT 13 CM AND CLAY HORIZON PINCHES OUT AT 25 CM  REMAINDER
R                OF THRENCH DISPLAYS PREDOMINANTLY CLAYISH TILL.
/      00    120       AN/FHBPF   F5FF        P FO010   P3  P2    D=D+  D(
L                          AG                                    <1
R                DARK GREYISH-GREEN,QUARTZ FLOODED,MODERATLY FOLIATED,
R                INTENSELY ALTERED ANDESITE.  MATRIX APPEARS FINE GRAINED, DARK
R                GREEN (GREYER WHERE MORE SILICEOUS) CONSISTING OF HORNBLENDE
R                AND PLAGIOCLASE.  FOLIATION IS MODERATE AND APPEARS TO BE
R                STRIKING APPROXIMATELY 010 DEGREES.  ALTERATION IS INTENSE AND
R                CONSISTS OF CHLORITIC ALTERATION (ABOUT 30% PERVASIVE) AND
R                PERVASIVE SILICA FLOODING (LESSER LENSES).  FRACTURE
R                FILLING AND VEINLETS (COMMONLY HOSTING CHLORITIC FRAGMENTS,
R                (UP TO 30%).  MINERALIZATION OCCURS AS DISSEMINATED PYRITE
R                (UP TO 10% LOCALLY) AND DISSEMINATED CLOTS OF CHALCOPYRITE
R                (UP TO 3% LOCALLY) AND LESSER (<1%) DISSEMINATED GALENA?
R                PYRITE AND CHALCOPYRITE APPEAR ASSOCIATED WITH INCREASED
R                SILICIFICATION.
/     120    140       PPANHBPF   PPF3        P FO020   P3  P1    D.
L                          3G          5 3              <+    <(
R                DARK GREEN, WEAKLY FOLIATED, HORNBLENDE PORPHYRITIC ANDESITE
R                FLOW.  3-5MM, SUB-ROUNDED HORNBLENDE PHENOCYRST (ABOUT 15%) IN
R                A FINE GRAINED ANDISITIC MATRIX.  WEAK FOLIATION STRIKING 020
R                DEGREES, MODERATE FRACTURING WITH JOINT SET AT 100 DEGREES
R                AND 20 DEGREES.  MODERATE CHLORITIC ALTERATION AND WEAKER
R                SILIC. ALTERATION.  MINOR DISSEMINATED PYRITE.
/     140    250       AN/FHBPF   F3FF        P FO020   P2  P3    D+D(
L                          AGQZ                                  <1
R                DARK GREYISH-GREEN, FAIRLY MASSIVE, WEAKLY FOLIATED, SILICEOUS
R                ALTERED ANDESITIC FLOW.  GRAINY TEXTURE POSSIBLY DUE TO
R                QUARTZ FLOODING, WEAK FOLIATION STRIKING 020 DEGREES AND
R                DIPPING GENTLY NORTHWEST.  ALTERATION IS INTENSE AND APPEARS
R                TO OBLITERATE ORIGINAL TEXTURE. CHLORITE ALTERATION IS
R                PERVASIVE AND FRACTURE FILLING (ABOUT 20%), SILICIFICATION IS
R                ALSO PERVASIVE (ABOUT 30%).  MINERALIZATION OCCURS AS
R                DISSEMINATED AND WISPS OF PYRITE (ABOUT 2-3%) AND TRACES OF
R                CHALCOPYRITE.
/     250    300       CLPHCLHB   SCWV        P SC057 30P7          D.
L                          3GPF        7 56
R                VERY DARK GREEN, MODERATELY FRACTURED CHLORITIC SCHIST
/     300    395       AN/FHBPFBI F7S3        P FO015 40P2<)P2    D+<)
L                          AG  QZ AGPP     756  FZ095          <)
R                GREYISH-GREEN, STRONGLY FOLIATED AND MODERATELY  ALTERED
R                ANDESITIC FLOW. OTHER TEXTURE SHOW WEAK PORPHYITIC PHENOS OF
R                HORNBLENDE? QUARTZ EYES AND LENSES PARALLEL TO FOLIATION.
R                FOLIATION IS STRONG AND STRIKES 010 - 025 DEGREES WEST,WITH A
R                040 DEGREE DIP NORTHWEST. LOCALIZED FAULT GOUGE STRIKING ABOUT
R                095 DEGREES.  QUARTZ-CARBONATE VEINING AND LENSES OCCUR LOCALLY
R                AND HOST CHLORITIC FRAGMENTS, LIMONITE  ALONG FRACTURES,
R                OCCASIONALLY HOSTING PYRITE AND CHALCOPYRITE IN THE QUARTZ.
R                MODERATE-STRONG FRACTURING WITH JOINT SET AT 73 DEGREES AND 10
R                DEGREES.  ALTERATION CONSISTS OF WEAK,PERVASIVE CHLORITE AND
R                WEAK PERVASIVE SILICIFICATION, LOCALLY MORE MODERATE.
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R              30.0 - 33.5: 40CM WIDE FAULT GOUGE WITH LOCALIZED QUARTZ
R                           INJECTION, RUSTY AND GREENISH-BLUE CLAY.  MINERALI-
R                           ZATION OCCURS AS ABOUT 2-3% DISSEMINATED WISPS OF
R                           PYRITE AND <1% CHALCOPYRITE.  APPEARS ASSOCIATED
R                           WITH INCREASED SILICIFICATION AND QTZ-CARB VEINING.
R              35.0 - 39.5: INCREASED SILICIFICATION AND QUARTZ-CARBONATE
R                           INJECTIONS WITH ASSOCIATED DISSEMINATED PY-CPY.
/      395   530       AN/FHBPF   RWF5        P VQ035   P1<)P3    D+<)  D)
L                          AGQZ   VVPP    7 56  FZ040          <+
R              LIGHTER GREYISH-GREEN SILICEOUS, MODERATELY FOLIATED, WEAKLY
R              PORPHYRITIC, VEINED AND FAULTED ANDESITIC FLOW.  INTENSE
R              ALTERATION HAS PARTIALLY OBLITERATED ORIGINAL TEXTURE BUT
R              HORNBLENDE PHENOS STILL VISIBLE AND OCCUR ELONGATED AND
R              PARALLEL TO FOLIATION. VERY SILICEOUS ROCK, FOLIATION IS
R              MODERATE AND TRENDS APPROXIMATELY, 020 DEGREES, VERY SUBTLE
R              CARBONATE FRACTURE FILLING.  INCREASED QUARTZ VEINING (UP TO
R              20CM WIDE) AND FAULT GOUGING (UP TO 15CM WIDE).  QUARTZ VEINS
R              APPEAR BARREN OF MINERALIZATION AND OCCUR AS MILKY WHITE AND
R              VERY BRITTLE.  FAULT GOUGES ARE INTENSELY CLAY ALTERED AND
R              HOST FINE DISSEMINATED SULFIDES.  MINERALIZATION OCCURS AS
R              DISSEMINATED WISPS OF PYRITE (ABOUT 2-3%) AND LESSER (<1%)
R              CHALCOPYRITE. GALENA ALSO OCCURS AS <1% DISSEMINATIONS
R              MODERATE FRACTURING WITH JOINT SET AT 105 DEGREES AND 20
R              DEGREES.
R              43.3 - 43.5: 10CM FAULT GOUGE
R              46.5 - 47.0: 15-20CM WIDE QUARTZ VEIN STRIKING 50 DEGREES
R                           DIPPING 50 DEGREES NORTHWEST.  MILKY WHITE,
R                           BRITTLE, NO MINERALIZATION.
R              48.0 - 48.2: 15CM FAULT GOUG WITH QUARTZ VEIN MATERIAL,
R                           STRIKING 30 DEGREES, DIPPING 45 DEGREES NORTHWEST.
R              48.6 - 48.7: 15CM QUARTZ VEIN STRIKING 35 DEGREES, UNMINERALIZED
R              50.6 - 50.8: 10-15CM FAULT GOUGE HOSTING 2CM QUARTZ VEIN,
R                           STRIKING 30 DEGREES, DIPPING 45 DEGREES NORTHWEST.
/      530   550       OVBD                   P
R              END OF TRENCH
A001
AUMM                 SAMPLE   AU    AG    AS    CU    PB    ZN
R                             ppb   ppm   ppm   ppm   ppm   ppm
ALAB           ECO-TECH LABS
ATYP           CHIP SAMPLES
AMTH           WET GEOCHEM A.A.
R       00    20 NO SAMPLE - OVBN
A001    20    40       C101   120   .05    33   231    12    47
A001    40    60       C102    25   .05    16   217     2    41
A001    60    80       C103   105   .05    12   114     6    42
A001    80   100       C104    15   .05     6   149     4    84
A001   100   120       C105    10   .05    13   112     5    56
A001   120   140       C106     5   .05    11   167     6    54
A001   140   160       C107     5   .2     21   149     8    41
A001   160   180       C108    60   .3     11   138     7    56
A001   180   200       C109    15   .2     16   102     5    49
A001   200   220       C110    40   .8     10   962     6    61
A001   220   240       C111    35   .4     10   542    12   118
A001   240   260       C112   590  1.7     16   448    19   155
A001   260   280       C113    25   .05    13   262    27    74
A001   280   304       C114    10   .05    16   137    12    79
A001   304   320       C115   435  2.3     55   301    28   110
A001   320   340       C116    10   .05    16   131     7   103
A001   340   360       C117    35   .1     14   128     2   122
A001   360   380       C118    30   .05    12   297     4    59
A001   380   395       C119    35   .1      9   626     6    43
A001   395   420       C120    20   .05     7   349     5    29
A001   420   440       C121    85   .9      4   411   265   287
A001   440   460       C122    60   .2      6   188     9    26
A001   460   480       C123    25   .2     11   169     5    32
A001   480   500       C124    80   .2      8   286     7    42
A001   500   520       C125    20   .05     2   217     7    34
A001   520   530       C126    15   .05     5   369     6    37
R      530   550 NO SAMPLE - OVBN
A002
AUMM                 SAMPLE   AU    AG    AS    CU    PB    ZN
R                             ppb   ppm   ppm   ppm   ppm   ppm
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ALAB            ECO-TECH LABS
ATYP            STRUCTURE SAMPLES
AMTH            WET GEOCHEM A.A.
A002  320   322       C127   105   4.2   100   157   108   199
R               1.5M CHIP ACROSS A 40CM FAULT GOUGE HOSTING QUARTZ FRAGMENTS,
R               STRIKE IS ABOUT 95 DEGREES.
A002  330   332       C128    35   1.6    22   147   117   328
R               0.7M CHIP ACROSS A 40CM FAULT GOUGE (SAME AS ABOVE)
A002  465   470       C129     3    .1     7   224     9    29
R               1.2M CHIP ALONG A 15-20CM QUARTZ VEIN, STRIKING 50 DEGREES
R               AND DIPPING 50 DEGREES NORTHWEST
A002  480   482       C130    30   .05     8   378    12    48
R               15CM FAULT GOUGE WITH QUARTZ VEIN MATERIAL, STRIKING 30
R               DEGREES AND DIPPING 45 DEGREES NORTHWEST.
A002  486   487       C131    40    .6     9   547     6    51
R               15CM QUARTZ VEIN STRIKING 35 DEGREES, NO. MINERALIZATION
A002  506   508       C132    10   .05     6   248     6    43
R               10-15CM FAULT GOUGE HOSTING 2CM QUARTZ VEIN, STRIKING 30
R               DEGREES AND DIPPING 45 DEGREES NORTHWEST.
A002  433   435       C133  1310   1.0    11   247    87   301
R               10CM FAULT GOUGE
A003
AUMM                 SAMPLE    AU    AG    AS    CU    PB    ZN
R                             ppb   ppm   ppm   ppm   ppm   ppm
ALAB            ECO-TECH LABS
ATYP            GRAB SAMPLES
AMTH            WET GEOCHEM A.A.
A003   65    65       C134    70    .2     6    58     7    56
R               QUARTZ FOODED ALTERED VOLCANIC HOSTING BLACK CHLORITIC
XR               FRAGMENTS WITH ABOUT 10% FINE DISSEMINATED PYRITE AND ABOUT
R               3% CLOTS OF CHALCOPYRITE.
A003   90    90       C135    40    .1     7   191     8    88
R               SAME AS ABOVE BUT CONTAINING LESSER PYRITE AND CHALCOPYRITE.
R
R
R               TRENCH OVERBURDEN PROFILE SAMPLE DATA
R
R        SAMPLE          DEPTH     AU     AG    CU    PB    ZN    AS
R                          cm      ppb    ppm   ppm   ppm   ppm   ppm
R
R     TR90- 1  0.0M  A     30      10    <.1    49     9    47    48
R     TR90- 1  0.0M  B     70      <5    <.1    52    13    56    78
R     TR90- 1  0.0M  C    100      60    <.1   126    10    69   203
R     TR90- 1 10.0M  A     30      30    <.1   855    11   258   313
R     TR90- 1 10.0M  B     70      <5    <.1   102    13    81    73
R     TR90- 1 10.0M  C    100      10    <.1   244     9   140   197
R     TR90- 1 20.0M  A     20      15    <.1   184    14   158   306
R     TR90- 1 20.0M  B     60      10     .1   527    11   169   250
R     TR90- 1 20.0M  C     80       5     .1   368     4   124    79
R     TR90- 1 30.0M  A     20      <5    <.1    37    11    50    14
R     TR90- 1 30.0M  B     70     130     .5   387    24   159  1644
R     TR90- 1 30.0M  C    110      15     .3   179    14   117   153
R     TR90- 1 40.0M  A     30      <5     .1    49    10    59    15
R     TR90- 1 40.0M  B     70     275     .5   724    20   138    23
R     TR90- 1 40.0M  C    110      85     .2   633     8    74    22
R     TR90- 1 50.0M  A     30      10    <.1    38     4    57    12
R     TR90- 1 50.0M  B     90      85     .4   400    12   140    29
R     TR90- 1 50.0M  C    130     135     .5   881    18   320    33
/END
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Trench 90-02

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IDEN6B0201V216  TR90-02     20SEP90 MD    HLLGSEP90240    MDGRD  0.0
IPRJPLACER DOME INC. KAMLOOPS                   WINDY
S000   00   260 MT   74.5  86.0   0.0                6088440.0  445592.0      978.0
S001  260   420      74.5  94.0  15.0
S002  420   450      74.5  94.0  90.0
S003  450   570      74.5  94.0   4.0
S004  570   745      74.5  86.0  10.0
/SCL        MT.2
LSCL                      LCTM
/NAM                                                         CLCBSIKFCYPYCPAPGL
LNAM                                                         EPSEHELIMAPL
R               THIS TRENCH WAS EXCAVATED TO TEST A AU-CU-AS SOIL GEOCHEM
R               ANOMALY.
R               OVBN DEPTH VARIES FROM 1.8 (THE WESTERN END) TO 5.0M
R               PLUS AT THE EASTERN END.
R               OVBN CONSISTS OF ABOUT 1.4M OF TILL OVERLYING 0.7M OF FLUVIAL
R               DEPOSITS (VARVED? CLAYS AND SANDY GRAVEL) WHICH PINCH OUT AT
R               ABOUT 16.0M.  WEATHERED BEDROCK DEPTH (EXPOSED) VARIES FROM
R               20CM TO OVER 2.5M AND DISPLAYS INTENSE LIMONITIC STAINING AND
R               IS VERY FRACTURED.  WHERE BEDROCK BEGINS TO SLOPE UPWARDS, ROCK
R               BECOMES MORE SILICEOUS AND TRENCH EXPOSES A FERRICRETE (VERY
R               LIMONITIC AND HARD) ZONE ABOUT 2M WIDE.
/      00    120        AN/FHBPF   F5VV        P FO020   P3<)P1     D+D)
L                           4GQZ    SC      7 66           C=<1
R               DARK GREEN, MODERATELY FOLIATED SUB-HORIZONTAL LYING ALTERED
R               ANDESITE (FLOW?).
R               FOLIATION APPEARS FLAT LYING, DIPPING GENTLY SOUTHEAST.
R               QUARTZ CARBONATE FLOODING OCCURS AS VEINLETS AND LENSES AND
R               SMALL NODULES, PARALLEL TO FOLIATION.
R               CHLORITIC ALTERATION IS PERVASIVE AND OCCURS LOCALLY MORE
R               INTENSE. SILICIFICATION IS LESSER BUT PERVASIVE AND
R               INCREASES IN EASTERLY DIRECTION.
R               LIMONITIC AND HEMITITE STAINING OCCUR ALONG FRACTURES AND
R               FOLIATION PLANES.
R               FRACTURING IS MODERATE WITH JOINT SET AT 100 DEGREES AND 28 DEG.
R               PYRITE OCCURS AS 3-4% DISS.AND 1-2% FRACTURE FILLING.
R               CHALCOPYRITE OCCURS AS DISSEMINATED CLOTS 1-2%.  MINERALIZATION
R               APPEARS TO INCREASE WITH SILICIFICATION
R               3.0 - 4.5M: CHLORITIC SCHIST ZONE WITH INCREASED QUARTZ-CARB
R                           VEINING, MINOR SULFIDES
/     120    260        AN/FHBPF   F5RW        P FO034 20P2<)P3     D+D)
L                         AGQZ    VVSH    5 44
R               GREYISH-GREEN, MODERATELY FOLIATED, SILICEOUS ALTERED ANDESITIC
R               FLOW.
R               SIMILAR TO PREVIOUS ROCK UNIT BUT WITH INCREASED SILICIFICATION,
R               MINERALIZATION AND QUARTZ (CARBONATE) VEINING.
R               PYRITE IS DOMINANT AND OCCURS AS FINE DISSEMINATIONS ~3% AND
R               LESSER AS FRACTURE FILLING ABOUT 2%.
R               CHALCOPYRITE OCCURS AS DISSEMINATIONSE <1%.
R               FOLIATION IS MODERATE STRIKING 034 DEG.AND DIPPING 020 DEG. SE
R               MODERATE-HIGH FRACTURING WITH JOINT SET AT 90 DEG.AND 25 DEG.
R               16.0 - 18.0M: ABOUT 10CM FAULT GOUGE, GREYISH BLUE CLAY,
R                             STRIKING ABOUT 97 DEGREES ALONG NORTH TRENCH WALL
R                             (OR 7 DEGREES TO C.A.)
R               21.0 - 26.0: QUARTZ-(CARBONATE) LENSES AND VEINING INCREASES,
R                            OCCASIONALLY HOSTING CHLORITIC FRAGMENTS WITH
R                            ASSOCIATED INCREASE IN PYRITE CONTENT.
/     260    420        AN/FHBPF   RWF5        P FZ095 70P1<)P4  G+D=D)
L                           5AQZ    SHVV    5 55  VQ038 30     C1<10)
R               MEDIUM GRAY, MODERATELY FOLIATED, HIGHLY SILICEOUS,
R               ALTERED ANDESITIC FLOW.
R               SIMILAR TO PREVIOUS INTERVALS BUT
R               DISPLAYING STRONG SILICIFICATION, INCREASE IN FAULT GOUGES,
R               QUARTZ (CARBONATE) VEINING AND MINERALIZATION.
R               INTENSE ALTERATION OFTEN OBLITERATES ORIGINAL TEXTURE.
R               TEXTURE OCCASIONALLY APPEARS GRAINY.
R               QUARTZ (CARBONATE) VEINS, 10-15CM THICK APPEAR ALONG THRENCH
R               WALLS AND ARE SUB-PARALLEL TO FOLIATION.  COLOUR IS
R               MILKY WHITE AND TEXTURE BRITTLE, DOES NOT APPEAR MINERALIZED.
R               FAULT GOUGES APPEAR TO BE TRENDING ALONG 090-095 DEGREES JOINTS
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R              AND DISPLAY INTENSE CLAY (BLUEISH-GREY) ALTERATION
R              WITH NO VISIBLE SULFIDES BUT OCCASIONAL QUARTZ VEIN MATERIAL.
R              HEMATITE AND LIMONITE COATINGS AND STAININGS ARE MORE ABUNDANT
R              PROBABLY DUE TO HIGHER SULFIDE CONTENT.
R              28.7 - 30.5: 6CM QUARTZ VEIN, STRIKING 38 DEGREES,DIPPING 30
R                           DEGREES NORTHWEST, SAMPLED ALONG TRENCH WALL
R              32.0 - 34.7: 10CM FAULT GOUGE TRENDING 90 DEGREES
R              41.2 - 42.5: 10CM FAULT GOUGE TRENDING 115 DEGREES, DIPPING 70
R                           DEGREES NORTH
/     420   449       FECRCLPYAP BXMX        P          P1  N1    M3B1M1
L                       RUCP                                 C2C2O)C1
R              REDDISH-GROWN, INTENSELY LIMONITIC AND HEMATITIC FERRICRETE
R              HOSTING MASSIVE SULFIDES (PY, CP,AP).
R              ROCK IS VERY HARD AND CEMENTED BY IRON OXYDES, HOSTED BY
R              INTENSELY ALTERED VOLCANIC (ANDESITE), HIGHLY SILICIFIED AND
R              HOSTING 1-5 CM THICK LENSES OF PYRITE AND ARSENOPYRITE AND CLOTS
R              OF CHALCOPYRITE; QTZ VEINLETS ARE ALSO PRESENT
R              ZONE OCCURS AS PROMINENT HUMP ~3.0M WIDE AND APPEARS TO BE PART
R              OF THE OVERBURDEN
R              OVBD IN VISCINITY IS INTENSELY LIMONITIC AND FERRICRETE EXTENDS
R              UP TO 5M THICK.
R              ORIGINAL TRENCH, DUG WITH A FLAT EDGE BUCKET EXPOSED A 23M WIDE
R              FERRICRETE ZONE TRENDING 20-30 DEGREES NORTHEAST.
/     449   486       AN/FHBPF   F3AG        P F0033 30P2  P2     D+D+
L                       AGQZ            5 45  VQ            <=<=
R              GREYISH-GREEN, WEAKLY ALTERED, SILICEOUS ALTERED ANDESITE
R              SIMILAR TO INTERVAL 12.0 - 26.0M.
R              WEAK FOLIATION STRIKING 022 DEGREES AND DIPPING 054 DEGREES
R              SOUTHEAST, MODERATE-HIGH FRACTURING WITH JOINT SET AT 108
R              DEGREES AND 25 DEGREES.
R              ALTERATION CONSISTS OF PERVASIVE CHLORITE AND PERVASIVE
R              SILICIFICATION (QUARTZ LENSES, VEINLETS AND EYES).
R              HEMATITE AND LIMONITE COATINGS AND STAININGS THROUGHOUT.
R              PYRITE OCCURS AS DISS. (ABOUT 2-3%) AND LESSER AS FRACTURE
R              FILLINGS.
R              CHALCOPYRITE OCCURS AS DISSEMINATIONS (ABOUT 2-3%).
R              48.0 - 48.7: MASSIVE SULFIDE BEARING (PY,CP,AP) FAULT GOUGE
R                           (10CM WIDE) HOSTING QUARTZ VEIN MATERIAL, STRIKING
R                           055 DEGREES.
/     486   660       AN/FHBPF   F7          P F0260 20P3  >1     D)D.
L                       4A              5 45                C=C=
R              DARK GREY, INTENSELY FOLIATED ALTERED ANDESITE (BORDERING ON A
R              CHLORITIC SCHIST)
R              STRONG FOLIATION STRIKING 260 DEGREES AND DIPPING 020 DEGREES
R              SOUTHEAST.
R              MODERATE-HIGH FRACTURING WITH JOINT SET AT 125 DEGREES AND 37
R              DEGREES.
R              PERVASIVE (ABOUT 30%) CHLORITIC ALTERATION, QUARTZ LENSES AND
R              VEINLETS THROUGHOUT (ABOUT 10%).
R              MINOR DISSEMINATED PYRITE AND TRACES OF CHALCOPYRITE.
R              53.8 - 57.5M: HIGHLY SILICEOUS ZONE WITH INCREASED LIMONITIC
R                            STAINING AND PYRITE CONTENT (DISS.AND FRACT.FILL.
R                            ABOUT 1.2%),ABOUT 20 - 30% PERV.SILICIFICATION.
/     660   745       AN/FHBPF   RWF5        P           P=  P4  G1D2D+  D)
L                       6A      SHVV    5 45                C=<1
R              LIGHT GREY, HIGHLY SILICEOUS, MODERATLY FOLIATED, ALTERED
R              ANDESITE.
R              SIMILAR TO INTERVAL 26.0 - 42.0M.
R              MODERATE FRACTURING WITH JOINT SET AT 106 DEGREES AND 24
R              DEGREES, STRONG HEMATITE STAINING THROUGHOUT.
R              UP TO 40% PERVASIVE SILICIFICATION.
R              PYRITE OCCURS DISSEMINATED AND LESSER FRACTURE FILLING UP
R              TO 15% LOCALLY.
R              CHALCOPYRITE OCCURS DISSEMINATED ABOUT 2-3%.
R              GALENA OCCURS DISSEMINATED ABOUT 1%.
R              68.0 - 74.0: 10 - 15CM FAULT GOUGE TRENDING 087 DEGREES
R                           (PARALLEL TO TRENCH AXIS)
R              END OF TRENCH
A001
AUMM               SAMPLE    AU    AG    AS    CU    PB    ZN
R                            ppb   ppm   ppm   ppm   ppm   ppm
ALAB           ECO-TECH LABS
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ATYP              CHIP SAMPLES
AMTH              WET GEOCHEM A.A.
A001   00    20        C136     3   .05    11   164    10    41
A001   20    40        C137     3   .10    15   167     9   103
A001   40    60        C138    60   .10    33   185     8   110
A001   60    80        C139    10   .10    28   487     7    92
A001   80   100        C140   120   .60   180   703     8   105
A001  100   120        C141    50   .40   206   423     7    70
A001  120   140        C142   175   .40   143   317     8    95
A001  140   160        C143   105   .60    32   325     6   129
A001  160   180        C144   110   .20    21   166     7    81
A001  180   200        C145     3   .05     7    41     6    54
A001  200   220        C146    70   .05    10   119     6    73
A001  220   240        C147    80   .05    24   223     7   128
A001  240   260        C148    35   .05    24   169     8    69
A001  260   280        C149    60   .05    31   164    10   118
A001  280   300        C150    85   .10   206   213     8    67
A001  300   320        C151    75   .05    39   152     9    70
A001  320   340        C152    65   .10    69   463    10    79
A001  340   360        C153   400   .20    11   221    10    45
A001  360   380        C154    40   .20    16   235     8    66
A001  380   400        C155    45   .10    27   389     9    81
A001  400   420        C156    25   .05    34   448    10    92
A001  420   435        C161   600  4.50  1200   950    29   126
A001  435   449        C162   835  2.90  1180  2100    23   188
A001  449   470        C163    65   .05   144   155    43    47
A001  470   486        C164    45   .05    95   231    10    49
A001  486   510        C165  1530  1.30    50  2400    42   153
A001  510   538        C166   220   .05    38  1600    12    64
A001  538   550        C167    46   .05    57   106    12    99
A001  550   575        C168    35   .20    52   121    67   196
A001  575   590        C169    30   .30    14   226     4   143
A001  590   610        C170     3   .05    20   200     5   149
A001  610   630        C171    20   .20    24   560     3    64
A001  630   650        C172    20   .10    10   139     2    49
A001  650   660        C173    15   .30    20   101     8    86
A001  660   680        C174   105   .20    32    85    14    38
A001  680   700        C175    40   .60    26   112    11    73
A001  700   720        C176   195   .20    14   165    89    87
A001  720   740        C177    90   .80    12   125    21    36
A001  740   745        C178    15   .05     7    34    37    60
A002
AUMM                 SAMPLE    AU    AG    AS    CU    PB    ZN
R                             ppb   ppm   ppm   ppm   ppm   ppm
ALAB              ECO-TECH LABS
ATYP              STRUCTURE SAMPLES
AMTH              WET GEOCHEM A.A.
A002  160   178        C157    90   .05    25   226     7    94
R                 10CM FAULT GOUGE (GRAYISH-BLUE) STRIKING 97 DEGREES, SAMPLED
R                 ALONG NORTH TRENCH WALL
A002  287   305        C158    20   .05     5    51     6    22
R                 6CM QUARTZ VEIN,MILKY WHITE, APPEARS FLAT LYING ,STRIKING 38
R                 DEGREES, DIPPING 30 DEGREES NORTHWEST, SAMPLED ALONG NORTH
R                 TRENCH WALL
A002  320   347        C159    55   .8     62   445    11    82
R                 10CM FAULT GOUGE TRENDING 090 DEGREES, SAMPLED ALONG TRENCH
R                 FLOOR (PARALLEL TO T.A.)
A002  412   425        C160    35  2.3     69   956    12   110
R                 10CM FAULT GOUGE (BLUEISH-GREY) TRENDING 115 DEGREES, DIPPING
R                 70 DEGREES NORTH, SAMPLED ALONG NORTH TRENCH WALL
A002  477   490        C179  6010  6.5    112  4400   252   115
R                 10CM SULFIDE BEARING FAULT GOUGE WITH UP TO 20% PYRITE, 10%
R                 CHALCOPYRITE, 5% ASPY? AND QUARTZ VEIN MATERIAL STRIKING 56
R                 DEGREES.
A002  695   710        C180    50   .6     36   190    49   139
R                 10 - 15CM FAULT GOUGE TRENDING 87 DEGREES, SAMPLED ALONG
R                 TRENCH FLOOR (SUB-PARALLEL TO T.A.)
R
R
R                 TRENCH OVERBURDEN PROFILE SAMPLE DATA
R
R        SAMPLE         DEPTH     AU     AG     CU     PB     ZN     AS
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R				cm	ppb	ppm	ppm	ppm	ppm	ppm
R										
R	TR90-02	0.0M	A	10	25	.3	124	10	66	55
R	TR90-02	0.0M	B	60	<5	.1	73	9	50	15
R	TR90-02	0.0M	C	100	<5	.1	99	9	51	15
R	TR90-02	10.0M	A	10	50	1.3	232	11	67	144
R	TR90-02	10.0M	B	80	7052	9.5	752	23	126	5066
R	TR90-02	10.0M	C	130	265	.6	763	9	71	849
R	TR90-02	20.0M	A	30	2535	11.6	286	35	115	1591
R	TR90-02	20.0M	B	110	1385	9.9	685	27	100	3977
R	TR90-02	20.0M	C	200	1205	8.3	971	27	126	1944
R	TR90-02	30.0M	A	40	<5	.1	73	5	42	35
R	TR90-02	30.0M	B	160	50	.4	1410	9	99	97
R	TR90-02	30.0M	C	300	880	2.0	1305	23	144	623
R	TR90-02	40.0M	A	50	75	.7	154	8	46	391
R	TR90-02	40.0M	B	130	750	5.0	1158	27	94	4110
R	TR90-02	40.0M	C	300	110	.5	1762	2	146	662
R	TR90-02	50.0M	A	30	315	2.0	154	29	112	936
R	TR90-02	50.0M	B	240	2080	6.3	241	63	53	7190
R	TR90-02	50.0M	C	430	290	1.0	891	18	170	2617
R	TR90-02	60.0M	A	30	155	1.2	249	23	135	702
R	TR90-02	60.0M	B	130	375	1.4	694	37	99	130
R	TR90-02	60.0M	C	380	15	<.1	282	6	145	55
R	TR90-02	70.0M	A	30	20	.2	103	20	79	26
R	TR90-02	70.0M	B	130	295	.2	391	53	146	39
R	TR90-02	70.0M	C	310	185	2.3	383	23	120	62

/END

Trench 90-03

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IDEN6B0201V216  TR90-03     23SEP90 MD    HLLGSEP90240    MDGRD  0.0
IPRJPLACER DOME INC. KAMLOOPS                WINDY
S000   00   340 MT   55.0  90.0   2.0             6088475.0  445693.0      978.0
S001  340   550      55.0  84.0  -2.0
/SCL        MT.2
LSCL                  LCTM
/NAM                                                         CLCBSIKFCYPYCPAPGL
LNAM                                                         EPSEHELIMAPL
R               THIS TRENCH WAS EXCAVATED TO TEST A CU-AU-AS SOIL GEOCHEM
R               ANOMALY.
R               OVBD DEPTH AVERAGES 2.5M AND CONSISTS OF A 0.2 - 0.5M B-HORIZON
R               WITH ROUNDED AND ANGULAR FRAGMENTS OVERLYING ABOUT 2.0M OF
R               GLACIAL TILL HOSTING ROUNDED COBBLES IN THE UPPER LAYER AND
R               INCREASED ANGULAR FRAGMENTS DOWNWARD,DERIVED FROM LOCAL BEDROCK.
R               WEATHERED BEDROCK FRAGMENTS ARE INTERSPACED BY TILL (SILTY SAND)
R               PATCHY LIMONITIC/HEMATITIC FRAGMENTS NEAR BEDROCK.
R               BEDROCK SURFACE SLOPES GENTLY DOWNWARD WITH A ROLLING SURFACE.
/      00   320        MGDRHBPFQZ+F3MG       P F0030 20<=<(P=    D)
L                          5ABI            423          P+  P=
R               MEDIUM GREY,WEAKLY FOLIATED,MEDIUM GRAINED DIORITE WITH ABOUT
R               40% HORNBLENDE, ABOUT 50% PLAGIOCLASE, ABOUT 5-10% BIOTITE AND
R               LESSER QUARTZ
R               WEAK FOLIATION APPEARS SUB-HORIZONTAL ABOUT 030 DEGREES,
R               DIPPING GENTLY 020 DEGREES SOUTHEAST
R               MODERATE FRACTURING WITH JOINT SET AT 050 DEGREES AND 140
R               DEGREES
R               ALTERATION CONSISTS OF WEAK PERVASIVE AND FRACTURE FILLING
R               CHLORITE, LOCAL PERVASIVE SILIC. AND WEAK PERVASIVE SERICITIC
R               ALTERATION.  MINOR QUARTZ CARBONATE VEINING
R               ABOUT 1-2% MINOR DISSEMINATED PYRITE.
R               12.0 - 18.0: INCREASED PERVASIVE CHLORITIC ALTERATION,
R                            QUARTZ-CARBONATE VEINING AND DISSEMINATED PYRITE
R                            (ABOUT 1%) AND PERVASIVE SILICIFICATION.
R               18.0 - 24.0: INCREASED PERVASIVE SILICIFICATION WITH
R                            PERVASIVE LIMONITIC SPOTTING (HEAVIER LIMONITIC
R                            OUTER RIND) AND DISSEMINATED PYRITE (COARSER)
R               24.0 - 32.0: INTERVAL OF GREENISH GRAY, HIGHLY SILICEOUS
R                            DIORITE WITH UP TO 10% DISSEMINATED AND PATCHY PY
R                            (COARSE 2MM EUHEDRAL X-TALS OCCUR LOCALLY) INCREASE
R                            QUARTZ VEINING IN LAST METRE OF INTERVAL AND
R                            CHLORITIC STRINGER NETWORK.
/     320   380        AN/FHBPF   F5RW       P F0040 20P1  P3    D+
L                          6AQZ   FF                      P+  C1
R               LIGHT GREY, MODERATELY FOLIATED, HIGHLY SILICIFIED ALTERED
R               ANDESITE (FLOW?)
R               MODERATE FOLIATION AGAIN APPEARING SUB-HORIZONTAL DIPPING GENTLY
R               SOUTHEAST
R               STRONG PERVASIVE SILICIFICATION WITH ASSOCIATED INCREASED
R               MINERALIZATION.  WEAKER PERVASIVE SERICITIZATION
R               FRACTURES HEALED BY QUARTZ AND LESSER CHRORITE
R               PYRITE OCCURS DISSEMINATED AND AS CLOTS 2-3% THROUGHOUT AND
R               COMMONLY ASSOCIATED WITH QUARTZ-HEALED FRACTURES
R               HEMATITIC RIND UP TO 1CM THICK ON BEDROCK
/     380   420        MGDRHBPF   F3MG       P          P2P=P2    Q1
L                          6AQZ   RW                      P+C1C1
R               GREENISH-GREY, REWORKED, QUARTZ-CARBONATE FLOODED, WEAKLY
R               FOLIATED, MEDIUM GRAINED DIORITE
R               SIMILAR TO INTERVAL 0.0 - 32.0 BUT MORE ALTERED WITH PERVASIVE
R               CHLORITE AND MODERATE QUARTZ-CARBONATE FLOODING AND INCREASED
R               MINERALIZATION.
R               HEMATITE AND LIMONITE COATINGS OCCUR THROUGHOUT
R               PYRITE OCCURS AS PATCHES UP TO 10% LOCALLYS AND LESSER AS DISS.
R               39.0M: GRAB SAMPLE OF PYRITIC MATERIAL AT 39.0 M (C239).
/     420   440        AN/FHBPF   F5RW       P F0040 20P1  P3    D+
L                          6AQZ   FF                      P+  C1
R               SAME AS INTERVAL 32.0 - 38.0M >LIGHT GREY, MODERATELY FOLIATED,
R               HIGHLY SILICEOUS,ANDESITIC FLOW.
/     440   550        PPANHBPFBI)PPF3       P          P1<)>=    D.
L                          6AQZ   FG                    <=    <+
R               DARK GREENISH-GREY,WEAKLY FOLIATED,HORNBLENDE PORPHYRITIC
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R ANDESITE.
R 2-5MM SUB-ROUNDED PHENOCRYSTS OF HORNBLENDE IN A FINE GRAINED
R HORNBLEND RICH MATRIX WITH GRAINY PLAGIOCLASE(ABOUT 20%) WEAK
R FOLIATION.
R ALTERATION CONSISTS OF A NETWORK OF EPIDOTE FRACTURE FILLING
R AND SOME QUARTZ-HEALED FRACTURING
R OCCASIONAL ROUNDED (UP TO 2CM) CLASTS OF QUARTZ DIORITE
R TRACES OF DISSEMINATED PYRITE
R 46.0 - 48.0: INTENSELY ALTERED (CHLORITIC) AND FOLIATED INTERVAL
R END OF TRENCH
A001

			SAMPLE	AU	AG	AS	CU	PB	ZN
AUMM									
R				ppb	ppm	ppm	ppm	ppm	ppm
ALAB			ECO-TECH LABS						
ATYP			CHIP SAMPLES						
AMTH			WET GEOCHEM A.A.						
R	00	40	NO SAMPLE - OVBD						
A001	40	60	C204	25	.2	11	39	8	19
A001	60	80	C205	10	.2	18	38	9	24
A001	80	100	C206	40	.05	11	390	5	33
A001	100	120	C207	345	.05	9	105	9	35
A001	120	140	C208	20	.05	7	72	4	41
A001	140	160	C209	15	.05	9	57	1	30
A001	160	180	C210	5	.05	11	69	1	42
A001	180	200	C211	60	1.2	26	65	3	23
A001	200	220	C212	45	.1	19	74	6	56
A001	220	240	C213	55	.1	16	154	8	68
A001	240	260	C214	35	.2	19	89	12	67
A001	260	280	C215	35	.2	26	64	9	57
A001	280	300	C216	380	.5	18	141	21	84
A001	300	320	C217	75	.3	25	87	24	69
A001	320	340	C218	65	.5	71	228	13	97
A001	340	360	C219	40	.8	18	215	8	61
A001	360	380	C220	40	.2	13	128	6	41
A001	380	400	C221	45	.7	30	294	7	65
A001	400	420	C222	25	.2	16	138	6	34
A001	420	440	C223	35	.8	10	661	5	30
A001	440	460	C224	100	.2	19	266	3	43
A001	460	480	C225	20	.1	18	72	4	46
A001	480	500	C226	10	.1	12	102	7	55
A001	500	520	C227	5	.1	7	47	3	33
R	520	550	NO SAMPLE - OVBD						

A003

			SAMPLE	AU	AG	AS	CU	PB	ZN
AUMM									
R				ppb	ppm	ppm	ppm	ppm	ppm
ALAB			ECO-TECH LABS						
ATYP			GRAB SAMPLES						
AMTH			WET GEOCHEM A.A.						
A003	390	390	C239	415.	.5	25.	303.	22.	57.

R GRAB OF ALTERED, QUARTZ-CARBONATE FLOODED MEDIUM GRAINED
R DIROITE WITH ABOUT 10% PATCHY AND DISSEMINATED PYRITE.
R
R
R TRENCH OVERBURDEN PROFILE SAMPLE DATA
R

	SAMPLE			DEPTH	AU	AG	CU	PB	ZN	AS
R				cm	ppb	ppm	ppm	ppm	ppm	ppm
R										
R	TR90-03	0.0M	A	20	35	.3	131	10	67	48
R	TR90-03	0.0M	B	120	25	<.1	154	22	68	30
R	TR90-03	10.0M	A	30	25	1.4	57	13	132	15
R	TR90-03	10.0M	B	100	130	<.1	195	16	79	19
R	TR90-03	10.0M	C	200	125	<.1	329	9	54	40
R	TR90-03	20.0M	A	40	20	1.2	96	10	58	17
R	TR90-03	20.0M	B	110	100	.4	338	5	46	20
R	TR90-03	20.0M	C	200	80	.5	243	1	94	21
R	TR90-03	30.0M	A	30	40	.1	234	11	62	114
R	TR90-03	30.0M	B	160	60	.1	451	13	66	30
R	TR90-03	30.0M	C	260	40	.2	226	13	76	32
R	TR90-03	40.0M	A	20	5	1.1	37	8	128	9
R	TR90-03	40.0M	B	100	<5	<.1	90	6	58	19
R	TR90-03	40.0M	C	170	45	.1	189	9	66	31

R	TR90-03	50.0M	A	30	15	<.1	39	4	74	13
R	TR90-03	50.0M	B	100	<5	<.1	56	6	58	14
R	TR90-03	50.0M	C	200	30	.1	320	11	67	40

/END

Trench 90-04

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IDEN6B0201V216  TR90-04     21SEP90 MD    HLLGSEP90240    MDGRD  0.0
IPRJPLACER DOME INC. KAMLOOPS                    WINDY
S000   00    145 MT   30.7  95.0   2.0                6088512.0  445719.0      985.0
S001  145    170      30.7  95.0 -24.0
S002  170    307      30.7  95.0   0.0
/SCL         MT.2
LSCL                       LCTM
/NAM                                                          CLCBSIKFCYPYCPAPGL
LNAM                                                          EPSEHELIMAPL
R               THIS TRENCH WAS EXCAVATED TO TEST A AU-CU-AS SOIL GEOCHEM
R               ANOMALY
R               OVBD DEPTH VARIES FROM 2.2 - 2.5M CONSISTING OF A 0.3M
R               ORGANIC LAYER OVERLYING ABOUT 2.0M GLACIAL TILL WHICH CARRIES
R               SOME LIMONITIC ANGULAR BOULDERS.  WEATHERED BEDROCK CAN REACH
R               UP TO 0.5M DEPTH.
R               BEDROCK SLOPES GENTLY UPWARDS TO 15.0M THEN SLOPES DOWN
R               RAPIDLY TO A FLATTER SURFACE.
/      00     90       OVBD                 P
R               RAMP DUG DOWN TO TRENCH FLOOR
/      90    307       PPANHBPFDR+PPND      P          P2<.>1     D)
L                          AGQZBI+FF      4 34         <1<+  <=
R               GREYISH-GREEN, NON-DESCRIPT, WEAKLY PORPHYRITIC, ALTERED
R               HORNBLENDE PORPHYRITIC ANDESITE
R               2 - 5MM SUB-ROUNDED HORNBLENDE PHENOCRYSTS IN A FINER GRAINED
R               HORNB-PLAG-QUARTZ MATRIX (ABOUT 10 - 15% PHENOS OFTEN
R               OBLITERATED BY ALTERATION)
R               TEXTURE IS FAIRLY NON-DESCRIPT
R               QUARTZ DIORITE INCLUSIONS AND VEINS (OR DYKE-LIKE BODIES
R               2-5CM WIDE) OCCUR IRREGURLARLY DISTRIBUTED THROUGHOUT
R               DIORITE IS COARSER GRAINED AND CONTAINS MORE PLAGIOCLASE AND
R               QUARTZ
R               ALTERATION CONSISTS OF WEAK PERVASIVE CHLORITE OF MAFICS,
R               EPIDOTIZATION OF PLAGIOCLASE
R               FRACTURES HEALED BY EPIDOTE, QUARTZ AND LESSER BY SERICITE
R               AND CARBONATE
R               MODERATE FRACTURING WITH JOINT SET AT 83 DEGREES AND 0 DEGREES
R               MINERALIZATION CONSISTS OF FINE DISSEMINATED PYRITE ABOUT 1-2%
R               END OF TRENCH
A001
AUMM                SAMPLE    AU     AG     AS     CU     PB     ZN
R                             ppb    ppm    ppm    ppm    ppm    ppm
ALAB            ECO-TECH LABS
ATYP            CHIP SAMPLES
AMTH            WET GEOCHEM A.A.
R      00     90 NO SAMPLE - OVBD
A001   90    110       C181    40    .05      8     35     10     59
A001  110    130       C182    10    .05     15     37      8     53
A001  130    150       C183     5    .05     15     43      3     42
A001  150    170       C184     5    .05     19     58      5     61
A001  170    190       C185     5    .05     15     34      4     53
A001  190    210       C186     5    .05     16    101      2     69
A001  210    230       C187     5    .05     15    108      3     75
A001  230    250       C188     5    .05     15    123      4     57
A001  250    270       C189     5    .05     17    115      2     63
A001  270    290       C190    10    .05     16     51      2     49
A001  290    307       C191   405    .2      23    209     89    229
R
R
R               TRENCH OVERBURDEN PROFILE SAMPLE DATA
R
R          SAMPLE            DEPTH     AU     AG     CU     PB     ZN     AS
R                             cm       ppb    ppm    ppm    ppm    ppm    ppm
R
R       TR90-04  0.0M   A     40       <5    <.1     67     14    106     15
R       TR90-04 10.0M   A     40       20     .2     87      5    121     19
R       TR90-04 10.0M   B    140       <5    <.1     89      3     68     38
R       TR90-04 10.0M   C    200       20     .1     93      7     69     23
R       TR90-04 20.0M   A     30        5    <.1     38      3     90     21
R       TR90-04 20.0M   B    120       10    <.1     86      6     72     21
R       TR90-04 20.0M   C    220       25    <.1    130      6     96     27
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R	TR90-04	30.0M	A	30	10	<.1	26	102	75	12
R	TR90-04	30.0M	B	100	40	<.1	150	9	84	17
R	TR90-04	30.0M	C	160	5	<.1	107	8	68	24

/END

Trench 90-05

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IDEN6B0201V216  TR90-05     22SEP90 MD    HLLGSEP90240    MDGRD  0.0
IPRJPLACER DOME INC. KAMLOOPS                    WINDY
S000   00    110 MT    25.0 100.0    4.0                 6088421.0  445630.0      973.0
S001  110    250       25.0  87.0    5.0
/SCL         MT.2
LSCL                        LCTM
/NAM                                                             CLCBSIKFCYPYCPAPGL
LNAM                                                             EPSEHELIMAPL
R                THIS TRENCH WAS EXCAVATED TO TEST A AU-CU-AS SOIL GEOCHEM
R                ANOMALY
R                OVBD DEPTH VARIES FROM 1.0 - 1.8M ON THE DOWNSLOPE SIDE (SOUTH
R                WALL) AND UP TO 3.0M ON THE UPSLOPE SIDE (NORTH WALL).
R                BEDROCK SLOPES GENTLY UPWARDS FROM WEST TO EAST AND
R                CONSISTS OF A THIN ORGANIC LAYER OVERLYING OVER 1.0M OF
R                GLACIAL TILL.  WEATHERED BEDROCK APPEARS TO HAVE AN AVERAGE
R                DEPTH OF 0.5M.
R                A 0.5 - 1.0M THICK "FERRICRETE" HORIZON EXTENDS FROM 0.0 -
R                18.0M WITHIN THE GLACIAL TILL.
/      00    250        FGDRHBPF    FGF3         P F0040 20P1  P1     D+D)
L                           AGQZ    NDPP      433          <+<+<)<+
R                GREYISH-GREEN, WEAKLY FOLIATED, NON-DESCRIPT, FINE GRAINED
R                DIORITE
R                INTERLOCKING CRYSTALS OF HORNBLENDE, PLAGIOCLASE AND LESSER
R                QUARTZ WITH WEAK PORPHYRITIC TEXTURE CONSISTING OF 2-3MM
R                SUB-ROUNDED HORNBLENDE PHENOCRYSTS (ABOUT 5-10%).
R                WEAK FOLIATION APPEARS FLAT-LYING, STRIKE IS ABOUT 040 DEGREES
R                DIP TO NORTHWEST.
R                MODERATE FRACTURING WITH JOINT SET AT 60 DEGREES AND 10 DEGREES
R                ALTERATION IS WEAK WITH PERVASIVE CHLORITE, PERVASIVE SILIC. AS
R                SMALL NODULES AND LENSES OF QUARTZ (ABOUT 10%).
R                FRACTURES ARE HEALED BY QUARTZ, EPIDOTE, CHLORITE AND LESSER
R                SERICITE, SOME LIMONITE IN FRACTURES.
R                PY OCCURS AS FINE DISSEMINATIONS,~3-4%, CHALCOPYRITE OCCURS AS
R                FINE DISSEMINATIONS,~4%
R                4.0 - 16.0M: INCREASE IN SILICIFICATION AND MINERALIZATION
R                             (ABOUT 3-4% PYRITE AND ABOUT 1% CHALCOPYRITE)
R                END OF TRENCH
A001
AUMM                 SAMPLE    AU     AG     AS     CU     PB     ZN
R                              ppb    ppm    ppm    ppm    ppm    ppm
ALAB             ECO-TECH LABS
ATYP             CHIP SAMPLES
AMTH             WET GEOCHEM A.A.
A001   00     20       C192    55     .3    139    249     11     65
A001   20     40       C193    40    .05    109    203      4     84
A001   40     60       C194    15    .05     44    157      1     45
A001   60     80       C195    35     .3     64    420      1     58
A001   80    100       C196    30    .05     44    735     10     37
A001  100    120       C197    65     .4     25   1039     33     89
A001  120    140       C198    75     .3    141    790     13    138
A001  140    160       C199    60    1.0     27    520     16    205
A001  160    180       C200    65     .2     26    519     11     99
A001  180    200       C201    60     .2     15    690      5     87
A001  200    220       C202    30     .1     16    315      9     60
A001  220    236       C203    30     .1     20    180      5    109
R     236    250 NO SAMPLE - OVBD
R
R
R                TRENCH OVERBURDEN PROFILE SAMPLE DATA
R
R          SAMPLE           DEPTH     AU     AG     CU     PB     ZN     AS
R                             cm     ppb    ppm    ppm    ppm    ppm    ppm
R
R       TR90-05  0.0M  A      -       10    <.1     59      6     80     73
R       TR90-05  0.0M  B      -      145     .9   3835     12    807   4456
R       TR90-05  0.0M  C      -       85     .5    636     10    178    766
R       TR90-05 10.0M  A      -       <5     .5     47     12     58     41
R       TR90-05 10.0M  B      -       <5     .1    571     12    156     29
R       TR90-05 10.0M  C      -       45    1.7   1300     10    158    179
R       TR90-05 20.0M  A      -       <5    <.1     54     11     54     26
```

R	TR90-05	20.0M	B	-	<5	<.1	97	22	87	17
R	TR90-05	20.0M	C	-	135	<.1	630	40	201	74

/END

Trench 90-06

```
IDEN6B0201V216  TR90-06     25SEP90 MD    HLLGSEP90240     MDGRD  0.0
IPRJPLACER DOME INC. KAMLOOPS                  WINDY
S000    00    185 MT    18.5  16.0  10.0            6088420.5  445633.7      973.0
/SCL          MT.2
LSCL                       LCTM
/NAM                                                           CLCBSIKFCYPYCPAPGL
LNAM                                                           EPSEHELIMAPL
R                 THIS TRENCH WAS DUG TO EXPOSE THE "FERRICRETE ZONE" AND
R                 POSSIBLY THE SOURCE OF THE MASSIVE SULFIDE FRAGMENTS.
R                 OVBD DEPTH INCREASES FROM SOUTH TO NORTH GOING UPSLOPE FROM
R                 1.5M TO 3.5M AND CONSISTS OF A SAND AND GRAVEL HORIZON
R                 OVERLYING GLACIAL TILL ON TOP OF WEATHERED BEDROCK (ABOUT 0.5
R                 - 1.0M THICK).  THE TILL HORIZON DISPLAYS INTENSE LIMONITIC AND
R                 HEMATITIC ALTERATION DUE TO ABUNDANT SULFIDE CLASTS WHICH HAVE,
R                 IN PLACES (NORTH END OF TRENCH), CEMENTED INTO FERRICRETE.
R                 BEDROCK SLOPES GENTLY UPWARDS FROM SOUTH TO NORTH.
/       00     24        OVBD                     P
/       24    185        QZDRHBPFBI=F3MG          P FO       P2<)P2     D=D+
L                            AGQZ   SH                       <+P1G=G=
R                 DARK GREYISH-GREEN, WEAKLY FOLIATED (SUB-HORIZONTAL),MODERATELY
R                 ALTERED,MEDIUM-GRAINED QUARTZ DIORITE.
R                 ROCK CONSISTING MAINLY OF HORNBLENDE, PLAGIOCLASE AND LESSER
R                 QUARTZ WHICH INCREASES IN AMOUNT FROM SOUTH TO NORTH.
R                 PERVASIVE CHLORITIC ALTERATION ABOUT 20%, LESSER SILICIFICATION
R                 AND SERICITIZATION
R                 FRACTURES AND SEAMS HEALED BY QUARTZ (CARBONATE ENVELOPE?) AND
R                 EPIDOTE.
R                 PYRITE OCCURS USUALLY DISSEMINATED THROUGHOUT ABOUT 2-3% BUT
R                 INCREASES IN SILICIFIED ZONES.
R                 PY ALSO APPEARS LOCALLY AS LARGE CLOTS AND LENSES (2CM X 4CM)
R                 ASSOCIATED WITH SHEAR ZONES.
R                 CHALCOPYRITE OCCURS IN LESSER AMOUNT AS DISSEMINATIONS ~2%
R                 QUARTZ-CARBONATE VEINS AND LENSES OCCUR IRREGULARLY DISTRIBUTED
R                 AND ARE COMMONLY ASSOCIATED WITH SOME MINOR MINERALIZATION.
R                 6.0         : INCREASE IN QUARTZ CONTENT AND QUARTZ-CARBONATE
R                               VEINING
R                 10.0 - 12.5: PYRITIC FAULT GOUGE (ABOUT 15% PY), STRIKING 060
R                               DEGREES, WALL ROCK IS HIGHLY CHLORITIZED AND ALSO
R                               CARRIES PYRITE
R                 14.2 - 14.5: 2CM X 4CM MASSIVE PYRITIC LENS HOSTED BY A HIGHLY
R                               SILICEOUS DIORITE (APPEARS TO STRIKE 090 DEGREES)
R                 16.0 - 17.0: FAULT GOUGE FOLLOWING IN IRREGULAR PATTERN
R                 14.0 - 18.5: HIGHLY SILICEOUS DIORITE
R                 END OF TRENCH
A001
AUMM                   SAMPLE    AU     AG     AS     CU     PB     ZN
R                                ppb    ppm    ppm    ppm    ppm    ppm
ALAB              ECO-TECH LABS
ATYP              CHIP SAMPLES
AMTH              WET GEOCHEM A.A.
R       00     24 NO SAMPLE - OVBD
A001    24     40       C228     45     .1     26    180      5     37
A001    40     60       C229     40     .1     35    185      3     53
A001    60     80       C230    140    1.9   2400    613      6     97
A001    80    100       C231    150     .1     79    565      5    115
A001   100    120       C232    170     .2     68    580      5    136
A001   120    140       C233    280     .1     44    841      6    189
A001   140    159       C234     65     .1     66    222      5     35
A001   159    172       C235     30     .5     23    136     22     60
R                 FAULT GOUGE MATERIAL
A001   172    184       C236   1130     .2     34     76      8     93
A002
AUMM                   SAMPLE    AU     AG     AS     CU     PB     ZN
R                                ppb    ppm    ppm    ppm    ppm    ppm
ALAB              ECO-TECH LABS
ATYP              STRUCTURE SAMPLES
AMTH              WET GEOCHEM A.A.
A002   100    125       C240   1560    3.6     75   3298     26    119
R                 PYRITIC (ABOUT 15%) FAULT GOUGE, LIMONITIC, STRIKING ABOUT 60
R                 DEGREES, SAMPLED INTERMITTENTLY OVER 2.7M
```

```
A002  142    145        C241  2360    2.9     57   615     28      50
R                   ABOUT 6CM PYRITIC LENS HOSTED BY A SILICEOUS QUARTZ DIORITE,
R                   STRIKING 90 DEGREES
A002  159    174        C237   100     .4     68   492      6     155
R                   5CM WIDE FAULT GOUGE, BLUEISH-GREY CLAY STRIKING ABOUT 80
R                   DEGREES AND TWISTING IRREGULARLY
A003
AUMM                      SAMPLE     AU      AG      AS      CU      PB      ZN
R                                    ppb     ppm     ppm     ppm     ppm     ppm
ALAB                ECO-TECH LABS
ATYP                GRAB SAMPLES
AMTH                WET GEOCHEM A.A.
A003  105    105        C242  1680    4.5     82  3640     27     213
R                   SILICEOUS AND CHLORITIC QUARTZ DIORITE WITH PYRITE LENSES FROM
R                   FAULT GOUGE WALL ROCK
A003  175    175        C243    70     .6     21    70     22      60
R                   SILICEOUS QUARTZ DIORITE WITH ABOUT 5-10% DISSEMINATED PYRITE
R
R
R                   TRENCH OVERBURDEN PROFILE SAMPLE DATA
R
R          SAMPLE              DEPTH      AU     AG     CU     PB     ZN     AS
R                                 m      ppb    ppm    ppm    ppm    ppm    ppm
R
R        TR90-06    5.0M       1.0M      810    4.9    635     12    155   9828
R        TR90-06    5.0M       2.0M       20     .1    465     35    238    618
R        TR90-06   10.0M       1.0M      380    1.9    214     55     97   1119
R        TR90-06   10.0M       2.0M      605    1.8   2005     40    512   2395
R        TR90-06   10.0M       3.0M     1185    2.4   4500    170    540   2564
R        TR90-06   15.0M       2.0M    13415   61.5    564    250    169   4345
R        TR90-06   15.0M       3.0M     3915   37.0    112     25     41    167
R        TR90-06   15.0M       4.0M      660     .4   6875     16    565   1632
R        TR90-06   19.0M       0.2M      160    1.5    143     12     90    644
R        TR90-06   19.0M       1.0M      270    1.1    530     22     78    736
R        TR90-06   19.0M       2.0M     1325    5.9   1378     72    128  15497
R        TR90-06   19.0M       3.0M     9365   26.0    169    140    113   2916
R        TR90-06   19.0M       4.0M      860    2.1   7337     30    515   1269
R        TR90-06   19.0M       5.0M      195     .7    849     45    330    170
/END
```

APPENDIX IV

LISTING OF ROCK SAMPLE DATA

WINDY 1990 PROJECT

ROCK SAMPLE DATA

SAMP	NORTH	EAST	LITH	DESCRIPTION	AU (ppb)	AG (ppm)	CU (ppm)	AS (ppm)
6801	10200	10180	QZVN	Quartz float on old road.	<5	<0.2	70	2
6802	10880	10120	QZVN	Trench 87-4, quartz float with limonitic wall.	<5	<0.2	56	400
6803	10250	9745	FLOT	Float from old road.	15	0.4	530	6
6804	10900	10150		Richard's V.G. prospect pit.	<5	<0.2	140	360
6805	10900	10150	QZVN	V.G. prospect pit, quartz float.	<5	<0.2	16	18
6806	10900	10150		V.G. prospect pit, limonitic, veinlets with pyrite.	<5	<0.2	117	240
6807	11400		FLOT	Float along road.	4.65g/t	4.7	1800	N/A
6808	11240		MSSF	Float, massive fine grained pyrite, along road.	1.40g/t	2.7	830	860
6809	10900	10150	MSSF	New showing, sulphide horizon above prospect pit.	2.54g/t	N/A	N/A	N/A
6810	10420	8782	DIOR	New showing, altered intrusive?	20	N/A	N/A	N/A
6811	10420	8782	DIOR	New showing, float, altered intrusive?, limonitic.	10	N/A	N/A	N/A
6812	10400	8893	FLOT	New showing, float.	<5	N/A	N/A	N/A
6813	10447	8674	MSSF	New showing, trench, massive arsenopyrite.	2.15g/t	N/A	N/A	N/A
6814	10447	8674	QZVN	New showing, quartz vein.	2.84g/t	N/A	N/A	N/A
6815	10450	8663	AN/F	New showing, float, chlorite schist, sulphides.	105	N/A	N/A	N/A
6816	10420	8635	AN/F	New showing, trench, sulphide, quartz rich.	835	N/A	N/A	N/A
6817	10420	8645	FECT	New showing, ferricrete, friable, limonitic.	65	N/A	N/A	N/A
6818	10450	8705	AN/F	New showing, trench, limonite, quartz veins, pyrite.	<5	N/A	N/A	N/A
6819	10400	8755	AN/F	New showing, trench, limonite, sericite.	<5	N/A	N/A	N/A
6820	10600	8710	FLOT	New showing, float?, silicified chert?	20	N/A	N/A	N/A
6821			FLOT	Trench 87-7, in swamp.	<5			
6822			AN/F	Trench 87-7, V.G..	25			
6823			DIOR	Norman pickup, felsic intrusive, quartz-pyrite veins	40			
1-15/7/90			MSSF	New showing, float, fine grained sulphides.	4.06g/t	17.8g/t	9600	1.50%
2-15/7/90			MSSF	New showing, similar to #1.	10.44g/t	11.2g/t	5100	2.22%
3-15/7/90			MSSF	New showing, float, silicification.	15.39g/t	2.2g/t	2000	22.85%
4-15/7/90			MSSF	New showing, location as #3, chalcopyrite.	9.21g/t	11.6g/t	7800	4.03%
5-15/7/90			MSSF	New showing, float, andesite host?	2.14g/t	4.6	2100	1.77%
6-15/7/90			MSSF	New showing, float, sulphide rich sericite schist.	760	3.6	490	1245
7-15/7/90			DIOR	New showing, float, altered intrusive?, no veins.	155	0.2	148	170
8-15/7/90			DIOR	New showing, float, quartz veins.	10	<0.2	40	115
13391				New showing.	1.15g/t	6.0	3500	2.61%
13392				New showing.	600	12.0	5500	910
13393				New showing.	95	0.6	175	275
13394				New showing.	930	14.0	7000	0.49%
13395			MSSF	New showing.	32.17g/t	30.0	1.28%	14.5%
13396				New showing.	8.67g/t	27.0	1.16%	1.19%
59179				New showing.	<5	0.1	108	8
59180				New showing.	50	0.2	58	19
59181				New showing.	35	0.3	747	13
59182				New showing.	30	0.7	1200	69
59183				New showing.	11.99g/t	35.3g/t	1.80%	7.60%
59184			MSSF	New showing.	9.14g/t	5.0	840	8.32%
59185			MSSF	New showing.	4.31g/t	19.7	>1000	1.74%
59186				New showing.	<5	0.7	197	160

APPENDIX V

ROCK SAMPLE STATISTICAL SUMMARY

CORRELATION MATRIX AND HISTOGRAMS

P L A C E R   D O M E   I N C .

PDI Data Analysis System - STATS

run on 91:02:08 at 13:15:05

Current directory: /data/expl/windy/geolog

WINDY 1990 PROJECT: ROCK DATA STATISTICAL ANALYSIS

Summary of data from file : rock90.all

This data file contains an internal header: (5 records)
Data grouped into 9 fields
with format: (3A8, 2F10.2, 4F10.2)

Character ID fields:
DH ROCK SAMP

Coordinate fields:
FROM TO

Other data fields:
AU AG AS CU

Missing data indicated by NULL value -1.00000

BASIC STATISTICS OF SELECTED DATA FIELDS:

NAME	NDATA	NULLS	MINIMUM	MAXIMUM	MEAN	STD. DEV.	GEOM. MEAN	DISPERSION	
AU	461	53	3.00000	6010.00	86.8308	429.791	18.4135	4.08799	82.9398
AG	461	53	0.500000E-01	15.0000	0.305857	0.924767	0.149367	0.613143E-01	0.363869
AS	461	53	1.00000	2400.00	34.0022	152.263	8.11774	1.71835	38.3494
CU	461	53	7.00000	4400.00	232.193	392.925	140.162	54.8202	358.362

CORMAT: RUN ON 91:02:08 AT 13:15:05

Data from file: rock90.all

WINDY 1990 PROJECT: ROCK DATA STATISTICAL ANALYSIS

Correlation matrix for 514 records with 4 variables

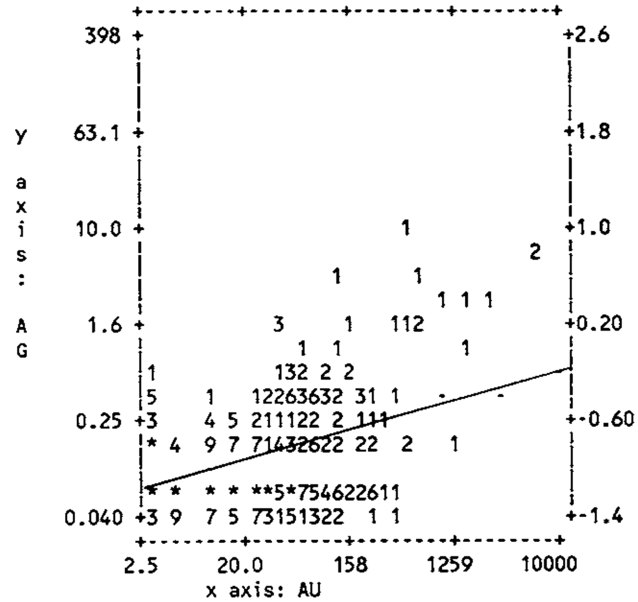
	AU	AG	AS	CU
LOG:	1	1	1	1
AU	1.000	0.450	0.468	0.499
AG	0.450	1.000	0.307	0.509
AS	0.468	0.307	1.000	0.333
CU	0.499	0.509	0.333	1.000

Number of data pairs contributing to correlation

	AU	AG	AS	CU
AU	461	461	461	461
AG	461	461	461	461
AS	461	461	461	461
CU	461	461	461	461

SCPLOT : WINDY 1990 PROJECT: ROCK DATA STATISTICAL ANALYSIS RUN ON 91:02:08 AT 13:15:05

file: rock90.all AU vs AG LOGX =1 LOGY =1 REPVAL = 0.00100



PLOT SUMMARY
461 X-Y PAIRS
0 VALUES>MAX
0 VALUES<MIN
461 PLOTTED

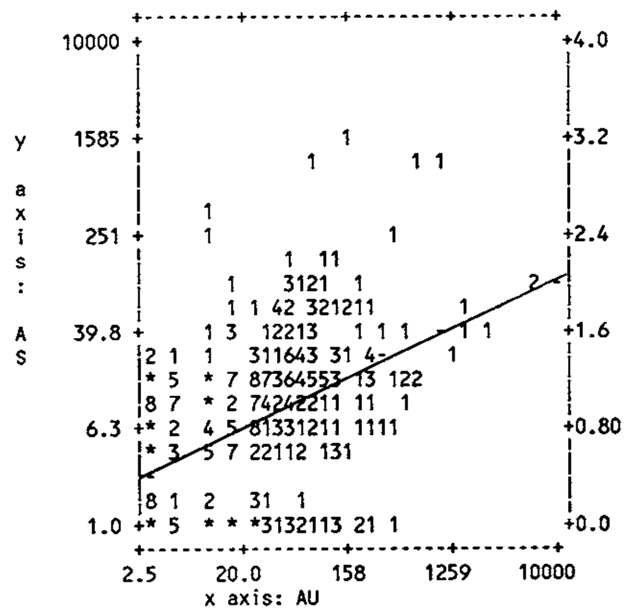
X	MINMAX	Y
3		0.05
6010		15

REGRESSION LINE
A = -1.1625
B = 0.26615
VARIANCE
0.11953
STD. DEVIATION
0.34573
CORRELATION COEF
0.44987

PLOT INCREMENTS
X: 0.10000
Y: 0.20000

SCPLOT : WINDY 1990 PROJECT: ROCK DATA STATISTICAL ANALYSIS RUN ON 91:02:08 AT 13:15:05

file: rock90.all AU vs AS LOGX =1 LOGY =1 REPVAL = 0.00100



PLOT SUMMARY
461 X-Y PAIRS
0 VALUES>MAX
0 VALUES<MIN
461 PLOTTED

X	MINMAX	Y
3		1
6010		2400

REGRESSION LINE
A = 0.29907
B = 0.48245
VARIANCE
0.35605
STD. DEVIATION
0.59670
CORRELATION COEF
0.46764

PLOT INCREMENTS
X: 0.10000
Y: 0.20000

```
SCPLOT: WINDY 1990 PROJECT: ROCK DATA STATISTICAL ANALYSIS:RUN ON 91:02:08 AT 13:15:05

 file: rock90.all                 AG    vs  CU      LOGX =1  LOGY =1 REPVAL = 0.00100
                                  ----      ----
             +---------+---------+---------+---------+
     63096 +                                         +4.8
             |                                         |
             |                                         |
             |                                         |
 y   10000 +                                         +4.0
             |                                         |
 a           |                       2                 |
 x           |                     1          -       -|
 i    1585 +1               1  1                      +3.2
 s           |          1   1               -          |
 :           |1  2   11 3212   2  1                    |
             |1  4   42 *2 5 -4 1                      |
 C     251 +6   *    *7 421    1                      +2.4
 U           |*  *    *9 21  1         1               |
             |*  *  - *4 41  1  1   1                  |
             |2  *    82 2   1                         |
      39.8 +6   *    21                               +1.6
             |4  *    3  1                             |
             |   7                                     |
             |   3                                     |
       6.3 +    3                                     +0.80
             +---------+---------+---------+---------+
          0.040     0.32      2.5      20.0       158
                  x axis: AG
```

PLOT SUMMARY
461 X-Y PAIRS
0 VALUES>MAX
0 VALUES<MIN
461 PLOTTED

X	MINMAX	Y
0.05		7
15		4400

REGRESSION LINE
A = 2.5899
B = 0.53686
VARIANCE
0.12338
STD. DEVIATION
0.35126
CORRELATION COEF
0.50921

PLOT INCREMENTS
X: 0.10000
Y: 0.20000

```
HISTO: WINDY 1990 PROJECT: ROCK DATA STATISTICAL ANALYSIS RUN ON 91:02:08 AT 13:15:05

  File: rock90.all               Field name: AU      LOG = 1  REPVAL =   0.00100
                                             ----
   461 SAMPLES WITH AU     MINIMUM:   3.00000          MAXIMUM:  6010.00

   445 VALUES PLOTTED:    16 NOT IN RANGE   3.00000     to  350.000

      GEOMETRIC MEAN:          16.0129        DISPERSION:  4.25958     60.1966

    SCALE OF HISTOGRAM IS   4.00 COUNTS /PRINT POSITION    # = 5,50,95%

    N   MIDPOINT  PERCENT  0         40        80        120     . 160
                          I---------I---------I---------I---------I
  116   3.0000   # 26.07  I*****************************           I
    0   3.3791     0.00   I                                        I
    0   3.8060     0.00   I                                        I
    0   4.2869     0.00   I                                        I
   24   4.8285     5.39   I******                                  I
    0   5.4386     0.00   I                                        I
    0   6.1258     0.00   I                                        I
    0   6.8998     0.00   I                                        I
    0   7.7716     0.00   I                                        I
    0   8.7536     0.00   I                                        I
   55   9.8596    12.36   I**************                          I
    0   11.105     0.00   I                                        I
    0   12.509     0.00   I                                        I
    0   14.089     0.00   I                                        I
   38   15.869   #  8.54  I**********                              I
    0   17.874     0.00   I                                        I
   26   20.133     5.84   I*******                                 I
    0   22.676     0.00   I                                        I
   21   25.542     4.72   I*****                                   I
   20   28.769     4.49   I*****                                   I
 ------------------------------------------------- 30 ppb
    0   32.404     0.00   I                                        I
   17   36.498     3.82   I****                                    I
   17   41.109     3.82   I****                                    I
   11   46.304     2.47   I***                                     I
   11   52.154     2.47   I***                                     I
   10   58.744     2.25   I***                                     I
   15   66.166     3.37   I****                                    I
    7   74.526     1.57   I**                                      I
    5   83.943     1.12   I*                                       I
    8   94.549     1.80   I**                                      I
 ------------------------------------------------- 100 ppb
   10   106.50     2.25   I***                                     I
    6   119.95     1.35   I**                                      I
    2   135.11     0.45   I*                                       I
    5   152.18   #  1.12  I*                                       I
    4   171.41     0.90   I*                                       I
    8   193.06     1.80   I**                                      I
    4   217.46     0.90   I*                                       I
 ------------------------------------------------- 235 ppb
    1   244.93     0.22   I                                        I
    2   275.88     0.45   I*                                       I
    0   310.74     0.00   I                                        I
    2   350.00     0.45   I*                                       I
 -----                    I---------I---------I---------I---------I
  445                     0         40        80        120       160
```

```
HISTO: WINDY 1990 PROJECT: ROCK DATA STATISTICAL ANALYSIS RUN ON 91:02:08 AT 13:15:05

   File: rock90.all              Field name: AG       LOG = 1  REPVAL = 0.00100
                                             ----
    461 SAMPLES WITH AG     MINIMUM:  0.500000E-01      MAXIMUM:  15.0000

    455 VALUES PLOTTED:     6 NOT IN RANGE  0.500000E-01 to  3.00000

       GEOMETRIC MEAN:        0.142291        DISPERSION: 0.647863E-010.312517

     SCALE OF HISTOGRAM IS  10.00 COUNTS /PRINT POSITION    # = 5,50,95%

     N    MIDPOINT  PERCENT  0        100        200        300        400
                            I---------I---------I---------I---------I
    50  0.50000E-01# 10.99  I*****                                    I
     0  0.55389E-01   0.00  I                                         I
     0  0.61359E-01   0.00  I                                         I
     0  0.67972E-01   0.00  I                                         I
     0  0.75298E-01   0.00  I                                         I
     0  0.83414E-01   0.00  I                                         I
     0  0.92404E-01   0.00  I                                         I
   247  0.10236     # 54.29 I*************************                I
     0  0.11340       0.00  I                                         I
     0  0.12562       0.00  I                                         I
     0  0.13916       0.00  I                                         I
     0  0.15416       0.00  I                                         I
     0  0.17077       0.00  I                                         I
     0  0.18918       0.00  I                                         I
    72  0.20957      15.82  I*******                                  I
     0  0.23215       0.00  I                                         I
     0  0.25718       0.00  I                                         I
     0  0.28489       0.00  I                                         I
    26  0.31560       5.71  I***                                      I
     0  0.34962       0.00  I ------------ 0.35 ppm                   I
    18  0.38730       3.96  I**                                       I
     0  0.42904       0.00  I                                         I
    10  0.47528       2.20  I*                                        I
     0  0.52651       0.00  I                                         I
     8  0.58326       1.76  I*                                        I
     0  0.64612       0.00  I                                         I
     2  0.71576    #  0.44  I                                         I
     5  0.79291       1.10  I*                                        I
     1  0.87837       0.22  I                                         I
     3  0.97304       0.66  I                                         I
     0    1.0779      0.00  I                                         I
     2    1.1941      0.44  I ------------ 1.2 ppm                    I
     1    1.3228      0.22  I                                         I
     0    1.4654      0.00  I                                         I
     4    1.6233      0.88  I                                         I
     0    1.7983      0.00  I                                         I
     1    1.9921      0.22  I                                         I
     3    2.2068      0.66  I                                         I
     0    2.4446      0.00  I                                         I
     0    2.7081      0.00  I                                         I
     2    3.0000      0.44  I ------------ 3 ppm                      I
 -----                      I---------I---------I---------I---------I
   455                      0        100        200        300        400
```

HISTO: WINDY 1990 PROJECT: ROCK DATA STATISTICAL ANALYSIS RUN ON 91:02:08 AT 13:15:05

```
File: rock90.all              Field name: AS      LOG = 1  REPVAL =   0.00100

 461 SAMPLES WITH AS     MINIMUM:    1.00000           MAXIMUM:  2400.00

 452 VALUES PLOTTED:     9 NOT IN RANGE   1.00000      to  200.000

    GEOMETRIC MEAN:          7.45231         DISPERSION:  1.76859     31.4019

  SCALE OF HISTOGRAM IS   4.00 COUNTS /PRINT POSITION    # = 5,50,95%

  N    MIDPOINT  PERCENT  0         40        80        120       160
                          I---------I---------I---------I---------I
 118    1.0000   # 26.11  I******************************            I
   0    1.1416     0.00   I                                          I
   0    1.3033     0.00   I                                          I
   0    1.4879     0.00   I                                          I
   0    1.6986     0.00   I                                          I
  16    1.9392     3.54   I****                                      I
   0    2.2139     0.00   I                                          I
   0    2.5274     0.00   I                                          I
   0    2.8854     0.00   I                                          I
   0    3.2941     0.00   I                                          I
  16    3.7606     3.54   I****                                      I
   0    4.2932     0.00   I                                          I
   2    4.9013     0.44   I*                                         I
   0    5.5954     0.00   I                                          I
  29    6.3879     6.42   I*******                                   I
-------------------------------------------------- 7 ppm
   6    7.2927     1.33   I**                                        I
  17    8.3255     3.76   I****                                      I
  24    9.5047   #  5.31  I******                                    I
   8    10.851     1.77   I**                                        I
  21    12.388     4.65   I*****                                     I
  25    14.142     5.53   I******                                    I
  32    16.145     7.08   I********                                  I
  15    18.432     3.32   I****                                      I
  33    21.042     7.30   I********                                  I
  10    24.022     2.21   I***                                       I
  15    27.425     3.32   I****                                      I
   8    31.309     1.77   I**                                        I
-------------------------------------------------- 35 ppm
   7    35.743     1.55   I**                                        I
   3    40.806     0.66   I*                                         I
   6    46.585     1.33   I**                                        I
   7    53.183     1.55   I**                                        I
   4    60.715     0.88   I*                                         I
  11    69.314   #  2.43  I***                                       I
   4    79.132     0.88   I*                                         I
   2    90.339     0.44   I*                                         I
-------------------------------------------------- 100 ppm
   3    103.13     0.66   I*                                         I
   2    117.74     0.44   I*                                         I
   5    134.42     1.11   I*                                         I
   2    153.45     0.44   I*                                         I
   1    175.19     0.22   I                                          I
   0    200.00     0.00   I                                          I
-----                     I---------I---------I---------I---------I
 452                      0         40        80        120       160
```

```
HISTO: WINDY 1990 PROJECT: ROCK DATA STATISTICAL ANALYSIS RUN ON 91:02:08 AT 13:15:05

    File: rock90.all              Field name: CU      LOG = 1  REPVAL =   0.00100
                                              ----
     461 SAMPLES WITH CU     MINIMUM:   7.00000         MAXIMUM:  4400.00

     456 VALUES PLOTTED:     5 NOT IN RANGE   7.00000     to  2000.00

        GEOMETRIC MEAN:         135.449        DISPERSION:  55.9475     327.921

      SCALE OF HISTOGRAM IS   1.00 COUNTS /PRINT POSITION    # = 5,50,95%

      N    MIDPOINT  PERCENT  0        10        20        30        40
                             I---------I---------I---------I---------I
      2    7.0000       0.44  I**                                      I
      0    8.0630       0.00  I                                        I
      1    9.2874       0.22  I*                                       I
      1    10.698       0.22  I*                                       I
      0    12.322       0.00  I                                        I
      2    14.194       0.44  I**                                      I
      1    16.349       0.22  I*                                       I
      2    18.832       0.44  I**                                      I
      3    21.691       0.66  I***                                     I
      1    24.985       0.22  I*                                       I
      2    28.779       0.44  I**                                      I
     14    33.150     # 3.07  I**************                          I
     10    38.184       2.19  I**********                              I
     14    43.982       3.07  I**************                          I
     13    50.661       2.85  I*************          50 ppm           I
     16    58.354       3.51  I****************                        I
     20    67.216       4.39  I********************                    I
     22    77.423       4.82  I**********************                  I
     22    89.180       4.82  I**********************                  I
     34    102.72       7.46  I**********************************      I
     30    118.32       6.58  I******************************          I
     40    136.29     # 8.77  I****************************************I
     34    156.99       7.46  I**********************************      I
     25    180.83       5.48  I*************************               I
     28    208.28       6.14  I****************************            I
     20    239.91       4.39  I********************                    I
     11    276.35       2.41  I***********            250 ppm          I
     19    318.31       4.17  I*******************                     I
     16    366.65       3.51  I****************                        I
      9    422.33       1.97  I*********                               I
     10    486.46       2.19  I**********             500 ppm          I
     11    560.33       2.41  I***********                             I
      9    645.42     # 1.97  I*********                               I
      3    743.43       0.66  I***                                     I
      3    856.33       0.66  I***                                     I
      6    986.37       1.32  I******                                  I
      0    1136.2       0.00  I                                        I
      1    1308.7       0.22  I*                                       I
      1    1507.4       0.22  I*                                       I
      0    1736.3       0.00  I                                        I
      0    2000.0       0.00  I                                        I
   -----                      I---------I---------I---------I---------I
    456                       0        10        20        30        40
```

APPENDIX VI

LISTING OF SOIL SAMPLE DATA - NEW SHOWING

WINDY PROJECT

1990 SOIL SAMPLE DATA

LAB PROJ	FIELD LINE	GRID STATION	UTM GRID EAST	UTM GRID NORTH	AS PPM	AU PPB	CU PPM
0484	10400N	8630E	445600	6088395	18	2.5	41
0484	10400N	8645EA	445615	6088395	16	2.5	42
0484	10400N	8645EB	445615	6088395	16	2.5	53
0484	10400N	8650E	445620	6088395	14	2.5	38
0484	10400N	8655EA	445625	6088395	6	2.5	30
0484	10400N	8655EB	445625	6088395	6	10	36
0484	10400N	8665EA	445635	6088395	16	2.5	42
0484	10400N	8665EB	445635	6088395	40	2.5	52
0484	10400N	8670E	445640	6088395	6	2.5	53
0484	10400N	8690E	445660	6088395	1	2.5	37
0484	10400N	8710E	445680	6088395	1	2.5	50
0484	10400N	8730E	445700	6088395	1	2.5	54
0484	10400N	8750E	445720	6088395	1	2.5	53
0484	10400N	8755EA	445725	6088395	1	2.5	35
0484	10400N	8755EB	445725	6088395	1	155	116
0484	10400N	8770E	445740	6088395	1	2.5	32
0484	10400N	8790E	445760	6088395	1	2.5	37
0484	10400N	8810E	445780	6088395	1	10	37
0484	10400N	8830E	445800	6088395	1	2.5	40
0484	10400N	8850E	445820	6088395	6	2.5	39
0484	10420N	8620E	445590	6088416	2	20	45
0484	10420N	8635EA	445605	6088416	64	25	117
0484	10420N	8635EB	445605	6088416	2500	1695	1070
0484	10420N	8640E	445610	6088416	128	115	221
0484	10420N	8645EA	445615	6088416	2200	3420	430
0484	10420N	8645EB	445615	6088416	3000	2605	720
0484	10442N	8674EA	445644	6088437	2100	400	670
0484	10442N	8674EB	445644	6088437	4100	640	2110
0484	10450N	8600E	445570	6088468	10	2.5	42
0484	10450N	8620E	445590	6088468	10	10	700
0484	10450N	8635EA	445605	6088468	80	2.5	73
0484	10450N	8635EB	445605	6088468	14	2.5	327
0484	10450N	8640E	445610	6088469	74	2.5	216
0484	10450N	8645EA	445615	6088469	280	10	288
0484	10450N	8645EB	445615	6088469	240	25	460
0484	10450N	8660E	445630	6088469	258	30	197
0484	10450N	8680E	445650	6088469	940	325	610
0484	10450N	8695EA	445665	6088470	32	15	113
0484	10450N	8695EB	445665	6088470	28	40	800
0484	10450N	8700E	445670	6088470	6	45	123
0484	10450N	8705EA	445675	6088470	8	40	75
0484	10450N	8705EB	445675	6088470	36	150	374
0484	10450N	8720E	445690	6088470	18	45	275
0484	10450N	8740E	445710	6088471	6	95	336
0484	10450N	8760E	445730	6088471	6	2.5	163
0484	10450N	8780E	445750	6088472	8	20	59
0484	10450N	8800E	445770	6088472	1	2.5	83

LAB PROJ	FIELD LINE	GRID STATION	UTM GRID EAST	UTM GRID NORTH	AS PPM	AU PPB	CU PPM
0484	10450N	8820E	445790	6088472	1	2.5	44
0484	10450N	8840E	445810	6088473	1	2.5	44
0484	10500N	8600E	445570	6088522	1	2.5	58
0484	10500N	8620E	445590	6088521	1	2.5	55
0484	10500N	8640E	445610	6088521	22	40	116
0484	10500N	8660E	445630	6088520	20	2.5	107
0484	10500N	8680E	445650	6088520	32	2.5	45
0484	10500N	8685EA	445655	6088520	1	2.5	35
0484	10500N	8685EB	445655	6088520	112	10	60
0484	10500N	8700E	445670	6088520	6	2.5	31
0484	10500N	8720E	445690	6088519	6	10	113
0484	10500N	8740E	445710	6088519	10	2.5	96
0484	10500N	8760E	445730	6088518	1	2.5	75
0484	10500N	8770EA	445740	6088518	260	65	127
0484	10500N	8770EB	445740	6088518	74	2.5	88
0484	10500N	8775EA	445745	6088518	212	205	97
0484	10500N	8775EB	445745	6088518	380	200	154
0484	10500N	8780E	445750	6088518	1	2.5	31
0484	10500N	8800E	445770	6088518	1	2.5	53
0484	10500N	8820E	445790	6088517	1	2.5	42
0484	10500N	8840E	445810	6088517	1	2.5	28
0484	10550N	8580E	445549	6088575	1	2.5	36
0484	10550N	8600E	445569	6088574	10	5	43
0484	10550N	8620E	445589	6088574	10	2.5	35
0484	10550N	8640E	445609	6088573	10	10	52
0484	10550N	8660E	445629	6088572	40	70	67
0484	10550N	8665EA	445634	6088572	56	2.5	68
0484	10550N	8665EB	445634	6088572	180	200	113
0484	10550N	8675EA	445644	6088572	22	15	52
0484	10550N	8675EB	445644	6088572	62	20	166
0484	10550N	8680E	445649	6088572	38	10	66
0484	10550N	8700E	445669	6088571	204	180	211
0484	10550N	8715EA	445684	6088571	1	2.5	31
0484	10550N	8715EB	445684	6088571	1	2.5	32
0484	10550N	8720E	445689	6088570	4	10	67
0484	10550N	8725EA	445694	6088570	1	2.5	36
0484	10550N	8725EB	445694	6088570	1	20	130
0484	10550N	8740E	445709	6088570	1	2.5	20
0484	10550N	8760E	445729	6088569	1	2.5	30
0484	10550N	8780E	445749	6088569	1	2.5	44
0484	10550N	8800E	445769	6088568	1	2.5	49
0484	10550N	8820E	445789	6088567	6	2.5	31
0484	10550N	8840E	445810	6088567	1	2.5	29
0484	10600N	8590E	445540	6088613	1	2.5	114
0484	10600N	8610E	445560	6088613	10	2.5	190
0484	10600N	8630E	445580	6088613	16	2.5	116
0484	10600N	8650E	445600	6088613	28	20	104
0484	10600N	8670E	445620	6088613	104	2.5	200
0484	10600N	8690E	445640	6088614	240	100	219
0484	10600N	8700EA	445650	6088614	760	135	480
0484	10600N	8700EB	445650	6088614	580	250	430

LAB PROJ	FIELD LINE	GRID STATION	UTM GRID EAST	NORTH	AS PPM	AU PPB	CU PPM
0484	10600N	8710E	445660	6088614	600	150	231
0484	10600N	8710EA	445660	6088614	420	105	207
0484	10600N	8710EB	445660	6088614	1020	350	570
0484	10600N	8730E	445680	6088614	24	30	62
0484	10600N	8750E	445700	6088614	1	20	106
0484	10600N	8770E	445720	6088614	4	2.5	35
0484	10600N	8780EA	445730	6088614	1	2.5	36
0484	10600N	8780EB	445730	6088614	1	2.5	45
0484	10600N	8790E	445740	6088614	1	2.5	34
0484	10600N	8790EA	445740	6088614	16	30	32
0484	10600N	8790EB	445740	6088614	64	10	115
0484	10600N	8810E	445760	6088614	18	2.5	39
0484	10600N	8830E	445780	6088615	16	30	51
0484	10600N	8850E	445800	6088615	18	2.5	35
0484	10700N	8580E	445550	6088715	20	2.5	69
0484	10700N	8600E	445570	6088715	18	155	72
0484	10700N	8620E	445590	6088715	28	20	45
0484	10700N	8640E	445610	6088715	38	35	172
0484	10700N	8660E	445630	6088715	40	150	100
0484	10700N	8680E	445650	6088715	36	20	59
0484	10700N	8700E	445670	6088715	30	165	95
0484	10700N	8720E	445690	6088715	56	5	59
0484	10700N	8740E	445710	6088715	196	45	44
0484	10700N	8760E	445730	6088715	64	2.5	52
0484	10700N	8780E	445750	6088715	56	2.5	41
0484	10700N	8800E	445770	6088715	28	90	91
0484	10700N	8820E	445790	6088715	66	20	86
0484	10700N	8840E	445810	6088715	26	15	48

WINDY 1990 PROJECT

TEST PIT OVERBURDEN PROFILE DATA

TEST PIT	FIELD LINE	GRID STAT	DEPTH (M)	AU (ppb)	AG (ppm)	CU (ppm)	AS (ppm)	PB (ppm)	ZN (ppm)
90-2	L10470N	8675E	0.2M	60	.4	86	150	12	50
	L10470N	8675E	1.0M	20	.1	120	102	40	84
	L10470N	8675E	2.0M	25	.1	86	50	63	87
	L10470N	8675E	3.0M	5	<.1	83	58	85	86
	L10470N	8675E	4.0M	10	<.1	76	35	22	79
90-3	L10500N	8640E	0.2M	25	<.1	131	33	27	89
	L10500N	8640E	1.0M	95	<.1	204	38	28	66
	L10500N	8640E	2.0M	10	<.1	96	21	25	69
	L10500N	8640E	3.0M	5	.2	93	23	7	71
	L10500N	8640E	4.0M	5	<.1	91	31	11	81
90-4	L10500N	8652E	0.2 M	250	<.1	235	198	14	56
	L10500N	8652E	1.0 M	20	<.1	151	53	10	65
	L10500N	8652E	2.0 M	35	<.1	72	26	8	58
	L10500N	8652E	3.0 M	20	<.1	71	30	6	51
	L10500N	8652E	4.0 M	5	<.1	75	22	12	71
90-5	L10500N	8670E	0.2 M	150	.2	139	285	11	76
	L10500N	8670E	1.0 M	20	<.1	80	61	10	70
	L10500N	8670E	2.0 M	20	<.1	74	32	8	49
	L10500N	8670E	3.0 M	<5	<.1	76	18	8	68
	L10500N	8670E	4.0 M	5	<.1	75	15	10	75
90-6	L10515N	8670E	0.2 M	35	<.1	226	94	9	109
	L10515N	8670E	1.0 M	10	<.1	162	74	11	63
	L10515N	8670E	2.0 M	20	<.1	95	41	12	74
	L10515N	8670E	3.0 M	<5	<.1	66	26	8	57
	L10515N	8670E	4.0 M	<5	<.1	59	15	6	47
90-7	L10550N	8670E	0.2 M	10	.3	87	85	9	61
	L10550N	8670E	1.0 M	215	<.1	154	86	15	71
	L10550N	8670E	2.0 M	10	<.1	100	42	10	74
	L10550N	8670E	3.0 M	10	<.1	65	20	8	57
	L10550N	8670E	4.0 M	50	<.1	59	20	8	50
90-8	L10550N	8680E	0.2 M	40	.1	103	156	12	61
	L10550N	8680E	1.0 M	45	<.1	270	60	18	73
	L10550N	8680E	2.0 M	110	.2	366	33	16	92
	L10550N	8680E	3.0 M	15	<.1	67	23	12	54
90-9	L10550N	8690E	0.2 M	85	1.2	185	138	10	75
	L10550N	8690E	1.0 M	25	.4	164	115	10	66
	L10550N	8690E	2.0 M	55	.5	317	82	11	77
	L10550N	8690E	3.0 M	5	.1	93	41	7	52
90-10	L10600N	8685E	0.2M	20	.5	150	168	10	95
	L10600N	8685E	1.0M	195	<.1	81	56	7	42
	L10600N	8685E	2.0M	50	.1	139	134	6	63
	L10600N	8685E	3.0M	60	.9	145	146	8	91
	L10600N	8685E	4.0M	160	.7	150	192	6	61
	L10600N	8685E	5.5M	65	.2	107	83	4	64
90-11	L10600N	8710E	0.2M	75	.8	168	322	16	112
	L10600N	8710E	1.0M	165	<.1	435	137	17	92
	L10600N	8710E	2.0M	20	<.1	105	39	9	79
	L10600N	8710E	3.0M	55	.2	192	360	15	82
	L10600N	8710E	4.0M	275	.8	406	1035	19	94
	L10600N	8710E	5.0M	205	.4	259	582	13	72
90-12	L10450N	8660E	0.2M	95	.2	283	167	2	144
	L10450N	8660E	1.0M	55	.1	436	37	2	75
	L10450N	8660E	2.0M	225	.7	839	88	7	132
	L10450N	8660E	3.0M	410	.8	704	1029	14	98
	L10450N	8660E	4.0M	250	1.0	859	1245	12	104
	L10450N	8660E	5.0M	<5	.2	75	23	7	51
	L10450N	8660E	5.5M	10	.1	81	15	6	42
90-13	L10450N	8670E	0.2M	645	3.4	190	2023	32	147
	L10450N	8670E	1.0M	5125	14.3	670	8875	260	121
	L10450N	8670E	2.0M	75	3.6	430	4104	46	64
	L10450N	8670E	3.0M	2215	10.9	589	6740	90	91
	L10450N	8670E	4.0M	175	.6	440	155	10	73
	L10450N	8670E	5.0M	190	.3	455	103	2	62
	L10450N	8670E	6.0M	355	.6	1508	284	10	77

TEST PIT	FIELD LINE	GRID STAT	DEPTH (M)	AU (ppb)	AG (ppm)	CU (ppm)	AS (ppm)	PB (ppm)	ZN (ppm)
90-14	L10450N	8680E	0.2M	140	1.0	295	394	17	92
	L10450N	8680E	1.0M	160	.8	1600	96	3	85
	L10450N	8680E	2.0M	25	.3	462	50	6	87
	L10450N	8680E	3.0M	155	.8	1030	201	14	77
	L10450N	8680E	4.0M	<5	.1	197	31	12	97
	L10450N	8680E	5.0M	210	.2	221	29	20	65
90-15	L10450N	8700E	0.2M	155	.5	68	19	21	94
	L10450N	8700E	1.0M	125	.4	394	34	25	85
	L10450N	8700E	2.0M	100	.1	390	29	25	117
	L10450N	8700E	3.0M	35	.1	235	47	12	110
	L10450N	8700E	4.0M	90	.8	279	75	29	96
N/A	L10115N	8590E	0.1 M	5	<.1	45	25	7	44
N/A	L10150N	8620E	0.1 M	15	<.1	24	9	3	47

APPENDIX VII

SOIL SAMPLE STATISTICAL SUMMARY,

CORRELATION MATRIX, SCATTER PLOTS

AND

HISTOGRAMS

P L A C E R   D O M E   I N C .

Placer Data Analysis System - STATS

run on 91:02:08 at 13:58:29

WINDY 1990 PROJECT: SOIL DATA ANALYSIS

Summary of data from file : soilass.90

This data file contains an internal header: (5 records)
Data grouped into 8 fields
with format: (3A8,A4,A2,3F6.0)

Character ID fields:
GRID SAMP SMP2 PROJ TYPE

Coordinate fields:

Other data fields:
AS AU1 CU

Missing data indicated by NULL value 99999.0

BASIC STATISTICS OF SELECTED DATA FIELDS:

NAME	NDATA	NULLS	MINIMUM	MAXIMUM	MEAN	STD. DEV.	GEOM. MEAN	DISPERSION	
AS	128	0	.000000	4100.00	177.688	570.838	12.7236	1.01730	159.137
AU1	128	0	.000000	3420.00	102.520	409.233	9.79681	1.12371	85.4116
CU	128	0	.000000	2110.00	148.477	248.449	70.8284	13.0408	384.691

CORMAT: RUN ON 91:02:08 AT 13:58:29

Data from file: soilass.90

WINDY 1990 PROJECT: SOIL DATA ANALYSIS

Correlation matrix for 128 records with 3 variables

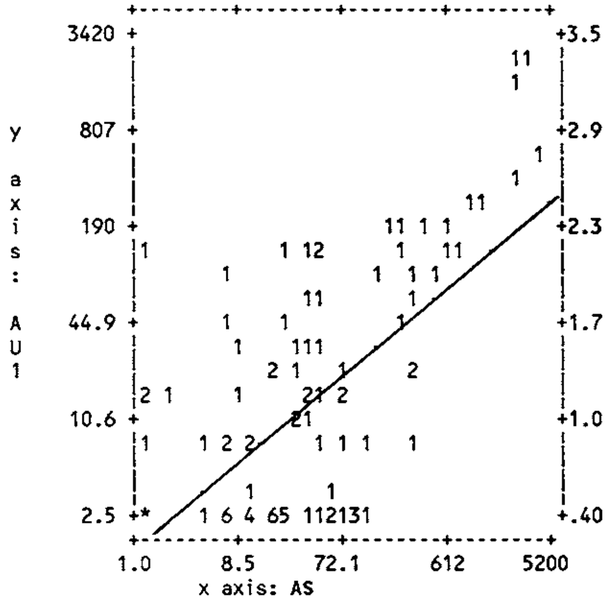
	AS	AU1	CU
LOG:	1	1	1
AS	1.000	.786	.736
AU1	.786	1.000	.778
CU	.736	.778	1.000

Number of data pairs contributing to correlation

	AS	AU1	CU
AS	128	128	128
AU1	128	128	128
CU	128	128	128

SCPLOT : WINDY 1990 PROJECT: SOIL DATA ANALYSIS RUN ON 91:02:08 AT 13:58:29

file: soilass.90 AS vs AU1 LOGX =1 LOGY =1 REPVAL = .00100



PLOT SUMMARY
128 X-Y PAIRS
0 VALUES>MAX
2 VALUES<MIN
126 PLOTTED

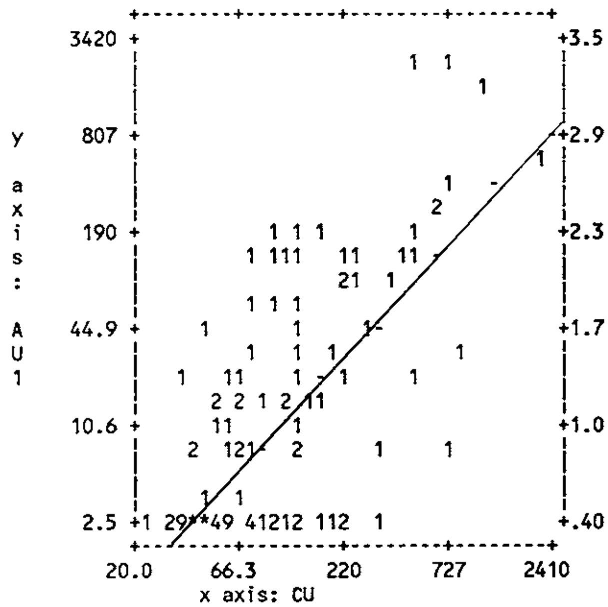
X	MINMAX	Y
0.0		0.0
4100		3420

REGRESSION LINE
A = .36752
B = .58723
VARIANCE
.31486
STD. DEVIATION
.56113
CORRELATION COEF
.71533

PLOT INCREMENTS
X: .10322
Y: .15680

SCPLOT : WINDY 1990 PROJECT: SOIL DATA ANALYSIS RUN ON 91:02:08 AT 13:58:29

file: soilass.90 CU vs AU1 LOGX =1 LOGY =1 REPVAL = .00100



PLOT SUMMARY
128 X-Y PAIRS
0 VALUES>MAX
2 VALUES<MIN
126 PLOTTED

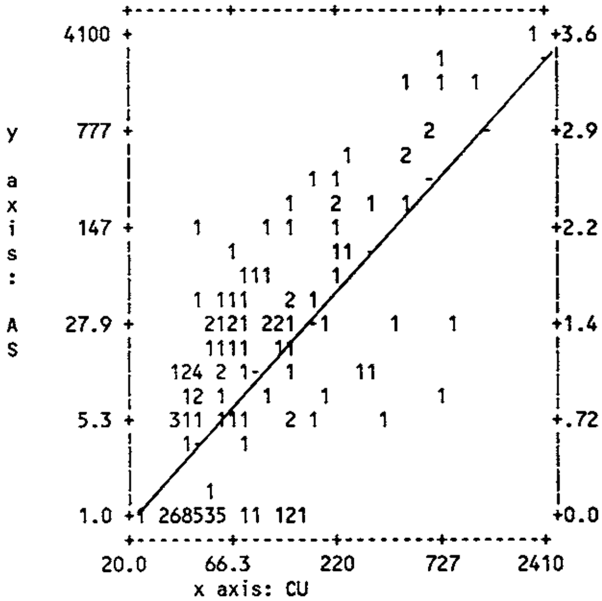
X	MINMAX	Y
0.0		0.0
2110		3420

REGRESSION LINE
A = -1.6315
B = 1.3937
VARIANCE
.31907
STD. DEVIATION
.56486
CORRELATION COEF
.71076

PLOT INCREMENTS
X: .57807E-01
Y: .15680

SCPLOT : WINDY 1990 PROJECT: SOIL DATA ANALYSIS RUN ON 91:02:08 AT 13:58:29

file: soilass.90 CU vs AS LOGX =1 LOGY =1 REPVAL = .00100



PLOT SUMMARY
128 X-Y PAIRS
0 VALUES>MAX
2 VALUES<MIN
126 PLOTTED

X	MINMAX	Y
0.0		0.0
2110		4100

REGRESSION LINE
A = -2.0708
B = 1.6815
VARIANCE
.48267
STD. DEVIATION
.69475
CORRELATION COEF
.70396

PLOT INCREMENTS
X: .57807E-01
Y: .18064

```
HISTO:          WINDY 1990 PROJECT: SOIL DATA ANALYSIS                    RUN ON 91:02:08  AT  13:58:29

File: soilass.90              Field name: AU1     LOG = 1  REPVAL =     .00100
                                          ----
 128 SAMPLES WITH AU1   MINIMUM:    .000000          MAXIMUM:  3420.00

 122 VALUES PLOTTED:     6 NOT IN RANGE   2.50000     to  500.000

   GEOMETRIC MEAN:         9.60663         DISPERSION:  1.90344      48.4845

  SCALE OF HISTOGRAM IS    2.00 COUNTS /PRINT POSITION    # = 5,50,95%

  N    MIDPOINT  PERCENT 0         20        40        60        80
                         I---------I---------I---------I---------I
 63    2.5000    # 51.64 I********************************        I
  0    2.8541       .00 I                                         I
  0    3.2583       .00 I                                         I
  0    3.7198       .00 I                                         I
  0    4.2466       .00 I                                         I
  2    4.8481      1.64 I*                                        I
  0    5.5347       .00 I                                         I
  0    6.3186       .00 I                                         I
  0    7.2135       .00 I                                         I
  0    8.2352       .00 I                                         I
 10    9.4015      8.20 I*****                                    I
  0    10.733       .00 I                                         I
  0    12.253       .00 I                                         I
  0    13.989       .00 I                                         I
  3    15.970      2.46 I**                                       I
  0    18.232       .00 I                                         I
  9    20.814      7.38 I*****                                    I
  2    23.762      1.64 I*                                        I
  0    27.127       .00 I                                         I
  4    30.969      3.28 I**  ----------  30 ppb                   I
  1    35.355       .82 I*                                        I
  3    40.363      2.46 I**                                       I
  3    46.079      2.46 I**                                       I
  0    52.606       .00 I                                         I
  0    60.056       .00 I------------  60 ppb                     I
  2    68.562      1.64 I*                                        I
  0    78.273       .00 I                                         I
  2    89.358      1.64 I*                                        I
  2    102.01      1.64 I*                                        I
  1    116.46       .82 I*                                        I
  1    132.96       .82 I*                                        I
  5    151.79      4.10 I***  ----------  150 ppb                 I
  2    173.29      1.64 I*                                        I
  3    197.83   #  2.46 I**                                       I
  0    225.85       .00 I                                         I
  1    257.83       .82 I*                                        I
  0    294.35       .00 I                                         I
  2    336.04      1.64 I*                                        I
  1    383.63       .82 I*                                        I
  0    437.97       .00 I                                         I
  0    500.00       .00 I                                         I
-----                    I---------I---------I---------I---------I
 122                     0         20        40        60        80
```

```
HISTO:         WINDY 1990 PROJECT: SOIL DATA ANALYSIS                RUN ON 91:02:08  AT  13:58:29

File: soilass.90              Field name: CU      LOG = 1  REPVAL =     .00100
                                          ----
 128 SAMPLES WITH CU    MINIMUM:    .000000          MAXIMUM:  2110.00

 124 VALUES PLOTTED:     4 NOT IN RANGE   20.0000     to  1000.00

   GEOMETRIC MEAN:        80.7308         DISPERSION:  33.8069     192.785

  SCALE OF HISTOGRAM IS    .40 COUNTS /PRINT POSITION    # = 5,50,95%

  N    MIDPOINT  PERCENT 0        4.0       8.0       12        16
                         I---------I---------I---------I---------I
  1    20.000       .81 I***                                      I
  0    22.055       .00 I                                         I
  0    24.321       .00 I                                         I
  1    26.820       .81 I***                                      I
  7    29.575     # 5.65 I******************                      I
  4    32.614      3.23 I**********                               I
 12    35.965      9.68 I******************************           I
  6    39.660      4.84 I***************                          I
 13    43.735     10.48 I*********************************        I
  3    48.228      2.42 I********                                 I
 11    53.183      8.87 I****************************  ———— 50 ppm
  5    58.647     # 4.03 I*************                           I
  4    64.673      3.23 I**********                               I
  4    71.317      3.23 I**********                               I
  2    78.645      1.61 I*****                                    I
  4    86.725      3.23 I**********                               I
  4    95.635      3.23 I**********                               I
  3    105.46      2.42 I********                                 I
  9    116.30      7.26 I***********************                  I
  3    128.25      2.42 I********  ———————————————— 120 ppm       I
  0    141.42       .00 I                                         I
  2    155.95      1.61 I*****                                    I
  2    171.97      1.61 I*****                                    I
  2    189.64      1.61 I*****                                    I
  5    209.13      4.03 I*************                            I
  2    230.61      1.61 I*****                                    I
  0    254.31       .00 I                                         I
  2    280.44      1.61 I*****                                    I
  0    309.25       .00 I                                         I
  2    341.02      1.61 I*****                                    I
  1    376.06       .81 I***                                      I
  2    414.70      1.61 I*****                                    I
  2    457.31     # 1.61 I*****                                   I
  0    504.29       .00 I  ————————————————————— 500 ppm         I
  1    556.10       .81 I***                                      I
  1    613.24       .81 I***                                      I
  2    676.24      1.61 I*****                                    I
  1    745.72       .81 I***                                      I
  1    822.34       .81 I***                                      I
  0    906.83       .00 I                                         I
  0    1000.0       .00 I                                         I
-----                    I---------I---------I---------I---------I
 124                     0        4.0       8.0       12        16
```

```
HISTO:          WINDY 1990 PROJECT: SOIL DATA ANALYSIS                    RUN ON 91:02:08  AT  13:58:29

File: soilass.90               Field name: AS      LOG = 1  REPVAL =     .00100
                                           ----
 128 SAMPLES WITH AS    MINIMUM:   .000000          MAXIMUM:  4100.00

 126 VALUES PLOTTED:     2 NOT IN RANGE   1.00000     to  4100.00

   GEOMETRIC MEAN:         14.7830        DISPERSION:  1.56857     139.323

  SCALE OF HISTOGRAM IS   1.00 COUNTS /PRINT POSITION    # = 5,50,95%

  N    MIDPOINT  PERCENT 0      10.0      20        30        40
                         I---------I---------I---------I---------I
 36    1.0000   # 28.57 I************************************    I
  0    1.2312      .00 I                                         I
  0    1.5158      .00 I                                         I
  1    1.8662      .79 I*                                        I
  0    2.2976      .00 I                                         I
  0    2.8288      .00 I                                         I
  0    3.4827      .00 I                                         I
  2    4.2878     1.59 I**                                       I
  0    5.2791      .00 I                                         I
 10    6.4994     7.94 I**********                               I
  2    8.0020     1.59 I**                                       I
  7    9.8518     5.56 I*******                                  I
---------------------------------------------- 10 ppm
  0    12.129      .00 I                                         I
  8    14.933   #  6.35 I********                                I
  7    18.385     5.56 I*******                                  I
  3    22.636     2.38 I***                                      I
  6    27.868     4.76 I******                                   I
  6    34.311     4.76 I******                                   I
  3    42.243     2.38 I***                                      I
  3    52.008     2.38 I***                                      I
  5    64.031     3.97 I*****                                    I
  3    78.834     2.38 I***                                      I
  1    97.058      .79 I*                                        I
  2    119.50     1.59 I**                                       I
---------------------------------------------- 120 ppm
  0    147.12      .00 I                                         I
  2    181.13     1.59 I**                                       I
  4    223.00     3.17 I****                                     I
  3    274.56     2.38 I***                                      I
  0    338.03      .00 I                                         I
  2    416.17     1.59 I**                                       I
  0    512.38      .00 I                                         I
---------------------------------------------- 600 ppm
  2    630.82     1.59 I**                                       I
  1    776.65      .79 I*                                        I
  2    956.20   #  1.59 I**                                      I
  0    1177.2      .00 I                                         I
  0    1449.4      .00 I                                         I
  0    1784.5      .00 I                                         I
  2    2197.0     1.59 I**                                       I
  2    2704.9     1.59 I**                                       I
  0    3330.2      .00 I                                         I
  1    4100.0      .79 I*                                        I
-----                    I---------I---------I---------I---------I
 126                     0      10.0      20        30        40
```

APPENDIX VIII

PETROGRAPHIC STUDY

WINDY PROPERTY '90

Character Rock Samples Sent to Vancouver Petrographics.

52577 - PPAN: Porphyritic Andesite
Location: DDH90-1, Box 18 @ 99.8 metres (Sample # 14226)
Remarks: Greyish-green, weakly foliated, porphyritic diorite? with 3-4 millimetres plagioclase laths (about 50%) in a chloritized matrix. Pyrite occurs a 3-5% disseminations and clots. Contains 176 ppm copper.

52578 - AN/F: Latitic andesite Flow
Location: DDH90-3, Box 8 @ 50.4 metres (Sample # 14291)
Remarks: Light-grey, fine grained diorite? cross-cut by numerous, parallel quartz-carbonate veinlets and lenses hosting fine-grained, dark-green chloritic fragments and minor disseminated chalcopyrite. Contains 90 ppm copper.

52579 - FGDR: Fine to Medium-grained Diorite
Location: DDH90-6, Box 14 @97.0 metres (Sample # 14469)
Remarks: Medium grey, strongly foliated, fine-grained, altered diorite. Contains about 10% of 1-2 millimetres plagioclase grains, and a four millimetre quartz-carbonate veinlet. Contains 117 ppm copper.

52580 - AN/F: Siliceous Andesite Flow
Location: TR90-02 @ 70.0 metres (Sample # C176)
Remarks: Light-grey, fine-medium grained, strongly altered andesite. Strong sericitic, siliceous and lesser chloritic alteration. About 3-5% disseminated pyrite and about 1% chalcopyrite. Minor galena associated with quartz carbonate veinlets. Contains 195 ppb gold, 165 ppm copper.

52581 - AN/F: Sileceous Andesite Flow
Location: TR90-01 @ 23.0 metres (Sample # C111)
Remarks: Medium-grey, weakly foliated, fine-grained, altered quartz-diorite or andesite. Mineralization occurs as disseminated and fracture filling pyrite (about 3-5%).

52582 - QZDR: Quartz-Diorite
Location: TR90-06 @ 11.0 metre (Sample # C232)
Remarks: Medium-grey, medium grained, altered quartz-diorite. Contains about 45% quartz. Weakly foliated. Epidotized fractures. Minor disseminated pyrite. Contains 170 ppb gold, 580 ppm copper.

52583 - MXSF: Massive Sulfide Float
Location: TR90-02 @ 45.0 metres
Remarks: Limonitic, sulfide rich sample taken from till. Massive pyrite and arsenopyrite? lenses parallel to foliation in altered andesite.

Vancouver Petrographics Ltd.

JAMES VINNELL, Manager
JOHN G. PAYNE, Ph.D. Geologist
CRAIG LEITCH, Ph.D. Geologist
JEFF HARRIS, Ph.D. Geologist
KEN E. NORTHCOTE, Ph.D. Geologist

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Report for: Marc Deschenes,
Placer Dome Inc.,
401 - 1450 Pearson Place,
KAMLOOPS, B.C., V1S 1J9

Job 114a
November 1990

Project: Windy

Samples: 52577 - 52583

Summary:

Samples are grouped as follows:

A: Metamorphosed Diorite, Quartz Diorite

Sample 52578 is a medium grained, slightly recrystallized diorite dominated by plagioclase with much less amphibole. Veins and veinlets up to a few mm wide are dominated by one or more of plagioclase and calcite, with less abundant K-feldspar, chlorite and quartz, and local concentrations of chalcopyrite and pyrite.

Sample 52580 is a metamorphosed porphyritic diorite containing medium grains of plagioclase and a few patches of muscovite-ankerite-chlorite after mafic minerals. They are set in a patchy groundmass dominated by much finer grained plagioclase with less chlorite, ankerite, and quartz. The rock was metamorphosed and foliated moderately. Plagioclase was recrystallized slightly to moderately and replaced in patches by sericite and/or ankerite. Irregular metamorphic seams are dominated by quartz with much less muscovite. Late gash veins are of quartz with less interstitial chlorite and calcite.

Sample 52581 is a metamorphosed, fine to medium grained quartz-bearing diorite dominated by plagioclase with much less quartz and secondary biotite and calcite. It was deformed and sheared slightly, and plagioclase was replaced strongly in lenses by sericite.

Sample 52582 is a moderately foliated, metamorphosed porphyritic potassic quartz diorite containing medium grained plagioclase and less quartz and clusters of biotite in a very fine to fine grained groundmass dominated by plagioclase and quartz with less biotite, epidote, calcite, and K-feldspar. Metamorphic segregations are of quartz, K-feldspar and less calcite. A veinlike recrystallized zone is of plagioclase, calcite, and epidote.

B: Metamorphosed Volcanic Rocks

Sample 52579 is a metamorphosed andesite flow or tuff containing crystals of plagioclase and altered hornblende in a groundmass dominated by plagioclase and sericite/muscovite. Replacement patches are dominated by calcite. Veins up to a few mm wide are of calcite-(quartz-muscovite).

C: Metamorphosed Massive Sulfide in Volcanic Rock

Sample 52583 is an altered, metamorphosed, dacite tuff containing patches and lenses of quartz (possibly in part altered from plagioclase crystals) in a groundmass dominated by quartz and sericite. The massive sulfide is dominated by quartz and pyrite. On one side of the massive sulfide, the rock contains biotite and hematite (after ilmenite), whereas on the other side, it contains chlorite and magnetite. This suggests a stratigraphic contact, and the possibility of a syngenetic deposit. Late veinlets and seams are of limonite. The massive sulfide as the rock was recrystallized completely during metamorphism.

D: Altered Diorite

Sample 52577 is an altered diorite dominated by medium grained plagioclase with interstitial patches dominated by chlorite. Plagioclase is altered moderately to K-feldspar. Several veinlets and veins are of calcite-K-feldspar-(pyrite-quartz).

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Sample 52577 DDH 90-1 99.8 m **Altered Diorite; Veins of Calcite-K-feldspar-(Pyrite-Quartz)**

The rock is dominated by medium grained plagioclase with interstitial patches dominated by chlorite. Plagioclase is altered moderately to K-feldspar. Several veinlets and veins are of calcite-K-feldspar-(pyrite-quartz).

plagioclase	70-75%
chlorite	17-20
quartz	3- 4
Ti-oxide	0.7
pyrite	0.3
calcite	minor
apatite	trace
chalcopyrite	trace
veins, veinlets	
calcite	4- 5
K-feldspar	1
quartz	0.5
pyrite	0.5
chlorite	0.1

Plagioclase forms anhedral grains averaging 1-2 mm in size. Alteration is slight to extremely fine grained K-feldspar.

Irregular patches up to a few mm long consists of aggregates of chlorite flakes averaging 0.07-0.15 mm in size. Most contain moderately abundant, disseminated dusty to extremely fine grained Ti-oxide/leucoxene. Chlorite also is common in seams and lenses between coarser plagioclase grains.

Quartz forms anhedral grains averaging 0.07-0.1 mm in size. It is concentrated with chlorite in seams and patches interstitial to plagioclase.

K-feldspar is concentrated with quartz and chlorite in interstitial patches as grains averaging 0.03-0.07 mm in size.

Pyrite forms disseminated, subhedral to euhedral grains averaging 0.07-0.5 mm in size. Chalcopyrite forms disseminated anhedral grains averaging 0.02-0.05 mm in size.

Apatite forms anhedral grains averaging 0.05-0.1 mm in size.

Veinlets and veins ranging from 0.1-1.5 mm wide are dominated by calcite with less K-feldspar and chlorite. K-feldspar commonly is concentrated along the borders of the veins as subhedral grains up to 0.5 mm in size. Pyrite is concentrated in a few lenses up to 2 mm long as grains up to 0.7 mm in size. Quartz forms a few subhedral to euhedral grains averaging 0.2-0.4 mm in size surrounded by coarser grained calcite. Chlorite forms interstitial grains and clusters of grains averaging 0.02-0.03 mm in size.

Sample 52578 DDH 90-3 50.4 m Diorite; Vein Stockwork of Plagioclase-Calcite-(K-feldspar-Chlorite-Quartz-Chalcopyrite)

The rock is a medium grained, slightly recrystallized diorite dominated by plagioclase with much less amphibole. Veins and veinlets up to a few mm wide are dominated by one or more of plagioclase and calcite, with less abundant K-feldspar, chlorite and quartz, and local concentrations of chalcopyrite and pyrite.

plagioclase	70-75%	veins	
amphibole	10-12	plagioclase	8-10%
Ti-oxide	0.3	calcite	3- 4
apatite	minor	chlorite	2- 3
chalcopyrite	minor	K-feldspar	1- 2
pyrite	trace	quartz	0.3
		chalcopyrite	minor
		sphene	trace

Plagioclase forms anhedral, slightly interlocking grains averaging 0.7-1.5 mm in size. Numerous grains are warped slightly. Alteration is slight to sericite and small patches of epidote. Plagioclase grades in grain size down to 0.05-0.15 mm in diffuse, interstitial patches.

Amphibole forms subhedral prismatic grains averaging 0.7-1.2 mm long. Several mafic clusters are up to 3 mm across. Alteration is to pseudomorphic pale green tremolite/actinolite and minor to moderately abundant patches of one or more of epidote, chlorite, and calcite. In mafic clusters, alteration is more commonly to chlorite and epidote, with much less tremolite/actinolite.

Ti-oxide forms anhedral patches averaging 0.2 mm in size. One mafic cluster contains abundant, irregular, subrounded patches of Ti-oxide/ ilmenite intergrown with chlorite and epidote.

Pyrite forms disseminated anhedral to subhedral grains averaging 0.03-0.07 mm in size. A few grains are up to 0.3 mm across. Epidote-rich mafic patches commonly contain very abundant pyrite grains averaging 0.005-0.01 mm in size.

Chalcopyrite forms anhedral patches averaging 0.03-0.1 mm in size.

Apatite forms anhedral grains averaging 0.03-0.07 mm in size, and a few up to 0.3 mm across. These contain abundant dusty hematite inclusions.

Numerous veins and veinlets up to a few mm wide are dominated by medium to coarse grained plagioclase and calcite. Plagioclase commonly forms elongate prismatic grains oriented perpendicular to vein walls, and contains abundant dusty hematite inclusions. K-feldspar forms clear grains averaging 0.2-0.7 mm in size, interstitial to plagioclase and calcite. In some veins, patches up to several mm long (in hand sample) are of very fine grained, subradiating chlorite with minor to moderately abundant interstitial calcite. Quartz forms interstitial patches in a few veins, and is concentrated moderately in one as very fine to fine grained aggregates. Chalcopyrite forms a grain 0.5 mm across intergrown with chlorite. Sphene forms a few subhedral grains up to 0.2 mm long intergrown with plagioclase. In hand sample a large vein contains a cluster of pyrite and chalcopyrite grains averaging 0.3-0.7 mm in grain size.

Sample 52579 DDH 90-6 97.0 m **Metamorphosed Porphyritic Andesite Tuff or Flow; Replacement Patches of Calcite; Veins of Calcite-(Quartz-Muscovite)**

Crystals of plagioclase and altered hornblende are set in a groundmass dominated by plagioclase and sericite/muscovite. Replacement patches are dominated by calcite. Veins up to a few mm wide are of calcite-(quartz-muscovite).

crystals		replacement patches	
plagioclase	12-15%	calcite	4- 5%
hornblende(?)	4- 5	chlorite	0.2
groundmass		epidote	0.2
plagioclase	45-50	quartz	0.2
sericite/muscovite	15-17	chalcopyrite	minor
chlorite	2- 3		
biotite	1	veins	
magnetite	1	calcite	7- 8
chalcopyrite	trace	quartz	0.7
pyrite	trace	muscovite	0.2

Plagioclase forms subhedral to anhedral grains averaging 0.5-0.8 mm in size. Alteration ranges from slight to complete to sericite/ muscovite.

Patches up to 1.5 mm in size may be secondary after hornblende grains. They consist of very fine grained aggregates of calcite, quartz, plagioclase, epidote, muscovite, chlorite, and minor biotite, with moderately abundant disseminated grains of magnetite. A few patches are dominated by epidote with moderately abundant magnetite, and much less interstitial quartz and/or chlorite. Some of the epidote-rich patches are surrounded by a zone of extremely fine grained plagioclase as in the groundmass, which in turn is surrounded by a halo of sericite/muscovite with flakes oriented radially.

Magnetite forms subhedral grains averaging 0.1-0.3 mm in size, commonly concentrated in patches of epidote (after hornblende?).

In the groundmass, plagioclase forms equant, commonly slightly to moderately interlocking grains averaging 0.01-0.03 mm in size. Sericite and much less muscovite form slender flakes averaging 0.05-0.08 mm long. Biotite is pleochroic from pale to dark brown. Chlorite forms wider flakes averaging 0.05-0.15 mm in size. Pleochroism is from pale to light green. Magnetite forms abundant disseminated, euhedral grains averaging 0.015-0.02 mm in size.

Chalcopyrite forms anhedral patches averaging 0.02-0.05 mm in size. A few are up to 0.1 mm across. Pyrite forms a few anhedral to euhedral grains up to 0.4 mm in size. The largest contains a few inclusions of chalcopyrite from 0.01-0.02 mm in size.

Calcite forms irregular replacement patches averaging 0.3-0.5 mm in size of grains averaging 0.07-0.15 mm in size. A few of these also contain slender flakes of chlorite up to 0.2 mm long. Many of the larger patches of chalcopyrite are associated with calcite replacement patches.

In the veins, calcite and quartz form equant grains averaging 0.05-0.2 mm in size, with a few coarser grained patches up to 0.5 mm in grain size. Muscovite forms disseminated flakes and a few clusters of flakes averaging 0.07-0.1 mm long, and locally up to 0.3 mm long.

Sample 52580 Trench 90-02 70.0 m Metamorphosed Porphyritic Diorite; Metamorphic Seams of Quartz-Muscovite; Late Vein of Quartz-Chlorite-Calcite

The rock contains medium grains of plagioclase and a few patches of muscovite-ankerite-chlorite after mafic minerals. They are set in a patchy groundmass dominated by much finer grained plagioclase with less chlorite, ankerite, and quartz. The rock was metamorphosed and foliated moderately. Plagioclase was recrystallized slightly to moderately and replaced in patches by sericite and/or ankerite. Irregular metamorphic seams are dominated by quartz with much less muscovite. Late gash veins are of quartz with less interstitial chlorite and calcite.

plagioclase		seam	
coarser	55-60%	quartz	2- 3%
finer	10-12	muscovite	0.3
sericite	8-10	vein	
ankerite	5- 7	quartz	3- 4
chlorite	4- 5	chlorite	0.7
quartz	2- 3	calcite	0.3
muscovite	2- 3		
Ti-oxide/limonite	0.4		
apatite	0.2		
magnetite	0.1		
zircon	trace		

Plagioclase forms anhedral grains averaging 0.5-1.5 mm in size. Many are recrystallized moderately to finer subgrain aggregates. Discontinuous albite twins are common; these are characteristic of deformed rocks. Alteration commonly is slight to moderate to sericite and patches of calcite. In moderately abundant patches up to 1.5 mm long, plagioclase is altered strongly to sericite.

Quartz forms interstitial grains up to 0.3 mm in size.

A few patches up to 2 mm across are dominated by intimate intergrowths of muscovite, ankerite, and chlorite averaging 0.03-0.07 mm in grain size. These probably are secondary after original hornblende (or biotite).

Interstitial patches averaging 0.02-0.07 mm in grain size consists of irregular intergrowths of plagioclase, quartz, chlorite, and ankerite.

Pyrite forms scattered anhedral to subhedral grains averaging 0.05-0.2 mm in size. A few contain inclusions up to 0.05 mm in size of chalcopyrite. Chalcopyrite forms anhedral grains averaging 0.03-0.1 mm in size; most are altered slightly to moderately along their margins to hematite.

Apatite forms anhedral grains up to 0.4 mm in size.

Ti-oxide containing moderately abundant limonite, in part with calcite forms patches up to 0.3 mm in size, probably after sphene.

Magnetite forms a few equant grains averaging 0.12-0.3 mm in size in one corner of the section in the largest cluster of muscovite-ankerite-chlorite. Some grains are replaced slightly by pyrite.

Zircon forms a few subhedral grains up to 0.25 mm long.

A few seams of metamorphic origin averaging 0.3-0.7 mm wide are composed of aggregates of quartz grains averaging 0.02-0.07 mm in size intergrown with minor to abundant flakes of muscovite/sericite, which are oriented parallel to the length of the seams.

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The vein up to several mm wide is dominated by fine to medium grained quartz. In its core at one end of the section is a zone up to several mm long containing subhedral to euhedral quartz and interstitial patches up to 2 mm across of chlorite and calcite with much less muscovite. In these patches, chlorite commonly forms radiating to subradiating aggregates averaging Ø.Ø5-Ø.Ø8 mm across, calcite forms fine to medium grains, and muscovite forms clusters of flakes averaging Ø.Ø5-Ø.Ø7 mm in length. Elsewhere, quartz is anhedral to locally subhedral, and is intergrown with a few interstitial grains up to Ø.5 mm in size of calcite, a few patches up to 1 mm across of very fine grained intergrowths of calcite and chlorite, and a few flakes of muscovite up to Ø.2 mm long. Pyrite forms a very few anhedral grains up to Ø.2 mm across.

Sample 52581 Trench 90-01 23.0 m Metamorphosed Quartz-bearing Diorite

The sample is a fine to medium grained diorite dominated by plagioclase with much less quartz and secondary biotite and calcite. It was deformed and sheared slightly, and plagioclase was replaced strongly in lenses by sericite.

plagioclase		sphene	0.7%
coarser	40-45%	pyrite	0.5
groundmass	15-17	apatite	0.2
sericite	15-17	chalcopyrite	minor
biotite	8-10	magnetite	trace
quartz	7- 8	zircon	trace
calcite	4- 5		
K-feldspar	1- 2		

Plagioclase forms anhedral grains averaging 0.3-0.7 mm in size, with a few up to 1.2 mm across. Alteration ranges widely. In some grains it is slight to sericite. In wispy to dense patches up to 0.7 mm wide and 1.5 mm long, plagioclase is altered strongly to completely to sericite, whose grains are oriented parallel to the length of the patch.

Quartz forms disseminated, anhedral grains averaging 0.2-0.7 mm in size. Most are strained slightly.

Biotite is concentrated moderately to strongly in patches up to 2 mm across in which it forms aggregates of flakes averaging 0.05-0.1 mm in size intergrown with minor to moderately abundant similar grains of plagioclase, quartz and accessory minerals. Biotite is pleochroic from straw to medium green. Concentrations of biotite may be secondary after original hornblende grains.

Interstitial to coarser grained plagioclase and quartz are patches of much finer grained plagioclase, biotite, calcite, quartz, and K-feldspar averaging 0.02-0.05 mm in grain size.

Calcite forms patches up to 1 mm in size of anhedral grains averaging 0.05-0.15 mm in size. One patch also contains an intergrowth 0.3 mm long of very fine grained epidote. Epidote also forms scattered grains averaging 0.05-0.1 mm in size associated with clusters of biotite.

K-feldspar forms anhedral grains averaging 0.2-0.7 mm in size. Many appear to be replacements of plagioclase grains.

Pyrite is concentrated in a few patches and seams as anhedral to subhedral grains averaging 0.07-0.2 mm in size. A few grains are up to 0.3 mm across. Some coarser grains and patches contain inclusions and interstitial grains of chalcopyrite averaging 0.02-0.05 mm in size.

Sphene forms patches averaging 0.05-0.15 mm in size, commonly associated with biotite, and commonly altered slightly to moderately along grain borders to leucoxene. A few grains are up to 0.4 mm across.

Apatite forms anhedral grains averaging 0.05-0.1 mm in size, with a few up to 0.2 mm across.

Magnetite forms a few equant, anhedral to subhedral grains up to 0.2 mm across.

Chalcopyrite forms disseminated grains and clusters of a few grains averaging 0.03-0.08 mm in size.

Zircon forms a few anhedral, equant grains up to 0.13 mm across.

Sample 52582 Trench 90-06 11.0 m Metamorphosed Potassic Quartz Diorite; Segregations of Quartz-K-feldspar-(Calcite)

The rock is a moderately foliated, metamorphosed porphyritic quartz diorite containing medium grained plagioclase and less quartz and clusters of biotite in a very fine to fine grained groundmass dominated by plagioclase and quartz with less biotite, K-feldspar, calcite, and epidote. Metamorphic segregations are of quartz, K-feldspar and less calcite. A veinlike recrystallized zone is of plagioclase, calcite, and epidote.

plagioclase	
coarser grains	55-60
finer grains	12-15
quartz	10-12
biotite	7- 8
K-feldspar	4- 5
calcite	2- 3
epidote	0.5
pyrite	0.4
sphene-Ti-oxide-leucoxene	0.3%
calcite	0.3
apatite	0.2
magnetite	trace
chalcopyrite	trace
zircon	trace

Plagioclase forms anhedral equant to elongate grains averaging 0.5-1 mm in length. Alteration varies from slight to strong to sericite. Sericite forms dense replacement patches up to 1.5 mm long in some plagioclase grains. Finer grained plagioclase averages 0.03-0.1 mm in grain size. Some was formed by subgranular recrystallization of coarser grains during metamorphism.

Quartz forms aggregates of anhedral grains averaging 0.1-0.5 mm in size, and a few coarser patches up to 1.5 mm across with grains up to 1 mm across. Grains are strained slightly to moderately.

Biotite is concentrated in patches up to 2.5 mm in size as grains averaging 0.07-0.15 mm in size. In these it is intergrown with much less very fine grained plagioclase, quartz, and calcite. Pleochroism of biotite is from very pale to medium green. Associated with biotite are minor to moderately abundant patches of both sphene and epidote averaging 0.05-0.1 mm in size. Epidote also forms a few patches up to 0.5 mm in size of grains up to 0.15 mm in size.

K-feldspar forms ragged interstitial grains averaging 0.2-0.6 mm in size, in part probably as a replacement of plagioclase. K-feldspar commonly contains minor patches of calcite.

Pyrite forms anhedral grains averaging 0.05-0.15 mm in size, with a few up to 0.3 mm across. It is concentrated slightly in patches and seams.

Calcite forms interstitial patches of grains averaging 0.1-0.4 mm in size, and disseminated grains averaging 0.02-0.05 mm in size.

Apatite forms anhedral to subhedral grains up to 0.3 mm in length.

Magnetite forms subhedral grains averaging 0.2-0.3 mm in size.

Zircon forms a few subhedral grains up to 0.3 mm long and a few elongate anhedral grains up to 0.1 mm long.

Chalcopyrite forms anhedral grains averaging 0.02-0.05 mm in size.

Several patches formed by metamorphic segregation are up to 3 mm in size and consist of fine to medium grained aggregates of quartz and K-feldspar with much less calcite. Quartz in these aggregates also is strained moderately and recrystallized slightly.

One recrystallized, veinlike zone 0.5 mm wide consists of very fine to fine grained calcite, fresh plagioclase, and patches of epidote.

Sample 52583 TR-90-2 Float **Altered Metamorphosed Dacite Tuff with Lenses of Massive Sulfide: Pyrite-Quartz at Stratigraphic Contact**

The rock contains patches and lenses of quartz (possibly in part altered from plagioclase crystals) in a groundmass dominated by quartz and sericite. The massive sulfide is dominated by quartz and pyrite. On one side of the massive sulfide, the rock contains biotite and hematite (after ilmenite), whereas on the other side, it contains chlorite and magnetite. This suggests a stratigraphic contact, and the possibility of a syngenetic deposit. Late veinlets and seams are of limonite. The massive sulfide as the rock was recrystallized completely during metamorphism.

phenocrysts(?)		other replacement patches	
quartz	17-20%	quartz	2- 3%
groundmass		magnetite	0.3
quartz	20-25		
sericite	25-30	late veinlets, seams	
magnetite	2- 3		
chlorite	2- 3	limonite	1- 2
biotite	0.4		
hematite(ilmenite)	0.5		
apatite	0.1		
massive sulfide			
pyrite	8-10	chalcopyrite	trace
quartz	10-12	pyrrhotite	trace
magnetite	0.1	muscovite	trace

Fragments (?) average 0.3-1 mm in size and consist of single grains or aggregates of quartz, with or without minor amounts of one or more of actinolite, sericite, and hematite. Quartz grains commonly are strained slightly to moderately.

The groundmass is dominated by quartz and sericite/muscovite. Quartz is concentrated moderately in lenses parallel to foliation. Its grain size ranges from 0.01-0.03 mm. Sericite/muscovite commonly is concentrated in seams parallel to foliation. Locally, coarser grained muscovite flakes (up to 0.15 mm across) are oriented at a high angle to foliation. Textures suggest that the rock was sheared moderately and finer grained sericite recrystallized locally to coarser grained muscovite. Some muscovite has a subradiating texture.

Magnetite forms equant grains averaging 0.07-0.2 mm in size. A few euhedral grains are from 0.5-0.6 mm across. With chlorite it is concentrated strongly on one side of the massive sulfide. Chlorite commonly forms small porphyroblastic grains oriented at a high angle to the foliation. Pleochroism is from pale to light green.

Hematite, probably after ilmenite, forms patches up to 0.7 mm in size of extremely fine grained aggregates with high anisotropism. Some patches have a platy texture. With biotite, it is concentrated on the other side of the massive sulfide. Biotite forms ragged grains and clusters of grains averaging 0.07-0.15 mm in size. Pleochroism is from pale to medium green.

Apatite forms equant grains averaging 0.1-0.15 mm in size, with a few up to 0.3 mm long. They gave an unusual striation parallel to their length defined by abundant semiopaque inclusions.

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Some larger patches of quartz (up to a few mm in size) are somewhat similar to the fragments in texture, but their shapes and sizes indicate that they probably are of replacement origin. A few of these patches contain minor to moderately abundant disseminated pyrite.

The massive sulfide lenses are up to a few mm wide, and contain subhedral to euhedral clusters of pyrite grains averaging 0.05-0.2 mm in size enclosed in very fine grained quartz. A few pyrite grains are up to 0.6 mm across. A few contain inclusions averaging 0.01-0.03 mm in size of chalcopyrite and much less abundant pyrrhotite. Quartz commonly forms feathery to granular aggregates oriented perpendicular to pyrite crystal faces. In one lens, pyrite is altered completely to nearly completely to pseudomorphs of hematite/limonite. Magnetite forms disseminated grains averaging 0.1 mm in size. A few larger grains up to 0.3 mm in size contain abundant tiny inclusions of pyrite, and one is intergrown intimately with coarser grained pyrite. Muscovite forms a few stubby flakes on pyrite-quartz interfaces.

Limonite forms a few veinlets up to 0.15 mm wide and numerous wispy seams, mainly parallel to the foliation.

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DUPLICATE

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Apatite forms equant grains averaging 0.1-0.15 mm in size, with a few up to 0.3 mm long. They gave an unusual striation parallel to their length defined by abundant semiopaque inclusions.

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