

LOG NO: 10-29	RD.
ACTION:	
FILE NO:	

**Geochemical and Prospecting Report**

**on the ERICKSON CLAIMS**

**Omineca Mining Division**

**N.T.S 93N/6**

**Latitude 55°29'N Longitude 125°10'W**

**U.T.M 6150750N 363000E**

**Owner: Richard Haslinger**

**Operator: Placer Dome Inc.**

**Authors: Gwendolen Ditson  
Stephen Price**

**Date: July 20, 1990**

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**20,338**



TYPE OF REPORT/SURVEY(S)	TOTAL COST
	\$13,703.00

AUTHOR(S) Gwendolen Ditson ..... SIGNATURE(S) *Stephen Price*  
 Stephen Price .....

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED 11/7/1990 ..... YEAR OF WORK 1990

PROPERTY NAME(S) Erickson .....

COMMODITIES PRESENT Cu (Ag, Mo) .....

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN none .....

MINING DIVISION Omineca ..... NTS 93. N/6 .....

LATITUDE 55° 29' N ..... LONGITUDE 125° 10' W .....

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:  
 Erickson 1 and 2 (40 units)

OWNER(S)  
 (1) Richard Haslinger ..... (2) .....

MAILING ADDRESS  
 P.O. Box 335  
 Fort St. James, BC V0J 1P0

OPERATOR(S) (that is, Company paying for the work)  
 (1) Placer Dome Inc. .... (2) .....

MAILING ADDRESS  
 P.O. Box 49330  
 Bentall Postal Station  
 Vancouver, B.C. V7X 1P1

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):  
 The property lies along the eastern side of the upper Triassic to lower Cretaceous Hogem Batholith. The only rock type observed during the sampling program was granodiorite. Alteration is rare, but some narrow quartz veins contain elevated Cu, and one gave high silver values.

REFERENCES TO PREVIOUS WORK Assessment Reports 3856 and 3857, .....

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
<b>GEOLOGICAL (scale, area)</b>			
Ground	.....	.....	.....
Photo	.....	.....	.....
<b>GEOPHYSICAL (line-kilometres)</b>			
Ground			
Magnetic	.....	.....	.....
Electromagnetic	.....	.....	.....
Induced Polarization	.....	.....	.....
Radiometric	.....	.....	.....
Seismic	.....	.....	.....
Other	.....	.....	.....
Airborne			
<b>GEOCHEMICAL (number of samples analysed for ....)</b>			
Soil	140 (Ag, As, Au, Cu, Mo, Pb, Zn)	.....	8,732.4
Silt	5 (Ag, As, Au, Cu, Mo, Pb, Zn, Mn)	.....	1,221.4
Rock	8 (Ag, As, Au, Cu, Mo, Pb, Zn)	.....	1,285.4
Bulk Stream	5 (Ag, As, Aux3, Cu, Mo, Pb, Zn, Mn, Fe)	.....	2,463.8
<b>DRILLING (total metres; number of holes, size)</b>			
Core			
Non-core			
<b>RELATED TECHNICAL</b>			
Sampling/assaying			
Petrographic			
Mineralogic			
Metallurgic			
<b>PROSPECTING (scale, area)</b>			
<b>PREPARATORY/PHYSICAL</b>			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres)			
Underground (metres)			
<b>TOTAL COST</b>			<b>13,703.00</b>

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report) .....	.....	.....	.....	Information Class .....
Value of work approved .....	.....	.....	.....	
Value claimed (from statement) .....	.....	.....	.....	
Value credited to PAC account .....	.....	.....	.....	
Value debited to PAC account .....	.....	.....	.....	
Accepted .....	Date .....	Rept. No. ....	.....	.....

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- II. Rock Sample Descriptions and Analyses
- III. Soil Sample Analyses and Probability Plots
- IV. Bulk Stream Sediment Sample Analyses
- V. Silt Sample Analyses

## 1.0 SUMMARY

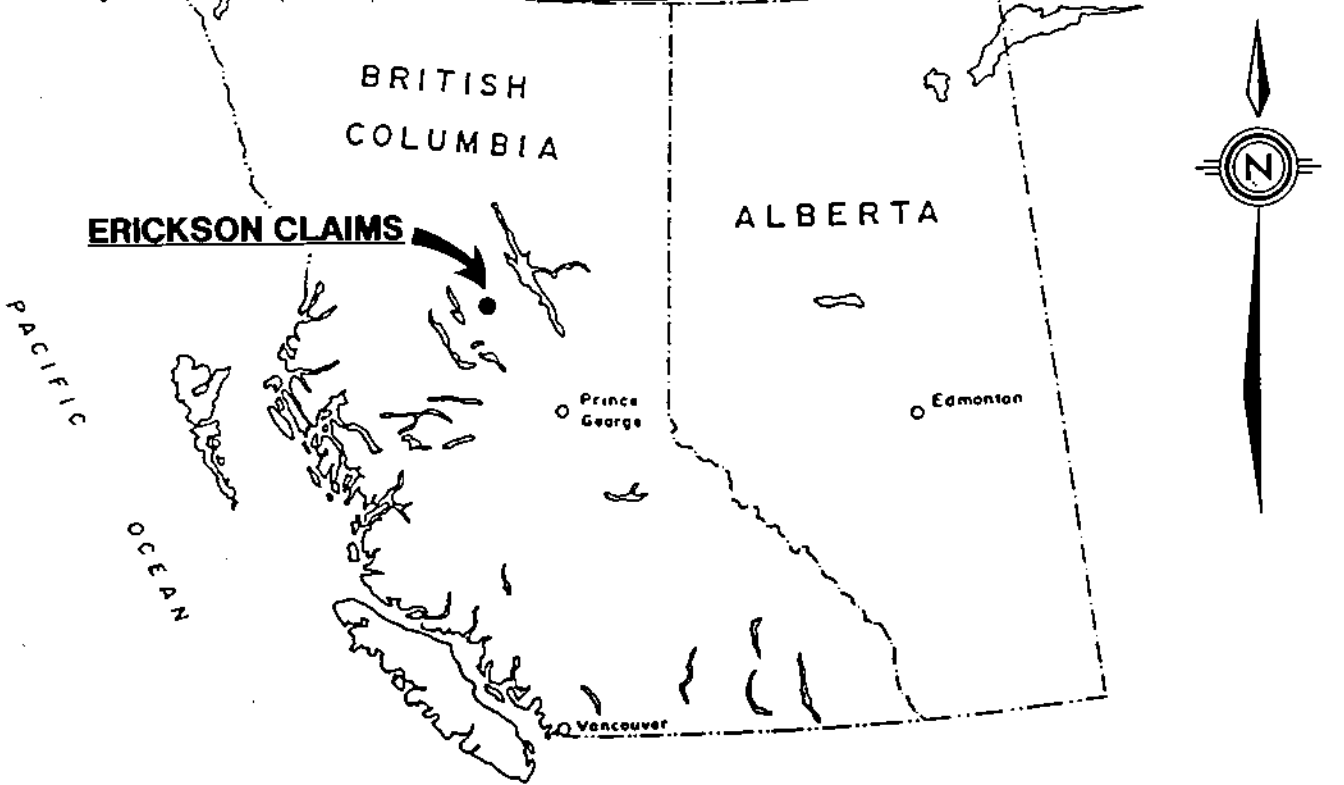
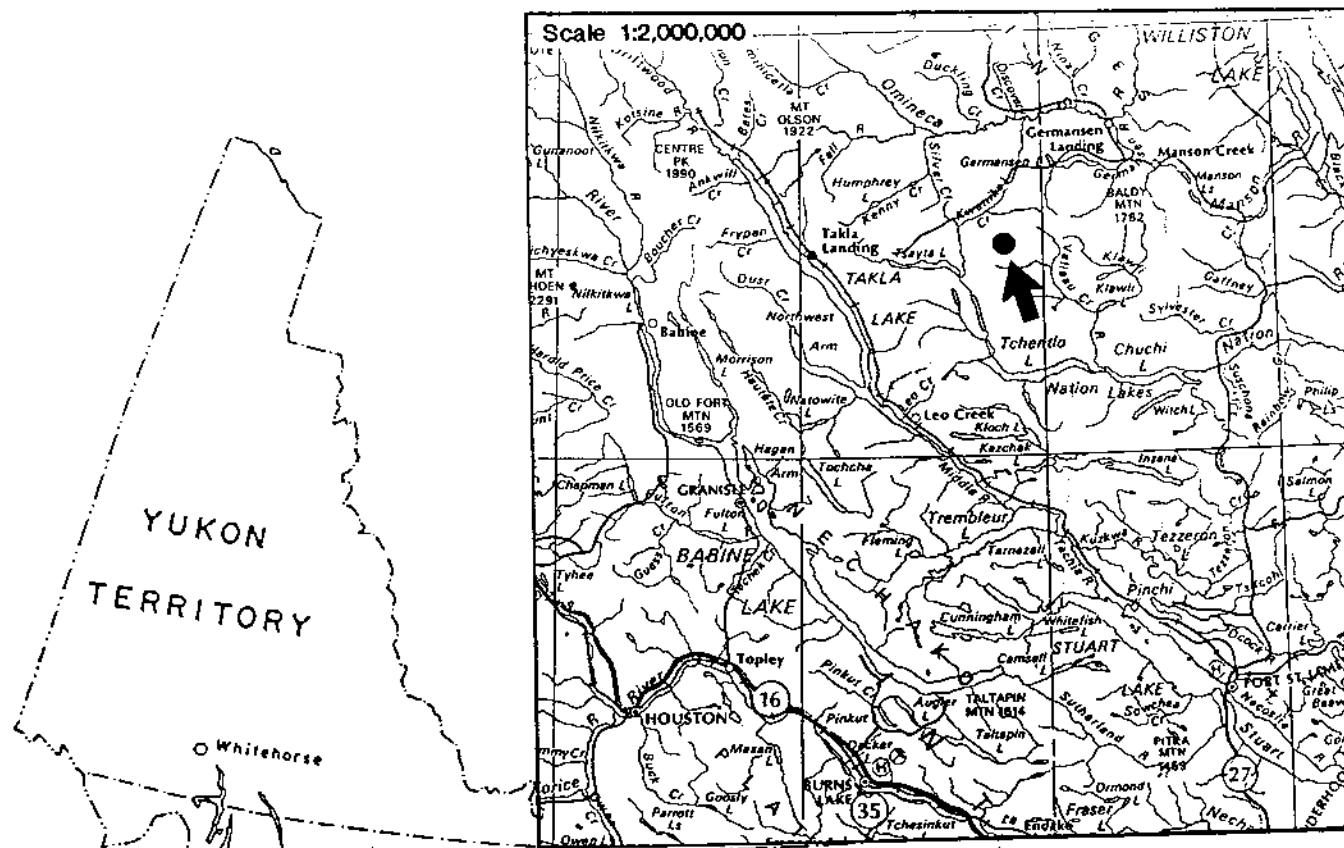
A short geochemical soil and rock sampling program was conducted on the Erickson Claims during the 1990 field season. Previous assessment work identified two areas of elevated copper and/or molybdenum in soil samples which were interpreted as low grade disseminated sulphide zones. The purpose of the current program was to test those zones for their gold content.

The property lies along the eastern side of the upper Triassic to lower Cretaceous Hogem Batholith. The only rock type encountered during the sampling program was granodiorite. Alteration is rare, but there are some narrow quartz veins in the northeastern sector. One quartz vein sample returned over 0.2% Cu, and another had 24 g/t Ag.

Soil sample results for all elements are fairly low, but a 175 m wide zone of elevated values of molybdenum, copper and silver occurs on a soil line just north of the claims. Anomalous values can be traced about 800 m to the south onto another line of soils within the claims, but further projections are not possible. Soil sample results from the eastern portion of the property exhibit a high proportion of elevated molybdenum values between 10 and 31 ppm. A few elevated copper values are also present, but gold and silver values are very low.

Stream sediment samples show elevated copper, molybdenum, silver, iron and manganese in the eastern tributary which drains the central portion of the claims.

The results of the 1990 field program partially corroborate the results of earlier work. Linear trends of elevated copper, molybdenum and silver in the north-central sector of the claims correlate approximately with a previously-identified linear copper anomaly. The broad zone of enriched molybdenum and copper detected this year on the eastern ridge also correlates spatially with a previously-outlined zone. Precious metals, not analyzed previously, are not elevated in this zone.



<b>PLACER DOME INC.</b>	
<b>ERICKSON PROPERTY</b>	
DRAWN BY GMD	<b>LOCATION MAP</b>
DATE July 1990	
SCALE	
Figure 1	FILE No. V-258 <span style="float: right;">93N/6E</span>

## 2.0 INTRODUCTION

A three day, helicopter-supported geochemical program was conducted on the Erickson claims during the period 19 June to 21 June 1990 by Placer Dome Inc. personnel. The program consisted of soil sampling, silt and bulk sediment stream sampling, and prospecting. Field work was conducted under the supervision of Stephen Price, Project Geologist.

### 2.1 Location and Access

The Erickson claims (Figure 1) are 130 km northwest of Fort St. James, British Columbia, in the Omineca Mining Division, on N.T.S. map sheet 93N/6. The approximate centre of the claims is Latitude 55°29' North, Longitude 125°10' West.

Access to the property is by helicopter from Tchentlo Lake Lodge, 28 km to the south. The lodge is easily accessed by forest service roads from Fort St. James, and is a summer base for Northern Mountain Helicopters.

### 2.2 Topography and Vegetation

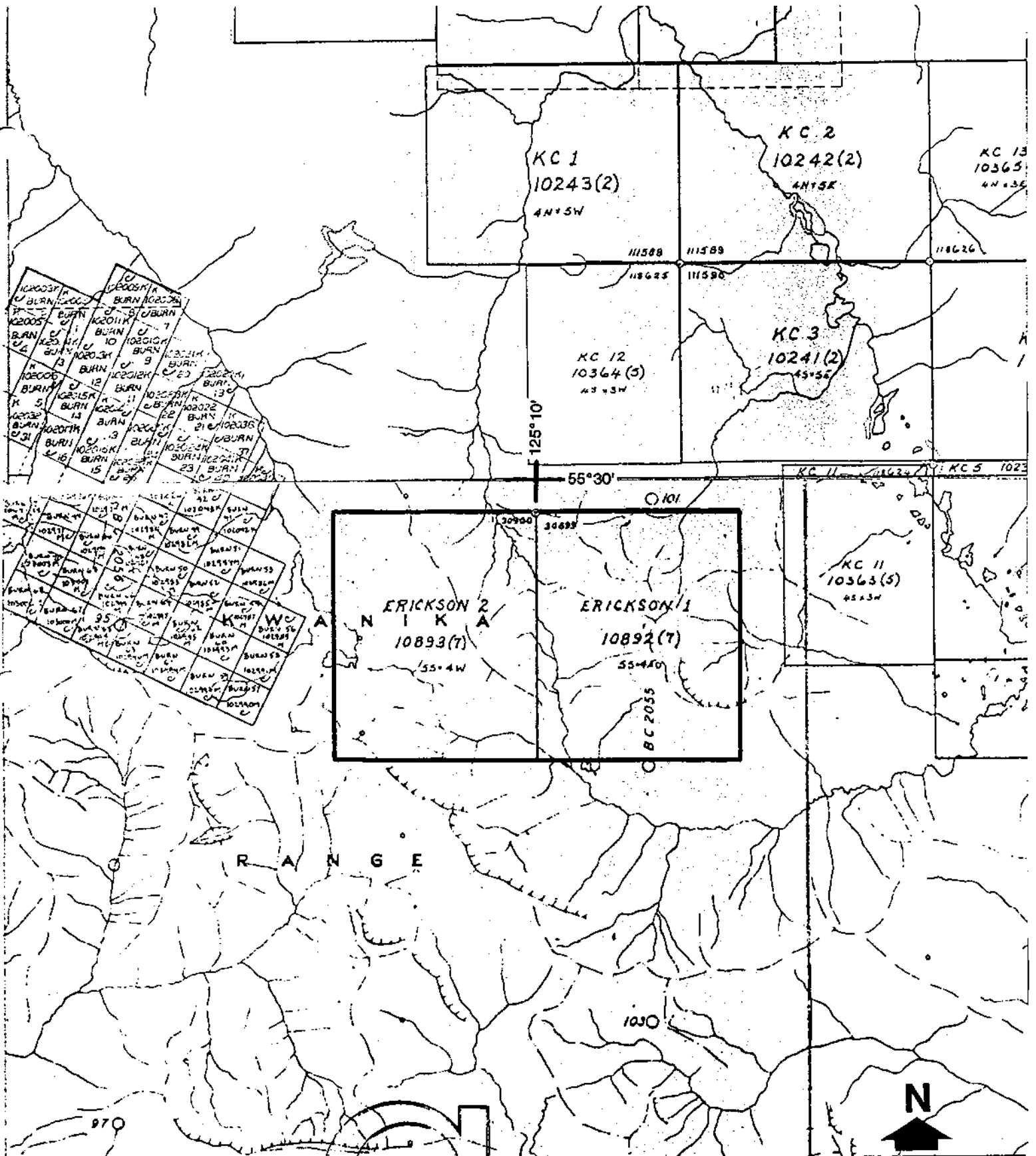
The property is in the Hogem Ranges of the Omineca Mountains, just north of the Nechako Plateau. The property straddles the divide between northerly-flowing tributaries of Kwanika Creek and southeasterly-flowing tributaries of Valleau Creek. The north-central portion of the claims is dominated by a large, flat swampy meadow which separates a northwesterly-trending hill of low relief on the west from a more prominent northerly-trending ridge on the east. The western flank of the eastern ridge has a slope of moderate relief, but the eastern flank is characterized by steep to vertical cliffs and talus.

Approximately 80% of the property is forested by a mixture of fir, spruce and pine. Outcrops were observed only within the central creek valley and along the eastern ridge.

### 2.3 Work History

The area covered by the Erickson claims was examined by Noranda Exploration Company Limited in 1971 and 1972. Noranda's work program on the SAN 1-64 claims included





<b>PLACER DOME INC.</b>		
<b>ERICKSON PROPERTY</b>		
DRAWN BY GMD	<b>CLAIM MAP</b>	
DATE July 1990		
SCALE 1:50,000		
Figure 2	FILE No. V-258	93N/6E

geochemical soil sampling, induced polarization and magnetometer surveys. Noranda defined two principal soil geochemical anomalies in the area of the current Erickson claims, a broad molybdenum-copper zone and a linear copper zone. Anomalous induced polarization chargeability was detected in the area of the broad molybdenum-copper anomaly.

There is no record of subsequent work until 21 July 1989 when the Erickson claims were staked by Richard Haslinger.

#### 2.4 Summary of Work Done

The 1990 exploration program included the collection of 140 soil samples, five bulk stream sediment samples, five silt samples, and eight rock samples. Prospecting and geologic mapping were done simultaneously as an adjunct to the sampling program.

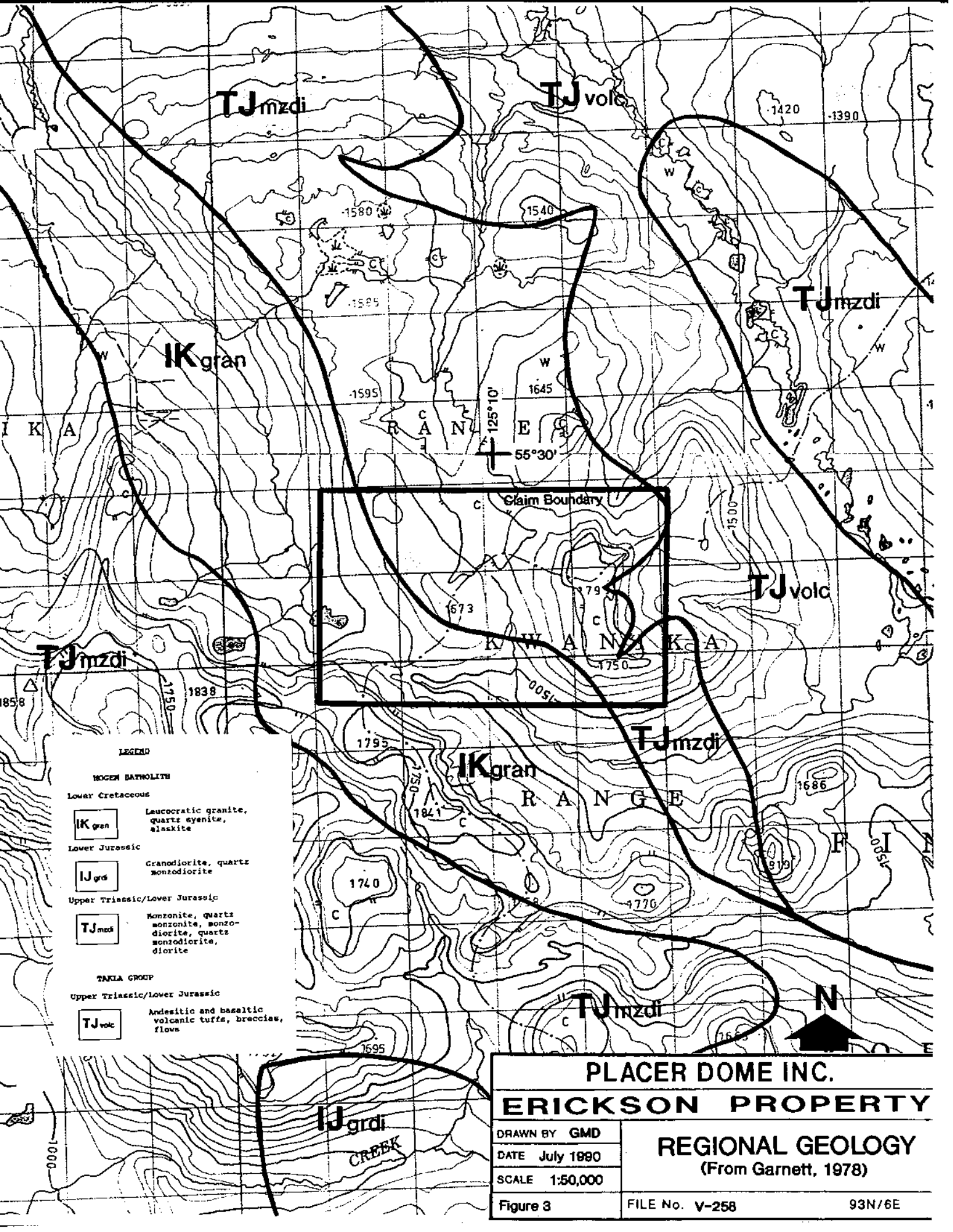
#### 2.5 Claim Status

The Erickson claims (Figure 2) are owned by Richard Haslinger of Fort St. James, British Columbia. Placer Dome Inc. has a first right of refusal to option the property in return for completion of assessment requirements for the current year. Claim details are as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Date Staked</u>
Erickson #1	20	10892	21 July 1989
Erickson #2	20	10893	22 July 1989

### 3.0 REGIONAL GEOLOGY

The Erickson Property lies within Quesnellia, an accreted tectonic terrane consisting of upper Triassic to lower Jurassic island arc volcanics, volcanoclastics and comagmatic intrusive rocks overlain by Jurassic arc-derived clastic rocks. The claims are along the eastern edge of the 140 km long Hogem Batholith which intrudes the western side of Quesnellia. The batholith is a complex of various intrusive phases which span the period from upper Triassic to lower Cretaceous (Garnett, 1978). Earliest basic and granodioritic phases are noted to contain only accessory chalcopyrite of no economic importance. Of greater interest are later syenitic phases which host an abundance of porphyry copper-gold occurrences along the length of the batholith, and the youngest granitic phase which hosts porphyry copper-molybdenum mineralization.



**LEGEND**

**MOGON BATHOLITE**

**Lower Cretaceous**

**IK gran**

Leucocratic granite, quartz syenite, alaskite

**Lower Jurassic**

**IJ grd**

Granodiorite, quartz monzodiorite

**Upper Triassic/Lower Jurassic**

**TJmzdi**

Monzonite, quartz monzonite, monzodiorite, quartz monzodiorite, diorite

**TAKLA GROUP**

**Upper Triassic/Lower Jurassic**

**TJvolc**

Andesitic and basaltic volcanic tuffs, breccias, flows

**PLACER DOME INC.  
ERICKSON PROPERTY**

DRAWN BY GMD  
DATE July 1990  
SCALE 1:50,000

**REGIONAL GEOLOGY**  
(From Garnett, 1978)

Figure 3

FILE No. V-258

93N/6E

#### 4.0 PROPERTY GEOLOGY

A regional study by J. A. Garnett (1978) shows the Erickson claims (Figure 3) to be underlain predominantly by early monzonitic and dioritic intrusive phases. Lower Cretaceous granites underlie the southwestern sector, and a small area of upper Triassic to lower Jurassic Takla volcanic rocks occupies the lower slopes of the eastern ridge.

The only outcrops observed during this program are at the north end of the eastern ridge and along the central creek (Figure 4). The only rock type observed was medium to coarse grained leucocratic granodiorite. Exposed rocks are generally unaltered, with the exception of one small area of weak clay alteration at sample site A4763, and chloritization at sample sites A4768 and A4770. Local disseminated pyrite and magnetite were observed on the eastern ridge.

Minor quartz veining in float and in outcrop on the eastern ridge includes quartz-magnetite, quartz-epidote, quartz-epidote-K-feldspar and quartz-pyrite-magnetite-chalcopyrite veins 1-5 cm wide. Potassium feldspar and epidote commonly occur as envelopes. Only one vein (quartz-epidote) was observed in outcrop.

Vein material found in the central creek does not contain sulphides or other accessory minerals. Narrow veins observed in outcrop at sample A4763 occur in a fine grained, weakly clay-altered intrusive with minor epidote.

Eight samples of various quartz veins were taken and analyzed for gold, silver, arsenic, copper, molybdenum, lead and zinc. Analytical methods are contained in Appendix I. Individual sample descriptions and analytical results are listed in Appendix II; copper, molybdenum, gold and silver results are plotted on Figures 5 and 6. The only results of merit include 0.23% Cu in a quartz-epidote vein hosted by pyrite and magnetite-bearing granodiorite in sample A4464. Sample A4764 contained 24 g/t Ag (0.7 oz/ton) in a piece of quartz vein float with no obvious mineralization.

#### 5.0 GEOCHEMISTRY

The 1990 geochemical program (Figure 4) consisted of five lines of soil samples which cover known copper geochemical anomalies from past work by Noranda. Stream sediment sampling

was conducted on two tributaries which join just south of the property boundary and eventually drain into Valleau Creek. A bulk stream sediment sample and a conventional silt sample were each collected at five sample locations.

### 5.1 Analyses

All samples were forwarded to Placer Dome Inc.'s analytical laboratory in Vancouver, British Columbia. They were geochemically analyzed for gold, silver, arsenic, copper, molybdenum, lead and zinc. Appendix I summarizes the extraction techniques used and their detection limits.

### 5.2 Soil Samples

Soil sample pits were excavated using a mattock, and samples were placed in Kraft paper bags. The "B" soil horizon was sampled where possible and notes were taken on sample location and characteristics. A total of 140 soil samples were collected within the claim boundaries, and an additional 29 were collected just north of the claims. Sample stations along lines are every 50 m on Lines 1 and 2, and every 25 m on Lines 3, 4 and 5.

Soil horizons are moderately well developed, with the exception of the swampy meadow in the north-central sector. Here, the organic "A" horizon was often sampled where the "B" horizon was not obtainable. This may explain why some element concentrations are depressed in this area, for example, copper and molybdenum on Line 3.

The 29 samples collected along Line 4, just north of the claims, are included in the following discussions because they contribute to the evaluation of sample results from within the Erickson claims. However, because they were collected outside of the Erickson Property boundary, the cost of their analyses has not been included in the Statement of Expenditures.

#### 5.2.1 Results

Analytical results of soil samples are listed in Appendix III. The majority of gold and arsenic analyses are less than instrument detection limits. Lead, zinc and silver values are low, but copper and molybdenum have some elevated results up to 368 and 100 ppm, respectively.

### 5.2.2 Interpretation

Copper, molybdenum, silver and gold results are plotted on Figures 5 and 6. Probability plots in Appendix III do not clearly indicate distinct anomalous populations, but the spatial distribution of higher values does show some patterns.

Soil values on the eastern lines substantiate the presence of the broad molybdenum and copper enriched zone detected by Noranda. Enriched molybdenum and copper values range from 10 to 31 ppm and 75 to 368 ppm, respectively, and are classified as a weak, multi-element soil anomaly. Precious metal values are very low, essentially background concentrations.

The two most northerly lines show southeasterly-trending zones of higher copper, molybdenum and silver results which do not extend onto Line 3. Elevated values of all three elements are coincident on Line 4, but they diverge on Line 5, where silver does not coincide with copper and molybdenum.

Although only 26 soil samples contain detectible gold, most of those samples are on Line 4. The highest values (20-37 ppb) are adjacent to the section of elevated silver, copper and molybdenum.

### 5.3 Bulk Stream Sediment Samples

A sampling technique called bulk stream sediment sampling was developed "in house" by Placer Dome Inc.'s exploration personnel. It is specifically designed for use in detailed and semi-detailed stream sediment geochemical surveys where gold mineralization is the target.

Samples were collected from natural drop-out sites for heavy minerals in the stream channels. Examples of these sites include plunge pools, riffles, and the upstream end of channel bars. Clastic stream sediments from the selected sites were wet sieved through a -20 mesh stainless steel screen and caught in an aluminum basin. A steel shovel was used to dig up the sediment. Approximately three to five kilograms of sieved fraction were collected per sample and put into numbered, doubled polyethylene bags. Notes were taken of sample location and characteristics for reference.

For analysis, samples were oven-dried and sieved to produce a -150 mesh size-fraction. Three separate aliquots were prepared from each sample for gold analysis in an attempt to address the problem of erratic gold distribution in natural materials, i.e. the "nugget effect."

#### 5.3.1 Results

Bulk stream sediment sample analyses are listed in Appendix IV and plotted on Figures 5 and 6. Values for silver, arsenic and gold are negligible; lead and zinc are not exceptional. Copper, molybdenum, iron and manganese, however, are significantly elevated in the eastern tributary.

#### 5.3.2 Interpretation

The eastern creek's drainage basin is more prospective than the western basin. The potential source for these elevated metals in creek sediments could be either the broad eastern molybdenum-copper soil zone, or the northern polymetallic linear soil zone.

### 5.4 Silt Samples

Conventional silt samples are designed to identify hydromorphic dispersion trains developed in clays, iron and manganese precipitates, and organic materials. Material was collected from accumulations of fine sediment in back eddies and quiet pools, usually located along the edges of the stream. Each sample contains silt collected from several such specific sites within a short distance from plotted locations. A plastic scoop and a Kraft paper bag were used to collect and package sample material.

For analysis, samples were oven-dried and sieved to produce a -80 mesh size-fraction.

#### 5.4.1 Results

Silt sample analyses are listed in Appendix V and plotted on Figures 5 and 6. The distribution of elements is almost identical to those of bulk samples with the exception of silver, which can be added to the list of elements which are elevated in the eastern tributary.

#### 5.4.2 Interpretation

The interpretation of silt sample results is essentially the same as that of bulk stream sediment sample results, with the addition of silver to the anomalous pathfinder element suite.

### 6.0 CONCLUSIONS

Geochemical soil sampling has confirmed the presence of a broad zone of enriched molybdenum and weakly anomalous copper in the eastern sector of the claims. Precious metals are not elevated in this area, and nearby outcrops contain only minor amounts of copper in narrow quartz veins. The source for elevated molybdenum and copper in these soils is probably a zone of low grade disseminated mineralization. However, without a precious metal signature, further investigation of the zone is unwarranted.

A second area of interesting geochemical results occurs in the north-central sector. There is a 175 m wide zone of coincident elevated copper, molybdenum and silver with adjacent weakly elevated gold on a soil line just north of the claim boundary. This enriched zone can be extended southeasterly for at least 800 m onto the claims, but poorly developed soil horizons have prevented further extension south. The bedrock source of this zone is probably structurally-controlled mineralization.



#### REFERENCES

- Armstrong, J.E. (1945): Takla, Cassiar Area, British Columbia, Dept. of Mines and Resources, Map 844A.
- Fountain, David K. (1972): Report on the Induced Polarization and Resistivity Survey on the Kwanika Property, Nik and San Claims, Germansen Landing Area, Assessment Report 3857, Noranda Exploration Company Limited.
- Garnett, J. a. (1978): Geology and Mineral Occurrences of the Southern Hogen Batholith, B.C. Ministry of Mines and Petroleum Resources Bulletin 70, 75 p.
- Howell, William A. and Dirom, Gavin E. (1972): Geochemical Survey on the Kwanika Property, Assessment Report 3856, Noranda Exploration Company Limited.

## STATEMENT OF COSTS

### Labour (Salary and Benefits)

S. Price, Project Geologist, 7 days @\$300/day	\$ 2,100.
G. Linden, Geologist, 5 days @\$270/day	1,350.
C. Woolverton, Field Assistant, 4 days @\$175/day	700.
J. Gordon, Field Assistant, 3 days @\$160/day	480.

### Site Costs

Room & Board	
Tchentlo Lodge, 14 man-days @\$55.00/day	770.
Groceries	120.
Mobile Radio Rental, 1 week	20.
Equipment Purchases	200.

### Travel Expenses

Airfare, S. Price, Vancouver to Prince George	210.
Truck Rental, 1 week	140.
Gasoline	60.

### Freight

Sample Shipment, Fort St. James to Vancouver	70.
----------------------------------------------	-----

### Helicopter

3.0 hrs @\$684.78/hr	2,054.
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### Analyses

140 Soil Samples @\$12.90/sample (Ag, As, Au, Cu, Mo, Pb, Zn) (Does not include Line 4)	1,806.
5 Bulk Sediment Samples @\$31.00/sample (Ag, As, Aux3, Cu, Mo, Pb, Zn, Mn, Fe)	155.
5 Silt Samples @\$13.40/sample (Ag, As, Au, Cu, Mo, Pb, Zn, Mn)	67.
8 Rock Samples	131.
8 geochem @\$15.25/sample (Ag, As, Au, Cu, Mo, Pb, Zn)	
1 Ag assay @\$8.50	

### Report Preparation

S. Price, 1.5 days @\$300/day	450.
G. Ditson, 4 days @\$380/day	1,520.
Drafting, 4 days @\$300/day	1,200.
Maps	100.

TOTAL	\$ 13,703.
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STATEMENT OF QUALIFICATIONS

I, Stephen Price, of the City of Vancouver, British Columbia, do hereby certify that:

1. I am a graduate of the University of British Columbia, where I received a B.Sc. in Geology in May, 1987.
2. I have practised my profession since graduation, primarily being involved in a variety of exploration projects in British Columbia and Saskatchewan.
3. I am currently employed by Placer Dome Incorporated.
4. I was present and responsible for all work performed on the Erickson Claims during the 1990 field program, and co-authored this report.

30 August 1990  
Date

Stephen Price  
Stephen Price

STATEMENT OF QUALIFICATIONS

I, Gwendolen May Ditson, of the City of Vancouver, British Columbia, do hereby certify that:

1. I am a graduate of the University of Southern California where I received a B.S. in Geology in 1974, and of the University of British Columbia where I received an M.Sc. in Geology in 1978.
2. I have practiced my profession part-time since 1976, and full-time since 1978.
3. I am a member in good standing of the Canadian Institute of Mining and Metallurgy.
4. I am currently employed by Placer Dome Incorporated.
5. I supervised the exploration program on the Erickson claims during 1990, compiled and reviewed the resulting data, and co-authored this report.

Date

July 20, 1990

Gwendolen May Ditson

**APPENDIX I**  
**ANALYTICAL TECHNIQUES AND DETECTION LIMITS**

**ANALYTICAL TECHNIQUES AND DETECTION LIMITS**

Placer Dome Inc.'s Vancouver Analytical Laboratory

**Geochemical Procedures:**

	<u>Units</u>	<u>Wt(g)</u>	<u>Attack</u>	<u>Time</u>	<u>Range</u>	<u>Method</u>
Ag	ppm	0.5	HClO <sub>4</sub> /HNO <sub>3</sub>	4 hrs	0.2-20	A.A. Background Correction
As	ppm	0.5	Aqua Regia	3 hrs	2-2000	DC Plasma
Au	ppb	10.0	Aqua Regia	3 hrs	5-4000	A.A. Solvent Extraction
Cu	ppm	0.5	HClO <sub>4</sub> /HNO <sub>3</sub>	4 hrs	2-4000	Atomic Absorption
Fe	‰	0.5	HF/HClO <sub>4</sub> / HNO <sub>3</sub> /HCl	6 hrs	0.02-20‰	DC Plasma
Mn	ppm	0.5	HClO <sub>4</sub> /HNO <sub>3</sub>	4 hrs	2-2000	Atomic Absorption
Mo	ppm	0.5	HClO <sub>4</sub> /HNO <sub>3</sub>	4 hrs	1-1000	Atomic Absorption
Pb	ppm	0.5	HClO <sub>4</sub> /HNO <sub>3</sub>	4 hrs	2-3000	A.A. Background Correction
Zn	ppm	0.5	HClO <sub>4</sub> /HNO <sub>3</sub>	4 hrs	2-3000	Atomic Absorption

**Assay Procedure:**

	<u>Units</u>	<u>Wt(g)</u>	<u>Attack</u>	<u>Time</u>	<u>Range</u>	<u>Method</u>
Ag	ppm	2.0	HCl/HNO <sub>3</sub> /HClO <sub>4</sub>	1.5 hrs	>1	A.A. Background Correction

APPENDIX II  
ROCK SAMPLE DESCRIPTIONS AND ANALYSES

## ROCK SAMPLE DESCRIPTIONS

<u>Sample</u>	<u>Type</u>	<u>Description</u>
A4464	1 m chip on float boulder	1-2 cm quartz-magnetite veinlets in and through alaskite (dyke?)
A4465	outcrop grab	limonitic 3 cm quartz-epidote vein in granodiorite with chloritized mafics, 2% disseminated pyrite and 1% magnetite blebs
A4763	outcrop grab	0.5-1.5 cm limonitic sugary quartz vein in fine grained weakly clay-altered intrusive with minor epidote
A4764	float grab	abundant large bull quartz vein float below bluff
A4767	float grab	1-2 cm vuggy quartz-chalcopyrite-magnetite-epidote vein with K-feldspar-epidote envelope in coarse grained granodiorite
A4768	float grab	quartz-epidote-K-feldspar vein with magnetite selvage in strongly chloritized intrusive
A4769	float grab	2-3 cm quartz-magnetite vein
A4770	float grab	3-5 cm oxidized quartz-pyrite-magnetite-chalcopyrite vein in chloritized granodiorite



PDI GEOCHEM SYSTEM: Data From: Erickson Property (V-258); Rock Sample Analyses

GRID	SAMPLE	PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Mo PPM	Pb PPM	Zn PPM
93N6E	A4464	0398	<0.2	<2	<5	34	3	2	14
93N6E	A4465	0398	2.7	4	25	2350	10	9	37
93N6E	A4763	0398	0.3	3	20	15	6	10	10
93N6E	A4764	0398	24	<2	<5	12	15	66	4
93N6E	A4767	0398	0.5	2	60	510	4	7	28
93N6E	A4768	0398	<0.2	4	<5	16	3	7	24
93N6E	A4769	0398	0.2	<2	<5	173	6	2	17
93N6E	A4770	0398	<0.2	3	<5	69	6	3	27
93N6E	A4770*	0398	<0.2	3	5	69	6	4	21

END OF LISTING - 9 RECORDS PRINTED

APPENDIX III

SOIL SAMPLE ANALYSES AND PROBABILITY PLOTS

## PDI GEOCHEM SYSTEM: Data From: Erickson Property (V-258); Soil Sample Analyses

GRID	SAMPLE	PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Mo PPM	Pb PPM	Zn PPM
93N6E	ERX001	0396	0.5	<2	<5	16	7	6	66
93N6E	ERX002	0396	0.5	<2	<5	5	5	16	32
93N6E	ERX003	0396	0.6	<2	<5	6	2	7	48
93N6E	ERX004	0396	0.7	<2	<5	9	2	7	46
93N6E	ERX005	0396	0.5	<2	<5	11	5	9	52
93N6E	ERX006	0396	0.3	<2	<5	6	4	5	36
93N6E	ERX007	0396	0.3	<2	<5	3	1	9	19
93N6E	ERX008	0396	0.2	<2	<5	3	2	7	18
93N6E	ERX009	0396	0.4	<2	<5	8	1	11	32
93N6E	ERX009*	0396	0.4	<2	<5	8	1	11	34
93N6E	ERX010	0396	0.2	3	<5	9	4	8	38
93N6E	ERX011	0396	0.4	<2	<5	7	3	8	36
93N6E	ERX012	0396	1.0	<2	<5	24	6	11	66
93N6E	ERX013	0396	0.2	<2	<5	7	5	7	34
93N6E	ERX014	0396	1.1	<2	<5	51	10	13	61
93N6E	ERX015	0396	0.6	<2	<5	128	14	11	110
93N6E	ERX016	0396	0.6	<2	<5	114	8	11	69
93N6E	ERX017	0396	0.9	<2	<5	60	5	9	57
93N6E	ERX018	0396	0.4	<2	<5	47	6	9	67
93N6E	ERX018*	0396	NSS	NSS	<5	NSS	NSS	NSS	NSS
93N6E	ERX019	0396	0.6	<2	<5	24	7	10	68
93N6E	ERX020	0396	0.5	<2	<5	24	4	8	72
93N6E	ERX021	0396	1.3	<2	NSS	37	9	19	100
93N6E	ERX022	0396	0.3	<2	<5	9	11	7	45
93N6E	ERX023	0396	0.2	<2	<5	3	2	6	27
93N6E	ERX024	0396	0.4	<2	<5	11	3	4	40
93N6E	ERX025	0396	0.3	<2	<5	22	4	7	52
93N6E	ERX026	0396	0.9	<2	<5	23	2	7	46
93N6E	ERX027	0396	0.3	<2	<5	42	1	6	50
test	STD P1	0396	0.3	20	22	22	50	52	130
93N6E	ERX028	0396	0.2	3	<5	34	2	5	44
93N6E	ERX029	0396	1.5	<2	<5	35	1	7	33
93N6E	ERX030	0396	0.7	<2	<5	43	3	7	55
93N6E	ERX031	0396	1.2	<2	<5	23	1	6	23
93N6E	ERX032	0396	0.7	<2	<5	24	16	5	70
93N6E	ERX033	0396	0.4	<2	<5	10	8	5	18
93N6E	ERX034	0396	0.6	<2	<5	12	1	2	15
93N6E	ERX035	0396	0.6	<2	NSS	20	3	6	30
93N6E	ERX036	0396	1.0	<2	NSS	48	2	6	45
93N6E	ERX036*	0396	1.4	<2	NSS	48	2	7	50
93N6E	ERX037	0396	<0.2	<2	NSS	28	1	9	27
93N6E	ERX038	0396	0.4	<2	NSS	20	3	67	85
93N6E	ERX039	0396	0.2	<2	<5	26	2	8	26
93N6E	ERX040	0396	1.6	4	<5	32	7	8	23
93N6E	ERX041	0396	2.0	<2	<5	36	3	5	19
93N6E	ERX042	0396	0.5	4	<5	16	4	6	82
93N6E	ERX043	0396	0.4	<2	<5	15	6	8	63
93N6E	ERX044	0396	<0.2	<2	<5	23	7	5	77
93N6E	ERX045	0396	0.5	<2	<5	22	12	5	74
93N6E	ERX045*	0396	0.5	<2	<5	22	10	5	74
93N6E	ERX046	0396	0.3	<2	<5	27	16	5	68
93N6E	ERX047	0396	0.2	<2	<5	29	24	4	66
93N6E	ERX048	0396	0.2	<2	<5	20	8	6	68
93N6E	ERX049	0396	<0.2	<2	<5	19	11	3	62
93N6E	ERX050	0396	0.3	<2	<5	56	23	3	48
93N6E	ERX051	0396	0.4	<2	<5	39	23	4	37
93N6E	ERX052	0396	0.6	<2	NSS	91	2	3	32

PDI GEOCHEM SYSTEM: Data From: Erickson Property (V-258); Soil Sample Analyses

GRID	SAMPLE	PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Mo PPM	Pb PPM	Zn PPM
93N6E		ERX053 0396	0.9	<2	NSS	33	3	8	85
93N6E		ERX054 0396	0.2	<2	10	22	2	7	32
test	STD P1	0396	0.3	22		22	52	50	130
93N6E		ERX055 0396	<0.2	<2	<5	2	1	6	17
93N6E		ERX056 0396	0.2	<2	<5	100	3	5	62
93N6E		ERX057 0396	0.2	<2	<5	10	2	8	17
93N6E		ERX058 0396	0.3	<2	<5	38	3	4	40
93N6E		ERX059 0396	<0.2	3	<5	19	3	3	21
93N6E		ERX060 0396	0.2	<2	<5	9	2	6	29
93N6E		ERX061 0396	1.5	<2	<5	59	83	5	82
93N6E		ERX062 0396	0.2	<2	5	17	4	4	60
93N6E		ERX063 0396	0.3	<2	<5	26	5	5	53
93N6E		ERX063* 0396	0.3	<2	<5	26	5	5	53
93N6E		ERX064 0396	0.3	<2	5	25	5	5	17
93N6E		ERX065 0396	2.2	<2	<5	56	1	4	26
93N6E		ERX066 0396	0.4	<2	NSS	36	14	10	61
93N6E		ERX067 0396	4.5	<2	NSS	296	27	9	33
93N6E		ERX068 0396	1.0	<2	NSS	151	24	17	108
93N6E		ERX069 0396	1.5	<2	<5	268	31	12	63
93N6E		ERX070 0396	1.5	<2	NSS	200	6	5	70
93N6E		ERX071 0396	1.5	<2	<5	246	21	8	70
93N6E		ERX072 0396	1.0	<2	<5	284	16	7	77
93N6E		ERX072* 0396	1.0	<2	<5	295	17	7	78
93N6E		ERX073 0396	0.3	<2	20	60	8	9	66
93N6E		ERX074 0396	0.5	<2	20	244	13	8	116
93N6E		ERX075 0396	0.5	<2	37	146	12	7	100
93N6E		ERX076 0396	<0.2	<2	37	14	3	5	40
93N6E		ERX077 0396	0.4	<2	15	136	9	6	130
93N6E		ERX078 0396	0.3	<2	35	5	1	7	40
93N6E		ERX079 0396	0.8	<2	15	33	3	6	56
93N6E		ERX080 0396	0.4	<2	<5	14	5	6	53
93N6E		ERX081 0396	0.5	<2	20	13	3	8	60
test	STD P1	0396	0.3	20		23	55	50	130
93N6E		ERX082 0396	<0.2	<2	10	3	2	7	25
93N6E		ERX083 0396	0.3	<2	<5	22	18	9	81
93N6E		ERX084 0396	0.2	<2	11	8	1	9	53
93N6E		ERX085 0396	0.3	<2	15	25	5	10	100
93N6E		ERX086 0396	0.7	<2	<5	45	9	10	80
93N6E		ERX087 0396	0.2	<2	5	5	3	9	45
93N6E		ERX088 0396	0.2	<2	10	9	4	10	51
93N6E		ERX089 0396	<0.2	<2	<5	4	3	9	19
93N6E		ERX090 0396	0.5	NSS	NSS	56	1	11	62
93N6E		ERX090* 0396	NSS	NSS	NSS	NSS	NSS	NSS	NSS
93N6E		ERX091 0396	0.7	<2	NSS	44	6	21	68
93N6E		ERX092 0396	1.1	<2	NSS	28	5	21	39
93N6E		ERX093 0396	1.6	<2	NSS	65	3	7	24
93N6E		ERX094 0396	1.1	<2	NSS	61	1	18	30
93N6E		ERX095 0396	1.0	<2	NSS	103	1	5	25
93N6E		ERX096 0396	0.2	<2	<5	28	2	4	35
93N6E		ERX097 0396	1.4	<2	25	80	<1	62	53
93N6E		ERX098 0396	0.2	<2	10	23	3	6	34
93N6E		ERX099 0396	0.4	<2	10	30	8	4	51
93N6E		ERX099* 0396	0.3	<2	NSS	27	8	3	46
93N6E		ERX100 0396	0.2	<2	10	8	4	3	40
93N6E		ERX101 0396	0.3	<2	8	42	11	10	107
93N6E		ERX102 0396	0.4	<2	20	37	6	8	97
93N6E		ERX103 0396	0.4	3	5	6	3	7	28

PDI GEOCHEM SYSTEM: Data From: Erickson Property (V-258); Soil Sample Analyses

GRID	SAMPLE	PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Mo PPM	Pb PPM	Zn PPM
93N6E	ERX104	0396	0.6	6	<5	93	11	15	123
93N6E	ERX105	0396	0.4	<2	<5	83	10	14	101
93N6E	ERX106	0396	0.4	4	<5	106	17	16	100
93N6E	ERX107	0396	<0.2	<2	<5	9	4	5	30
93N6E	ERX108	0396	0.2	<2	<5	91	10	7	100
93N6E	ERX108*	0396	0.2	2	NSS	95	12	8	120
93N6E	ERX109	0396	0.5	4	<5	252	21	18	80
93N6E	ERX110	0396	0.5	<2	<5	106	25	13	100
93N6E	ERX111	0396	<0.2	<2	<5	65	8	5	68
93N6E	ERX112	0396	<0.2	<2	<5	43	7	4	52
93N6E	ERX113	0396	0.3	<2	<5	72	13	5	41
93N6E	ERX114	0396	0.2	<2	<5	132	27	6	60
93N6E	ERX115	0396	<0.2	<2	<5	13	8	8	40
93N6E	ERX116	0396	<0.2	<2	<5	23	9	6	46
93N6E	ERX117	0396	<0.2	<2	<5	3	1	5	16
93N6E	ERX117*	0396	<0.2	<2	<5	2	1	4	15
93N6E	ERX118	0396	0.7	2	<5	103	31	8	80
93N6E	ERX119	0396	0.4	6	<5	122	24	15	103
93N6E	ERX120	0396	0.4	4	<5	88	16	6	78
93N6E	ERX121	0396	0.3	<2	<5	91	7	5	75
93N6E	ERX122	0396	0.2	2	<5	75	1	5	55
93N6E	ERX123	0396	0.2	5	<5	65	1	5	42
93N6E	ERX124	0396	0.2	2	<5	44	<1	5	32
93N6E	ERX125	0396	0.4	8	10	80	1	6	49
93N6E	ERX126	0396	0.2	7	<5	53	1	6	60
93N6E	ERX126*	0396	0.3	5	<5	52	1	6	57
93N6E	ERX127	0396	0.2	6	<5	153	1	8	86
93N6E	ERX128	0396	0.3	4	<5	65	1	7	49
93N6E	ERX129	0396	0.2	5	<5	39	1	7	65
93N6E	ERX130	0396	0.3	6	<5	39	<1	6	62
93N6E	ERX131	0396	0.3	3	<5	39	<1	3	39
93N6E	ERX132	0396	0.3	6	<5	35	1	5	47
93N6E	ERX133	0396	0.5	10	<5	368	29	7	138
93N6E	ERX134	0396	0.5	3	<5	182	8	7	44
93N6E	ERX135	0396	0.7	<2	<5	208	17	5	51
93N6E	ERX135*	0396	0.7	3	<5	209	16	6	51
93N6E	ERX136	0396	0.4	5	<5	186	12	3	50
93N6E	ERX137	0396	0.4	2	<5	113	19	6	76
93N6E	ERX138	0396	0.4	2	<5	61	3	7	37
93N6E	ERX139	0396	0.3	4	<5	120	12	6	60
93N6E	ERX140	0396	0.5	6	<5	84	6	7	48
93N6E	ERX141	0396	0.3	<2	<5	85	11	5	47
93N6E	ERX142	0396	0.3	<2	<5	94	10	8	73
93N6E	ERX143	0396	0.4	<2	<5	135	10	7	85
93N6E	ERX144	0396	0.4	6	<5	158	11	9	92
test	STD P1	0396	0.3	22		23	56	52	130
93N6E	ERX145	0396	0.3	<2	5	205	17	21	124
93N6E	ERX146	0396	<0.2	<2	<5	115	4	7	55
93N6E	ERX147	0396	<0.2	3	<5	33	8	11	57
93N6E	ERX148	0396	0.4	<2	<5	89	7	7	61
93N6E	ERX200	0396	0.2	5	<5	25	15	7	57
93N6E	ERX201	0396	0.5	<2	<5	50	17	7	71
93N6E	ERX202	0396	0.3	<2	<5	128	10	10	44
93N6E	ERX203	0396	<0.2	<2	<5	33	6	9	48
93N6E	ERX204	0396	0.3	<2	NSS	156	4	10	47
93N6E	ERX204*	0396	0.4	<2	NSS	160	3	10	49
93N6E	ERX205	0396	<0.2	<2	<5	141	4	7	62

PDI GEOCHEM SYSTEM: Data From: Erickson Property (V-258); Soil Sample Analyses

GRID	SAMPLE	PROJECT	Ag PPM	As PPM	Au1 PPB	Cu PPM	Mo PPM	Pb PPM	Zn PPM
93N6E	ERX206	0396	0.2	<2	<5	173	59	8	53
93N6E	ERX207	0396	1.2	<2	NSS	242	3	12	198
93N6E	ERX208	0396	0.9	<2	NSS	249	3	9	117
93N6E	ERX209	0396	0.2	<2	<5	54	7	9	56
93N6E	ERX210	0396	0.3	3	<5	41	2	10	48
93N6E	ERX211	0396	0.6	8	<5	210	100	16	62
93N6E	ERX212	0396	0.3	2	5	33	4	11	56
93N6E	ERX213	0396	0.5	<2	<5	93	11	8	90
93N6E	ERX213*	0396	0.5	<2	<5	97	11	9	90
93N6E	ERX214	0396	0.3	<2	<5	43	3	7	55
93N6E	ERX215	0396	<0.2	2	<5	75	5	8	64
93N6E	ERX216	0396	<0.2	4	<5	18	3	9	42
93N6E	ERX217	0396	<0.2	<2	<5	28	3	11	55
93N6E	ERX218	0396	0.2	<2	5	72	4	6	51
93N6E	ERX219	0396	0.2	<2	<5	21	4	10	26
93N6E	ERX220	0396	0.2	<2	5	91	8	8	63
test	STD P1	0396	0.3	19		23	52	51	132
test	STD AU7	0396			305				
test	STD AU7	0396			390				
test	STD AU7	0396			265				
test	STD AU7	0396			260				
test	STD AU7	0396			500				

END OF LISTING - 193 RECORDS PRINTED

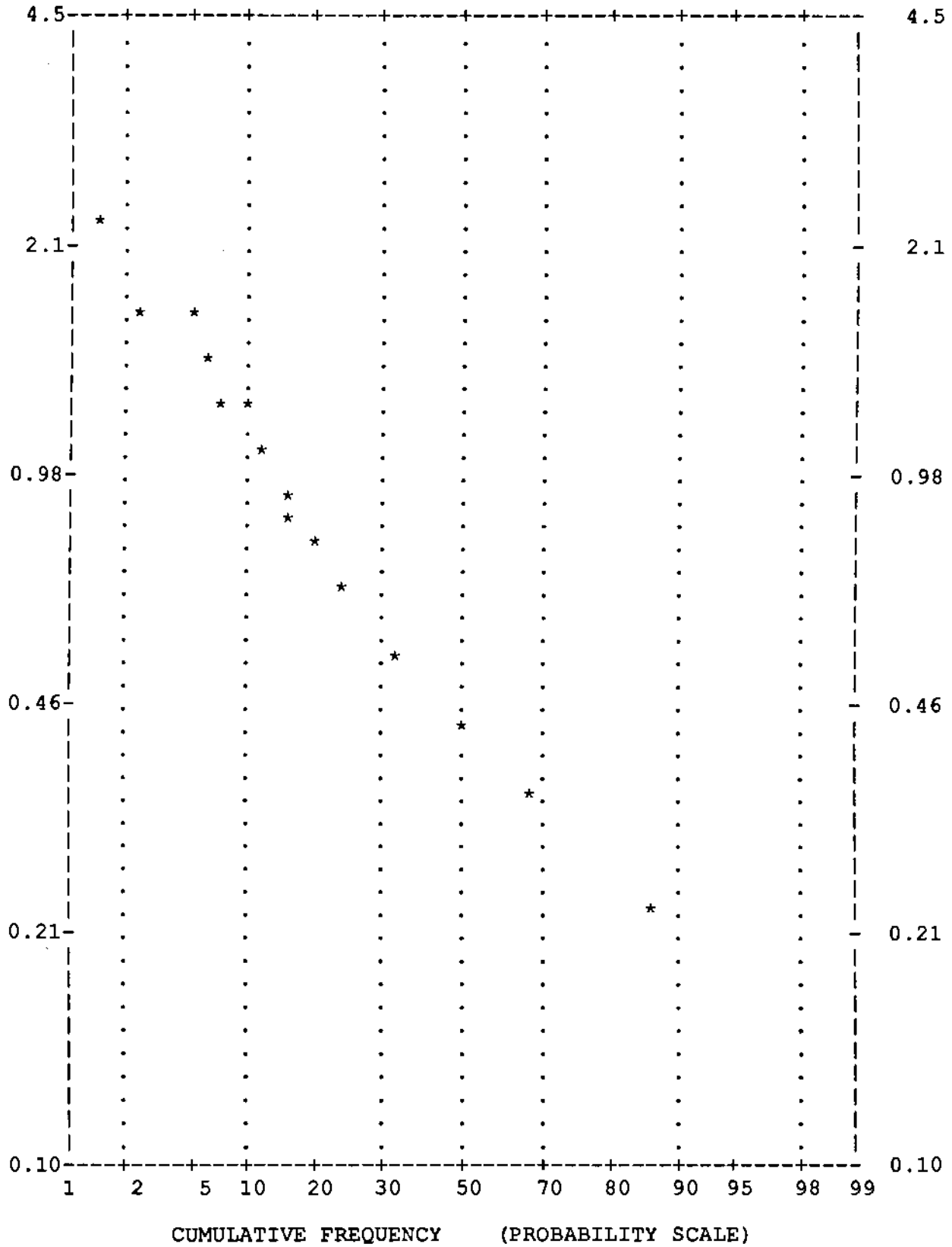
file: erick.soil

Field name: AG

LOG =1

REPVAL = 0.00100

MIN = .10000      MAX = 4.5000      MEAN = .47143      STD DEV = .39505  
 NUMBER OF DATA PLOTTED = 169 ( 0 NULLS      0 < YMIN      0 > YMAX)



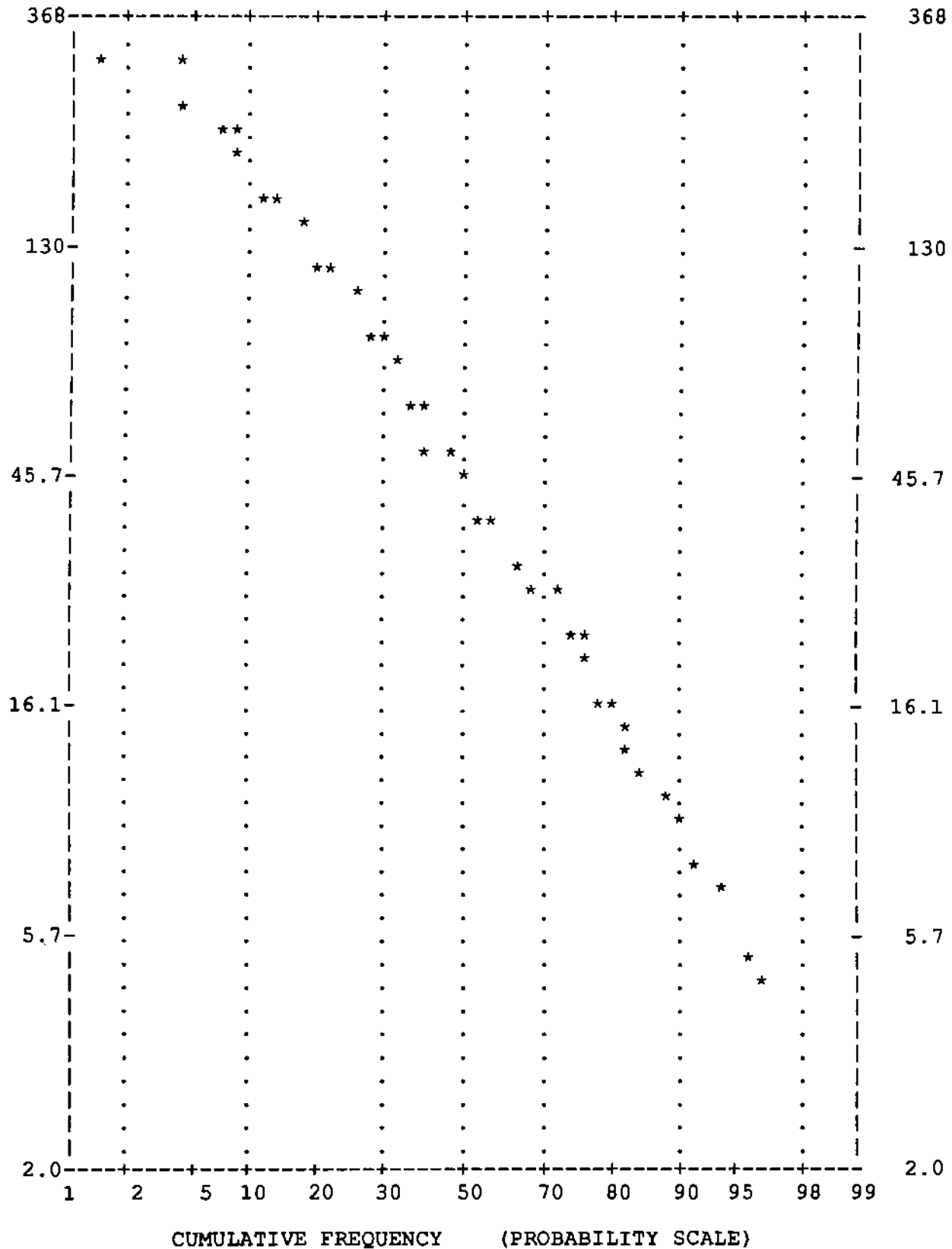
file: erick.soil

Field name: CU

LOG =1

REPVAL = 0.0010C

MIN = 2.0000      MAX = 368.00      MEAN = 65.947      STD DEV = 69.390  
NUMBER OF DATA PLOTTED = 169 ( 0 NULLS      0 < YMIN      0 > YMAX)





file: erick.soil

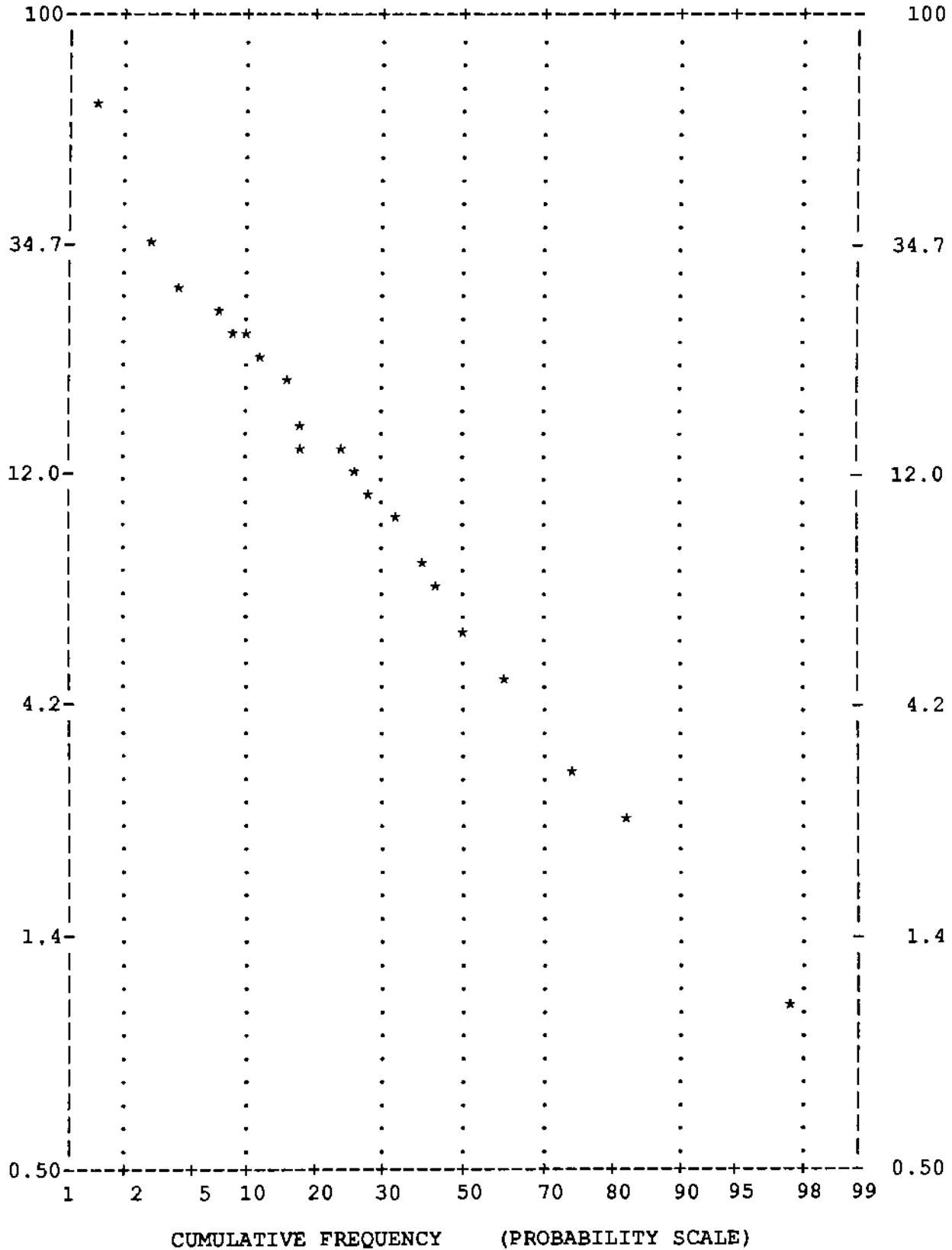
Field name: MO

LOG =1

REPVAL = 0.0010C

----

MIN = .50000      MAX = 100.00      MEAN = 7.2892      STD DEV = 6.9505  
 NUMBER OF DATA PLOTTED = 169      ( 0 NULLS      0 < YMIN      0 > YMAX)



file: erick.soil

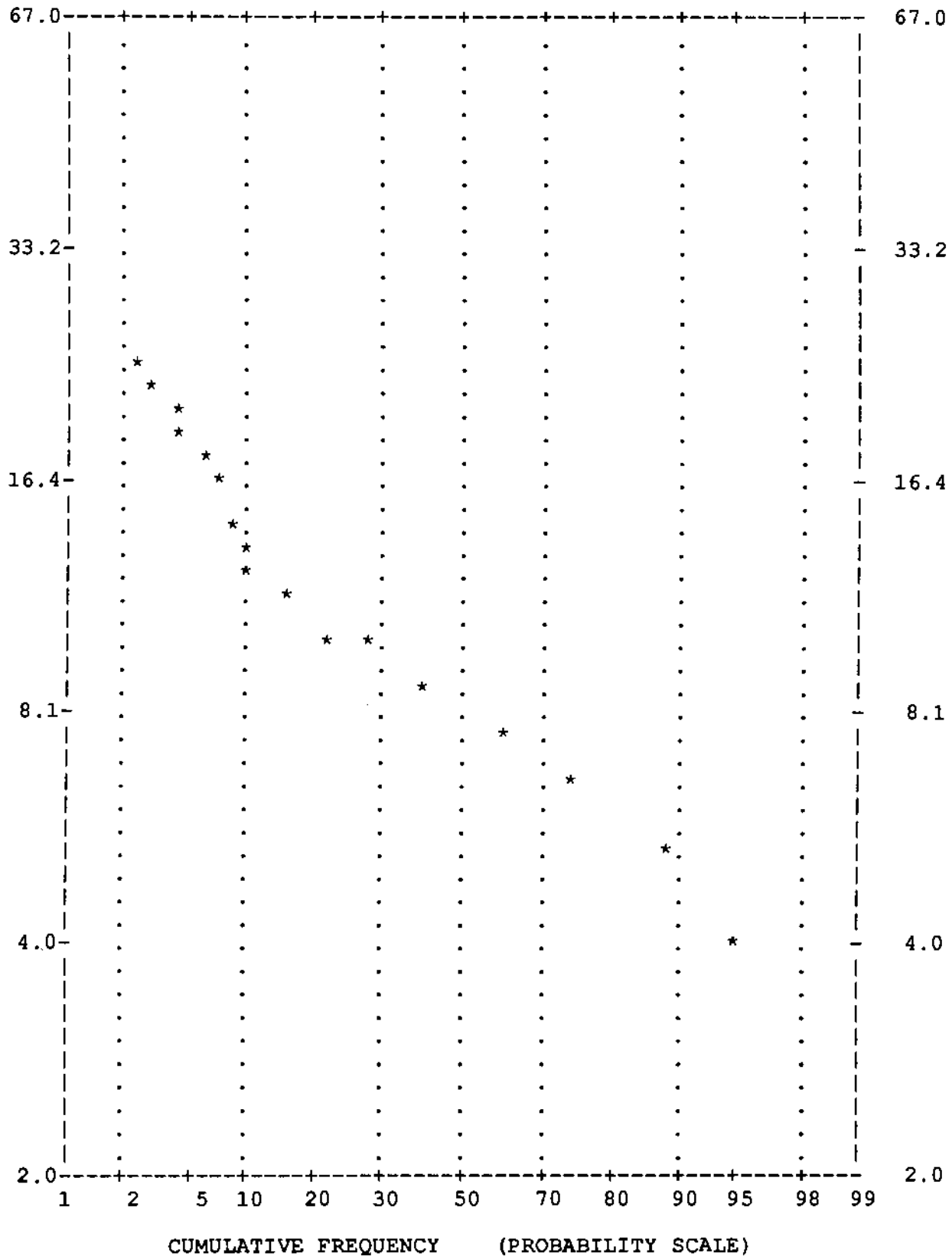
Field name: PB

LOG =1

REPVAL =

0.00100

MIN = 2.0000      MAX = 67.000      MEAN = 7.8204      STD DEV = 3.5994  
NUMBER OF DATA PLOTTED = 169 ( 0 NULLS      0 < YMIN      0 > YMAX)



file: erick.soil

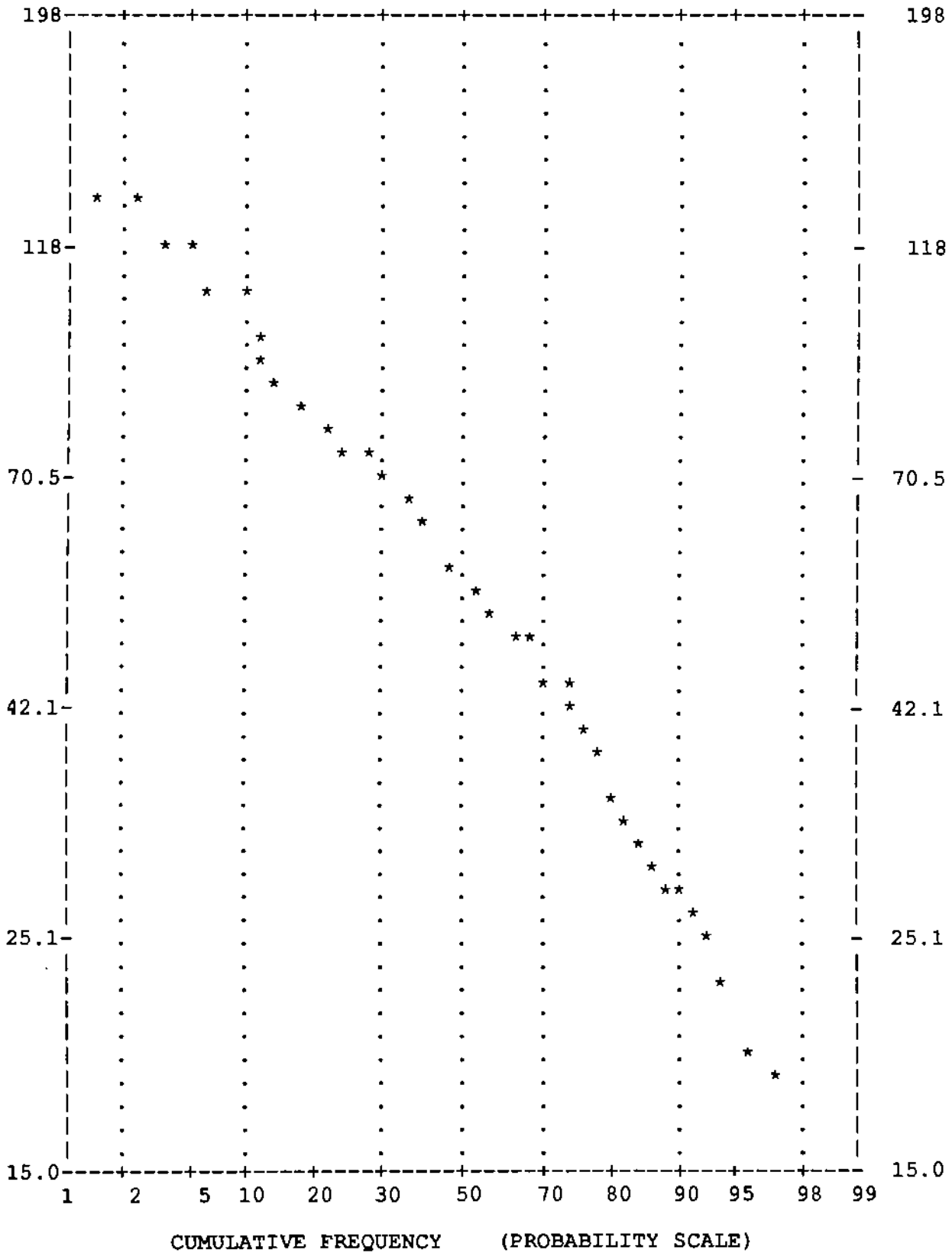
Field name: ZN

LOG =1

REPVAL =

0.00100

MIN = 15.000 MAX = 198.00 MEAN = 57.692 STD DEV = 27.881  
NUMBER OF DATA PLOTTED = 169 ( 0 NULLS 0 < YMIN 0 > YMAX)



**APPENDIX IV**  
**BULK STREAM SEDIMENT SAMPLE ANALYSES**

APPENDIX V  
SILT SAMPLE ANALYSES

PDI GEOCHEM SYSTEM: Data From: Erickson Property (V-258); Bulk Stream Sediment Sample Analy

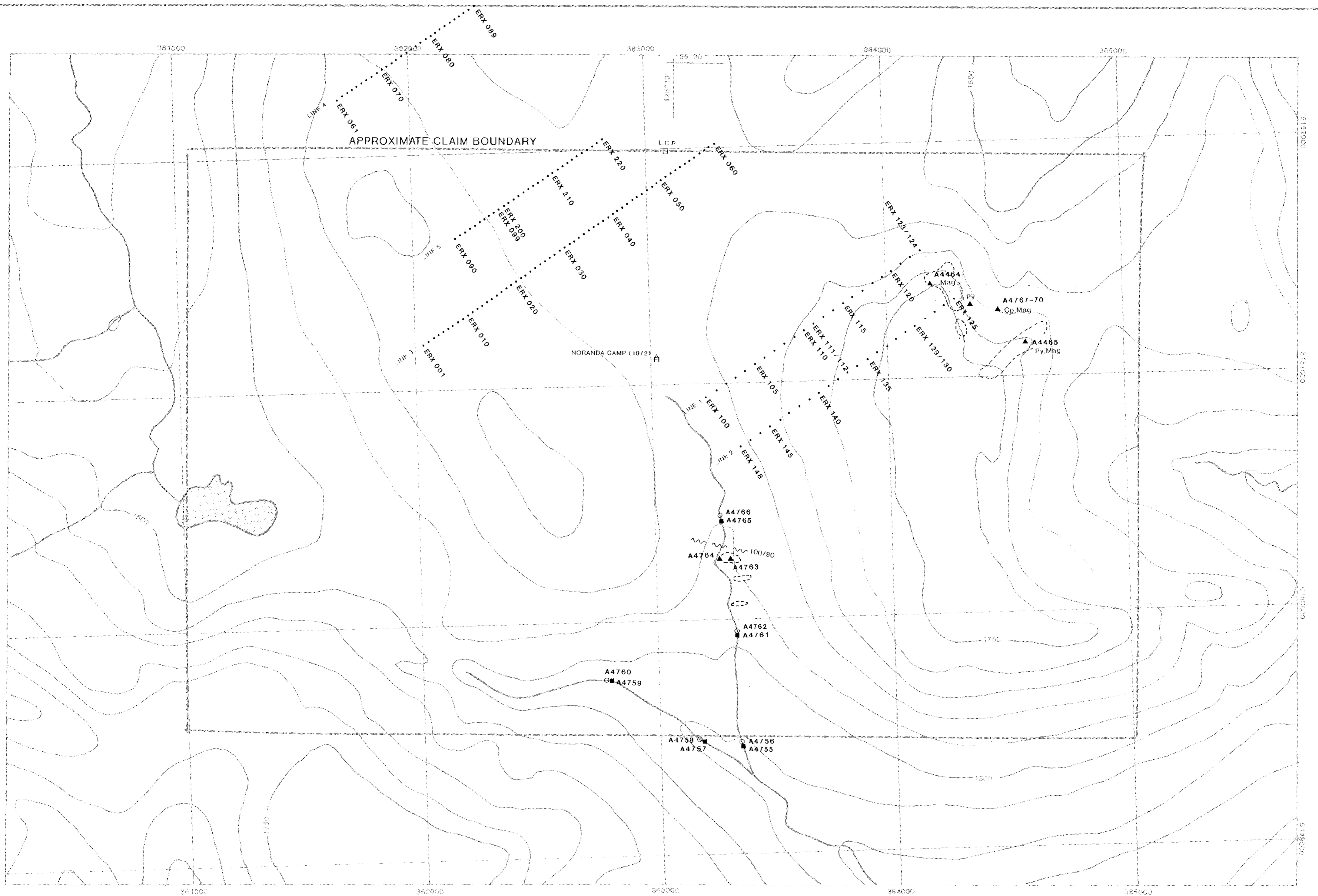
GRID	SAMPLE	PROJECT	Ag PPM	As PPM	Au1 PPB	Au-A PPB	Au-B PPB	Cu PPM	Fe %	Mn PPM	Mo PPM	Pb PPM	Zn PPM
93N6E		A4755 0399	0.3	2	10	NSS	5	60	2.8	650	8	11	83
93N6E		A4757 0399	<0.2	2	<5	<5	<5	6	1.4	360	3	9	55
93N6E		A4759 0399	<0.2	<2	<5	NSS	<5	6	1.5	440	3	9	60
93N6E		A4761 0399	0.3	<2	<5	<5	<5	88	3.1	760	8	10	81
93N6E		A4765 0399	<0.2	<2	<5	<5	<5	92	3.4	920	12	6	66
test	STD P1	0399	0.2	19				22	1.9		50	53	128

END OF LISTING - 6 RECORDS PRINTED


PDI GEOCHEM SYSTEM: Data From: Erickson Property (V-258); Silt Sample Analyses

GRID	SAMPLE	PROJECT	Ag PPM	As PPM	Aul PPB	Cu PPM	Mn PPM	Mo PPM	Pb PPM	Zn PPM
93N6E		A4756 0397	0.4	<2	NSS	88	650	7	12	171
93N6E		A4758 0397	0.2	<2	<5	9	390	3	8	94
93N6E		A4760 0397	0.2	<2	NSS	7	470	3	9	96
93N6E		A4762 0397	0.4	<2	<5	72	810	8	9	91
93N6E		A4766 0397	0.3	<2	<5	74	2300	17	6	78
test	STD P1	0397		18						

END OF LISTING - 6 RECORDS PRINTED



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

20,338 

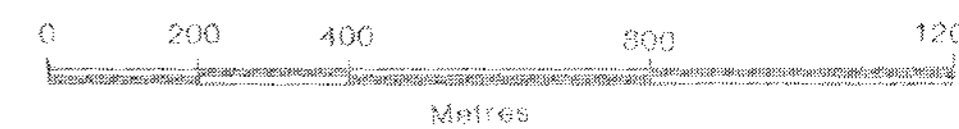
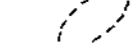
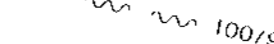


FIGURE 4

LEGEND

-  OUTCROP BOUNDARY
-  FAULT WITH ORIENTATION
- Cp - CHALCOPYRITE
- Py - PYRITE
- Mag - MAGNETITE

SYMBOLS

- ERX 145 - SOIL SAMPLE SITE
- A4755 - SILT SAMPLE SITE
- A4761 - BULK SAMPLE SITE
- ▲ A4465 - ROCK SAMPLE SITE
- CLAIM POST

NOTE: ALL OUTCROPS ARE GRANODIORITE

<b>PLACER DOME INC.</b>	
<b>ERICKSON PROPERTY</b>	
DRAWN BY H.R.G.	<b>SAMPLE LOCATIONS AND GEOLOGY</b>
DATE JULY 1990	
SCALE 1:10,000	
REVISED	FILE No. 93N/6E





**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**SYMBOLS**

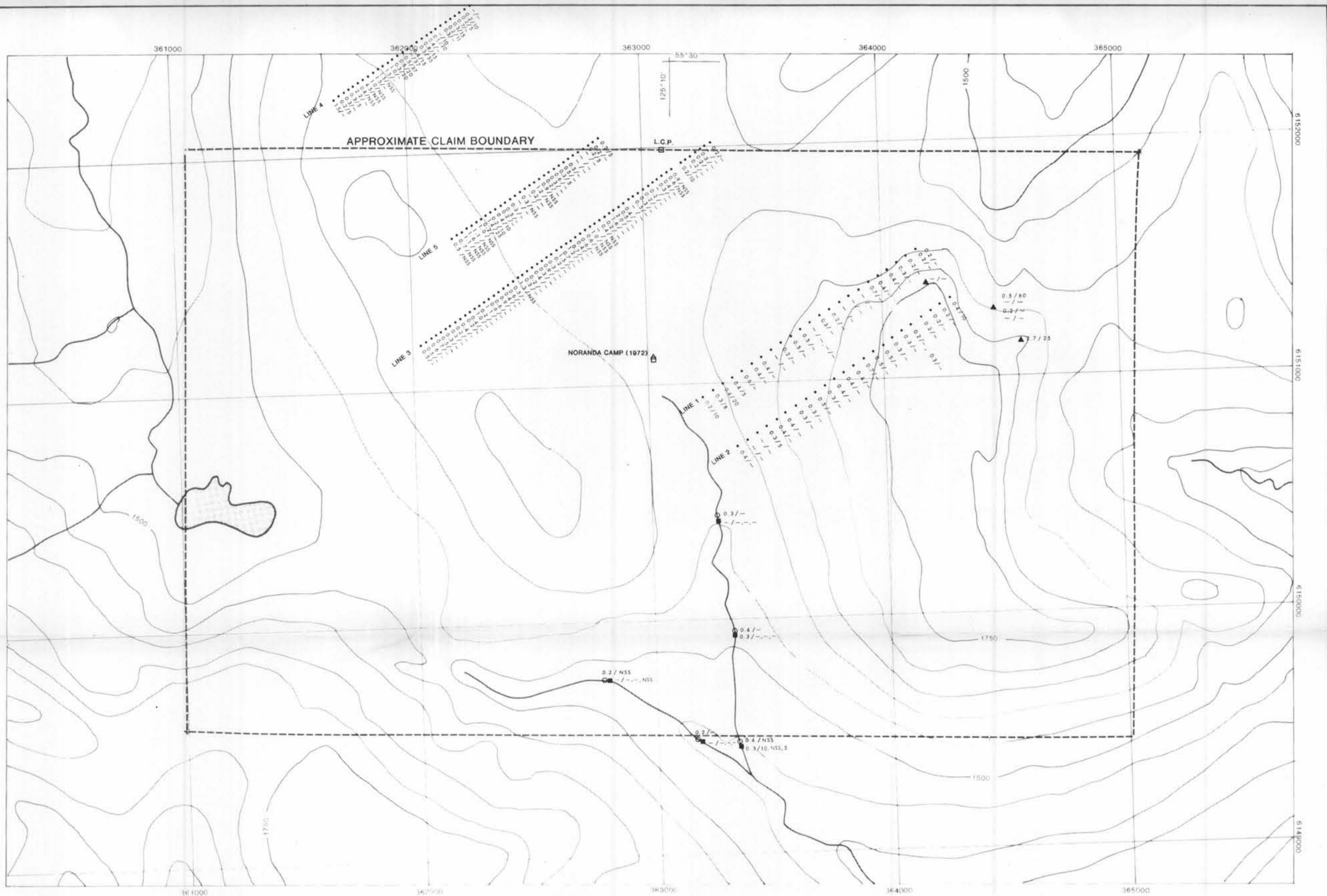
- Cu ppm / Mo ppm
- 105 / 15 - SOIL SAMPLE SITE
  - 11 / 2 - SILT SAMPLE SITE
  - 6 / 3 - BULK SAMPLE SITE
  - ▲ 510 / 6 - ROCK SAMPLE SITE
  - CLAIM POST

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FIGURE 5

<b>PLACER DOME INC.</b>	
<b>ERICKSON PROPERTY</b>	
DRAWN BY H.R.G.	<b>Cu / Mo GEOCHEMISTRY</b>
DATE JULY 1990	
SCALE 1:10,000	
REVISED	FILE No. 258 93N/6E



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**SYMBOLS**

- Ag ppm / Au ppb
- 0.2 / 10 - SOIL SAMPLE SITE
  - 0.5 / 5 - SILT SAMPLE SITE
  - 0.2 / -5 - BULK SAMPLE SITE
  - ▲ 0.3 / - - ROCK SAMPLE SITE
  - CLAIM POST
- / - Ag <0.2 ppm and Au <5 ppb are not reported
- NSS - NOT SUFFICIENT SAMPLE

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FIGURE 6

<b>PLACER DOME INC.</b>	
<b>ERICKSON PROPERTY</b>	
DRAWN BY H.R.G.	<b>Ag / Au GEOCHEMISTRY</b>
DATE JULY 1990	
SCALE 1:10,000	
REVISED	
FILE No 258	93N/6E