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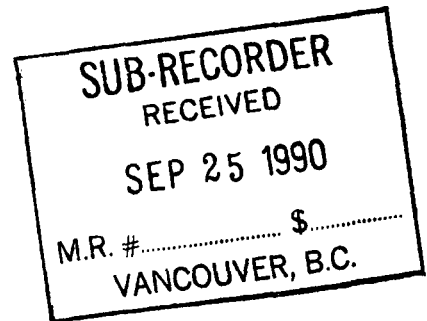
**GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL REPORT**

**ON THE**

**TIGER CLAIM GROUP  
QUESNEL AREA, CARIBOO MINING DIVISION  
BRITISH COLUMBIA**

**FOR**

**POLESTAR EXPLORATION INC.  
701-675 W. Hastings St.  
Vancouver, B.C. V6B 1N2**



**NTS 93B/16E**

**NORTH LATITUDE 52° 58'  
WEST LONGITUDE 122° 10'**

**BY**

**H.C. GROND, M.Sc., F.G.A.C.  
J.C. GRAHAM, M.Eng., P.Eng.**

**MONTGOMERY CONSULTANTS LTD.  
701-675 W. Hastings St.  
Vancouver, B.C. V6B 1N2**

**SEPTEMBER, 1990**

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**20,342**

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## 1. SUMMARY

Polestar Exploration Inc. owns the Tiger Claims (100 units) located 15 km east of Quesnel, British Columbia. Access is excellent by 2 wheel drive gravel roads.

The property lies within the Quesnel Trough, a long and narrow geological province characterized by alkalic intrusions with associated gold-copper porphyry deposits such as Mt. Milligan (400 million tonnes grading 0.34 - 0.56 g/t gold and 0.19 - 0.23% copper), Copper Mountain, Mt. Polley, and the QR deposit.

Since most of the property is covered by glacial till, Induced Polarization (IP) surveys are the major exploration tool. Preliminary IP surveying completed recently shows large chargeability anomalies (up to 74 msec) which almost certainly indicate the presence of disseminated sulphides. The most promising anomaly occurs in a geologic setting almost identical to that of the QR deposit, 33 km to the southeast. The Tiger Claims have excellent potential to host a deposit similar to the QR deposit.

Detailed IP surveys are recommended in order to select targets for drilling.

## 2. INTRODUCTION

From July 18 to August 8, 1990, a preliminary exploration program consisting of prospecting, soil sampling and a reconnaissance induced polarization (IP) survey was carried out over the Tiger property near Quesnel, B.C. The work program was carried out on behalf of Polestar Exploration Inc. by a Montgomery Consultants Ltd. crew.

## 3. PROPERTY STATUS

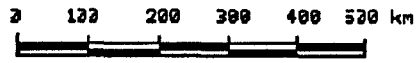
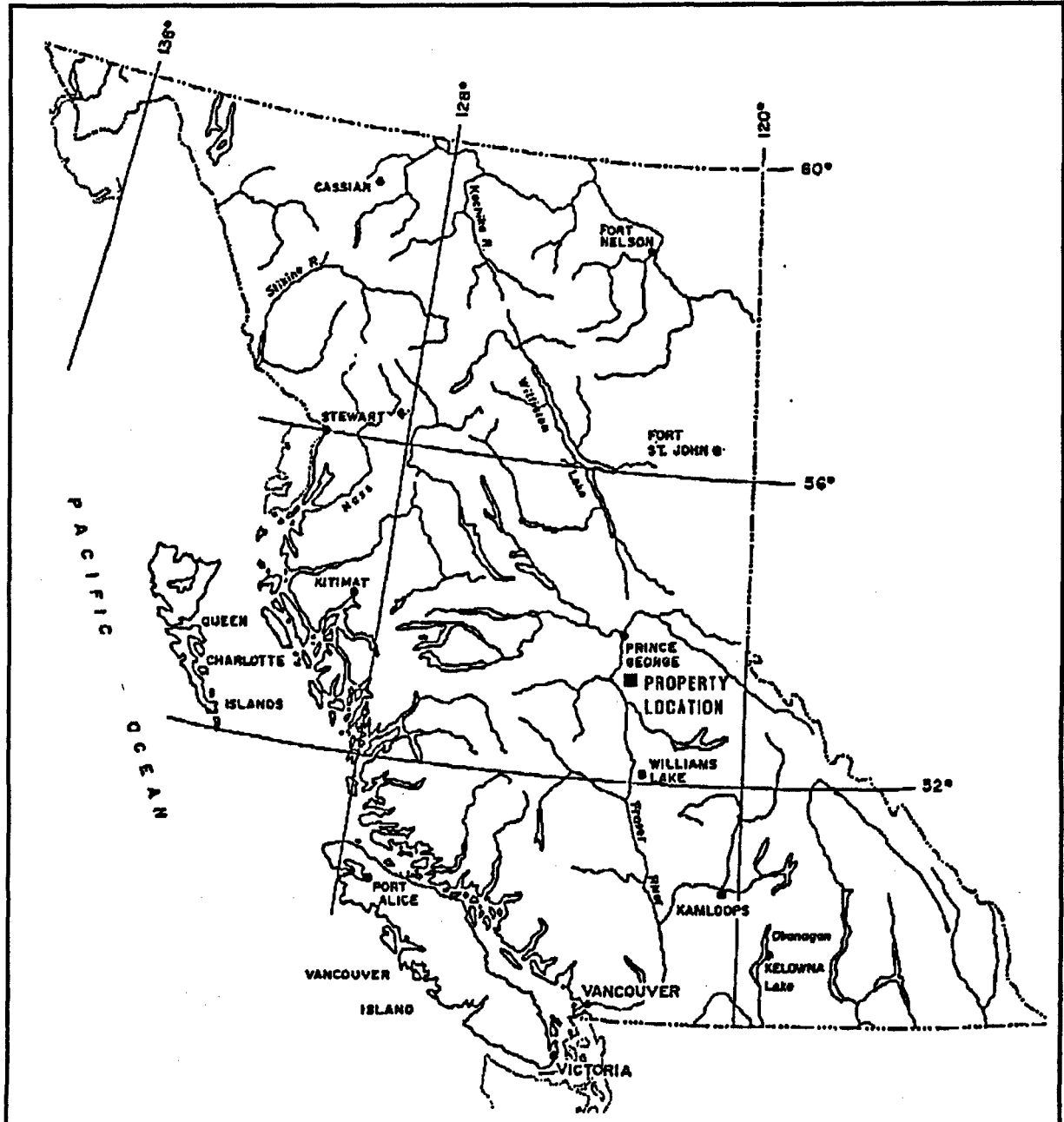
The Tiger property comprises five modified grid system claims of 20 units each for a total of 100 units (Figure 2). The claims are recorded in the Cariboo Mining Division, and are owned by Polestar Exploration Inc. Particulars are given below.

Name	Record No.	Record Date
Tiger 1	10611	May 28, 1990
Tiger 2	10612	May 27, 1990
Tiger 3	10613	May 27, 1990
Tiger 4	10614	May 27, 1990
Tiger 5	10615	June 13, 1990

## 4. LOCATION, ACCESS, TOPOGRAPHY

The Tiger property is approximately 15 km east of Quesnel, B.C. (Fig. 1). Access is via Highway 26 from Quesnel, B.C. for 18 kilometres, and then south on a good logging road (Weldwood #300). Weldwood #500 branches off at kilometer 4 and continues southerly through the central part of the claim. Numerous old logging roads traverse the claims.

The claims cover relatively flat lying ground in the west, with several resistant knobs in the eastern portion of the claims. Elevations range from 850 to 1065 meters above sea level.



<b>POLESTAR EXPLORATION INC.</b>		
<b>TIGER CLAIMS</b>		
<b>LOCATION MAP</b>		
RCOI F:	DATE	N.I.V.
BY MINUM	Aug 1990	938/15
Montgomery Consultants Ltd.		FIGURE NO. 1

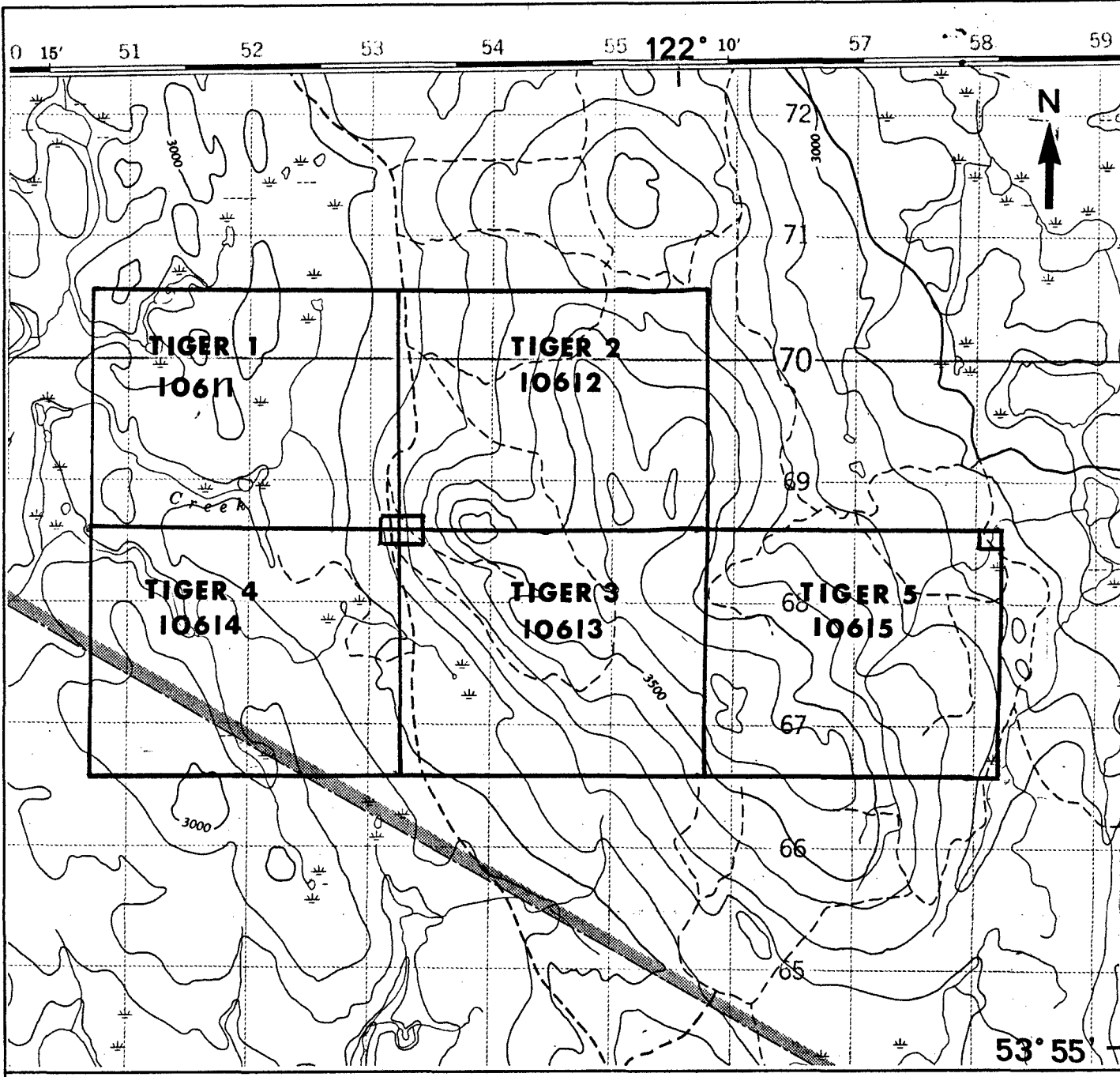


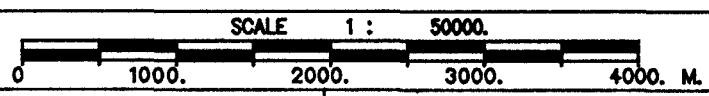
FIGURE 2

POLESTAR EXPLORATION INC.

TIGER PROPERTY

PROJECT # PS2TIG

CLAIM MAP



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## 5. HISTORY

The Quesnel area was first explored by placer miners in the mid-1800's and since then placer gold has been mined from many of the creek beds.

Major portions of the Tiger claims were previously held as the Deac claim group (staked in 1986) and preliminary exploration programs including airborne geophysics (magnetometer and VLF), ground magnetometer and VLF surveys, soil sampling and geological mapping were carried out. The results of these programs outlined several target areas and indicated the presence of gold and copper mineralization.

A series of old trenches were discovered on what is now the Tiger 2 claim in earlier exploration. Some gold/copper mineralization was reported to occur in these trenches.

## 6. REGIONAL MINERAL DEPOSITS

The Tiger property is situated in the geological province known as the Quesnel Trough, which has long been recognized for its potential for hosting alkalic copper-gold porphyries (Figure 3).

There have been several major copper-gold porphyry discoveries made in the Quesnel Trough in recent years. The largest is Continental Gold's Mt. Milligan project, located approximately 300 kilometres north of the subject property. Current total reserves are 400 million tonnes grading from 0.34-0.56 g/t gold and 0.19-0.23% copper. Feasibility studies are currently underway.

Positive production decisions have recently been announced on both the QR and Mt. Polley deposits (33 and 50 km southeast of the Tiger claims, respectively), which occur in geologically very similar environments to the Tiger property and share many features.


The Tiger property has good potential to host a QR-type deposit. Faulkner (1987) describes the QR deposit as follows: "The economic mineralization found to date has a strong spatial relationship to both the alteration front and the siltstone-volcanic contact. Most of the ore-grade mineralization occurs within 50 m of the alteration front. Stockwork, veinlet and fracture-filling auriferous pyrite occurs in epidote rich altered basalt. Disseminated to occasionally massive auriferous pyrite occurs in a massive propylite derived largely from tuffaceous volcanics and to a lesser extent in hornfelsed siltstone."

# LEGEND

## SEDIMENTARY AND VOLCANIC ROCKS

## INTRUSIVE ROCKS


**PLEISTOCENE**  Glacial, fluvioglacial gravel and sand

**MIOCENE**  Alkali olivine plateau basalt

**EOCENE**  Light grey latite tuff, tuff-breccia and autobreccia


 Light grey sandstone and mudstone


## CRETACEOUS


 Medium to coarse-grained granodiorite and quartz monzonite

## JURASSIC


### PLIENSCHACHIAN

 Pink and grey megacrystic syenite; minor hornblende gabbro and diorite

 Pink and grey, medium to fine-grained syenite, monzonite and diorite

 Dark to medium grey interbedded sandstone and siltstone


### SINEMURIAN

 Reddish grey to maroon monolithic latite tuff and breccia

 Maroon polyolithic breccia with feldspathic clasts

## TRIASSIC


### NORIAN

 Massive grey limestone and calcareous sandstone


 Interbedded mafic siltstone and sandstone

 Alcalite-bearing maroon and grey basalt

 Maroon alkali basalt breccia

 Green and grey alkali and alkali olivine basalt

### CARNIAN

 Dark grey and green siltstone, sandstone, mafic tuff; minor conglomerate

## SYMBOLS

----- Geological contact (inferred)

——— Fault (inferred)

x Mineral occurrence

Cu Copper

Mo Molybdenum



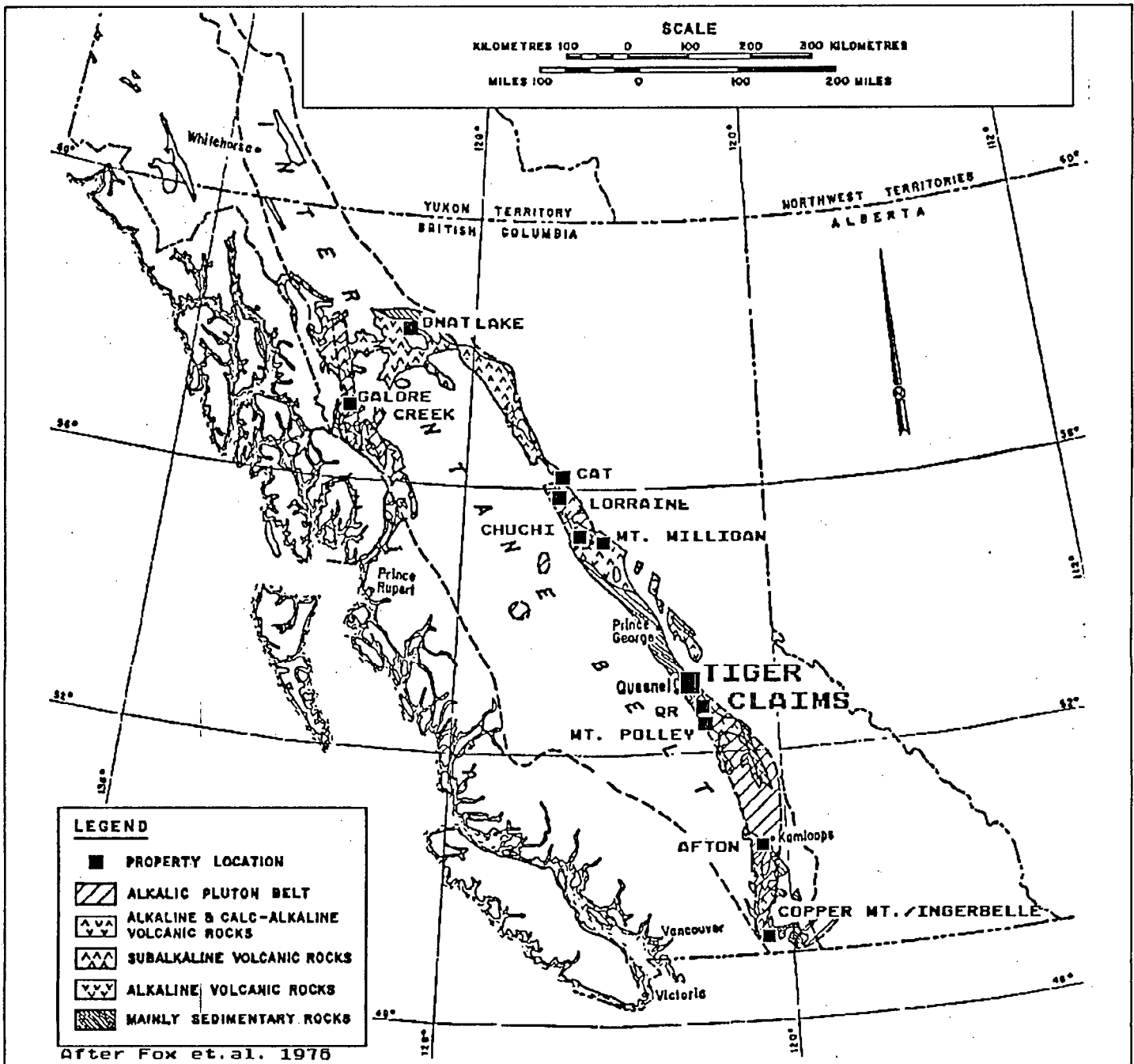


FIGURE 3

POLESTAR EXPLORATION INC.

TIGER PROPERTY

PROJECT # PS2TIG

REGIONAL GEOLOGY QUESNEL TROUGH

## 7. REGIONAL GEOLOGY

The Tiger property occurs within the northwest trending Quesnel Trough. The rocks are of Late Triassic to Early Jurassic age and have been related to either the Takla Group or equivalent Nicola Group. The rocks consist generally of a thick sequence of augite porphyry flows, basaltic breccias, tuffs, lapilli tuffs, argillaceous and calcareous sediments. Numerous small alkalic stocks occur on a strong southeasterly linear trend, intruding volcanic and sedimentary sequences southeast of Quesnel. The Tiger property has a fairly large syenitic intrusion occurring within the property boundaries.

## 8. PROPERTY GEOLOGY

The property is underlain by a series of volcanics, volcanoclastics and sedimentary rocks all of which have been intruded by a large syenitic intrusion (Fig. 4).

Good exposures of gossanous hornfelsed siltstone occur on the east and south sides of the syenite body. Pyrite content ranges up to 10% and occurs as disseminated grains and along fractures. Localized contact breccia zones are common.

The siltstone is finely layered (2-3 cm). The colour ranges from pale to medium gray with bleached zones. The siltstone is generally heavily iron stained.

The rocks to the north and north-east of the property have been described as porphyritic andesites and argillites by Falconer in a report on the property (then known as the Deac property) in 1986. On Bailey's map (1988), they appear as Unit 1 and consist of dark grey and green siltstone, sandstone, mafic tuff and minor conglomerate.

In the southeastern portion of the property, two resistant knobs are characterized by syenite stocks. According to Falconer "the composition of the intrusive ranges from syenite to monzonite with quartz syenite as the prevailing type. The rock is generally coarse grained and possesses a very characteristic porphyritic texture of large elongated phenocrysts of [pink to red] feldspar. Alkali feldspar is the main constituent of the rock. A little quartz (up to 10%), plagioclase and alkaline types of dark minerals (aegerine,

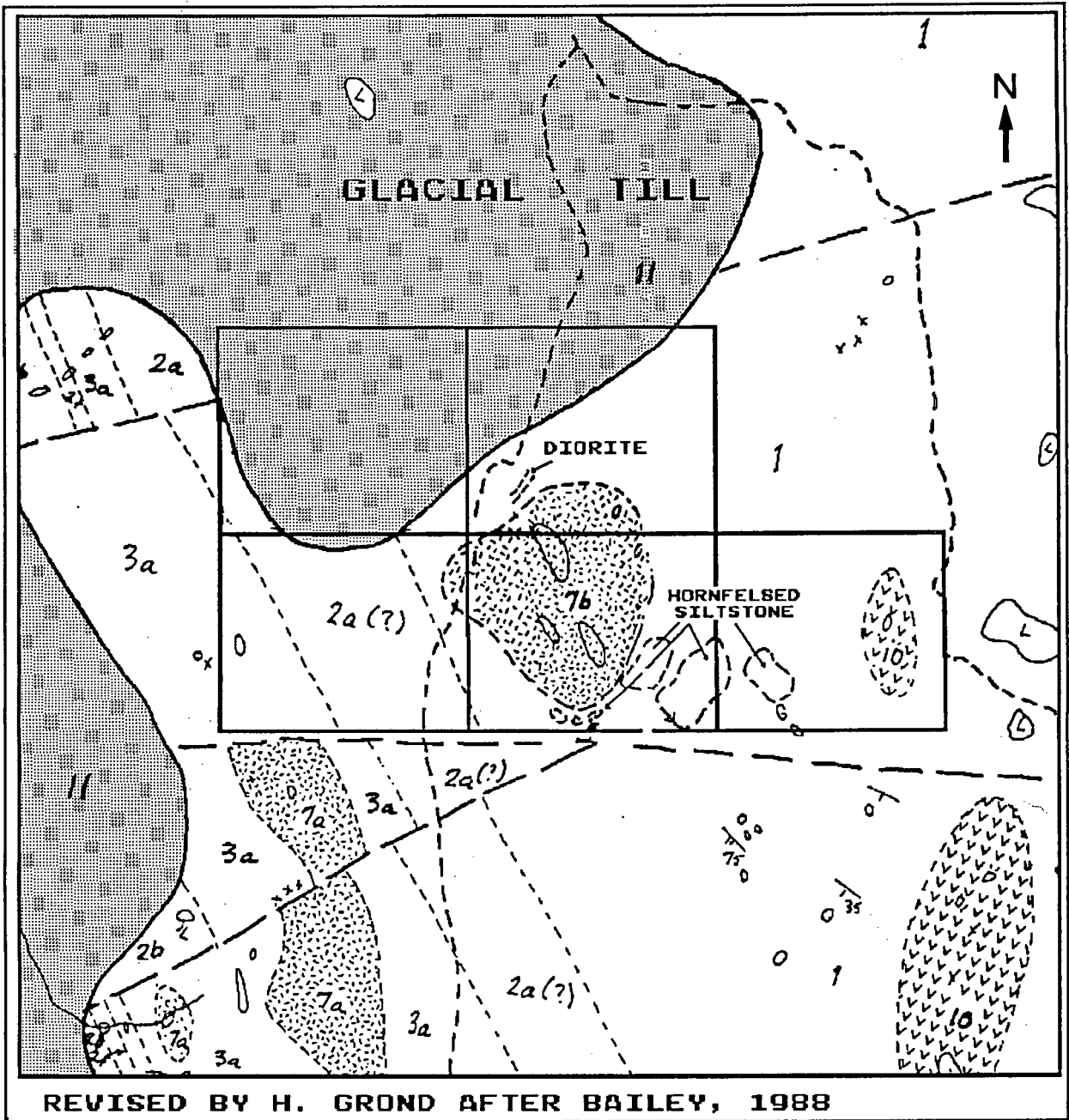


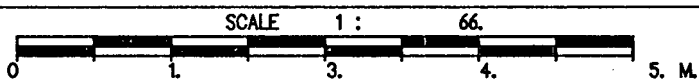
FIGURE 4

POLESTAR EXPLORATION INC.

TIGER PROPERTY

PROJECT # PS2TIG

PROPERTY GEOLOGY



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LEGEND - SEE FACING PAGE

alkali amphibole) are present.

"On the edges of the stocks, rocks with trachytic textures were encountered. The presence of large rectangular phenocrysts of sanidine in a light greenish aphanitic groundmass indicates relatively rapid cooling with respect to the syenite stock. The trachyte may form narrow dykes and sills around the stock. Other intrusive members on the property include diorite and monzonite. A small exposure of these rocks was mapped approximately 200 m north of the main syenite outcrop. The monzonite is a medium grained, green to grey rock containing xenoliths of volcanoclastic rocks and up to 5% sulphides. This rock changes gradationally to a dark diorite that varies from medium grained equigranular to porphyritic with plagioclase phenocrysts. [The monzonite] may also contain inclusions of altered volcanoclastic rocks. Syenite stocks and plugs are most likely coeval to Takla Group rocks."

Very little rock exposure is present directly north of the syenite rocks. Minor andesite outcrops have been observed (Falconer, 1986). Several kilometres further north, abundant andesites and related tuffs and breccias have been described as dark green and dark purple to black, often possessing a porphyritic texture. Related andesite tuff breccias typically have 10% secondary carbonates of hydrothermal origin.

## 9. INDUCED POLARIZATION SURVEY (1990)

A total of approximately 10.9 km of IP surveying was conducted on the Tiger property, mainly on the roads but including two slashed lines (Lines 1 and 2) which cross the exposed gossan zone in the southeast portion of the claim (see Compilation Map, Fig. 9). IP responds to chargeable minerals such as pyrite and graphite.

The survey was conducted using a 2.5 kW Hunttec MP-4 transmitter and a BRGM IP-2 receiver. The survey was conducted in the time domain using a 2 second pulse. The array used was pole-dipole. The results are presented in pseudosection form in Figs. 5 and 6.

The most interesting anomaly occurs on the southern part of Line 5, which is the main north-south logging road traversing the claims (Weldwood #500). Extremely high chargeabilities were encountered (up to 74 msec), with resistivities being on the order of 30-60 ohm-m. A quite obvious lithologic contact is seen at 3100S, where resistivities drop by an order of magnitude from a few 100's (characteristic of intrusives) in the north to a few 10's of ohm-m (characteristic of metasedimentary units observed on the property).

The anomaly persists for about 200 m from 3100S to 3350S and trails off very gradually to the south, probably indicating that the mineralized unit dips shallowly to the south.

From consideration of the lithologies observed in the area, it seems almost certain that the anomaly is due to sulfide mineralization rather than graphite. From Bailey's mapping, the anomaly occurs in the area of the siltstone-volcanic contact. This is of particular significance, since the QR deposit is associated with the same contact, 33 km to the southeast.

Line 1 indicates a moderate to strong anomaly over about 450 m (from 3250E to 3700E), with particularly strong chargeability (up to 37 msec) at 3250E and 3650E.

Line 2 indicates a moderate to strong anomaly over about 350 m (from 250S to 600S), with particularly strong chargeability (up to 40 and 45 msec) at 600S and 275S.

The anomalies defined on Lines 1 and 2 are most likely due to sulfide mineralization. The fact that the anomaly persists for such lengths over both lines probably indicates a rock unit with broadly disseminated sulfide mineralization, with the stronger anomalies indicating zones with more concentrated mineralization, perhaps due to faults or breccia zones. The resistivities encountered are quite high (roughly 700 to 1,000 ohm-m). Outcrop in the area indicates the anomaly is due to a hornfelsed siltstone with up to 10% pyrite.

Two anomalies noted on Line 4 (centered at 450W and 1400W) occur close to gossanous zones exposed on the stock, and probably indicate sulfide mineralization.

## 10. SOIL GEOCHEMISTRY SURVEY

A total of 136 soil samples and 9 rock samples were collected and analyzed.

Soils were taken along reconnaissance lines which were usually located along existing or abandoned logging roads. Two slashed lines, 1 and 2 were also sampled. Samples were taken at either 25 or 50 meter intervals. Soil was collected with a mattock from a depth of at least 20 cm and placed in Kraft paper bags. Soil development was generally very poor with organic rich glacial till encountered in almost all cases. Analysis included gold fire assay,

mercury and 13 element ICP including Ag, As, Ba, Bi Cd, Co Cu, Mn, Mo, Ni, Pb, Sb, Zn. Analysis was done by Min-En Laboratories in North Vancouver.

The results of the geochemical survey indicate that all values are relatively low for all elements analyzed. This is not surprising considering the very poor soil development encountered in the southern portion of the claim block. The results for gold and copper, the main elements of interest, are plotted on Figures 7 and 8. All results are presented in Appendix IV.

The results of the rock samples were generally low. One exception was sample R1 30+25 which ran 783 ppm copper. This sample consisted of pyritic hornfelses siltstone.

## 11. DISCUSSION

A number of authors have suggested that good economic potential exists for the Quesnel Trough in this area. Three major deposits, Mt. Milligan, the QR and Mt. Polley have received favourable production decisions. The QR deposit, primarily a gold deposit, is 33 km southeast of the Tiger claims.

There are significant similarities between the Tiger property geology and that found at the QR deposit, including: the presence of an intrusive stock in contact with hornfelsed siltstone, disseminated sulphide mineralization within the siltstone, and a volcanic unit (same stratigraphic unit) in contact with the siltstone within 500 m of the stock.

The main target area is the siltstone-volcanic contact, which is covered by glacial till. A very strong IP anomaly was defined during the recent exploration program in an area which corresponds to this contact on Bailey's map (Figures 4, 9).

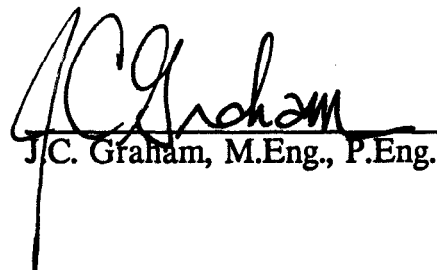
Anomalous gold/silver and base metal values were discovered during a geochemical survey just north of the target area. The soil anomalies trend northwesterly away from the area of interest, which conforms to the direction of glacial dispersion.

A detailed soil geochemical and IP survey is highly recommended to cover the area from the syenite body south to the claim boundary. This will outline the extent of the known one-line IP anomaly and provide drill targets.

Respectfully Submitted,

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H.C. Grond, M.Sc., F.G.A.C.



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J.C. Graham, M.Eng., P.Eng.

## APPENDIX I

### REFERENCES

- Bailey, D.G. (1989) Geology of the Central Quesnel Belt, Swift River, south-central British Columbia
- DiSpirito, F.S., (1986) Airborne Geophysical Survey Report on et al. the Deac 11 & 12 claims. Assessment Report # 16,022.
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- Lu, J. (1989) Geology of the Cantin Creek Area, Quesnel River (93B & 93G), B.C., M.E.M.P.R. Geological Fieldwork 1988
- Tipper, H.W. Geology, Map 49-1960, Sheet 936, Prince George Geological Survey of Canada



**APPENDIX II**  
**STATEMENTS OF QUALIFICATIONS**

## STATEMENT OF QUALIFICATIONS

I, Helen C. Grond of the City of Vancouver, Province of British Columbia, hereby certify that:

1. I am a geologist residing at 2729 Yale Street, in the City of Vancouver, Province of British Columbia.
2. I obtained a Bachelor of Science degree in Geology from the University of British Columbia in 1980, and a Master of Science degree in Geology from the same University in 1982.
3. I am a Fellow, in good standing, of the Geological Association of Canada.
4. I have been practising my profession as a geologist in Canada and the United States seasonally since 1978 and permanently since 1982.
5. I am currently employed by Polestar Exploration Inc.
6. This report is based on fieldwork personally conducted by myself and a Montgomery Consultants Ltd. crew.

Dated in Vancouver, British Columbia, this \_\_ day of September, 1990.

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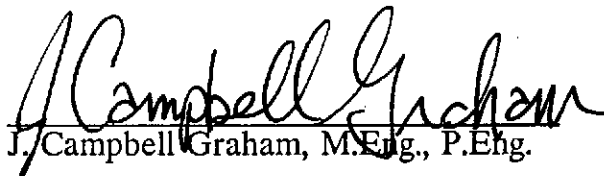
Helen C. Grond, M.Sc., F.G.A.C.

## STATEMENT OF QUALIFICATIONS

I, James Campbell Graham of the City of Vancouver, Province of British Columbia, hereby certify that:

1. I am a Geophysical Engineer residing at 2729 Yale Street, in the City of Vancouver, Province of British Columbia.
2. I obtained a Bachelor of Science degree in 1982 and a Master of Engineering degree in 1985, both in Geophysical Engineering and both from the Colorado School of Mines, Golden, Colorado.
3. I am a registered Professional Engineer in the Province of British Columbia.
4. I have been practising my profession since 1985.
5. I am a principal of Graham Grond Geoconsultants Ltd.
6. This report is based on fieldwork personally conducted by myself and a Montgomery Consultants Ltd. crew.

Dated in Vancouver, British Columbia, this \_\_ day of September, 1990.

  
J. Campbell Graham, M.Eng., P.Eng.

**APPENDIX III**  
**STATEMENT OF COSTS**

### STATEMENT OF COSTS

Mobilization-Dembilization	\$2,000
IP Surveying, 12 days @ \$1,500/day	18,000
Geochemical Analyses, (136 soils, 9 rocks)	2,487
Domicile, 78 man days @ \$65/day	5,070
Vehicle expenses	1,200
Report	<u>3,500</u>
	30,257

**APPENDIX IV**  
**GEOCHEMICAL ANALYSES**



COMP: POLESTAR RESOURCES

PROJ:

ATTN: HELEN GROND

**MIN-EN LABS — ICP REPORT**  
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
 (604)980-5814 OR (604)988-4524

FILE NO: OV-1197-SJ1+2

DATE: 90/08/30

\* SOIL \* (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	BI PPM	CD PPM	CO PPM	CU PPM	MN PPM	MO PPM	NI PPM	PB PPM	SB PPM	ZN PPM	AU PPB
R1 3600	1.6	1	67	9	.1	13	26	572	1	16	32	1	149	1
R1 3625	1.8	1	98	13	.1	16	27	733	1	5	71	1	302	1
R1 3675	1.1	1	88	10	.1	13	25	429	1	16	17	1	111	2
R1 3700	1.5	1	75	10	.1	15	37	589	1	21	25	1	132	1
R1 3725	1.0	1	172	9	.1	12	30	1827	1	15	23	1	114	3
R1 3750	.7	1	78	7	.1	9	23	354	1	10	16	1	51	1
R1 29+50	1.0	1	79	7	.1	8	21	227	1	9	17	1	35	1
R1 29+75	1.0	1	83	7	.1	11	28	513	1	15	19	1	41	6
R1 30+00	1.0	1	70	8	.1	9	21	257	1	11	13	1	30	2
R1 30+25	1.3	1	66	9	.1	9	21	231	1	12	13	1	39	1
R1 30+50	1.0	1	120	8	.1	13	36	920	1	19	20	1	66	1
R1 30+75	1.2	1	64	8	.1	8	19	264	1	9	13	1	35	2
R1 31+00	.8	1	71	7	.1	10	19	477	1	10	21	1	44	1
R1 31+50	1.3	1	76	9	.1	10	14	263	1	5	12	1	48	1
R1 31+75	1.2	1	77	8	.1	9	16	250	1	9	8	1	61	2
R1 32+00	1.1	1	67	7	.1	7	10	402	1	5	10	1	38	1
R1 32+25	.8	1	164	7	.1	8	24	1231	1	13	16	1	56	2
R1 32+50	1.0	1	118	7	.1	9	20	424	1	11	10	1	90	1
R1 32+75	.6	1	71	7	.1	11	33	258	1	18	14	1	71	1
R1 33+00	.7	1	57	6	.1	7	15	299	1	8	10	1	56	1
R1 33+25	1.3	1	85	10	.1	12	59	482	3	9	29	1	80	1
R1 34+50	.7	1	219	9	.1	16	31	4307	1	30	31	1	160	2
R1 34+75	1.4	1	88	8	.1	15	37	341	1	28	23	1	70	1
R1 35+00	.6	1	141	8	.1	11	21	1787	1	9	22	1	75	3
R1 35+25	.9	1	69	7	.1	11	27	468	1	12	15	1	43	1
R1 35+50	1.0	1	106	9	.1	10	19	625	1	8	12	1	45	1
R1 35+75	1.1	1	77	7	.1	9	15	277	1	6	16	1	70	2
R2 0+50	1.1	1	139	8	.1	10	25	518	1	12	21	1	55	1
R2 0+75	1.0	1	82	6	.1	7	16	232	1	5	16	1	45	1
R2 1+25	1.3	1	140	9	.1	15	46	654	1	29	20	1	60	3
R2 1+50	1.2	1	176	8	.1	17	47	937	1	30	32	1	83	1
R2 1+75	.7	1	156	9	.1	17	61	3783	2	45	57	1	78	2
R2 2+00	1.5	1	515	8	.7	16	51	3087	1	31	59	1	267	1
R2 2+25	.9	1	163	6	.1	12	26	1178	1	18	26	1	97	1
R2 2+50	.9	1	93	5	.1	10	20	525	1	12	24	1	66	1
R2 2+75	.9	1	88	6	.1	8	20	378	1	5	10	1	51	2
R2 3+00	1.0	1	83	8	.1	12	25	723	1	15	22	1	64	1
R2 3+25	.6	1	57	6	.1	10	22	654	1	9	16	1	57	1
R2 3+75	1.0	1	74	6	.1	11	28	483	1	13	16	1	85	1
R2 4+00	.7	1	64	3	.1	5	36	131	1	6	16	1	43	1
R2 4+25	.8	1	108	4	.1	5	35	142	1	8	19	1	45	2
R2 5+00	1.3	1	105	8	.1	12	20	597	1	9	18	1	70	1
R2 6+25	1.4	1	85	8	.1	13	33	378	1	17	33	1	111	16
R2 6+50	1.6	1	73	9	.1	13	25	414	1	11	23	1	114	5
R2 6+75	1.5	1	80	8	.1	12	30	372	1	17	16	1	88	2
R2 7+00	1.1	1	49	7	.1	9	20	315	1	9	16	1	36	1
R2 7+25	1.2	1	78	8	.1	13	31	573	1	13	13	1	53	4
R2 7+50	1.3	1	93	8	.1	11	26	257	1	11	11	1	69	2
R2 7+75	1.1	1	81	7	.1	11	18	273	1	12	16	1	75	9
R2 8+00	1.1	1	95	7	.1	13	30	373	1	15	16	1	45	2
R2 8+25	1.1	1	63	8	.1	7	15	200	1	3	9	1	32	1
R2 8+50	1.2	1	95	8	.1	12	29	413	1	15	23	1	44	1
R2 8+75	1.2	1	75	8	.1	10	27	274	1	15	10	1	45	2
R2 9+00	1.7	1	103	8	.1	12	34	447	1	14	19	1	44	1
R3 10+75	1.1	1	89	6	.1	11	29	463	1	16	23	1	40	1
R3 11+00	1.2	1	99	6	.1	11	25	488	1	11	20	1	48	1
R3 11+25	.8	1	205	6	.1	11	26	1975	1	18	28	1	72	2
R3 11+50	1.0	1	83	6	.1	10	22	462	1	10	17	1	39	1
R3 11+75	1.1	1	215	6	.1	10	24	1180	1	14	28	1	71	2
R3 12+00	1.0	1	58	6	.1	8	17	294	1	7	19	1	41	4



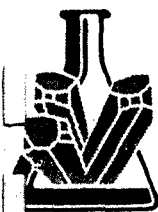
COMP: POLESTAR RESOURCES  
 PROJ:  
 ATTN: HELEN GROND

MIN-EN LABS — ICP REPORT  
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
 (604)980-5814 OR (604)988-4524

FILE NO: OV-1197-SJ3+4  
 DATE: 90/08/30  
 \* SOIL \* (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	BI PPM	CD PPM	CO PPM	CU PPM	MN PPM	MO PPM	NI PPM	PB PPM	SB PPM	ZN PPM	AU PPB
R3 12+25	.4	1	79	4	.1	9	23	460	1	11	20	1	43	1
R3 12+50	.6	1	101	5	.1	11	28	689	1	14	17	1	48	2
R3 13+25	.7	1	85	6	.1	12	30	451	1	13	14	1	41	1
R3 13+50	.7	1	95	6	.1	11	34	782	1	17	21	1	62	1
R3 13+75	1.0	1	100	7	.1	13	33	523	1	17	22	1	54	1
R4 6+00	.9	1	98	7	.1	15	41	745	1	26	29	1	49	2
R4 6+25	.9	1	108	7	.1	14	44	654	1	29	33	1	52	1
R4 6+50	1.2	1	100	9	.1	13	32	559	1	20	32	1	52	1
R4 6+75	1.5	1	131	8	.1	17	62	827	1	35	35	1	67	1
R4 7+00	1.1	1	107	6	.1	15	45	684	1	25	32	1	55	1
R4 7+25	1.2	1	159	7	.1	17	61	604	1	61	19	1	52	6
R4 7+50	.7	1	79	6	.1	10	29	345	1	22	10	1	50	2
R4 8+00	.7	1	125	7	.1	14	59	595	1	33	23	1	61	3
R4 8+50	.8	1	149	8	.1	19	65	835	1	66	29	1	69	1
R4 9+00	.9	1	123	6	.1	19	60	648	1	111	20	1	55	1
R4 9+50	.9	1	137	6	.1	16	58	651	1	51	23	1	62	4
R4 10+00	.6	1	100	6	.1	15	45	735	1	43	24	1	50	3
R4 10+50	1.0	1	69	7	.1	12	27	408	1	25	16	1	52	1
R4 11+00	1.2	1	109	7	.1	18	47	815	1	44	26	1	57	2
R4 11+50	1.2	1	92	8	.1	17	46	909	1	42	35	1	64	1
R4 12+00	1.8	1	182	6	.1	24	215	1912	1	160	48	1	319	1
R4 12+50	.6	1	76	5	.1	16	42	596	1	44	19	1	54	2
R4 13+50	.7	1	125	6	.1	12	28	701	1	26	24	1	99	1
R4 14+00	.9	1	117	6	.1	18	58	1138	1	46	39	1	70	1
R4 14+50	.9	1	154	7	.1	18	66	994	1	49	47	1	121	2
R4 15+00	.6	1	83	6	.1	11	28	373	1	26	20	1	62	1
R4 15+50	.6	1	78	7	.1	12	32	452	1	30	23	1	56	2
R4 16+00	.7	1	68	6	.1	11	23	286	1	23	25	1	60	1
R5 19+00	.8	1	119	7	.1	15	47	576	1	38	31	1	65	3
R5 19+75	.7	1	81	6	.1	11	27	508	1	25	20	1	58	2
R5 20+00	.7	1	116	5	.1	15	56	656	1	34	28	1	65	1
R5 20+25	.4	1	78	5	.1	12	29	488	1	24	20	1	53	1
R5 20+50	.8	1	89	5	.1	13	34	485	1	29	21	1	55	2
R5 20+75	.9	1	89	5	.1	13	33	528	1	23	21	1	52	1
R5 21+00	.9	1	103	7	.1	15	42	653	1	35	27	1	53	1
R5 21+25	.9	1	133	5	.1	13	45	709	1	37	23	1	74	25
R5 21+50	.8	1	87	5	.1	12	31	504	1	27	25	1	42	6
R5 21+75	.8	1	93	6	.1	14	37	575	1	29	26	1	49	3
R5 22+00	.9	1	67	5	.1	12	26	406	1	22	17	1	47	1
R5 22+25	.8	1	99	3	.1	12	35	563	1	27	25	1	57	1
R5 30+00	.8	1	112	5	.1	17	56	728	1	48	19	1	57	2
R5 30+50	.6	1	73	5	.1	13	30	483	1	29	17	1	38	1
R5 31+00	.7	1	112	5	.1	15	49	667	1	41	24	1	52	1
R5 31+50	.7	1	104	6	.1	15	53	619	1	45	21	1	53	2
R5 32+00	.8	1	81	5	.1	13	34	414	1	33	24	1	51	1
R5 32+50	1.1	1	88	7	.1	13	31	394	1	28	29	1	48	1
R5 33+00	1.2	1	93	6	.1	15	36	572	1	44	22	1	44	4
R5 33+50	.8	1	90	6	.1	14	33	676	1	37	21	1	40	2
R5 34+00	.8	1	96	5	.1	13	32	569	1	38	17	1	44	1
R5 34+25(SILT)	.7	1	95	4	.1	18	40	921	1	58	25	1	49	2
R5 34+50	.8	1	95	5	.1	13	30	621	1	35	24	1	49	1
R5 35+00	1.0	1	141	5	.1	16	45	851	1	72	21	1	54	4
R5 35+50	.7	1	64	6	.1	10	19	378	1	22	11	1	35	1
R5 36+00	.7	1	86	6	.1	12	21	614	1	25	9	1	36	1
R7 0+50	1.0	1	66	7	.1	10	23	293	1	22	14	1	39	1
R7 1+00	1.0	1	103	5	.1	16	45	716	1	40	28	1	57	2
R7 1+50	1.1	1	106	7	.1	14	43	477	1	34	25	1	57	1
R7 2+00	.8	1	92	6	.1	15	38	720	1	30	20	1	54	1
R7 2+50	.8	1	69	5	.1	11	26	493	1	24	18	1	39	1
R7 3+00	.7	1	69	5	.1	9	24	391	1	18	19	1	45	2





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**VANCOUVER OFFICE:**  
705 WEST 15TH STREET  
NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
FAX (604) 980-9821

**THUNDER BAY LAB.:**  
TELEPHONE (807) 622-8958  
FAX (807) 623-5931

**SMITHERS LAB.:**  
TELEPHONE/FAX (604) 847-3004

*Geochemical Analysis Certificate*

OV-1197-SG1

Company: **POLESTAR RESOURCES**  
Project:  
Attn: **HELEN GROND**

Date: **SEP-04-90**  
Copy 1. POLESTAR RESOURCES, VANCOUVER, B.C.

*We hereby certify the following Geochemical Analysis of 30 SOILS samples submitted AUG-18-90 by HELEN GROND.*

Sample Number	HG PPB
R1 3600	160
R1 3625	125
R1 3675	210
R1 3700	115
R1 3725	140
-----	
R1 3750	160
R1 29+50	130
R1 29+75	135
R1 30+00	95
R1 30+25	110
-----	
R1 30+50	130
R1 30+75	105
R1 31+00	105
R1 31+50	75
R1 31+75	100
-----	
R1 32+00	115
R1 32+25	95
R1 32+50	90
R1 32+75	140
R1 33+00	85
-----	
R1 33+25	125
R1 34+50	130
R1 34+75	160
R1 35+00	110
R1 35+25	115
-----	
R1 35+50	100
R1 35+75	95
R2 0+50	190
R2 0+75	145
R2 1+25	125

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FAX (807) 623-5931

**SMITHERS LAB.:**  
TELEPHONE/FAX (604) 847-3004

**Geochemical Analysis Certificate**

**OV-1197-SG2**

**Company: POLESTAR RESOURCES**  
**Project:**  
**Attn: HELEN GROND**

**Date: SEP-04-90**  
**Copy 1. POLESTAR RESOURCES, VANCOUVER, B.C.**

**We hereby certify the following Geochemical Analysis of 30 SOILS samples submitted AUG-18-90 by HELEN GROND.**

<b>Sample Number</b>	<b>HG PPB</b>
R2 1+50	245
R2 1+75	220
R2 2+00	210
R2 2+25	125
R2 2+50	135
R2 2+75	100
R2 3+00	120
R2 3+25	80
R2 3+75	155
R2 4+00	205
R2 4+25	150
R2 5+00	125
R2 6+25	235
R2 6+50	125
R2 6+75	95
R2 7+00	65
R2 7+25	115
R2 7+50	125
R2 7+75	70
R2 8+00	115
R2 8+25	95
R2 8+50	170
R2 8+75	130
R2 9+00	100
R3 10+75	125
R3 11+00	190
R3 11+25	210
R3 11+50	150
R3 11+75	200
R3 12+00	170

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NORTH VANCOUVER, B.C. CANADA V7M 1T2  
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FAX (604) 980-9621  
**THUNDER BAY LAB.:**  
TELEPHONE (807) 622-8958  
FAX (807) 623-5831  
**SMITHERS LAB.:**  
TELEPHONE/FAX (604) 847-3004

Geochemical Analysis Certificate

0V-1197-SG3

Company: **POLESTAR RESOURCES**  
Project:  
Attn: **HELEN GROND**

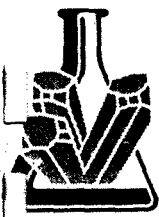
Date: **SEP-04-90**  
Copy 1. **POLESTAR RESOURCES, VANCOUVER, B.C.**

*We hereby certify* the following Geochemical Analysis of 30 SOILS samples submitted AUG-18-90 by HELEN GROND.

Sample Number	HG PPB
R3 12+25	140
R3 12+50	180
R3 13+25	125
R3 13+50	115
R3 13+75	90
-----	
R4 6+00	165
R4 6+25	175
R4 6+50	90
R4 6+75	160
R4 7+00	180
-----	
R4 7+25	155
R4 7+50	180
R4 8+00	140
R4 8+50	150
R4 9+00	110
-----	
R4 9+50	170
R4 10+00	180
R4 10+50	205
R4 11+00	125
R4 11+50	135
-----	
R4 12+00	220
R4 12+50	100
R4 13+50	125
R4 14+00	160
R4 14+50	145
-----	
R4 15+00	135
R4 15+50	115
R4 16+00	140
R5 19+00	195
R5 19+75	130

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NORTH VANCOUVER, B.C. CANADA V7M 1T2  
TELEPHONE (604) 980-5814 OR (604) 988-4524  
FAX (604) 980-9621

**THUNDER BAY LAB.:**  
TELEPHONE (807) 622-8958  
FAX (807) 623-5931

**SMITHERS LAB.:**  
TELEPHONE/FAX (804) 847-3004

Geochemical Analysis Certificate

OV-1197-SG4

Company: **POLESTAR RESOURCES**  
Project:  
Attn: **HELEN GROND**

Date: **SEP-04-90**  
Copy 1, POLESTAR RESOURCES, VANCOUVER, B.C.

*We hereby certify the following Geochemical Analysis of 30 SOILS samples submitted AUG-18-90 by HELEN GROND.*

Sample Number	HG PPB
R5 20+00	150
R5 20+25	115
R5 20+50	120
R5 20+75	105
R5 21+00	175
R5 21+25	115
R5 21+50	140
R5 21+75	110
R5 22+00	265
R5 22+25	230
R5 30+00	195
R5 30+50	100
R5 31+00	135
R5 31+50	105
R5 32+00	360
R5 32+50	205
R5 33+00	155
R5 33+50	105
R5 34+00	130
R5 34+25 (SILT)	195
R5 34+50	220
R5 35+00	185
R5 35+50	95
R5 36+00	100
R7 0+50	130
R7 1+00	105
R7 1+50	145
R7 2+00	80
R7 2+50	145
R7 3+00	115

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**VANCOUVER OFFICE:**  
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TELEPHONE (604) 980-5814 OR (604) 988-4524  
FAX (604) 980-9621

**THUNDER BAY LAB.:**  
TELEPHONE (807) 622-8958  
FAX (807) 623-5831

**SMITHERS LAB.:**  
TELEPHONE/FAX (604) 847-3004

*Geochemical Analysis Certificate*

OV-1197-SG5

Company: **POLESTAR RESOURCES**  
Project:  
Attn: **HELEN GROND**

Date: **SEP-04-90**  
Copy 1. **POLESTAR RESOURCES, VANCOUVER, B.C.**

*We hereby certify* the following Geochemical Analysis of 16 SOILS samples submitted AUG-18-90 by HELEN GROND.

Sample Number	HG PPB
R7 3+50	75
R7 4+00	115
R7 4+50	125
R9 0+25	85
R9 0+50	155
-----	
R9 0+75	140
R9 1+00	135
R9 1+25	125
R9 1+75	150
R9 2+00	105
-----	
R9 2+25	120
R9 2+75	125
R9 3+25	200
R9 3+50	235
R9 3+75	85
-----	
R9 4+25	150

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GEOLOGICAL BRANCH  
ASSESSMENT REPORT

20,342

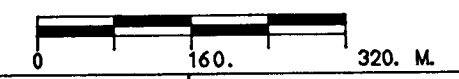
FIGURE 8

POLESTAR EXPLORATION INC.

TIGER PROPERTY

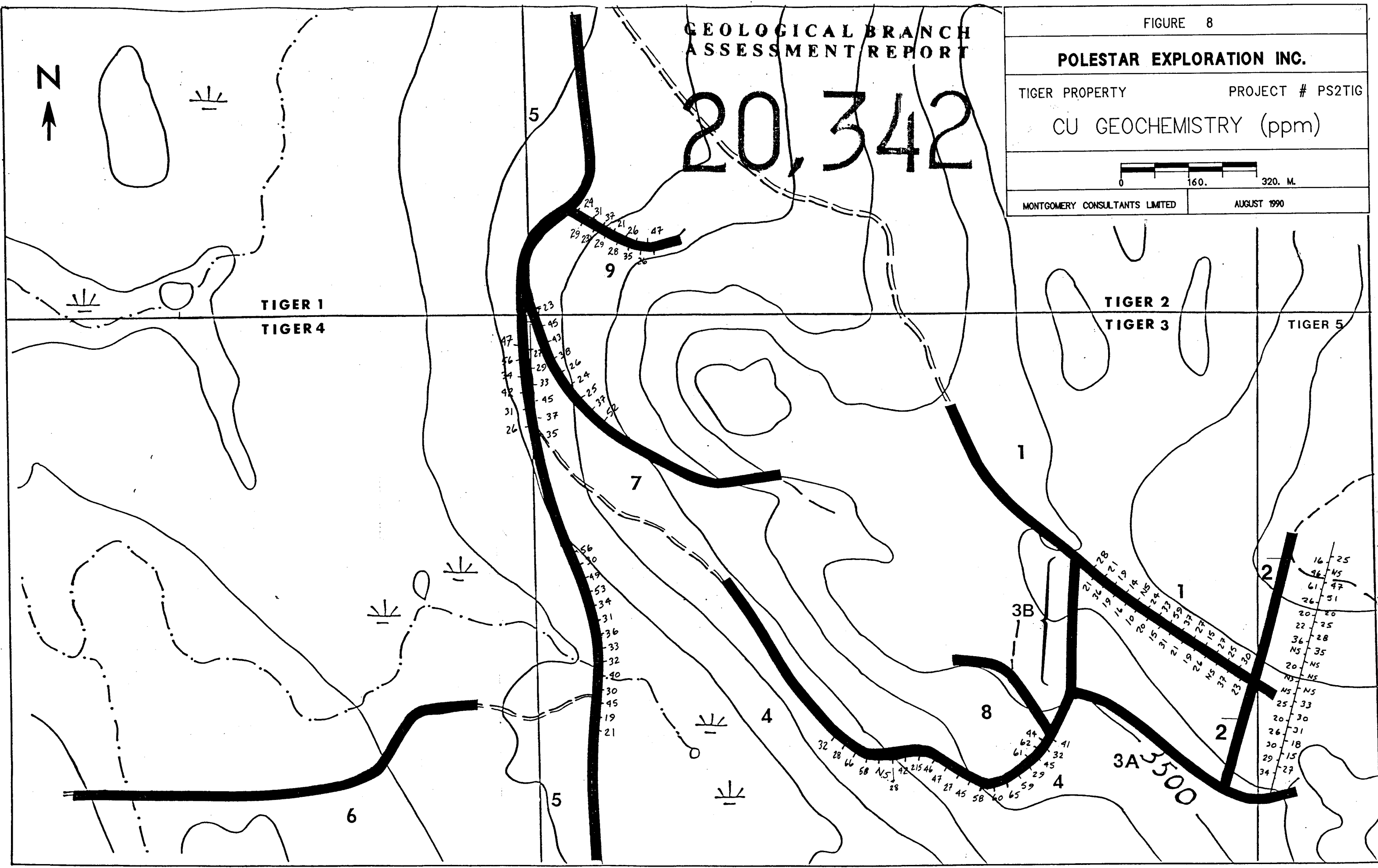
PROJECT # PS2TIG

CU GEOCHEMISTRY (ppm)



MONTGOMERY CONSULTANTS LIMITED

AUGUST 1990



TIGER 1  
TIGER 4

TIGER 2  
TIGER 3

TIGER 5

3B

3A 3500

6

5

7

4

8

2

2

9

1

24 31 37 21 26 47  
29 28 29 28 35 26

23 45  
47 43  
27 38  
26 26  
33 24  
45 25  
31 37  
26 35

56 10  
49 53  
34 31  
36 33  
32 40  
30 45  
19 21

32 28 66 58 NS 42 215 46 47 27 45 58 40 65 59 4  
44 41  
62 32  
61 45  
29

21 28  
36 19 21 19  
16 14 NS  
20 24  
15 31 21 37 59  
26 15 27  
NS 25  
37 25  
23 30

16 25  
46 NS  
61 47  
26 51  
20 20  
22 25  
36 28  
NS 35  
20 NS  
NS NS  
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25 33  
20 30  
26 31  
30 18  
29 15  
34 27





FIGURE 7

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

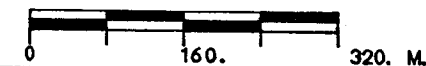
POLESTAR EXPLORATION INC.

TIGER PROPERTY

PROJECT # PS2TIG

AU GEOCHEMISTRY (ppb)

20,342



MONTGOMERY CONSULTANTS LIMITED

AUGUST 1990

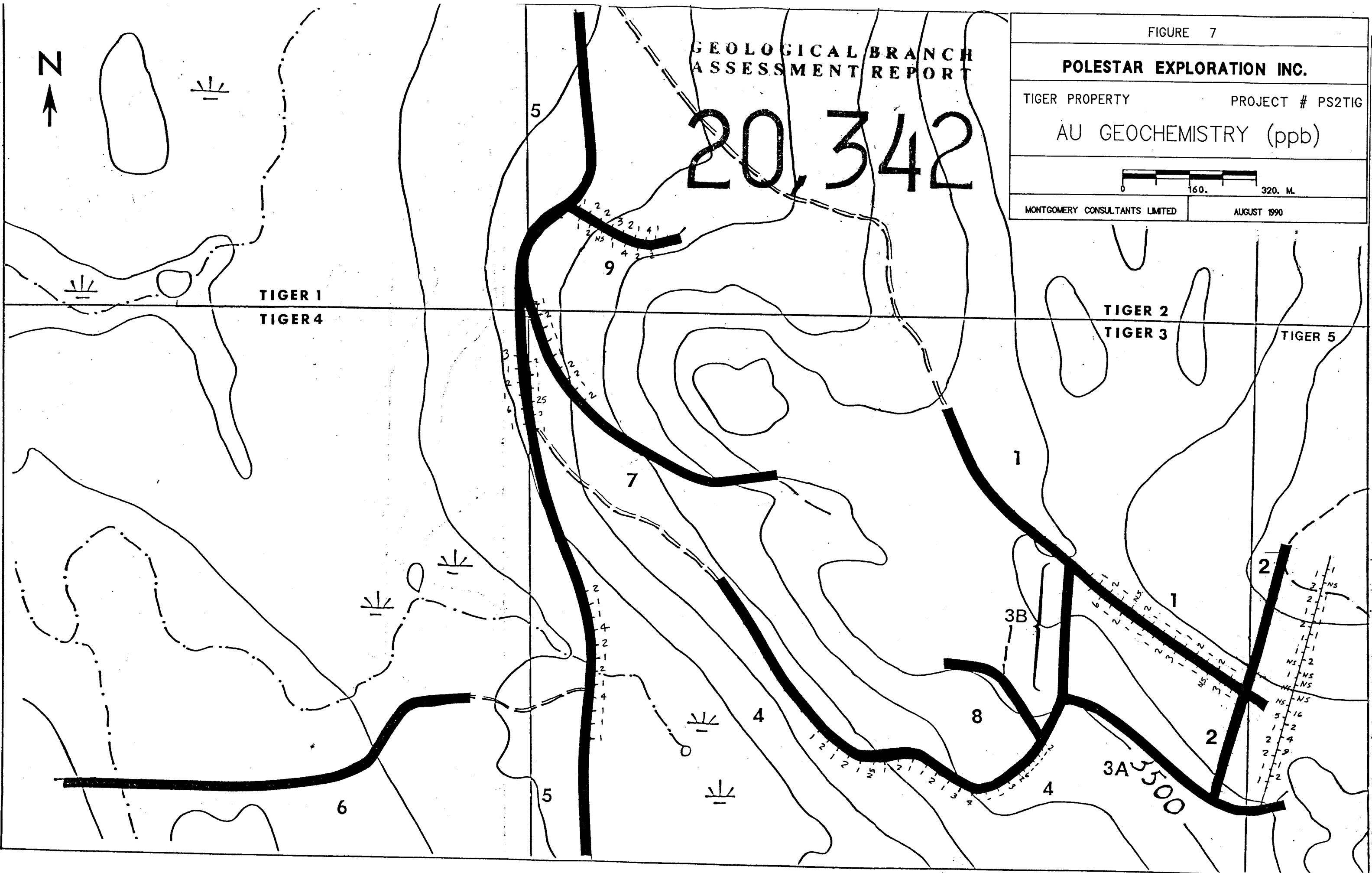
TIGER 1

TIGER 4

TIGER 2

TIGER 3

TIGER 5



LEGEND






-  SURVEY LINES
-  IP ANOMALIES
-  GEOLOGICAL CONTACTS (ASSUMED)
-  ROADS
-  GEOCHEM ANOMALY (1986)  
Au, Cu, Ag, Zn

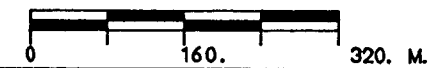
FIGURE 9

**POLESTAR EXPLORATION INC.**

TIGER PROPERTY

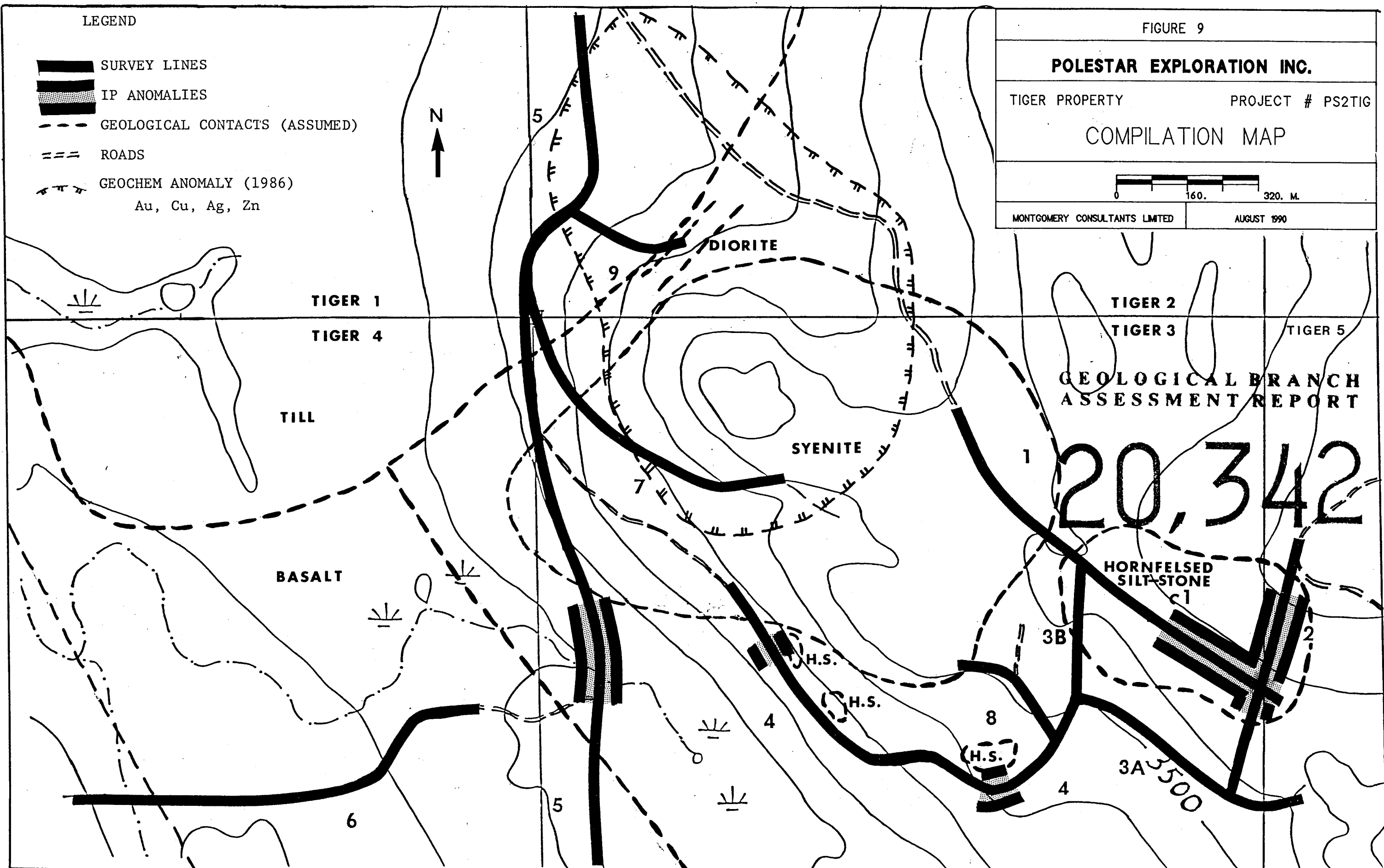
PROJECT # PS2TIG

COMPILATION MAP



MONTGOMERY CONSULTANTS LIMITED

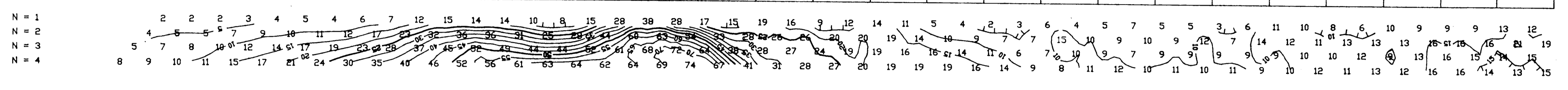
AUGUST 1990



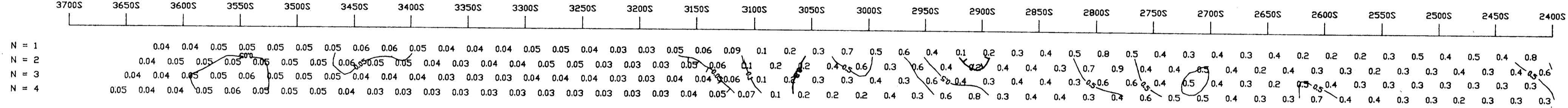
**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

20,342

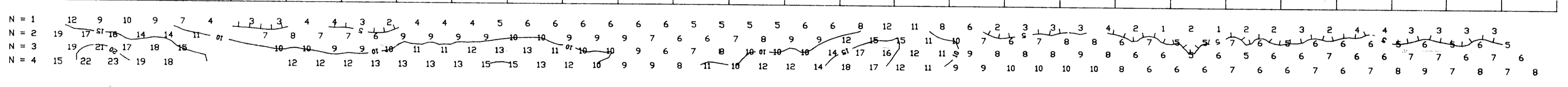
LINE 5 (S of 2400S) Chargeability (mSec)



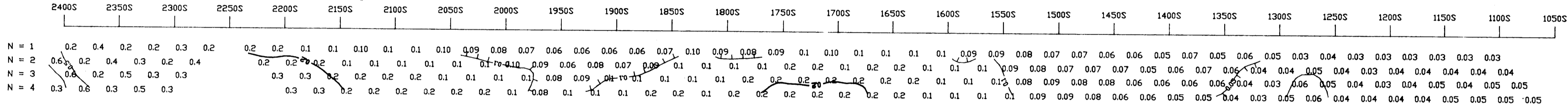
Apparent Resistivity (KOhm-m)



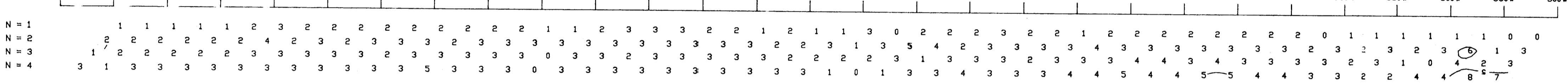
LINE 5 (N of 2400S) Chargeability (mSec)



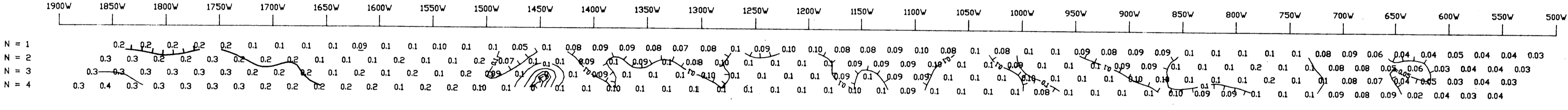
Apparent Resistivity (KOhm-m)



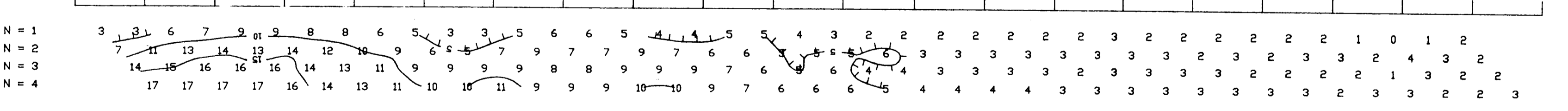
LINE 6 Chargeability (mSec)



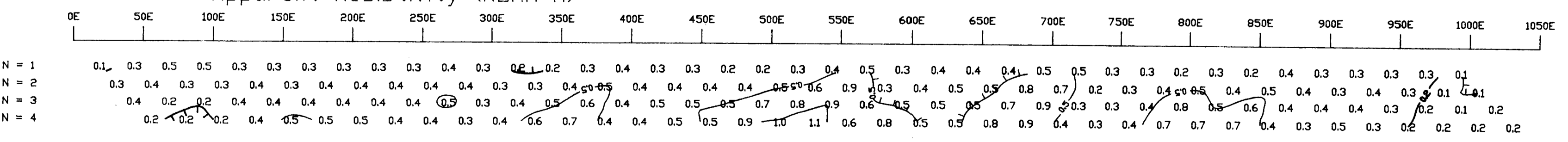
Apparent Resistivity (KOhm-m)



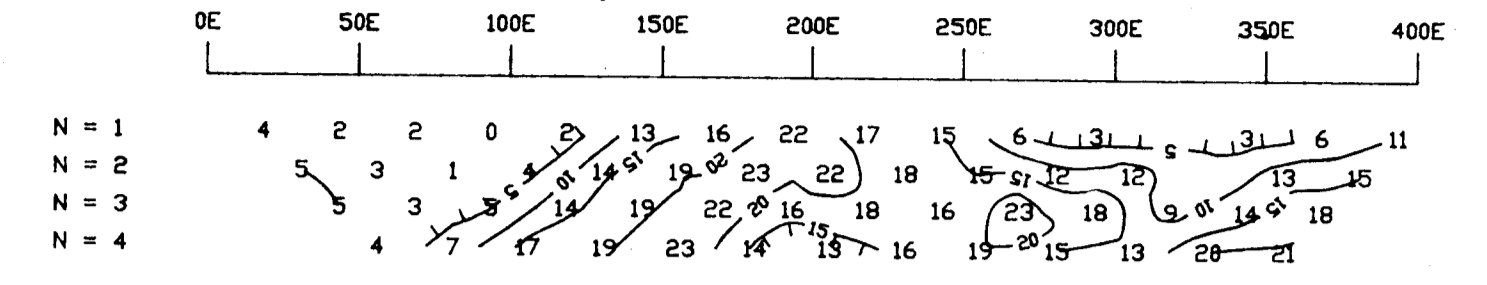
LINE 7 Chargeability (mSec)



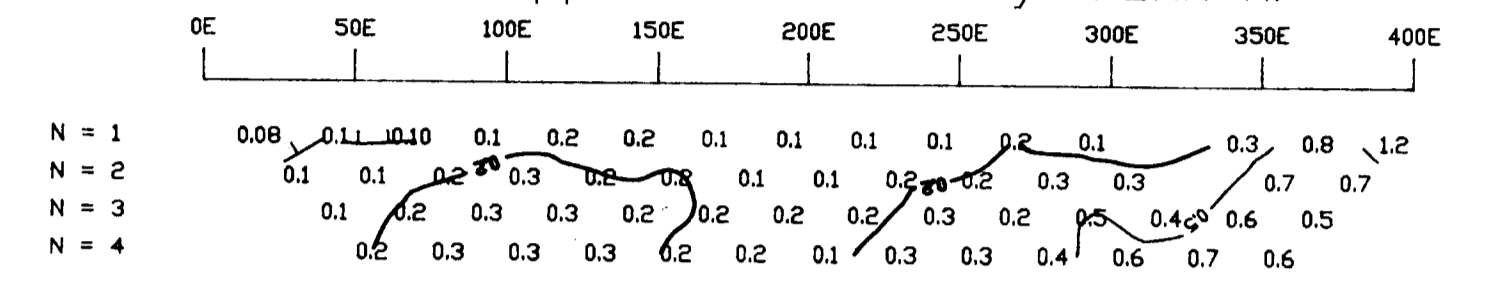
Apparent Resistivity (KOhm-m)



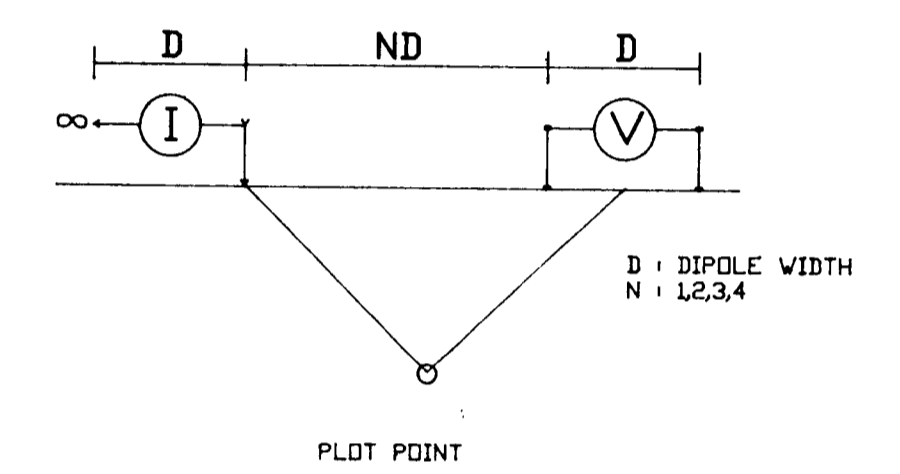
LINE 9 Chargeability (mSec)



Apparent Resistivity (KOhm-m)



POLE-DIPOLE ARRAY

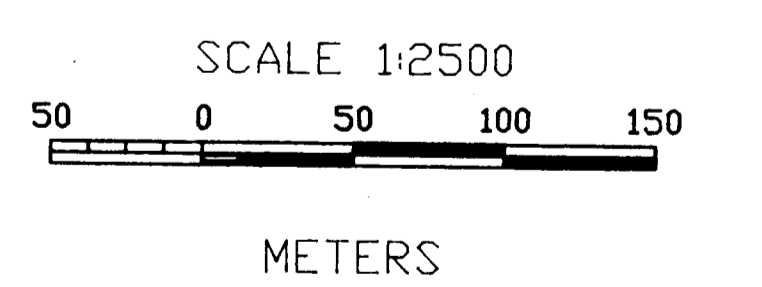


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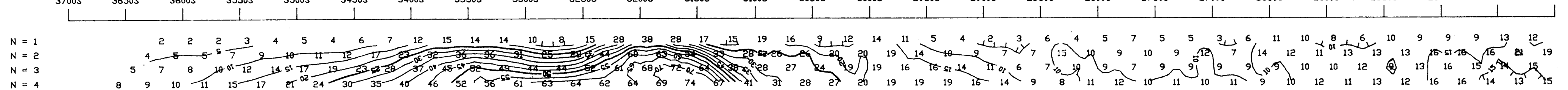
CONTOURS

Chargeability: 5 mSec  
Apparent Resistivity: 0.01, 0.02, 0.05, 0.1, 0.2, 0.5, 1.0 KOhm-m

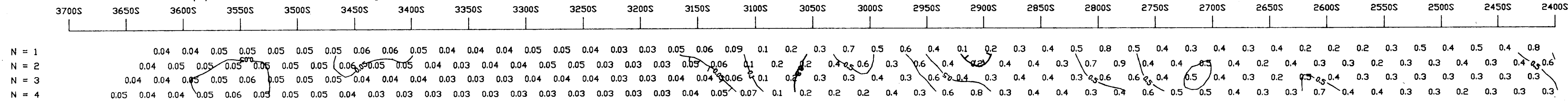


**TIGER PROJECT**  
For: Polestar Exploration Inc.  
By: Montgomery Consultants Ltd.  
Plotted By: RPM Mapping and Computer Services Ltd.  
IP Survey Results - Lines 5-9  
Chargeability & Apparent Resistivity  
Pole-Dipole Array  
Dipole Width: 25m  
Cariboo M.D., B.C.  
N.T.S.: 93B/16 DATE: 30/08/90  
PLOTTED BY: RPM MAPPING FIGURE NO. 6

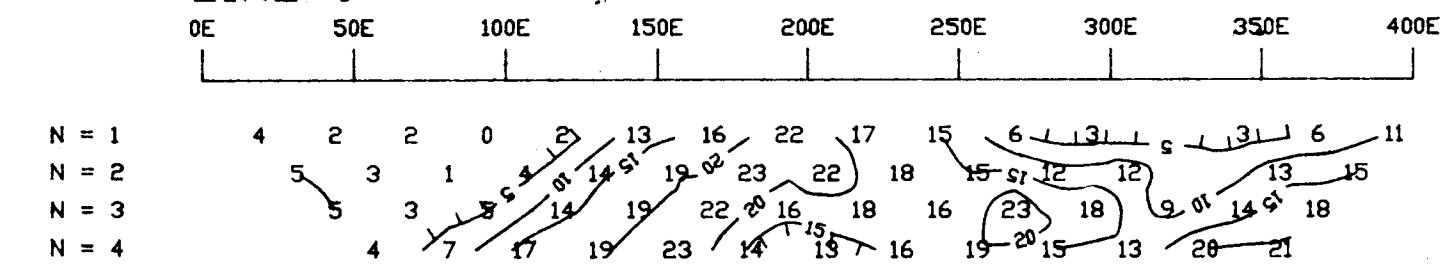
LINE 5 (S of 2400S) Chargeability (mSec)



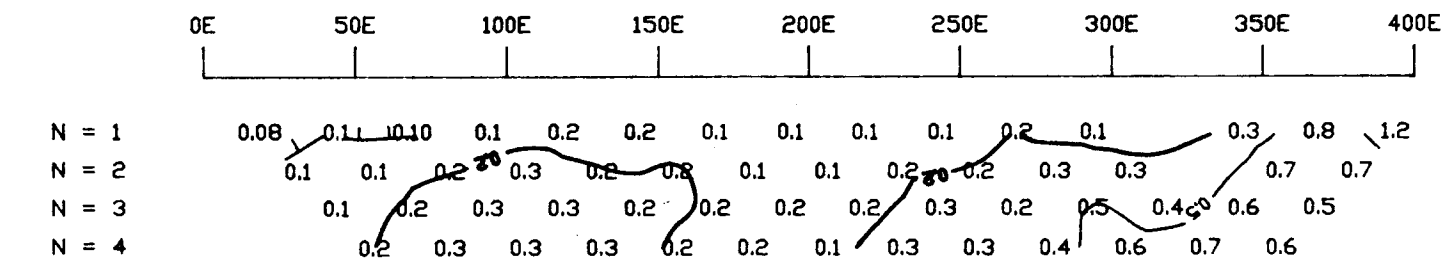
Apparent Resistivity (KOhm-m)



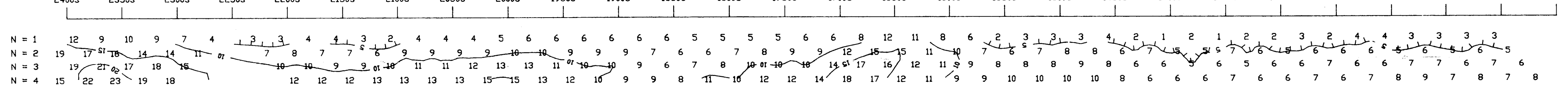
LINE 9 Chargeability (mSec)



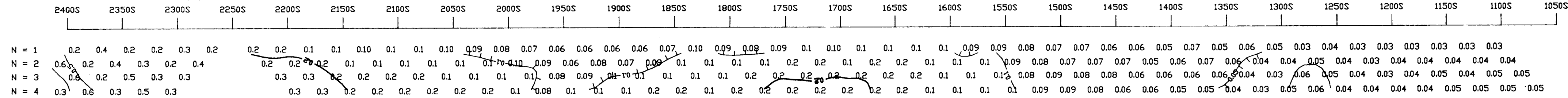
Apparent Resistivity (KOhm-m)



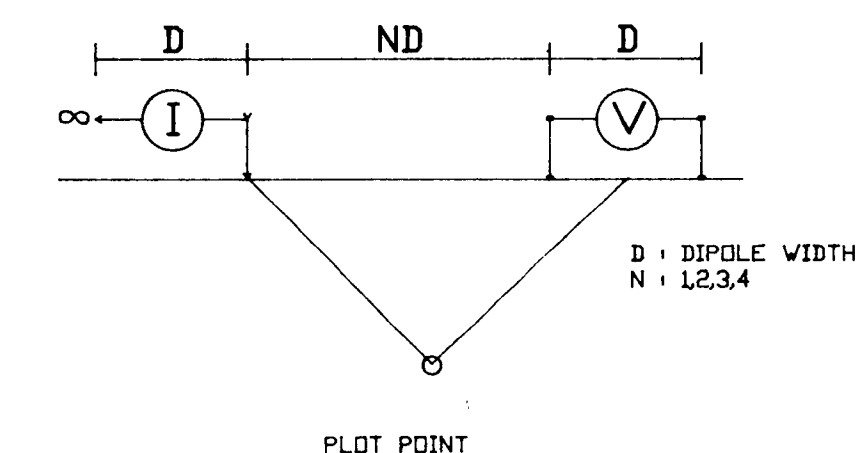
LINE 5 (N of 2400S) Chargeability (mSec)



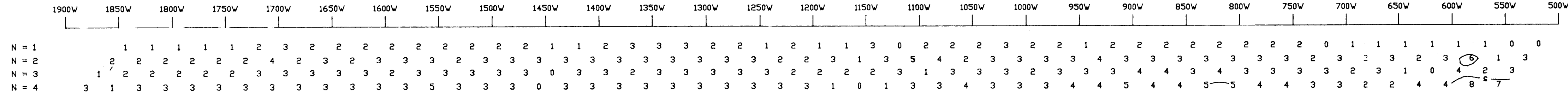
Apparent Resistivity (KOhm-m)



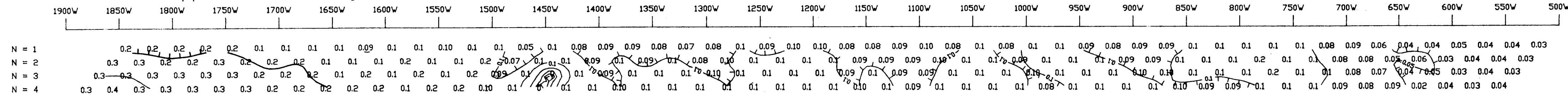
POLE-DIPOLE ARRAY



LINE 6 Chargeability (mSec)



Apparent Resistivity (KOhm-m)



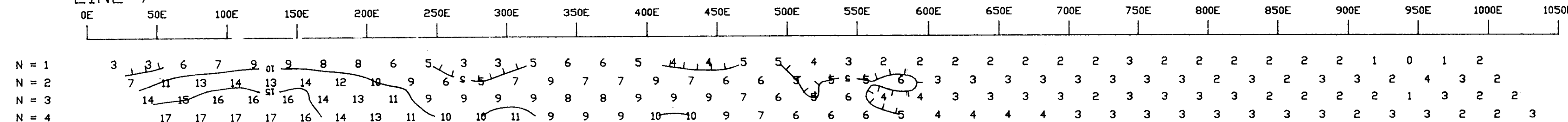
GEOLOGICAL BRANCH ASSESSMENT REPORT

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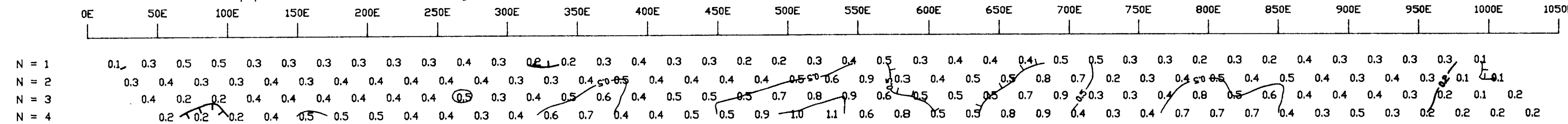
CONTOURS

Chargeability: 5 mSec  
Apparent Resistivity: 0.01, 0.02, 0.05, 0.1, 0.2, 0.5, 1.0 KOhm-m

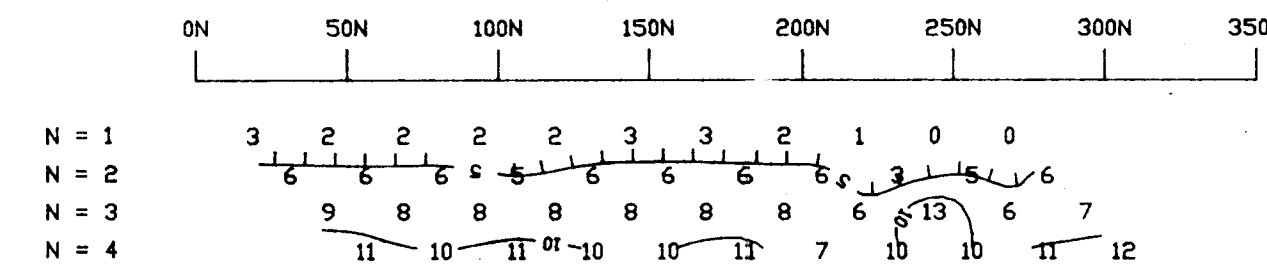
LINE 7 Chargeability (mSec)



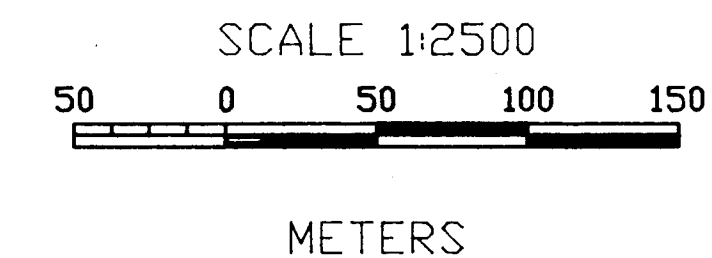
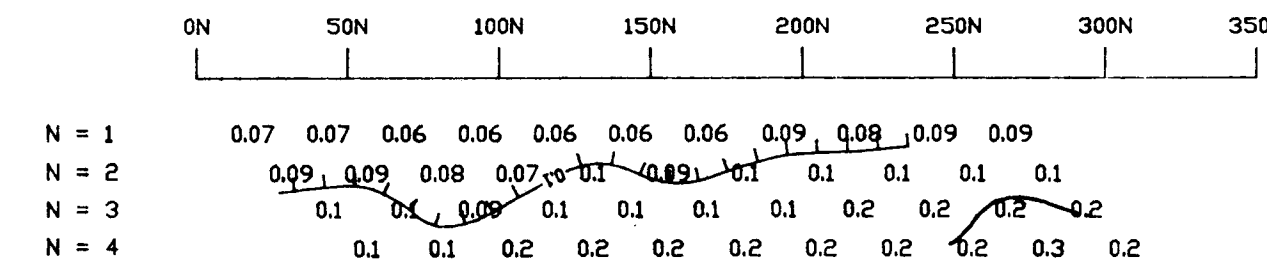
Apparent Resistivity (KOhm-m)



LINE 8 Chargeability (mSec)

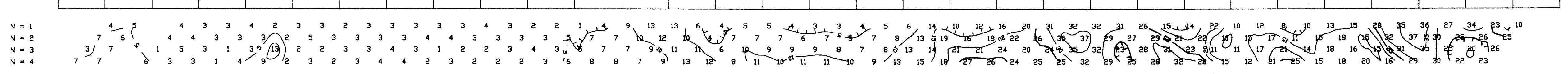


Apparent Resistivity (KOhm-m)

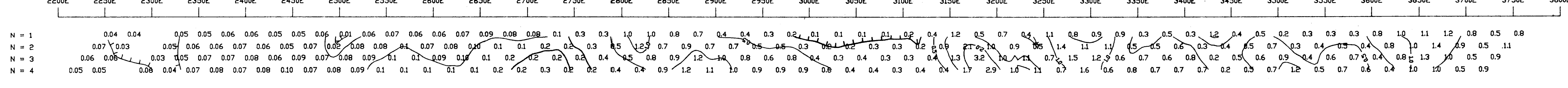


TIGER PROJECT	
For: Polestar Exploration Inc.	
By: Montgomery Consultants Ltd.	
Plotted By: RPM Mapping and Computer Services Ltd.	
IP Survey Results - Lines 5-9 Chargeability & Apparent Resistivity Pole-Dipole Array Dipole Width: 25m	
Cariboo M.D., B.C.	
N.T.S.: 93B/16	DATE: 30/08/90
PLOTTED BY RPM MAPPING	FIGURE NO. 6

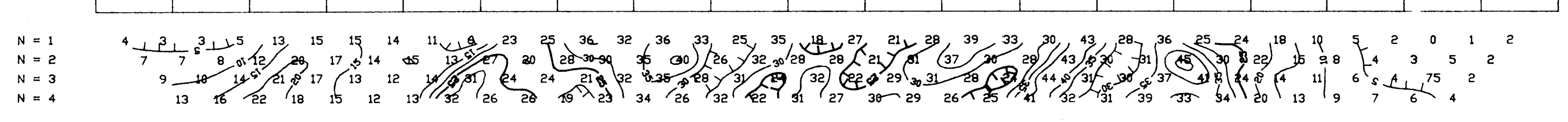
LINE 1 Chargeability (mSec)



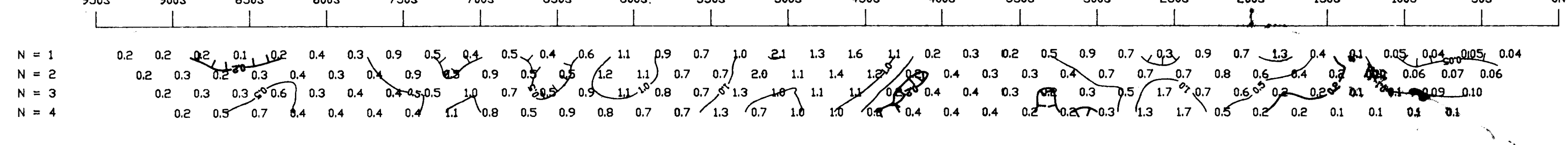
Apparent Resistivity (KOhm-m)



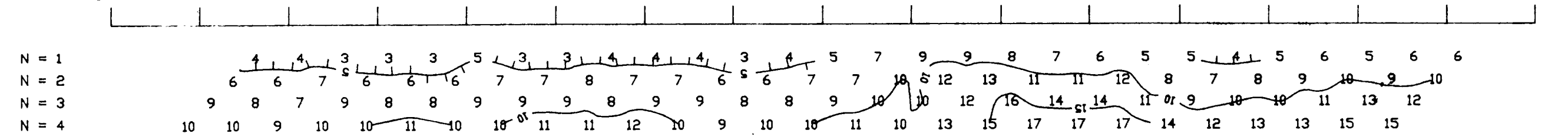
LINE 2 Chargeability (mSec)



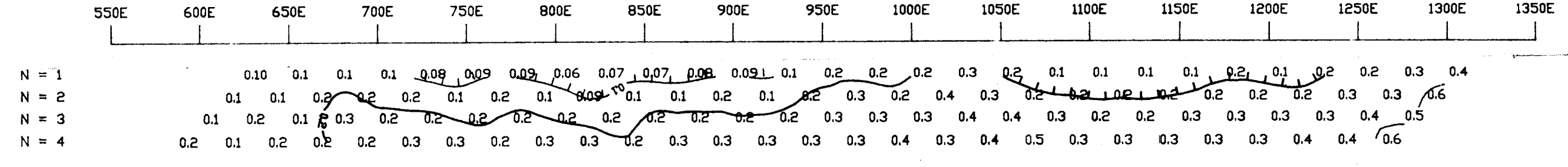
Apparent Resistivity (KOhm-m)



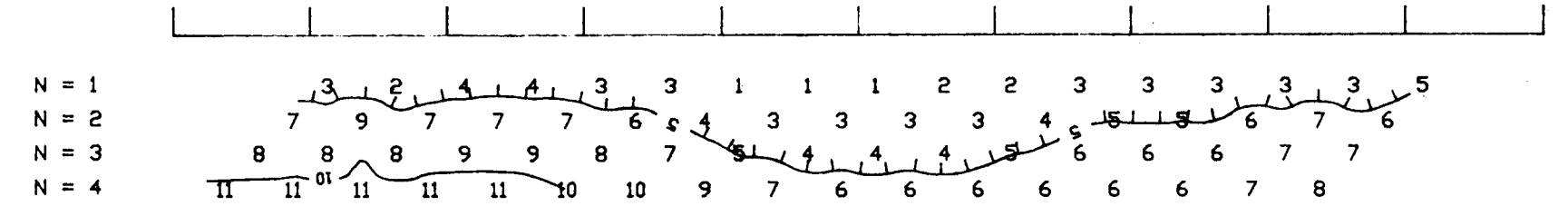
LINE 3A Chargeability (mSec)



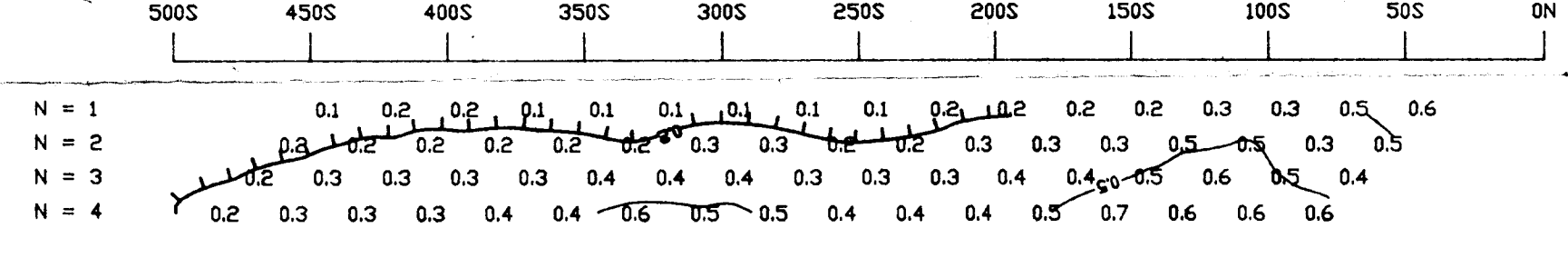
Apparent Resistivity (KOhm-m)



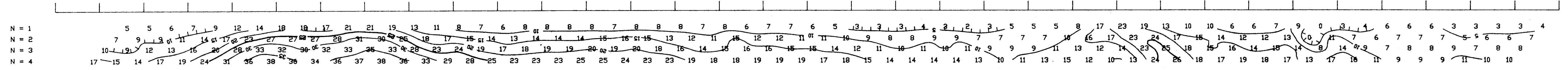
LINE 3B Chargeability (mSec)



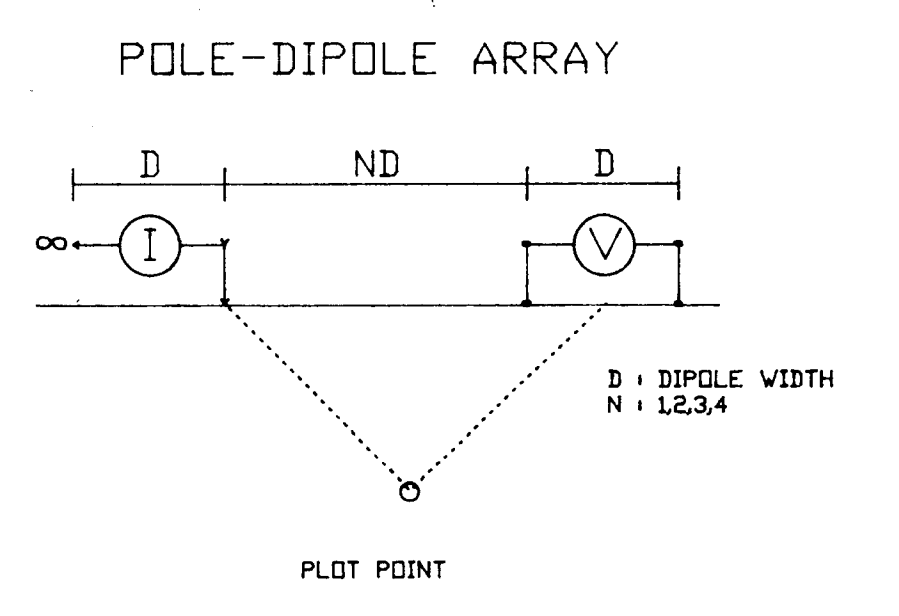
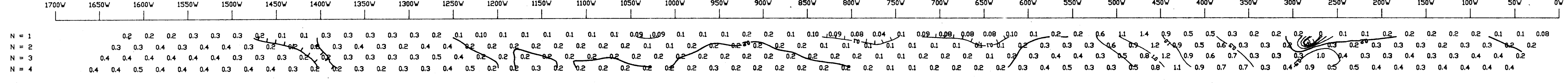
Apparent Resistivity (KOhm-m)



LINE 4 Chargeability (mSec)



Apparent Resistivity (KOhm-m)

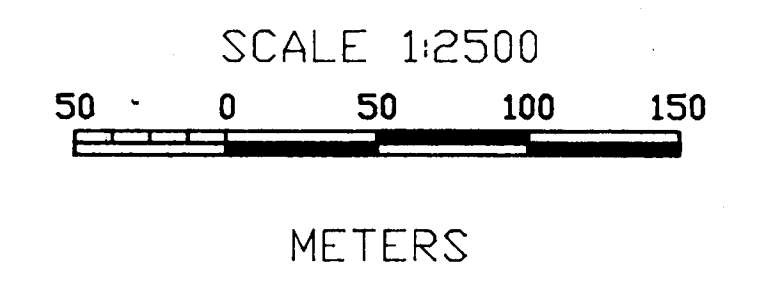


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CONTOURS

Chargeability: 5 mSec  
Apparent Resistivity: 0.01, 0.02, 0.05, 0.1, 0.2, 0.5, 1.0 KOhm-m



**TIGER PROJECT**  
For: Polestar Exploration Inc.  
By: Montgomery Consultants Ltd.  
Plotted By: RPM Mapping and Computer Services Ltd.  
IP Survey Results - Lines 1-4  
Chargeability & Apparent Resistivity  
Pole-Dipole Array  
Dipole Width: 25m  
Cariboo M.D., B.C.  
N.T.S.: 93B/16 DATE: 30/08/90  
PLOTTED BY RPM MAPPING FIGURE NO. 5