

ARIS SUMMARY SHEET

District Geologist, Smithers

Off Confidential: 90.01.17

ASSESSMENT REPORT 18656

MINING DIVISION: Omineca

PROPERTY: New Nanik  
LOCATION: LAT 53 44 41 LONG 127 41 24  
UTM 09 5955700 586400  
NTS 093E13E 093E12E  
CLAIM(S): New Nanik  
OPERATOR(S): Placer Dome  
AUTHOR(S): Shevchenko, G.  
REPORT YEAR: 1989, 32 Pages  
COMMODITIES  
SEARCHED FOR: Copper, Gold  
KEYWORDS: Cretaceous, Jurassic, Coast Plutonic Complex, Hazelton Group  
Quartz Monzonite, Diorite, Chalcopyrite, Bornite, Pyrite, Pyrrhotite  
Molybdenite  
WORK  
DONE: Geochemical, Physical  
LINE 1.2 km  
ROCK 6 sample(s) ;ME  
SOIL 213 sample(s) ;ME  
Map(s) - 6; Scale(s) - 1:2500  
MINFILE: 093E 055

LOG NO: 0425	RD.
ACTION:	
FILE NO:	

Assessment Report  
A Soil Orientation  
and  
Lithogeochemical Survey  
on the  
New Nanik Mineral Claim

FILMED

Omineca Mining Division, British Columbia

NTS: 93E/12E, 13E

UTM: 586400E 5955700N

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**18,656**

Owner/Operator: Placer Dome Incorporated  
P.O. Box 49330,  
Bentall Postal Station,  
1600 - 1055 Dunsmuir Street,  
Vancouver, British Columbia

Author: Glenn Shevchenko  
(Geologist, Placer Dome Inc.)

Date: April 17, 1989

## TABLE OF CONTENTS

	<u>Page #</u>
1.0 Introduction	1
1.1 Location and Access	1
1.2 Topography, Climate and Vegetation	1
1.3 Work History	1
1.4 Claim Status	3
1.5 Summary of Work Done	3
2.0 Regional Geology	3
2.1 Property Geology	3
3.0 Geochemical Survey	6
3.1 Grid Control	6
3.2 Soil Sampling Method	6
3.3 Soil Horizon Descriptions	8
3.4 Sample Preparation and Analytical Procedures	8
3.4.1 Sample Preparation and Analysis for Cu, Pb, Zn, Ag and As (Rock, B and C Soil Horizons)	8
3.4.2 Sample Preparation and Analysis for Gold (in Rock, B and C Soil Horizons)	9
3.4.3 Sample Preparation and Analysis for Au, Ag, As and Zn (Ao Soil Horizon)	9
3.5 Discussion of Soil Geochemical Results	9
3.6 Discussion of Lithochemical Results (Discovery Showing)	9
4.0 Conclusions	11
5.0 Recommendations	13
6.0 Bibliography	13

### Appendices

- Appendix I: Laboratory Analytical Sheets
- Appendix II: Rock Sample Reports
- Appendix III: Statement of Expenditures
- Appendix IV: Statement of Qualifications

## List of Figures

<u>Figure #</u>	<u>Title</u>	<u>Page #</u>
1	Property Location Map	2
2	Claim Location Map	4
3	Property Geology Map	5
4	Grid Location Map	7
5	Line 4800N - Copper (ppm) Soil Orientation Profile	in pocket
6	Line 4800N - Gold (ppb) Soil Orientation Profile	in pocket
7	Line 4800N - Arsenic (ppm) Soil Orientation Profile	in pocket
8	Line 5000N - Copper (ppm) Soil Orientation Profile	in pocket
9	Line 5000N - Gold (ppb) Soil Orientation Profile	in pocket
10	Line 5000N - Arsenic (ppm) Soil Orientation Profile	in pocket
11	Discovery Showing Sample Location Map	12

## 1.0 Introduction

The New Nanik claim covers a copper porphyry deposit which was discovered in the late 1960's to early 1970's. Current reserves stand at 20,000,000 tonnes of 0.43% copper, 0.2 parts per million gold, 3.5 parts per million silver and 0.009% molybdenum.

The deposit does not appear to be adequately tested for gold mineralization as the main focus was on outlining the copper reserves. Thus, gold only zones may exist within or peripheral to the copper mineralization.

Placer Dome Incorporated personnel were on the property from September 30, 1988 to October 5, 1988. In preparation for an exploration program the following year, a soil geochemical orientation survey was conducted with the objective of defining the proper sample medium for gold mineralization. Also, portions of the Discovery Showing were sampled in order to better understand the controls for gold mineralization.

### 1.1 Location and Access (Figure #1)

The property, which is centred about UTM coordinates 586400E 5955700N, is located on the west shore of Nanika Lake, some 82 kilometers due south of New Hazelton, British Columbia.

Access to the property is by air only, with the closest air bases being from Smithers, Terrace or Houston.

Once on the property, a network of drill roads provides access to the northern portion of the claims, while the east and southern parts are accessible by water transportation.

### 1.2 Topography, Climate and Vegetation

The property overlies rugged, steep, east sloping terrain with elevations ranging from 935 to 1400 meters above sealevel. The topographic slopes on the claims range from 20 to 35 degrees with local variations of up to 45 degrees.

The climate is relatively severe at Nanika Lake, as the rainfall approaches 250 centimeters and snowfall may be up to 15 meters.

Water is abundant on the property and vegetation consists of hemlock, balsam and spruce. The underbrush is generally sparse, however thick patches of alder do occur.

### 1.3 Work History

- 1966 - Staked by Silver Cup Mines Limited.
- 1967/70 - Quintana conducted geological mapping, soil geochemical sampling,

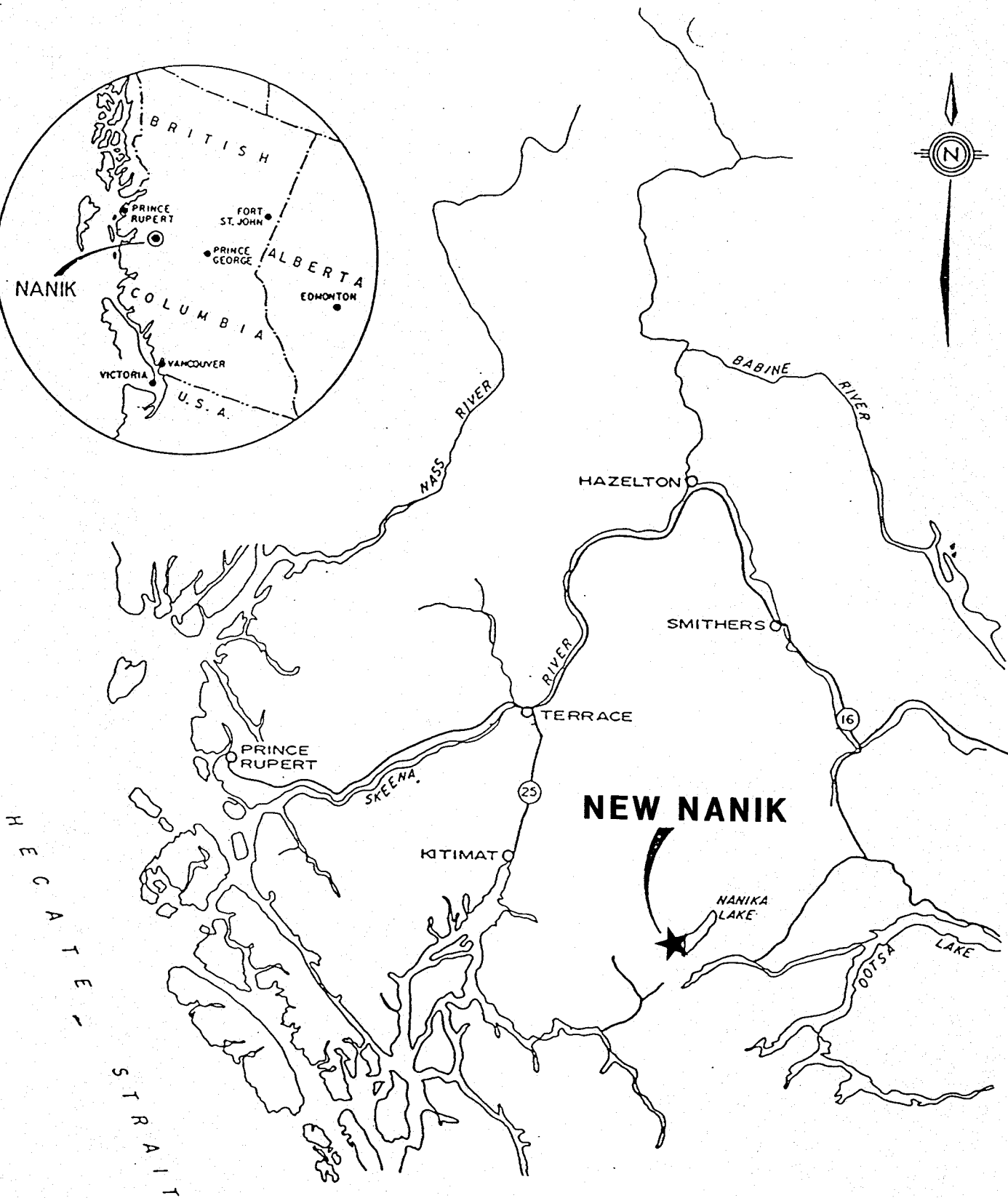
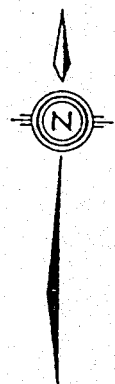
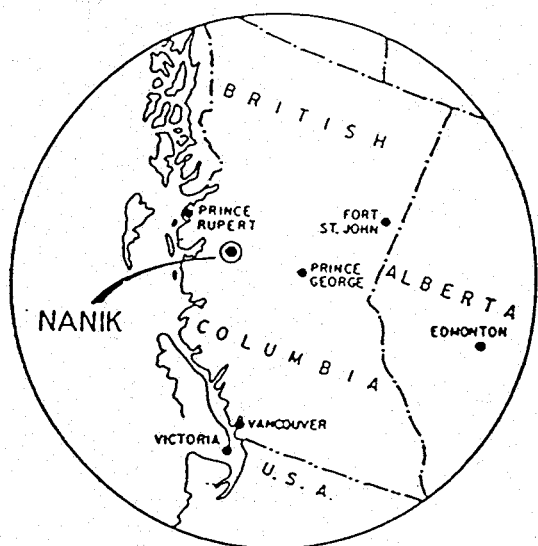
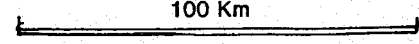


FIGURE 1

100 Km



PLACER DOME INC.  
 LOCATION MAP  
 NEW NANIK CLAIM  
 OMINECA M.D.

APRIL 1989 93E/12E,93E/13E

- magnetometer and I.P. surveys, and 16 diamond drill holes for a total of 3150 meters.
- 1972 - Scurry Rainbow Oil Limited conducted an I.P. survey.  
1973/74 - Granges Exploration conducted geochemical checks and drilled 11 diamond drill holes for a total of 1613 meters.

#### 1.4 Claim Status (Figure #2)

The property consists of one mineral claim (as listed below) which is 100% owned by Placer Dome Incorporated of Vancouver, British Columbia.

Claim Name	Record No.	Units	Record Date	Expiry Date
New Nanik	9238	18	Jan. 19/88	Jan. 19/92

#### 1.5 Summary of Work Done

Field work on the property was conducted from September 30th to October 5th 1988. The work consisted of sampling of the Discovery Showing (6 samples), linecutting (330 meters of flagged baseline, 880 meters of flagged crossline) and a soil geochemical orientation survey.

Where ever possible, the soil geochemical orientation survey consisted of sampling the Ao, B1, B2, and C-horizons in 44 sample sites for a total of 128 samples. The B and C horizons were sieved to coarse and fine fractions and then analyzed. Thus a total of 213 samples were analyzed.

#### 2.0 Regional Geology

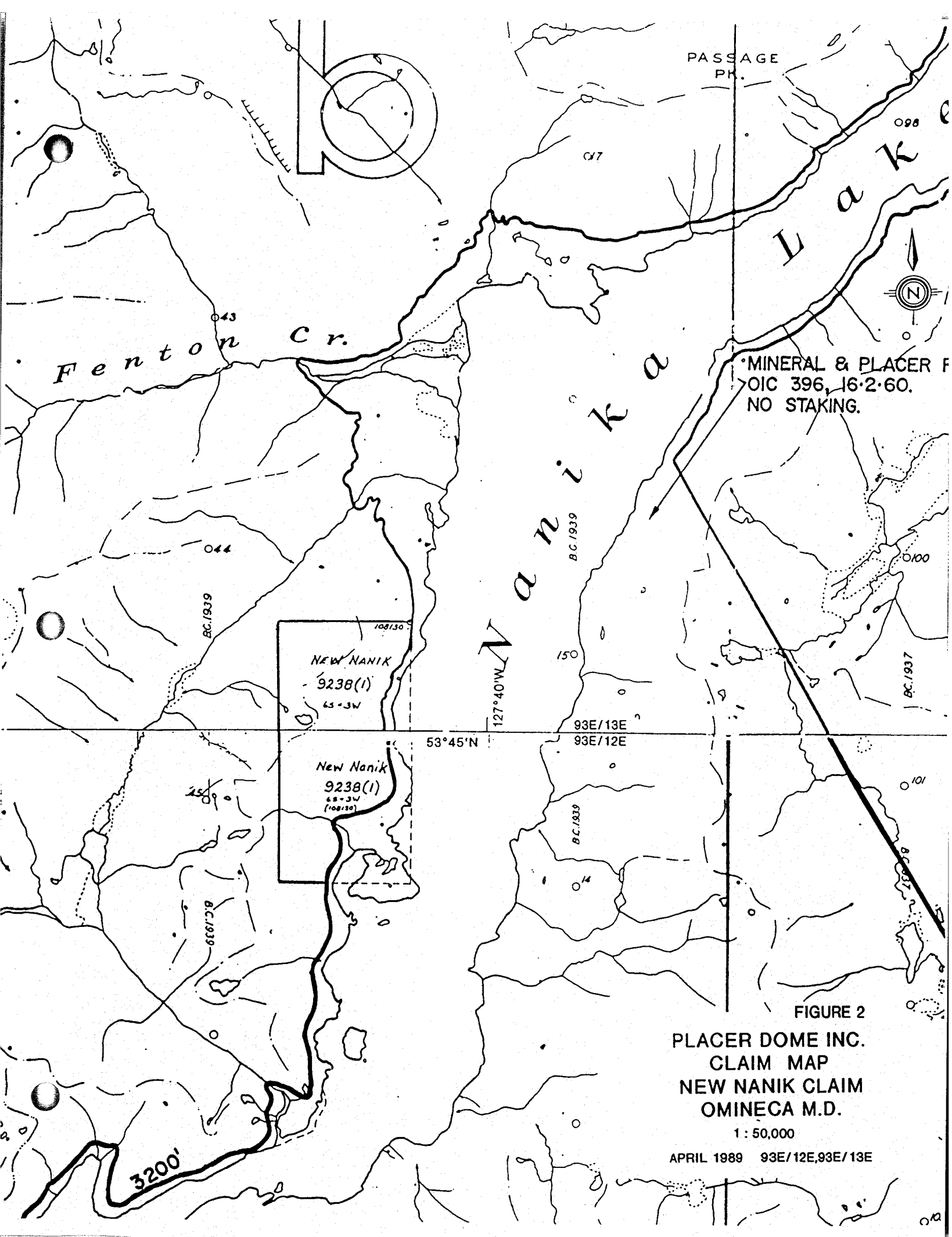
"The Geological Survey of Canada, Memoir 299, describes the regional geology of the area. The Nanika Lake prospect lies approximately three miles west of the main contact between the Coast Range intrusives to the west and various Mesozoic sediments and volcanics, principally Hazelton Group, to the west. Although Memoir 299 does not show Hazelton Group rocks as underlying the Nanika Lake prospect, a block of these rocks approximately two miles in length is present lying along the western Nanika Lake shore line."<sup>1</sup>

#### 2.1 Property Geology (Figure #3)

"The Nanika Lake mineral zone lies along a large shattered and faulted zone trending north 30 degrees east and dipping from 20 degrees to 40 degrees west.

---

<sup>1</sup> Shear, H.H., November 18, 1971, Nanika Lake Property, Geological Report, page 6, lines 10 to 18.



PASSAGE  
PK.

Fenton Cr.

MINERAL & PLACER F  
OIC 396, 16-2-60.  
NO STAKING.

NEW NANIK  
9238(1)  
65-3W

New Nanik  
9238(1)  
65-3W  
(108/130)

Nanika

FIGURE 2

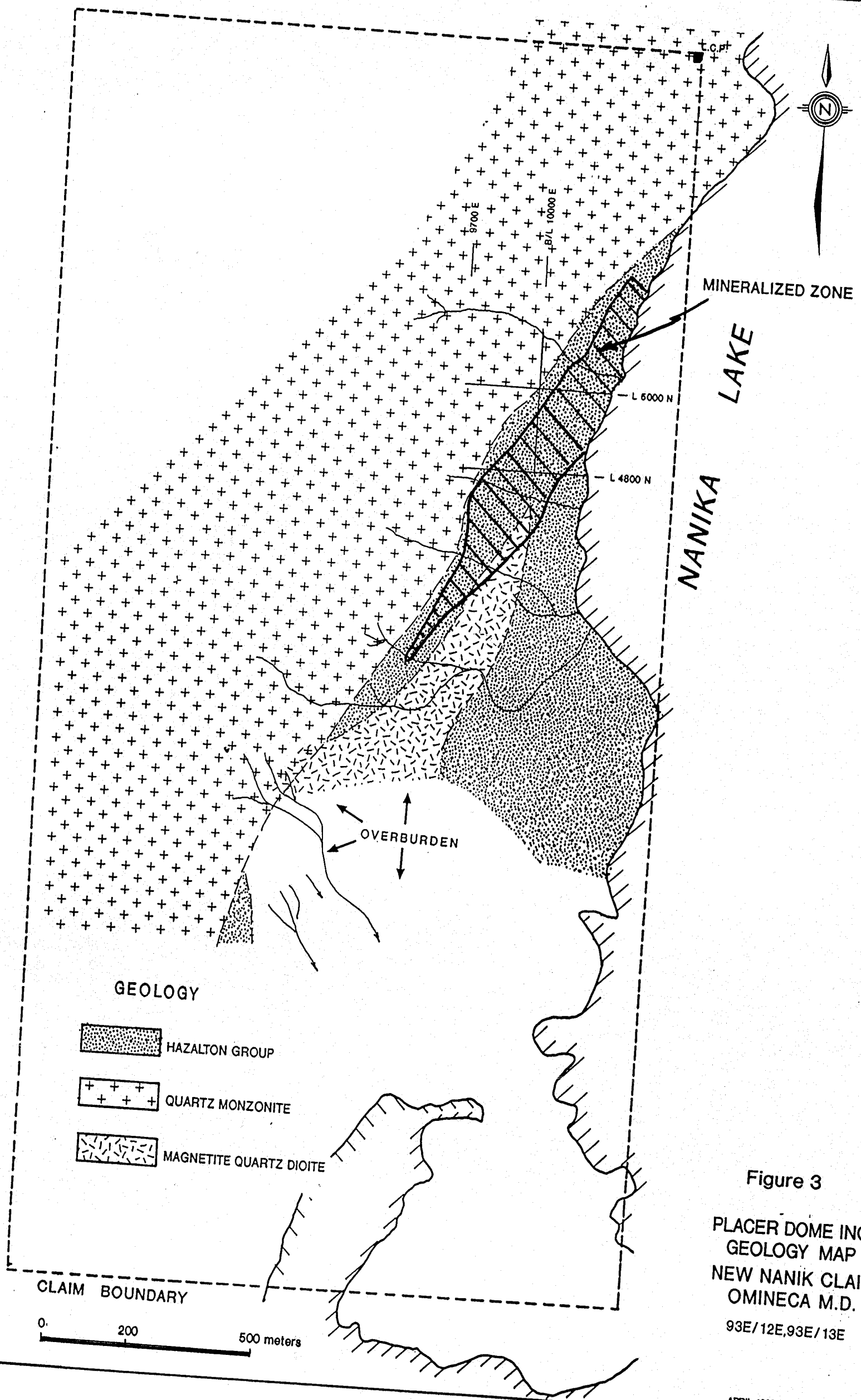
PLACER DOME INC.  
CLAIM MAP  
NEW NANIK CLAIM  
OMINECA M.D.

1 : 50,000

APRIL 1989 93E/12E,93E/13E

3200'


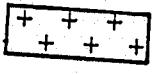
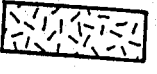




MINERALIZED ZONE

NANIKA LAKE

GEOLOGY

-  HAZALTON GROUP
-  QUARTZ MONZONITE
-  MAGNETITE QUARTZ DIORITE

CLAIM BOUNDARY

0 200 500 meters

Figure 3

PLACER DOME INC.  
GEOLOGY MAP  
NEW NANIK CLAIM  
OMINECA M.D.  
93E/12E, 93E/13E

The zone follows the western contact of intrusive rocks and Hazelton Rocks. Thin sections suggest the principal host rock is dacite porphyry; however, since it is intensely altered, identification is inconclusive. The principal intrusive is quartz monzonite. A younger fine grained, magnetite rich quartz diorite has been intruded along the foot wall of the southern portion of the mineral zone. It is apparently post mineral.

The principal structural control of mineralization appears to be the faulted and shattered contact zone. Two east-west cross faults cut the mineral zone suggesting block faulting. No folding is in evidence.

Sulphide mineralization occurs as disseminations, fracture filling and veinlets. Sulphide minerals arranged in order of abundance are pyrite, chalcopyrite, pyrrhotite, and molybdenite. Pyrite is by far the most abundant mineral and its distribution is variable. Grade of copper does not seem related to the amount of pyrite present. Pyrrhotite is a minor constituent in the mineral zone and occurs in a few massive lenses a few inches wide. Molybdenite in minute amounts is widespread.

Alteration in the mineralized dacite porphyry (?) includes biotite, silica and chlorite and is quite intense in places. The three alteration minerals do not necessarily occur together. Only minor, spotty alteration has been noted outside the mineral zone. No significant pyrite halo has been observed.

The alteration and mineralization of the Nanika Lake prospect is characteristic of a porphyry copper, although the zone is tabular."<sup>2</sup>

### 3.0 Geochemical Survey

A soil geochemical orientation survey along with a lithochemical sampling survey of the Discovery Showing was conducted on the property.

#### 3.1 Grid Control (Figure #4)

Using compass and hip chain, two lines were established over a portion of the known copper deposit. The lines were spaced 200 meters apart with a station interval of 20 meters (not slope corrected).

#### 3.2 Soil Sampling Method

Soil samples were obtained by digging holes with a shovel to depths of 80 to 120 centimeters. Wherever possible, A<sub>0</sub>, B<sub>1</sub>, B<sub>2</sub> and C horizons were sampled and placed in "Hi Wet Strength Kraft 3.5 inch x 6 inch Open End envelopes". Horizon

---

<sup>2</sup> Shear, H.H., November 18, 1971, Nanika Lake Property, Geological Report, page 6, lines 19 to 22, page 7, page 9, lines 1 to 5.

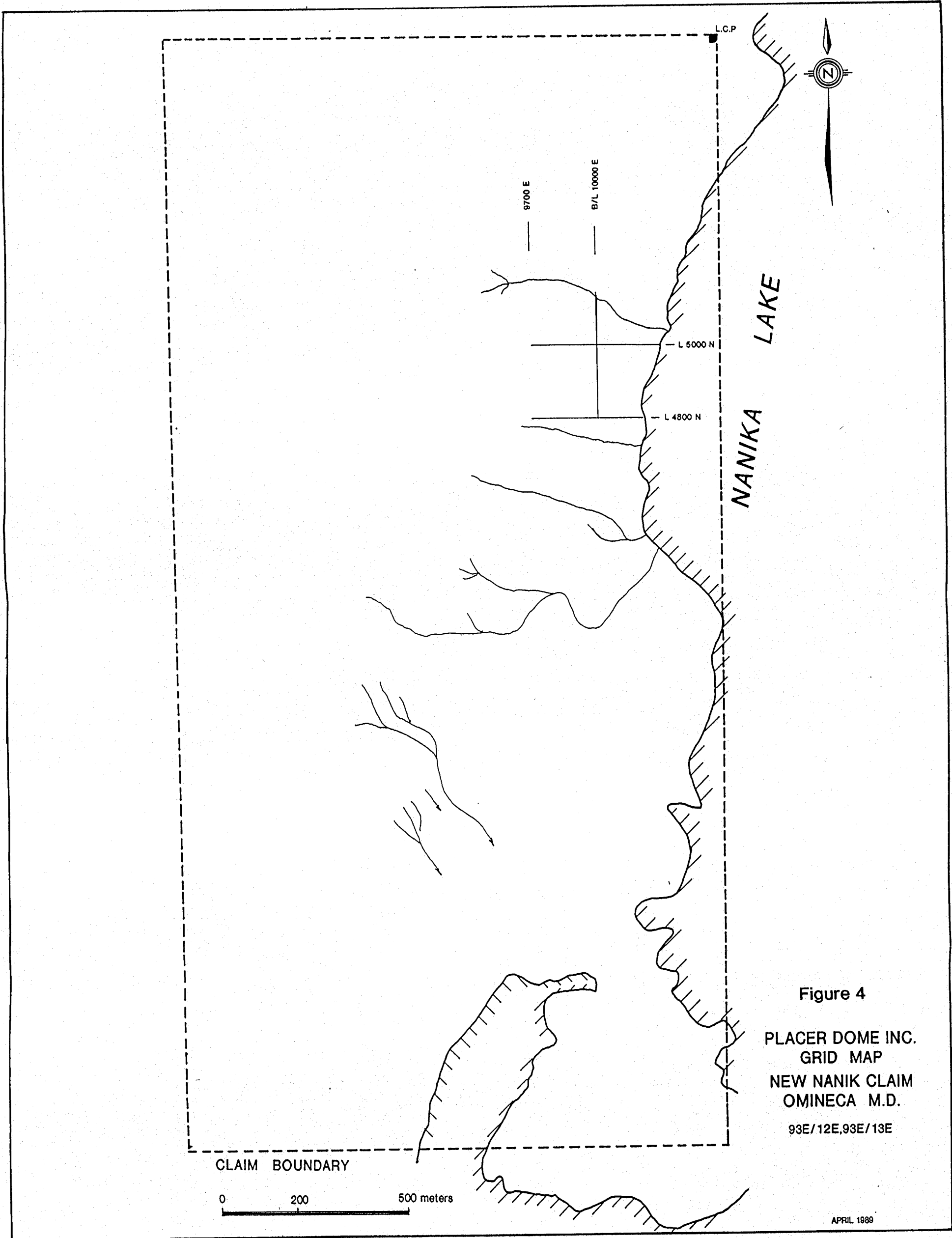


Figure 4  
PLACER DOME INC.  
GRID MAP  
NEW NANIK CLAIM  
OMINECA M.D.  
93E/12E,93E/13E

type and grid co-ordinates were marked on the envelopes with a permanent ink felt marker.

### 3.3 Soil Horizon Descriptions

The **A Horizon** is the dark brown organic layer that develops just below the green moss at a depth of 1 to 4 centimeters.

The **B1 Horizon** is generally a thin (3 to 8 centimeters in thickness) soil layer that occurs just below the organic horizon at depths of 5 to 20 centimeters. It is medium brown to medium reddish brown in colour and portrays good soil development as it contains up to 70% silt and 15% organic matter.

The **B2 Horizon** is commonly a thick (40 to greater than 80 centimeters in thickness) soil layer that is found at depths of 15 to greater than 100 centimeters. It is generally medium brown and contains approximately equal amounts of coarse and fine material.

The **C Horizon** is a light to medium grey clay layer that occurs below the B2 Horizon.

### 3.4 Sample Preparation and Analytical Procedures

The rock samples along with the B and C-horizon soil samples were prepared and analyzed by Placer Dome Incorporated's Geochemical Laboratory at Vancouver, B.C. The A-horizon soil samples were prepared and analyzed by Activation Laboratories Limited at Brantford, Ontario.

#### 3.4.1 Sample Preparation and Analysis for Cu, Pb, Zn, Ag and As (Rock, B and C Soil Horizons)

Soil samples are first dried in a hot air dryer and then separated by sieving to coarse (-10 to -80 mesh) and fine (less than -80 mesh) fractions. A 0.50 gm portion of each size fraction is weighted with a precision torsion balance. Samples are digested in a hot solution of HNO<sub>3</sub> and HCl for three and half hours, then cooled, diluted and prepared for analysis in Perkin-Elmer 603 Atomic Absorption Spectrophotometer. The sample pulps were analyzed for Cu, Pb, Zn, Ag and As.

Detection limits and ranges are listed below:

<u>Element</u>	<u>Detection Limit and Range</u>
Copper	2 - 4,000 ppm
Lead	2 - 3,000 ppm
Zinc	2 - 3,000 ppm
Silver	0.2 - 20 ppm
Arsenic	2 - 1,000 ppm

Rock samples are crushed and pulverized to -150 mesh and subjected to the same preparation and analysis as the soil samples.

### 3.4.2 Sample Preparation and Analysis for Gold (Rock, B and C Soil Horizons)

Following the drying and sieving process as described in section 3.2.1, a 10.0 gm. portion of the fines are placed in a crucible and roasted at 600 degree Celsius for one and half hours in a muffle furnace to oxidize organic matter and sulphide minerals. On cooling, the sample is transferred to a 150 ml. glass beaker. Digestion is achieved using 30 mls of aqua regia (three parts HCl, 2 parts H<sub>2</sub>O, 1 part HNO<sub>3</sub>) held at boiling for two hours. The solution is allowed to cool, bulked to 100 mls. stirred and left overnight to settle. Fifty mls. of the sample solution is decanted into a test tube. Seven mls. of MIBK is added to the solution which is shaken vigorously for three minutes. After allowing the solution to settle, gold is determined by aspiration of the MIBK solvent layer into the flame of Perkin Elmer 4000 atomic absorption spectrophotometer.

### 3.4.3 Sample Preparation and Analysis for Au, Ag, As and Zn (Ao Soil Horizon)

Samples were dried at 60 C for 24 HRS or longer depending on how wet the samples were. The dried material was then macerated in a Wyllie mill. Eight grams were then weighed on a Kimwipe which was placed into a briquetting press and compressed under 30,000 PSI to form a wafer enclosed in a Kimwipe.

The briquettes were then irradiated for four hours at a thermal neutron flux of  $1 \times 10^{12} \text{ n cm}^{-2}\text{s}^{-1}$ . After a decay period of seven days, to allow for the activity from Na-24 to decay, the samples were then counted on a high purity germanium detector and the gamma spectrum then analyzed online by computer. Samples deemed to be anomalous and random samples were then remeasured as a quality control feature. Multi-element reports were then generated for the elements required automatically by computer.

## 3.5 Discussion of Soil Geochemical Results

As only 8 C-horizon soil samples were obtained, there is not enough data to draw a comparison with other horizons. Thus there will be no further discussion of the C-horizon.

Although the samples were analyzed for other elements, only gold, copper and arsenic are considered relevant for this area and will be discussed in detail.

The Neutron Activation Analysis which was used for the A-horizon is not capable of detecting copper, therefore a comparison with the copper content of the B and C horizons is impossible.

The soil geochemical profiles for copper, gold and arsenic may be viewed on figures 5 to 10 inclusive, while the following table outlines their statistical results.

STATISTICAL ANALYSIS

HORIZON	COPPER (PPM)				GOLD (PPB)				ARSENIC (PPM)			
	MAX	MIN	AVERAGE	STD. DEV.	MAX	MIN	AVERAGE	ST. DEV	MAX	MIN	AVERAGE	STD. DEV.
A	N/A	N/A	N/A	N/A	20.0	0.5	2.8	4.5	4.0	0.5	0.6	0.6
B1 COARSE	1910	9	415	538	185	2.5	10.7	30.7	7	1	1.7	1.5
B1 FINE	1880	9	430	555	40	2.5	6.2	9.4	10	1	1.8	1.7
B2 COARSE	6100	14	977	1304	170	2.5	22.7	34.4	12	1	1.7	2.0
B2 FINE	9000	12	1195	1770	355	2.5	30.5	60.1	16	1	2.4	2.8

Copper anomalies, for the most, can be equally detected in the B1 and B2 fine and coarse fractions, however anomalies of the highest magnitude are concentrated in the B2 fine fraction.

Most of the gold anomalies concentrate in the B2 fine fraction and are of highest magnitude (up to 355 ppb). However, one anomalous station (line 4800N, station 9700E) not found in the B2 fine fraction because of a lack of sample, does occur in the B1 coarse fraction. This anomalous condition is also reflected in the A horizon, however it is subtle (2.0 ppb).

Arsenic anomalies are best concentrated in the B2 fine fraction, as it appears to host all of the anomalous conditions.

In most cases gold and copper tend to have a strong correlation, however at the west end of the lines (line 4800N station 9700E, line 5000N station 9760 to 9840E) there appears to be a gold anomaly without a corresponding copper correlation.

Arsenic and gold have a strong correlation (ie: wherever there is a gold anomaly there is a corresponding arsenic anomaly but not visa versa), with the arsenic being more widespread.

Arsenic and copper have a rather poor correlation with the arsenic anomalies either flanking or semi-coincident with the copper anomalies.

### 3.6 Discussion of Lithochemical Results (Discovery Showing)

Six samples were taken from the Discovery Showing. The sample locations are found on Figure #11, and the sample reports may be viewed in Appendix II.


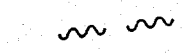
The results indicate that the copper mineralization, which ranges from 2170 ppm to 1.10%, mainly occurs within the andesites. The gold and associated arsenic values are quite low or below detection limits in areas which do not have any latter stage structural features. In the two areas of the showing which host a shear zone, the gold and arsenic values contained in the samples (# 34286, 34287 and 34288) increase to marginally anomalous and anomalous levels (ie: 60 ppb Au, 29 to 890 ppm As).

### 4.0 Conclusions

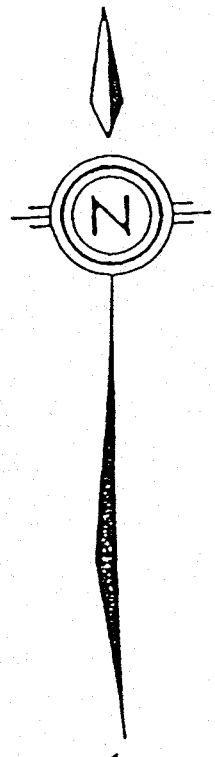
It is found that the B2 horizon fine fraction is most suitable for the development of copper, gold and arsenic anomalies. It not only hosts most anomalous areas, but also tends to concentrate the highest geochemical values for the three elements.

The arsenic anomalies are generally more widespread than gold and always showed up in the B2 horizon fine fraction whenever gold was present in any of the fractions.

**LEGEND**

-  AREA OF DISCOVERY SHOWING
-  SHEAR ZONE
- 34283 x SAMPLE LOCATION and NUMBER

L.C.P



9700 E

B/L 10000 E

34283

34284

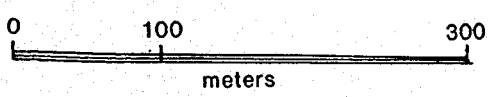
34285

34287.88

34286

L 5000 N

L 4800 N



NANIKA LAKE

FIGURE 11  
PLACER DOME INC.  
DISCOVERY SHOWING  
NEW NANIK CLAIM  
OMINECA M.D.



Gold and arsenic have an excellent correlation, gold and copper have a good correlation, and, arsenic and copper have a relatively poor correlation.

In most cases there is an associated copper-in-soil anomaly with the gold-in-soil anomaly, however, there appears to be indications of a gold only zone located (line 4800N station 9700E, line 5000N station 9760E to 9840E) just west of the main copper-in-soil anomaly.

The lithogeochemical results from the discovery showing indicate that anomalous gold and arsenic values are associated with shear zones in Hazelton volcanics.

### 5.0 Recommendations

The B2 horizon fine fraction should be used for all future soil sampling surveys.

Exploration for gold mineralization should initially be focused on linear type structures (shear zones).

### 6.0 Bibliography

Shear, H. H., November 18, 1971, Nanika Lake Property, Geological Report (unpublished report)

Appendix I

**LABORATORY ANALYTICAL SHEETS**

LINE	NORT	EAST	AG	AS	AU	BA	BR	CO	CR	FE	MO	SB	SC	SE	TA	TH	U	W	ZN
1	4800.	9680.	1.00	0.50	2.00	50.00	3.00	0.50	5.00	0.16	0.25	0.05	0.70	1.00	0.25	0.25	0.20	0.50	33.00
1	4800.	9700.	1.00	0.50	2.00	50.00	2.00	1.00	6.00	0.13	0.25	0.05	0.00	1.00	0.25	0.25	0.20	0.50	34.00
1	4800.	9720.	1.00	0.50	1.00	50.00	2.00	0.50	12.00	0.23	0.25	0.05	1.10	1.00	0.25	0.70	0.30	0.50	20.00
1	4800.	9740.	1.00	0.50	1.00	50.00	3.00	0.50	2.00	0.03	0.25	0.05	0.20	1.00	0.25	0.25	0.05	0.50	34.00
1	4800.	9780.	1.00	0.50	2.00	50.00	3.00	0.50	1.00	0.03	0.25	0.05	0.05	1.00	0.25	1.20	1.00	0.50	48.00
1	4800.	9800.	1.00	0.50	0.50	50.00	2.00	0.50	10.00	0.21	0.25	0.05	0.90	1.00	0.25	0.25	0.10	0.50	26.00
1	4800.	9820.	1.00	0.50	0.50	50.00	5.00	0.50	3.00	0.05	0.25	0.05	0.20	1.00	0.25	0.25	0.05	0.50	33.00
1	4800.	9860.	1.00	0.50	1.00	50.00	2.00	0.50	2.00	0.03	0.25	0.05	0.20	1.00	0.25	0.25	0.05	0.50	39.00
1	4800.	9880.	1.00	0.50	2.00	50.00	2.00	0.50	1.00	0.05	0.25	0.05	0.20	1.00	0.25	0.25	0.05	0.50	44.00
1	4800.	9900.	1.00	0.50	1.00	50.00	3.00	0.50	1.00	0.03	0.25	0.05	0.20	1.00	0.25	0.25	0.05	0.50	31.00
1	4800.	9920.	1.00	0.50	0.50	50.00	2.00	0.50	1.00	0.03	0.25	0.05	0.10	1.00	0.25	0.25	0.05	0.50	10.00
1	4800.	9940.	1.00	0.50	6.00	50.00	2.00	0.50	1.00	0.03	0.25	0.05	0.10	1.00	0.25	0.25	0.05	0.50	30.00
1	4800.	9960.	1.00	0.50	1.00	50.00	4.00	0.50	0.50	0.03	0.60	0.05	0.05	1.00	0.25	0.25	0.05	0.50	23.00
1	4800.	9980.	1.00	0.50	1.00	50.00	3.00	0.50	0.50	0.03	0.60	0.05	0.05	1.00	0.25	0.25	0.05	0.50	20.00
1	4800.	10000.	1.00	0.50	13.00	50.00	2.00	1.00	7.00	0.82	11.00	0.05	4.20	1.00	0.25	0.25	0.40	0.50	21.00
1	4800.	10020.	1.00	0.50	5.00	50.00	2.00	0.50	13.00	0.36	6.30	0.05	3.20	1.00	0.25	0.60	0.10	0.50	21.00
1	4800.	10040.	1.00	0.50	0.50	50.00	2.00	0.50	1.00	0.03	0.25	0.05	0.70	1.00	0.25	0.25	2.20	0.50	30.00
1	4800.	10060.	1.00	0.50	20.00	50.00	2.00	1.00	12.00	0.61	16.00	0.05	4.40	1.00	0.25	0.25	0.20	1.00	26.00
1	4800.	10080.	1.00	2.00	10.00	50.00	2.00	0.50	30.00	1.80	80.00	0.05	6.80	1.00	0.25	0.25	0.40	2.00	21.00
1	4800.	10100.	1.00	0.50	2.00	50.00	3.00	0.50	2.00	0.06	12.00	0.05	0.40	1.00	0.25	0.25	0.05	0.50	32.00
1	4800.	10120.	1.00	0.50	3.00	50.00	7.00	0.50	2.00	0.08	12.00	0.05	0.70	1.00	0.25	0.25	0.05	0.50	22.00
2	5000.	9740.	1.00	0.50	1.00	50.00	3.00	0.50	3.00	0.07	0.25	0.05	0.40	1.00	0.25	0.25	0.05	0.50	28.00
2	5000.	9760.	1.00	0.50	4.00	180.00	3.00	4.00	20.00	0.59	0.70	0.05	2.20	1.00	0.25	0.80	0.30	0.50	38.00
2	5000.	9780.	1.00	0.50	1.00	50.00	3.00	0.50	5.00	0.09	0.25	0.05	0.40	1.00	0.25	0.25	0.05	0.50	41.00
2	5000.	9800.	1.00	0.50	0.50	50.00	2.00	0.50	4.00	0.08	0.25	0.05	0.30	1.00	0.25	0.25	0.05	0.50	40.00
2	5000.	9820.	1.00	0.50	0.50	50.00	3.00	0.50	3.00	0.06	0.25	0.05	0.30	1.00	0.25	0.25	0.05	0.50	39.00
2	5000.	9840.	1.00	0.50	0.50	100.00	2.00	1.00	4.00	0.09	0.25	0.05	0.30	1.00	0.25	0.25	0.05	0.50	28.00
2	5000.	9860.	1.00	0.50	0.50	50.00	2.00	0.50	6.00	0.18	0.25	0.05	0.70	1.00	0.25	0.25	0.05	0.50	25.00
2	5000.	9880.	1.00	0.50	0.50	50.00	3.00	0.50	10.00	0.20	0.25	0.05	0.60	1.00	0.25	0.25	0.05	0.50	28.00
2	5000.	9900.	1.00	0.50	0.50	50.00	2.00	0.50	18.00	0.18	0.25	0.05	0.50	1.00	0.25	0.25	0.05	0.50	10.00
2	5000.	9920.	1.00	0.50	0.50	50.00	3.00	0.50	5.00	0.07	0.25	0.05	0.40	1.00	0.25	0.25	0.05	0.50	22.00
2	5000.	9940.	1.00	0.50	0.50	50.00	3.00	0.50	8.00	0.21	0.25	0.05	0.90	1.00	0.25	0.25	0.10	0.50	10.00
2	5000.	9960.	1.00	0.50	0.50	50.00	2.00	0.50	9.00	0.12	0.50	0.05	0.60	1.00	0.25	0.25	0.10	0.50	34.00
2	5000.	9980.	1.00	0.50	1.00	50.00	3.00	0.50	2.00	0.03	0.25	0.05	0.10	1.00	0.25	0.25	0.05	0.50	20.00
2	5000.	10000.	1.00	0.50	2.00	180.00	4.00	3.00	18.00	1.10	3.00	0.05	4.00	1.00	0.25	0.25	0.40	0.50	10.00
2	5000.	10020.	1.00	0.50	0.50	50.00	4.00	1.00	4.00	0.21	1.20	0.05	1.00	1.00	0.25	0.25	0.10	0.50	21.00
2	5000.	10040.	1.00	0.50	0.50	50.00	2.00	0.50	2.00	0.26	1.00	0.05	0.40	1.00	0.25	0.25	0.05	0.50	10.00
2	5000.	10060.	1.00	0.50	0.50	50.00	3.00	0.50	0.50	0.07	0.70	0.05	0.20	1.00	0.25	0.25	0.05	0.50	30.00
2	5000.	10080.	1.00	0.50	0.50	50.00	3.00	0.50	0.50	0.03	0.60	0.05	0.10	1.00	0.25	0.25	0.05	0.50	25.00
2	5000.	10100.	1.00	0.50	0.50	50.00	3.00	0.50	1.00	0.09	1.80	0.05	0.40	1.00	0.25	0.25	0.05	0.50	30.00
2	5000.	10120.	1.00	0.50	0.50	50.00	3.00	0.50	3.00	0.21	1.80	0.05	0.70	1.00	0.25	0.25	0.05	0.50	10.00
2	5000.	10140.	1.00	4.00	15.00	50.00	4.00	5.00	14.00	1.20	18.00	0.20	5.00	1.00	0.25	0.25	1.40	0.50	22.00
2	5000.	10160.	1.00	0.50	4.00	50.00	2.00	0.50	3.00	0.13	4.80	0.05	0.70	1.00	0.25	0.25	0.10	0.50	23.00
2	5000.	10180.	1.00	1.00	14.00	110.00	2.00	3.00	11.00	0.92	7.60	0.20	3.20	1.00	0.25	0.25	0.30	0.50	21.00

LINE	NORT	EAST	AG	AS	AU1	BA	CU	PB	SB	ZN
1	4800.	9680.	0.10	2.00	2.50	0.01	14.00	20.00	1.00	62.00
1	4800.	9700.	0.10	1.00	185.00	0.02	15.00	12.00	1.00	36.00
1	4800.	9720.	0.50	1.00	2.50	0.03	14.00	9.00	1.00	42.00
1	4800.	9740.	0.20	2.00	2.50	0.02	13.00	8.00	1.00	50.00
1	4800.	9780.	0.10	1.00	2.50	0.02	14.00	7.00	1.00	46.00
1	4800.	9800.	0.10	1.00	2.50	0.02	24.00	10.00	1.00	32.00
1	4800.	9820.	*****	*****	*****	*****	*****	*****	*****	*****
1	4800.	9860.	0.30	2.00	2.50	0.01	83.00	6.00	1.00	61.00
1	4800.	9880.	0.40	1.00	2.50	0.01	160.00	7.00	1.00	55.00
1	4800.	9900.	0.30	1.00	2.50	0.02	86.00	5.00	1.00	50.00
1	4800.	9920.	0.30	1.00	2.50	0.02	80.00	6.00	1.00	48.00
1	4800.	9940.	0.20	1.00	2.50	0.01	68.00	10.00	1.00	41.00
1	4800.	9960.	0.40	1.00	5.00	0.01	500.00	8.00	1.00	43.00
1	4800.	9980.	0.20	1.00	2.50	0.02	347.00	6.00	1.00	32.00
1	4800.	10000.	1.50	1.00	50.00	0.01	1380.00	4.00	1.00	50.00
1	4800.	10020.	1.20	1.00	20.00	0.01	1910.00	5.00	1.00	50.00
1	4800.	10040.	2.40	1.00	40.00	0.01	1000.00	5.00	1.00	32.00
1	4800.	10060.	1.10	1.00	15.00	0.01	1600.00	5.00	1.00	41.00
1	4800.	10080.	3.00	1.00	2.50	0.01	550.00	8.00	1.00	22.00
1	4800.	10100.	0.70	1.00	2.50	0.01	510.00	8.00	1.00	20.00
1	4800.	10120.	1.10	1.00	2.50	0.01	1460.00	3.00	1.00	27.00
2	5000.	9760.	0.20	1.00	2.50	0.01	17.00	10.00	1.00	54.00
2	5000.	9780.	0.30	1.00	2.50	0.01	22.00	8.00	1.00	35.00
2	5000.	9800.	0.10	1.00	2.50	0.01	15.00	6.00	1.00	44.00
2	5000.	9820.	0.20	2.00	2.50	0.02	14.00	8.00	1.00	37.00
2	5000.	9840.	0.20	3.00	2.50	0.02	9.00	9.00	1.00	43.00
2	5000.	9860.	0.20	1.00	2.50	0.02	11.00	9.00	1.00	45.00
2	5000.	9900.	0.40	1.00	2.50	0.02	11.00	12.00	1.00	80.00
2	5000.	9920.	0.10	3.00	2.50	0.02	16.00	6.00	1.00	46.00
2	5000.	9940.	0.30	1.00	2.50	0.02	18.00	5.00	1.00	45.00
2	5000.	9960.	0.20	1.00	2.50	0.03	20.00	6.00	1.00	34.00
2	5000.	9980.	0.50	1.00	2.50	0.02	15.00	5.00	1.00	30.00
2	5000.	10020.	0.40	1.00	15.00	0.01	1000.00	7.00	1.00	54.00
2	5000.	10040.	0.80	4.00	2.50	0.02	810.00	3.00	1.00	30.00
2	5000.	10060.	0.40	7.00	2.50	0.02	740.00	4.00	1.00	40.00
2	5000.	10080.	0.70	5.00	2.50	0.01	650.00	4.00	1.00	34.00
2	5000.	10100.	0.50	1.00	2.50	0.01	1180.00	3.00	1.00	36.00
2	5000.	10120.	1.00	1.00	2.50	0.01	880.00	5.00	1.00	44.00
2	5000.	10160.	1.20	7.00	2.50	0.01	525.00	6.00	1.00	18.00

LINE	NORT	EAST	AG	AS	AUI	BA	CU	PB	SB	ZN
1	4800.	9680.	0.10	1.00	2.50	0.02	14.00	25.00	1.00	65.00
1	4800.	9700.	0.10	1.00	2.50	0.02	17.00	9.00	1.00	43.00
1	4800.	9720.	0.70	1.00	2.50	0.02	22.00	13.00	1.00	47.00
1	4800.	9740.	0.10	1.00	2.50	0.01	16.00	9.00	1.00	48.00
1	4800.	9780.	0.10	1.00	2.50	0.02	21.00	10.00	1.00	54.00
1	4800.	9800.	0.10	1.00	2.50	0.01	27.00	12.00	1.00	33.00
1	4800.	9820.	0.10	1.00	2.50	0.02	23.00	12.00	1.00	53.00
1	4800.	9860.	0.40	4.00	2.50	0.02	86.00	9.00	1.00	63.00
1	4800.	9880.	0.60	3.00	2.50	0.01	222.00	7.00	1.00	64.00
1	4800.	9900.	0.30	4.00	2.50	0.02	103.00	10.00	1.00	48.00
1	4800.	9920.	0.40	1.00	2.50	0.01	107.00	8.00	1.00	41.00
1	4800.	9940.	0.20	1.00	2.50	0.02	82.00	10.00	1.00	40.00
1	4800.	9960.	0.40	3.00	2.50	0.01	600.00	11.00	1.00	44.00
1	4800.	9980.	0.20	1.00	2.50	0.02	440.00	9.00	1.00	31.00
1	4800.	10000.	1.10	1.00	20.00	0.01	1540.00	6.00	1.00	48.00
1	4800.	10020.	1.00	1.00	25.00	0.01	1880.00	6.00	1.00	43.00
1	4800.	10040.	2.50	1.00	40.00	0.01	930.00	7.00	1.00	28.00
1	4800.	10060.	1.00	1.00	35.00	0.01	1410.00	5.00	1.00	32.00
1	4800.	10080.	3.60	1.00	2.50	0.01	366.00	7.00	1.00	13.00
1	4800.	10100.	1.10	10.00	25.00	0.01	500.00	8.00	1.00	25.00
1	4800.	10120.	1.40	1.00	15.00	0.01	1550.00	5.00	1.00	30.00
2	5000.	9760.	0.20	1.00	2.50	0.01	15.00	11.00	1.00	52.00
2	5000.	9780.	0.20	1.00	2.50	0.02	12.00	11.00	1.00	39.00
2	5000.	9800.	0.10	1.00	2.50	0.02	16.00	8.00	1.00	48.00
2	5000.	9820.	0.10	1.00	2.50	0.02	14.00	8.00	1.00	35.00
2	5000.	9840.	0.10	1.00	2.50	0.03	9.00	11.00	1.00	45.00
2	5000.	9860.	0.20	1.00	2.50	0.03	13.00	13.00	1.00	50.00
2	5000.	9900.	0.30	1.00	2.50	0.03	13.00	16.00	1.00	87.00
2	5000.	9920.	0.20	1.00	2.50	0.02	24.00	7.00	1.00	60.00
2	5000.	9940.	0.30	3.00	2.50	0.02	33.00	9.00	1.00	55.00
2	5000.	9960.	0.20	1.00	2.50	0.03	30.00	9.00	1.00	36.00
2	5000.	9980.	0.50	1.00	2.50	0.02	22.00	9.00	1.00	30.00
2	5000.	10020.	0.40	1.00	2.50	0.01	1220.00	7.00	1.00	50.00
2	5000.	10040.	0.50	1.00	2.50	0.01	930.00	4.00	1.00	42.00
2	5000.	10060.	0.30	1.00	2.50	0.01	700.00	4.00	1.00	53.00
2	5000.	10080.	0.40	1.00	2.50	0.01	870.00	5.00	1.00	40.00
2	5000.	10100.	0.50	3.00	2.50	0.01	1360.00	6.00	1.00	43.00
2	5000.	10120.	1.00	5.00	5.00	0.01	1020.00	6.00	1.00	42.00
2	5000.	10160.	1.30	4.00	2.50	0.01	540.00	6.00	1.00	24.00

END OF LISTING - 39 RECORDS PRINTED

LINE	NORT	EAST	AG	AS	AUL	BA	CU	PB	SB	ZN
1	4800.	9680.	0.10	4.00	2.50	0.03	37.00	9.00	1.00	52.00
1	4800.	9740.	0.10	1.00	2.50	0.04	19.00	5.00	1.00	70.00
1	4800.	9780.	0.10	1.00	2.50	0.03	16.00	6.00	1.00	50.00
1	4800.	9800.	0.10	1.00	2.50	0.04	20.00	6.00	1.00	46.00
1	4800.	9820.	0.10	1.00	2.50	0.03	26.00	8.00	1.00	72.00
1	4800.	9860.	0.10	1.00	25.00	0.02	1370.00	6.00	1.00	115.00
1	4800.	9880.	0.10	1.00	45.00	0.02	266.00	5.00	1.00	53.00
1	4800.	9900.	0.10	1.00	2.50	0.03	164.00	6.00	1.00	46.00
1	4800.	9920.	0.20	1.00	5.00	0.04	117.00	6.00	2.00	45.00
1	4800.	9940.	0.10	1.00	30.00	0.02	140.00	6.00	1.00	36.00
1	4800.	9960.	0.30	1.00	45.00	0.01	870.00	8.00	1.00	53.00
1	4800.	9980.	0.30	1.00	25.00	0.01	1320.00	8.00	1.00	45.00
1	4800.	10000.	1.30	4.00	60.00	0.01	2320.00	5.00	1.00	43.00
1	4800.	10020.	1.40	2.00	95.00	0.01	2350.00	6.00	1.00	52.00
1	4800.	10040.	1.80	1.00	60.00	0.01	1610.00	4.00	1.00	47.00
1	4800.	10060.	1.50	1.00	50.00	0.01	3200.00	6.00	1.00	56.00
1	4800.	10080.	1.70	1.00	5.00	0.01	950.00	7.00	1.00	47.00
1	4800.	10100.	0.60	1.00	15.00	0.01	590.00	5.00	1.00	21.00
1	4800.	10120.	0.60	1.00	2.50	0.01	780.00	8.00	1.00	18.00
2	5000.	9740.	0.30	1.00	2.50	0.01	14.00	12.00	1.00	70.00
2	5000.	9760.	0.30	1.00	2.50	0.01	19.00	8.00	1.00	60.00
2	5000.	9800.	0.10	1.00	2.50	0.01	21.00	5.00	1.00	53.00
2	5000.	9820.	0.10	1.00	2.50	0.01	18.00	6.00	1.00	55.00
2	5000.	9840.	0.10	1.00	2.50	0.02	16.00	15.00	1.00	54.00
2	5000.	9860.	0.10	1.00	2.50	0.04	14.00	6.00	1.00	52.00
2	5000.	9940.	0.10	1.00	2.50	0.03	24.00	4.00	1.00	52.00
2	5000.	9960.	0.10	4.00	2.50	0.04	25.00	6.00	1.00	32.00
2	5000.	9980.	0.10	1.00	2.50	0.03	22.00	5.00	1.00	34.00
2	5000.	10000.	0.50	1.00	20.00	0.01	720.00	11.00	1.00	73.00
2	5000.	10020.	0.30	1.00	2.50	0.02	890.00	8.00	1.00	81.00
2	5000.	10040.	0.30	1.00	2.50	0.03	880.00	5.00	1.00	40.00
2	5000.	10060.	0.10	1.00	2.50	0.02	2050.00	7.00	1.00	67.00
2	5000.	10080.	0.20	1.00	2.50	0.02	1440.00	5.00	1.00	51.00
2	5000.	10100.	0.40	1.00	10.00	0.02	1870.00	4.00	1.00	52.00
2	5000.	10120.	1.50	1.00	75.00	0.01	1420.00	2.00	1.00	40.00
2	5000.	10140.	0.90	6.00	40.00	0.01	6100.00	10.00	1.00	50.00
2	5000.	10160.	1.00	12.00	40.00	0.01	1440.00	8.00	1.00	37.00
2	5000.	10180.	1.60	1.00	170.00	0.01	4000.00	12.00	3.00	30.00

END OF LISTING - 38 RECORDS PRINTED

LINE	NORT	EAST	AG	AS	AU1	BA	CU	PB	SB	ZN
1	4800.	9680.	0.10	4.00	2.50	0.03	30.00	11.00	1.00	56.00
1	4800.	9740.	0.10	2.00	2.50	0.02	34.00	8.00	1.00	76.00
1	4800.	9780.	0.10	1.00	2.50	0.02	23.00	7.00	1.00	50.00
1	4800.	9800.	0.10	3.00	2.50	0.03	31.00	8.00	1.00	50.00
1	4800.	9820.	0.10	2.00	5.00	0.02	35.00	10.00	1.00	64.00
1	4800.	9860.	0.20	3.00	2.50	0.02	1160.00	6.00	1.00	80.00
1	4800.	9880.	0.10	5.00	30.00	0.01	400.00	6.00	1.00	50.00
1	4800.	9900.	0.10	2.00	2.50	0.02	196.00	7.00	1.00	41.00
1	4800.	9920.	0.30	3.00	2.50	0.03	165.00	7.00	1.00	48.00
1	4800.	9940.	0.10	2.00	2.50	0.02	163.00	5.00	1.00	30.00
1	4800.	9960.	0.50	1.00	30.00	0.01	1100.00	10.00	1.00	50.00
1	4800.	9980.	0.50	3.00	25.00	0.01	1680.00	12.00	1.00	52.00
1	4800.	10000.	0.80	2.00	55.00	0.01	2100.00	5.00	1.00	41.00
1	4800.	10020.	1.30	1.00	85.00	0.01	2540.00	6.00	1.00	52.00
1	4800.	10040.	1.90	1.00	70.00	0.01	1700.00	6.00	1.00	43.00
1	4800.	10060.	1.40	1.00	60.00	0.01	3500.00	7.00	1.00	58.00
1	4800.	10080.	1.30	1.00	10.00	0.01	790.00	7.00	1.00	40.00
1	4800.	10100.	0.70	1.00	18.00	0.01	555.00	7.00	1.00	22.00
1	4800.	10120.	0.60	8.00	15.00	0.01	800.00	9.00	1.00	16.00
2	5000.	9740.	0.10	1.00	2.50	0.02	12.00	15.00	1.00	68.00
2	5000.	9760.	0.10	1.00	10.00	0.02	16.00	11.00	1.00	70.00
2	5000.	9800.	0.10	4.00	50.00	0.01	27.00	8.00	1.00	50.00
2	5000.	9820.	0.10	1.00	20.00	0.02	24.00	7.00	1.00	55.00
2	5000.	9840.	0.10	1.00	10.00	0.03	21.00	20.00	1.00	63.00
2	5000.	9860.	0.10	6.00	2.50	0.03	18.00	8.00	1.00	48.00
2	5000.	9940.	0.10	1.00	2.50	0.03	33.00	8.00	1.00	43.00
2	5000.	9960.	0.10	1.00	2.50	0.02	40.00	6.00	1.00	28.00
2	5000.	9980.	0.10	1.00	2.50	0.03	32.00	7.00	1.00	33.00
2	5000.	10000.	0.50	1.00	2.50	0.01	1150.00	20.00	1.00	63.00
2	5000.	10020.	0.60	1.00	15.00	0.01	1230.00	10.00	1.00	73.00
2	5000.	10040.	0.20	5.00	2.50	0.01	930.00	5.00	1.00	41.00
2	5000.	10060.	0.10	16.00	10.00	0.02	2900.00	7.00	1.00	84.00
2	5000.	10080.	0.20	1.00	10.00	0.01	1770.00	4.00	1.00	46.00
2	5000.	10100.	0.20	1.00	15.00	0.01	2300.00	5.00	1.00	50.00
2	5000.	10120.	0.90	1.00	55.00	0.01	1520.00	5.00	1.00	44.00
2	5000.	10140.	0.20	1.00	85.00	0.01	9000.00	18.00	1.00	54.00
2	5000.	10160.	1.10	3.00	85.00	0.01	2000.00	12.00	1.00	46.00
2	5000.	10180.	1.10	1.00	355.00	0.01	5400.00	20.00	1.00	40.00

END OF LISTING - 38 RECORDS PRINTED

LIST DATA FILE:

NANIKA - C HORIZON COARSE FRACTION

DATE: 89:04:10

PAGE 1

LINE	NORT	EAST	AG	AS	AU1	BA	CU	PB	SB	ZN
1	4800.	9700.	0.10	2.00	13.00	0.03	41.00	6.00	1.00	48.00
1	4800.	9800.	0.10	1.00	2.50	0.04	50.00	6.00	1.00	43.00
1	4800.	9900.	0.10	2.00	2.50	0.03	128.00	6.00	1.00	42.00
2	5000.	9900.	0.20	2.00	5.00	0.02	9.00	5.00	1.00	21.00
2	5000.	9940.	0.20	1.00	5.00	0.02	41.00	5.00	2.00	38.00
2	5000.	9980.	0.10	1.00	2.50	0.02	31.00	4.00	1.00	33.00
2	5000.	10000.	0.10	1.00	10.00	0.03	142.00	9.00	1.00	17.00
2	5000.	10180.	0.40	3.00	40.00	0.02	2620.00	7.00	1.00	53.00

END OF LISTING - 8 RECORDS PRINTED



LIST DATA FILE:

NANIKA - C HORIZON FINE FRACTION

DATE: 89:04:10

PAGE 1

LINE	NORT	EAST	AG	AS	AU1	BA	CU	PB	SB	ZN
1	4800.	9700.	0.10	1.00	15.00	0.04	43.00	5.00	1.00	56.00
1	4800.	9800.	0.10	2.00	60.00	0.02	36.00	8.00	1.00	61.00
1	4800.	9900.	0.20	1.00	10.00	0.03	154.00	4.00	1.00	44.00
2	5000.	9900.	0.10	1.00	2.50	0.02	6.00	5.00	1.00	22.00
2	5000.	9940.	0.40	1.00	2.50	0.03	60.00	6.00	1.00	45.00
2	5000.	9980.	0.10	2.00	15.00	0.02	40.00	6.00	1.00	38.00
2	5000.	10000.	0.10	4.00	15.00	0.02	400.00	21.00	1.00	27.00
2	5000.	10180.	0.20	6.00	35.00	0.02	2630.00	8.00	1.00	53.00

END OF LISTING - 8 RECORDS PRINTED

Venture: BC GEN EXPL

Area: NANIK CLAIM

Geologist: G SHEVCHENKO

AUI RESULTS REPORTED IN PPB

#	Proj: P8401	Cu	Zn	Pb	Ag	Au1	As	Sb	Ba
1	34283	840	45	9	<0.2	<5	3	<2	
2	34284	1.10%	21	7	0.7	<5	76	<2	
3	34285	1370	50	8	0.2	<5	<2	<2	
4	34286	2420	13	6	0.2	<5	29	<2	
5	34287	2170	47	18	0.5	60	890	7	
6	34288	0.30%	17	10	0.3	<5	220	<2	
7	34288*	0.29%	15	9	0.3	<5	220	<2	

Appendix II

**ROCK SAMPLE REPORTS**

SAMPLE REPORT

PROPERTY NAME: NEW NANIK

DATE: OCTOBER 4, 1988

LOCATION: NANIKA LAKE, B.C.

N.T.S: 93E/12

SAMPLER: G. SHEVCHENKO

SAMPLE NUMBER	LOCATION AND DESCRIPTION	Sample Type	Width	GEOCHEM/ASSAY			
				Cu	Au	Ag	As
34283	Discovery Showing - Quartz Monzonite with disseminated very fine grained pyrite (3-5%) and chalcopryrite (up to 1%)	GRAB		840 ppm	<5 ppb	0.2 ppm	3 ppm
34284	Discovery Showing - Fractured andesite with disseminated very fine grained pyrite (10-15%) and chalcopryrite (2-4%) - Minor quartz veining	GRAB		1.10%	<5 ppb	0.7 ppm	76 ppm
34285	Discovery Showing - Quartz feldspar with disseminated pyrite (1-2%) and chalcopryrite (1%) along with molybdenite (1%) occurring in stringers	GRAB		1370 ppm	<5 ppb	0.2 ppm	2 ppm



Appendix III

**STATEMENT OF EXPENDITURES**

## STATEMENT OF EXPENDITURES

The following expenditures were incurred for the geochemical exploration programme on the New Nanik claim which was conducted from September 27 to October 6, 1988 (inclusive).

### 1. Labour (Salary and Benefits)

G. Shevchenko - Geologist	8 days @ \$350/day	\$2,800.00
D. Travers - Field Assistant	8 days @ \$200/day	\$1,600.00

### 2. Camp Costs (Room and Board)

16 mandays @ \$75/day		\$1,200.00
-----------------------	--	------------

### 3. Transportation

a) Fixed wing from Smithers to Nanika Lake - Return		\$ 984.00
b) Truck rental and gas - 8 days @ \$55/day		\$ 440.00

### 4. Communication

Radio rental and supplies		\$ 150.00
---------------------------	--	-----------

### 5. Geological and Camp Supplies

\$ 500.00

### 6. Analytical Charges

a) 213 soil samples for Cu, Au, As, Ag @ \$13.30/sample		\$2,832.90
b) 6 rock samples for Cu, Au, Ag, As @ \$16/sample		\$ 96.00

### 7. Report Preparation

\$1,000.00

<b>TOTAL</b>		<b>\$11,602.90</b>
--------------	--	--------------------

Appendix IV

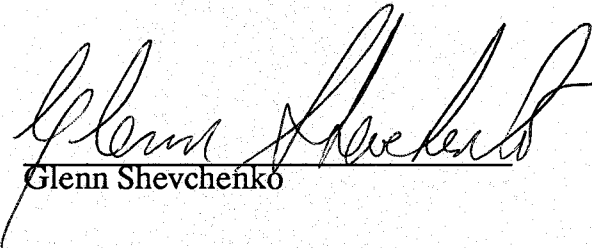
**STATEMENT OF QUALIFICATIONS**



## STATEMENT OF QUALIFICATIONS

I, Glenn Shevchenko, of the municipality of Surrey, British Columbia, do hereby certify that:

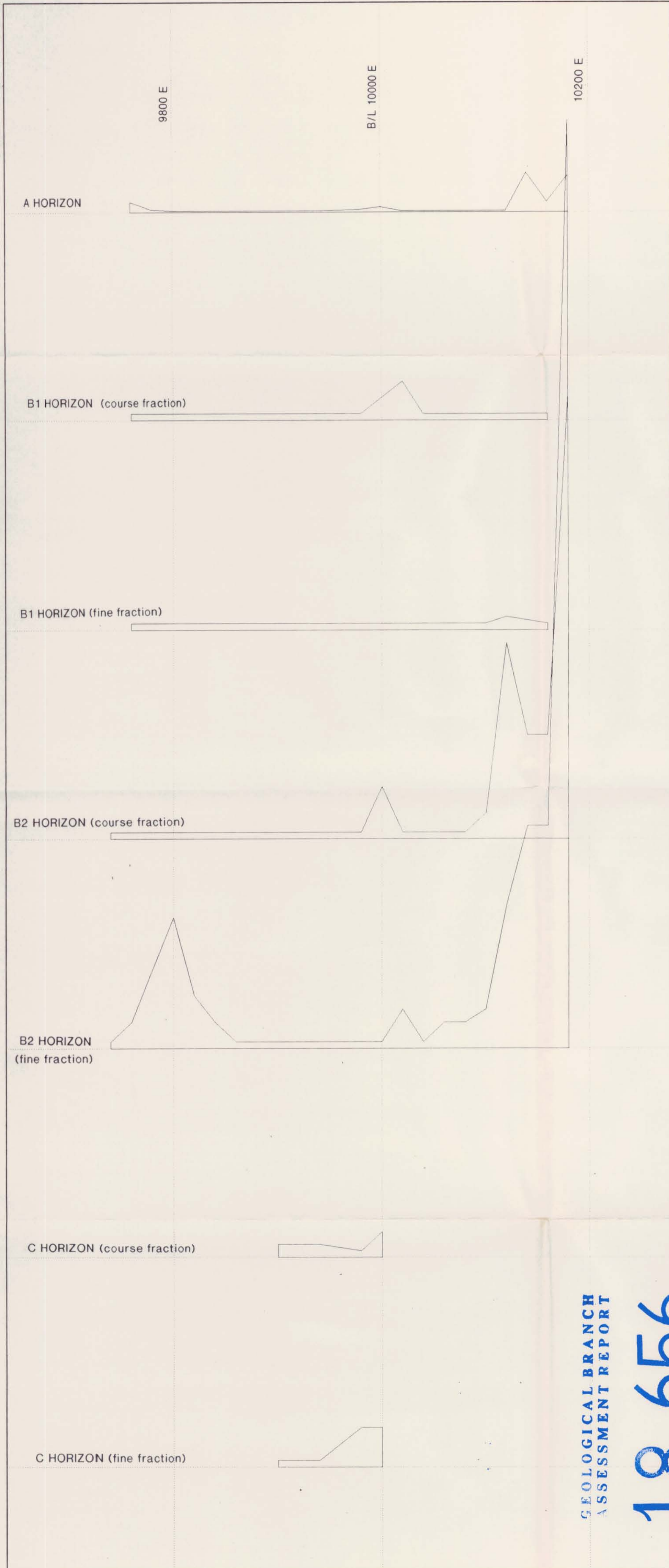
1. I am a graduate of Concordia University where I received a B.Sc. in Geology in May 1982.
2. I have practiced my profession part-time since 1977, and full-time since 1984.
3. I am a member in good standing with the Geological Association of Canada.
4. I am currently employed by Placer Dome Incorporated and was responsible for the field exploration on the New Nanik property.

  
Glenn Shevchenko

NANIKA CLAIMS SOIL ORIENTATION  
LINE 50 N  
AU

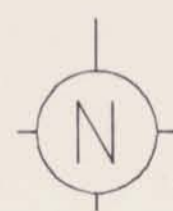
PROFILES PLOTTED:

- A HORIZON
- B1 HORIZON COARSE FRACTION
- B1 HORIZON FINE FRACTION
- B2 HORIZON COARSE FRACTION
- B2 HORIZON FINE FRACTION
- C HORIZON COARSE FRACTION
- C HORIZON FINE FRACTION



DATA PLOTTED ON THIS MAP:  
DIRECTORY: \EXPL\NANIKA\GCHM

FIELD FILE  
AU 50ALL.GCHM  
SCALE: 10.0 UNITS / CM  
BASE LEVEL: 0.0



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

18,656

FIGURE 9

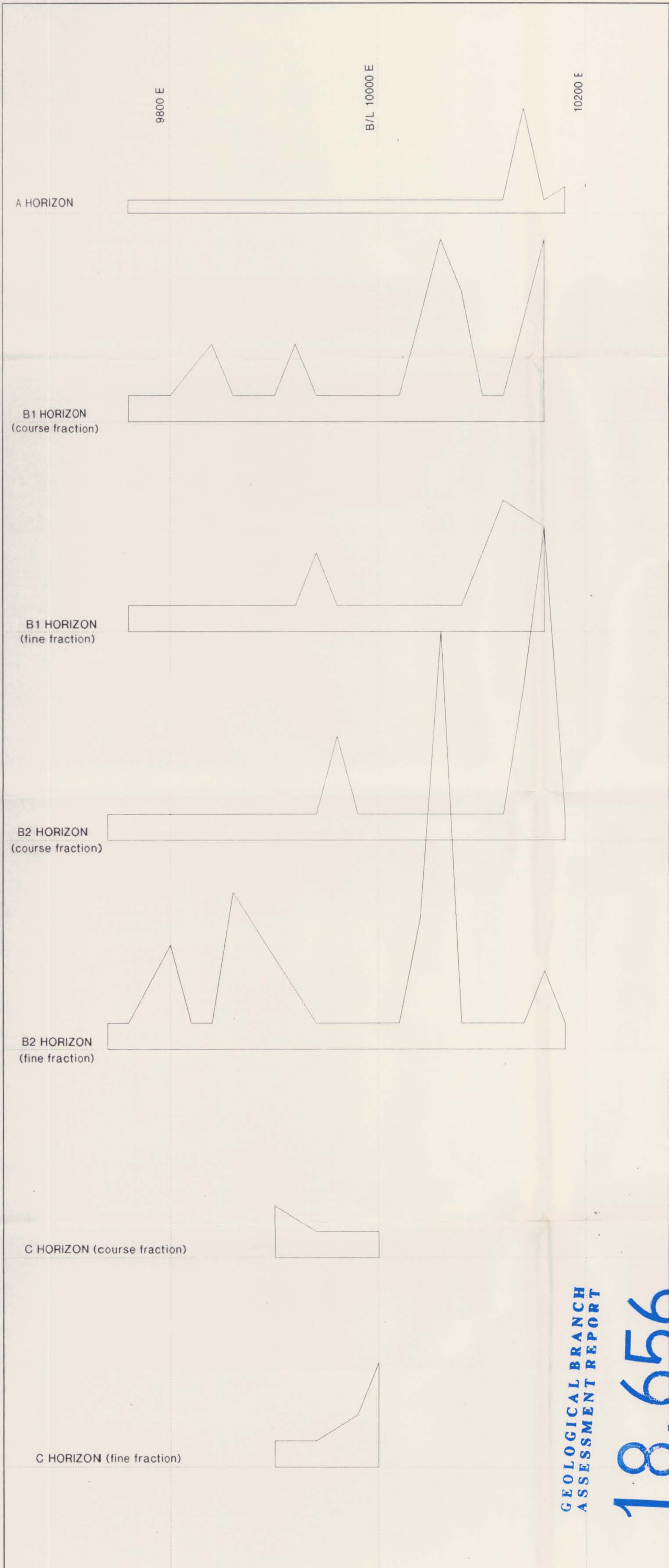
PLACER DOME INC.

DRAWN SMP	NANIKA CLAIMS SOIL ORIENTATION LINE 50 N AU
DATE: 89:04:12	
SCALE 1:2500	
NO.	PLATE

NANIKA CLAIMS SOIL ORIENTATION  
LINE 50 N  
AS

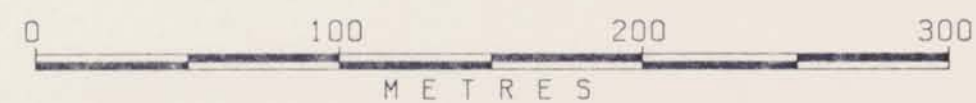
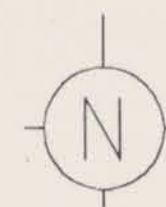
PROFILES PLOTTED:

- A HORIZON
- B1 HORIZON COARSE FRACTION
- B1 HORIZON FINE FRACTION
- B2 HORIZON COARSE FRACTION
- B2 HORIZON FINE FRACTION
- C HORIZON COARSE FRACTION
- C HORIZON FINE FRACTION



DATA PLOTTED ON THIS MAP:  
DIRECTORY: 8EXPL/NANIKA/GCHM

FIELD FILE  
AS 50ALL.GCHM  
SCALE: 1.0 UNITS / CM  
BASE LEVEL: 0.0



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

18,656

FIGURE 10

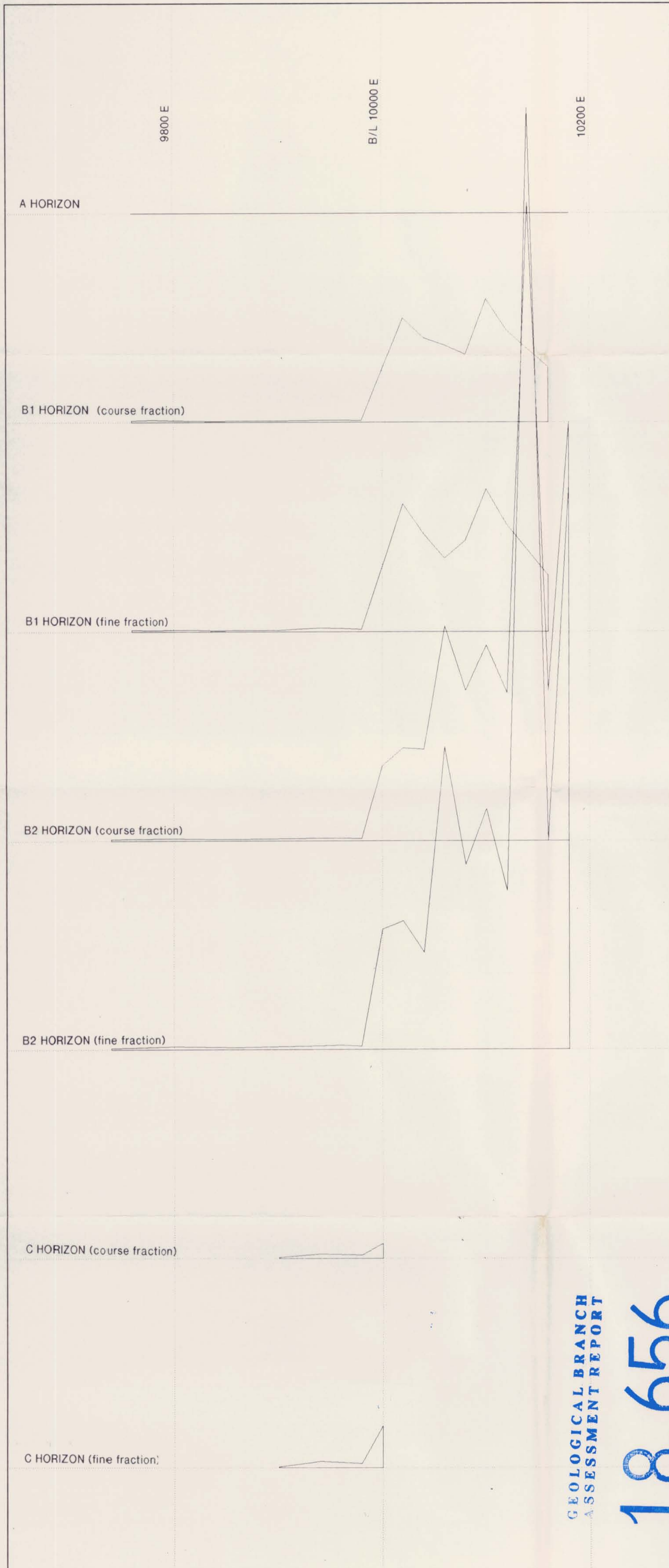
PLACER DOME INC.

DRAWN SMP	NANIKA CLAIMS SOIL ORIENTATION LINE 50 N AS
DATE 89:04:12	
SCALE 1:2500	
NO.	PLATE

NANIKA CLAIMS SOIL ORIENTATION  
LINE 50 N  
CU

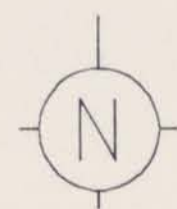
PROFILES PLOTTED:

- A HORIZON
- B1 HORIZON COARSE FRACTION
- B1 HORIZON FINE FRACTION
- B2 HORIZON COARSE FRACTION
- B2 HORIZON FINE FRACTION
- C HORIZON COARSE FRACTION
- C HORIZON FINE FRACTION



DATA PLOTTED ON THIS MAP:  
DIRECTORY: 8EXPL/NANIKA/GCHM

FIELD FILE  
CU 50ALL.GCHM  
SCALE: 250 UNITS / CM  
BASE LEVEL: 0.0



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

18,656

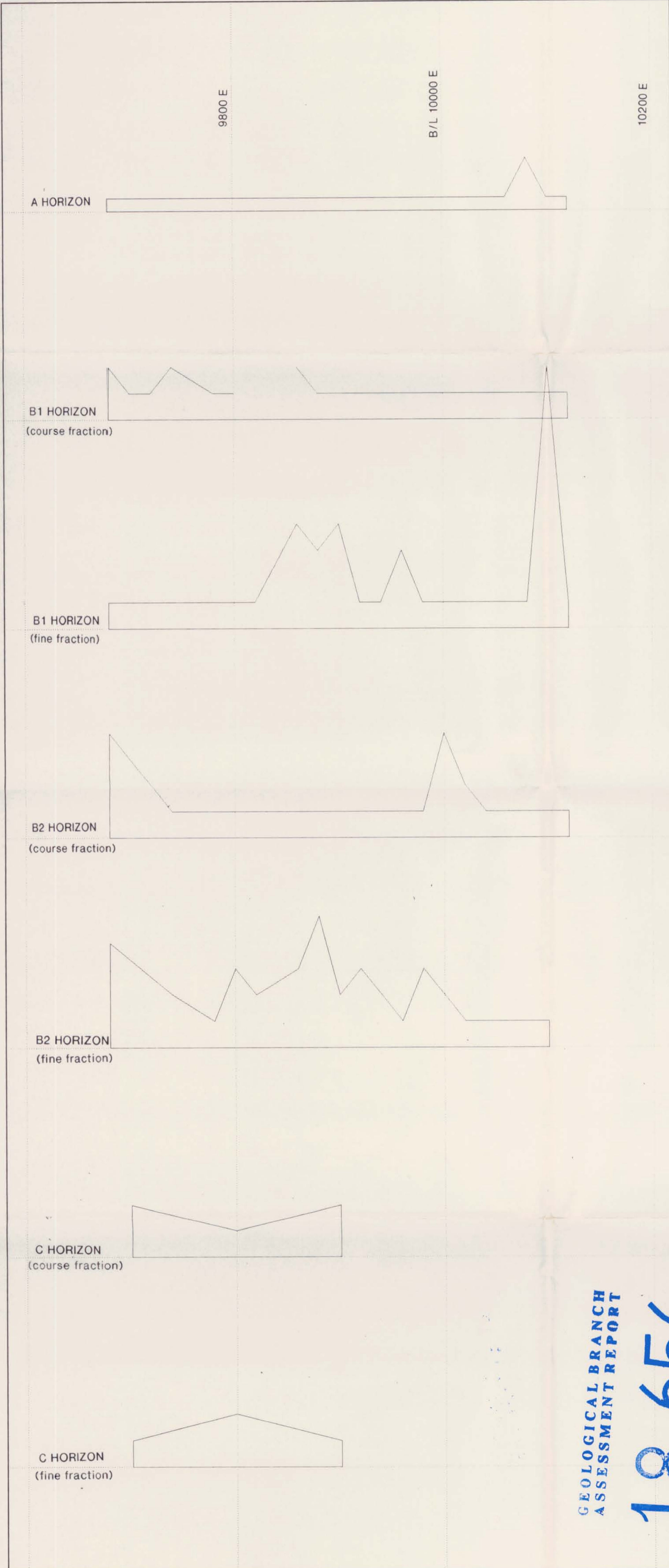
FIGURE 8

DRAWN SMP		PLACER DOME INC.	
DATE 89:04:12		NANIKA CLAIMS SOIL ORIENTATION	
SCALE 1:2500		LINE 50 N	
		CU	
NO.		PLATE	

NANIKA CLAIMS SOIL ORIENTATION  
 LINE 48 N  
 AS

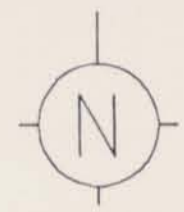
PROFILES PLOTTED:

- A HORIZON
- B1 HORIZON COARSE FRACTION
- B1 HORIZON FINE FRACTION
- B2 HORIZON COARSE FRACTION
- B2 HORIZON FINE FRACTION
- C HORIZON COARSE FRACTION
- C HORIZON FINE FRACTION



DATA PLOTTED ON THIS MAP:  
 DIRECTORY: \EXPL\NANIKA\GCHM

FIELD FILE  
 AS 48ALL.GCHM  
 SCALE: 1.0 UNITS / CM  
 BASE LEVEL: 0.0



GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

18,656

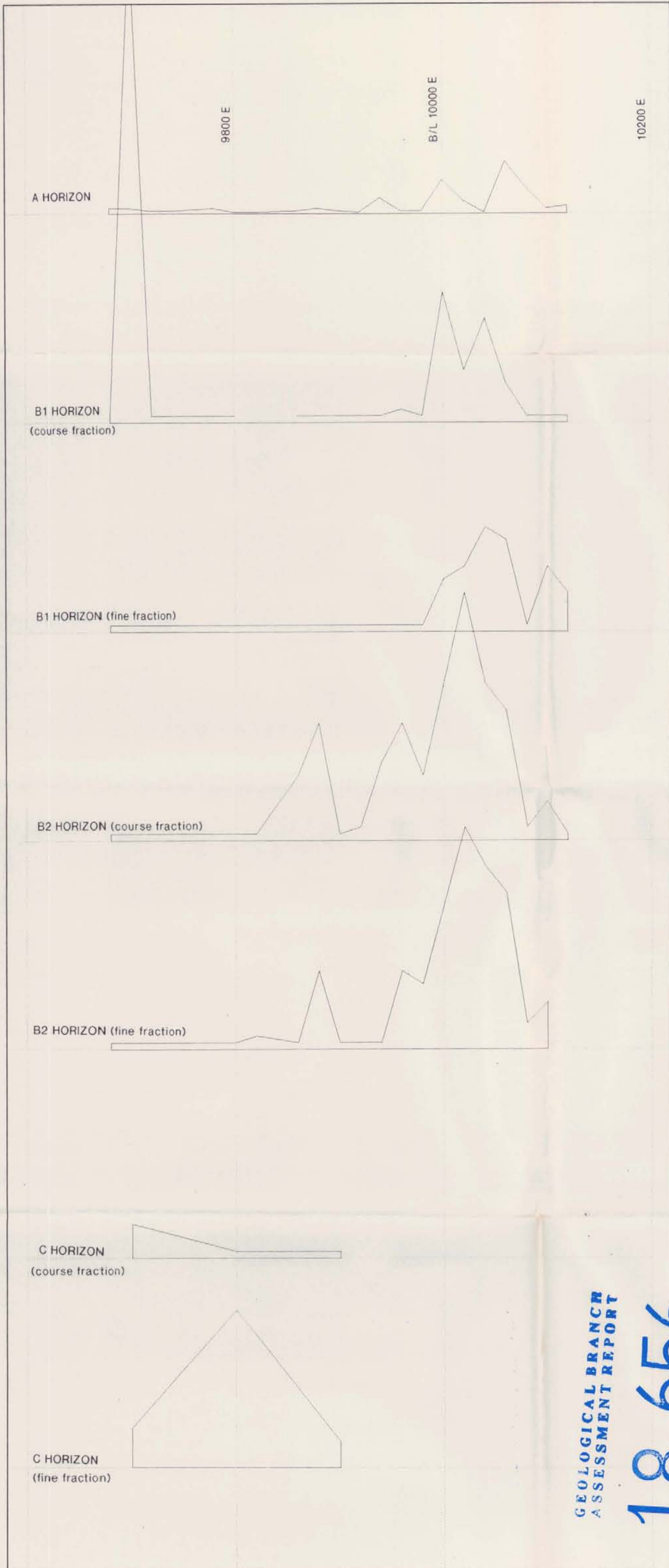
FIGURE 7

DRAWN SMP		NANIKA CLAIMS SOIL ORIENTATION	
DATE 89:04:12		LINE 48 N	
SCALE 1:2500		AS	
		NO.	PLATE

NANIKA CLAIMS SOIL ORIENTATION  
LINE 48 N  
AU

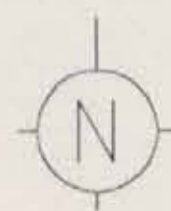
PROFILES PLOTTED:

- A HORIZON
- B1 HORIZON COARSE FRACTION
- B1 HORIZON FINE FRACTION
- B2 HORIZON COARSE FRACTION
- B2 HORIZON FINE FRACTION
- C HORIZON COARSE FRACTION
- C HORIZON FINE FRACTION



DATA PLOTTED ON THIS MAP:  
DIRECTORY: 8EXPL/NANIKA/GCHM

FIELD FILE  
AU 48ALL.GCHM  
SCALE: 10.0 UNITS / CM  
BASE LEVEL: 0.0



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

18,656

FIGURE 6

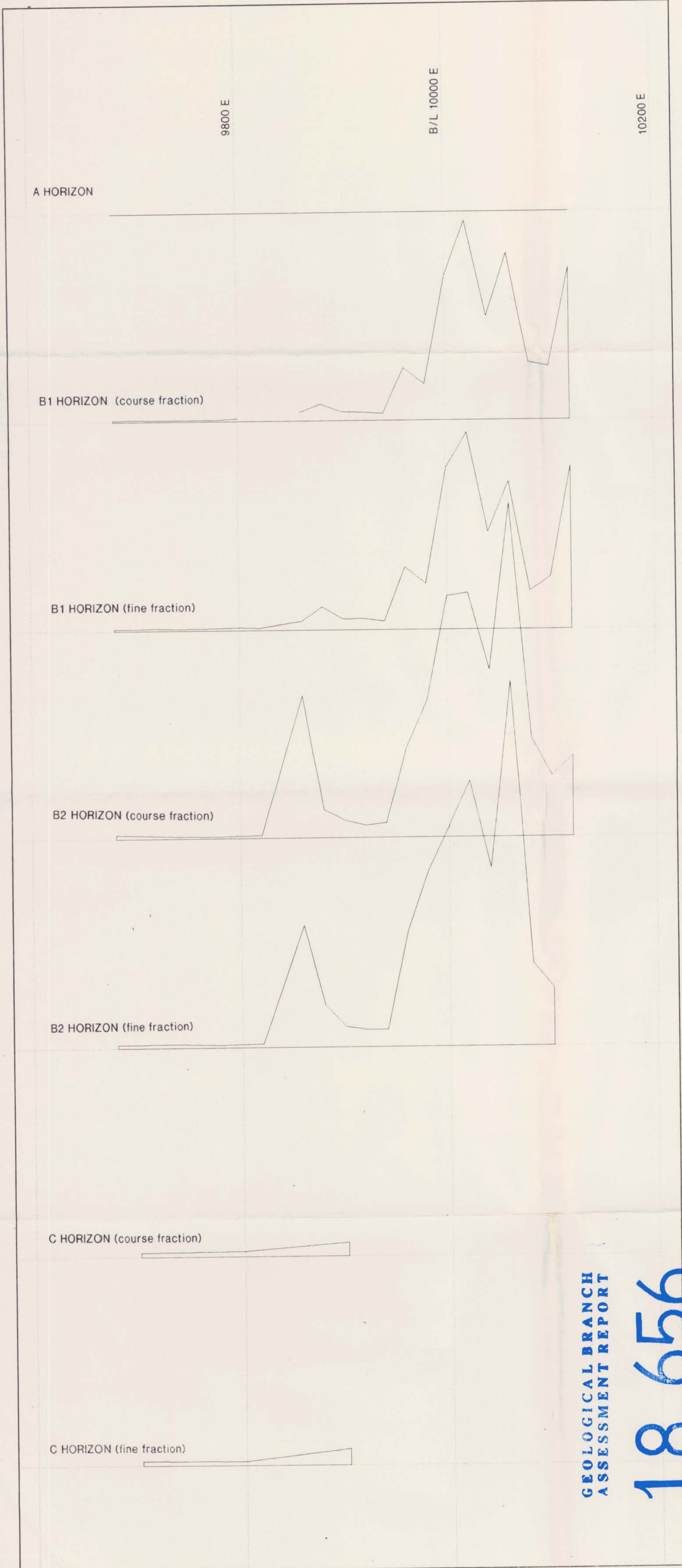
PLACER DOME INC.

DRAWN	SMP	NANIKA CLAIMS SOIL ORIENTATION LINE 48 N AU	
DATE	89:04:12		
SCALE	1:2500		
		NO.	PLATE

NANIKA CLAIMS SOIL ORIENTATION  
LINE 48 N  
CU

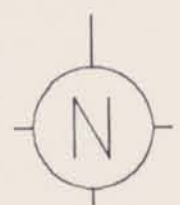
PROFILES PLOTTED:

- A HORIZON
- B1 HORIZON COARSE FRACTION
- B1 HORIZON FINE FRACTION
- B2 HORIZON COARSE FRACTION
- B2 HORIZON FINE FRACTION
- C HORIZON COARSE FRACTION
- C HORIZON FINE FRACTION



DATA PLOTTED ON THIS MAP:  
DIRECTORY: 8EXPL/NANIKA/GCHM

FIELD FILE  
CU 48ALL.GCHM  
SCALE: 250 UNITS / CM  
BASE LEVEL: 0.0



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

18,656

FIGURE 5

PLACER DOME INC.

DRAWN SMP	NANIKA CLAIMS SOIL ORIENTATION LINE 48 N CU
DATE 89:04:12	
SCALE 1:2500	
NO.	PLATE