

GEOCHEMICAL, GEOPHYSICAL REPORT  
ON THE  
PM GROUP OF CLAIMS

Omineca & Cariboo Mining Division  
NTS 93 J/13  
Noranda Exploration Company, Limited  
(no personal liability)

By: Terry Walker                      April, 1991

21473

ASSESSMENT REPORT  
GEOCHEMICAL & GEOPHYSICAL REPORT  
ON THE  
PM GROUP OF CLAIMS

Omineca Mining Division  
N.T.S. 93 J/13

Latitude: 54' 59' N  
Longitude: 123' 44' W

NORANDA EXPLORATION COMPANY, LIMITED  
(no personal liability)

By: T. Walker

April, 1991

LOG NO: JUL 09 1991 K

ACTION:

FILE NO:

TABLE OF CONTENTS

SUMMARY . . . . .	1
INTRODUCTION . . . . .	2
LOCATION & ACCESS . . . . .	2
CLAIMS & OWNERSHIP . . . . .	2
TOPOGRAPHY & VEGETATION . . . . .	3
REGIONAL GEOLOGY . . . . .	3
LOCAL GEOLOGY . . . . .	3
PREVIOUS WORK . . . . .	4
GEOCHEMICAL SURVEY . . . . .	4
Discussion of Results . . . . .	5
GEOPHYSICAL SURVEY . . . . .	5
Discussion of Results . . . . .	6
CONCLUSIONS . . . . .	7
RECOMMENDATIONS . . . . .	7
REFERENCES . . . . .	7

APPENDICES

- APPENDIX I Statement of Qualifications
- APPENDIX II Statement of Expenditures
- APPENDIX III Analytical Data
- APPENDIX IV I.P. Pseudo-sections

LIST OF FIGURES

FIGURE 1	Location Map	Scale:
FIGURE 2	Claim Location Map	1:8,000,000
FIGURE 3	Soil Geochem Map: Cu/Au	1: 50,000
FIGURE 4	Geological Map	1: 5,000
FIGURE 5	Compilation Map	(not to scale)

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

21,473

SUMMARY

During the summer of 1990, the reconnaissance soil grid established on the PM claims was extended and several short lines of I.P. were run.

The soil survey extensions were completed to cover a pronounced angular airborne mag/resistivity anomaly south of the original grid. Although severely hampered by thick fluvio-glacial drift deposits over most of the area, several moderate Cu +/- Au anomalies were detected on the SW flank of this feature.

The I.P. survey was undertaken in an attempt to detect the source of a Cu-Mo-Au-Ag bearing boulder train. To this end the three lines were located across the up-ice locus of the boulder train and more or less coincident with a weak Cu-Mo-Au soil anomaly. A moderate I.P. anomaly was detected on the northern edge of the two western most lines. This anomaly is open to the north and west.

Sufficient encouragement was obtained from the 1990 surveys to warrant additional geochemical/geological follow up on the west flank of the airborne anomaly and further I.P. to close off and prioritize drill targets in the "boulder" anomaly.

### INTRODUCTION

This report documents the results of reconnaissance scale soil geochemistry, geology and I.P./Resistivity surveys conducted on the claim group during the summer of 1990.

These surveys were carried out to detect, if present, soil and bedrock signatures indicative of the presence of porphyry style Cu-Au-Mo mineralization associated with certain intrusives and structure indicated by previous Norex surveys.

The work described herein was carried out by Norex staff and Pacific Geophysics, Vancouver, under contract to Norex.

### LOCATION & ACCESS

The PM claim group is located on the headwaters of Philip Creek approximately 56 km southwest of Mackenzie and 135 km northwest of Prince George, B. C.

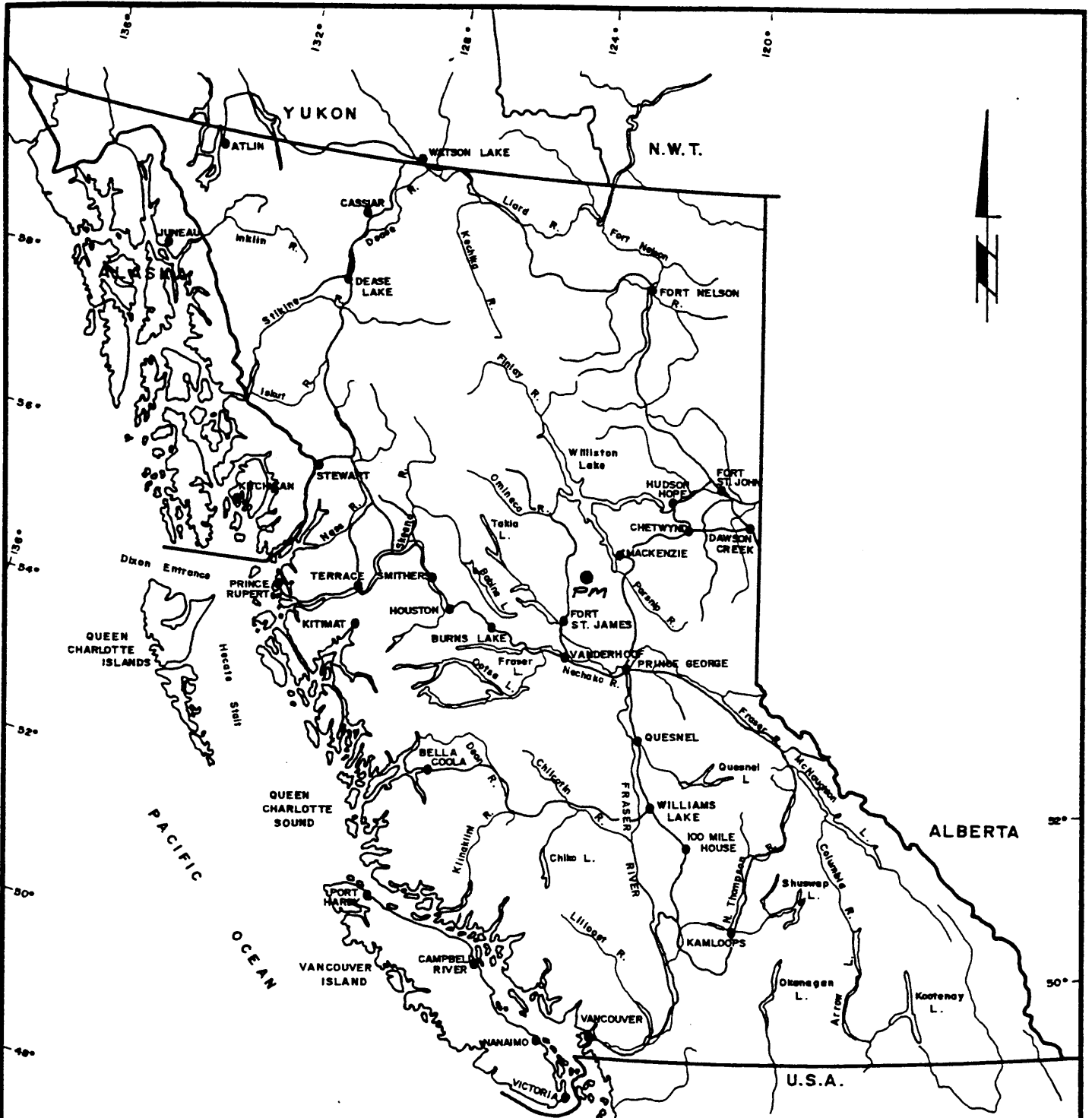
Access is gained by logging roads from Windy Point on Highway #97, 20 km south of Mackenzie.

### CLAIMS & OWNERSHIP

The property consists of one 20 unit claim staked by Gerry Klein in 1987 and three surrounding claims totalling 52 units staked by Norex in 1989. The property is being explored by Norex under an agreement with Mr. Klein.

The relevant claim information is as follows:

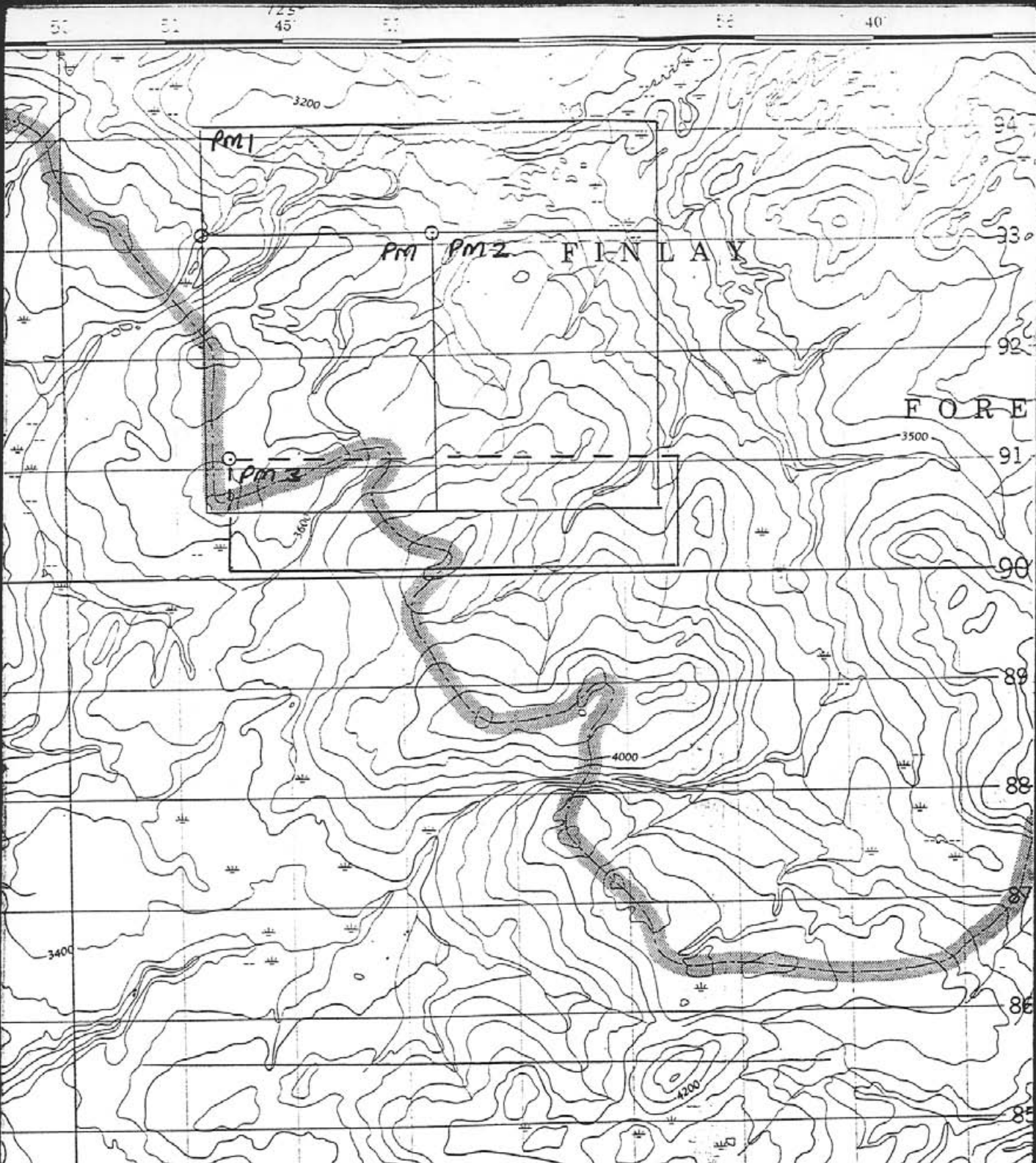
<u>CLAIM NAME</u>	<u>RECORD #</u>	<u>UNITS</u>	<u>RECORD DATE</u>	<u>OWNER</u>
PM	08536	20	June 25, 1987	G. Klein
PM 1	10860	16	July 4, 1989	G. Klein
PM 2	10859	20	July 5, 1989	G. Klein
PM 3	(tag # 117542)	16	July 6, 1989	G. Klein



0 100 200 KILOMETRES  
SCALE : 1 : 8,000,000

REVISED	PM GROUP	
	LOCATION MAP	
PROJ. No. 287	SURVEY BY: _____	DATE: SEPT. 1990
N.T.S. 933/13	DRAWN BY: S.K.B.	SCALE: 1 : 8,000,000
DWG. No.	<b>NORANDA EXPLORATION</b>	
FIG 1	OFFICE: PRINCE GEORGE, B.C.	

VANGAL 11927



REVISED	PM GROUP	
	CLAIM LOCATION MAP	
PROJ. No. 287	SURVEY BY: T. WALKER	DATE: JUNE / 91
N.T.S. 927/13	DRAWN BY: T. WALKER	SCALE: 1:50,000
DWG. No. 2	NORANDA EXPLORATION	
	OFFICE: PRINCE GEORGE	

### TOPOGRAPHY & VEGETATION

The area is one of moderate relief with elevations ranging from 1125 metres along the west side of the property to 975 metres in the valley near the northeast corner of the property. Hills are rounded and largely drift covered.

Until recently, the area was heavily forested with mature stands of spruce and balsam. Recent clear cutting has left large areas with no timber cover.

In most of the area, soil has developed from glacial drift which varies greatly in depth from less than one metre to in excess of 25 metres.

In the southwest corner of the property, glacial stria indicating a northeasterly movement for ice in that area.

### REGIONAL GEOLOGY

Since most of the area is extensively drift covered, little is really known about the geology. The most detailed published map of the area is G.S.C. Map #1204A, at a scale of 1:253,440. This mapping indicates the area of the PM claim is probably underlain by rocks of the Wolverine Complex (granitoid gneiss, micaceous, garnetiferous chloritic schists, pegmatite, feldsparthized quartzite, etc.). This mapping also indicates a series of northwest and northeast trending fault structures that form fault bounded rhombohedral shaped blocks.

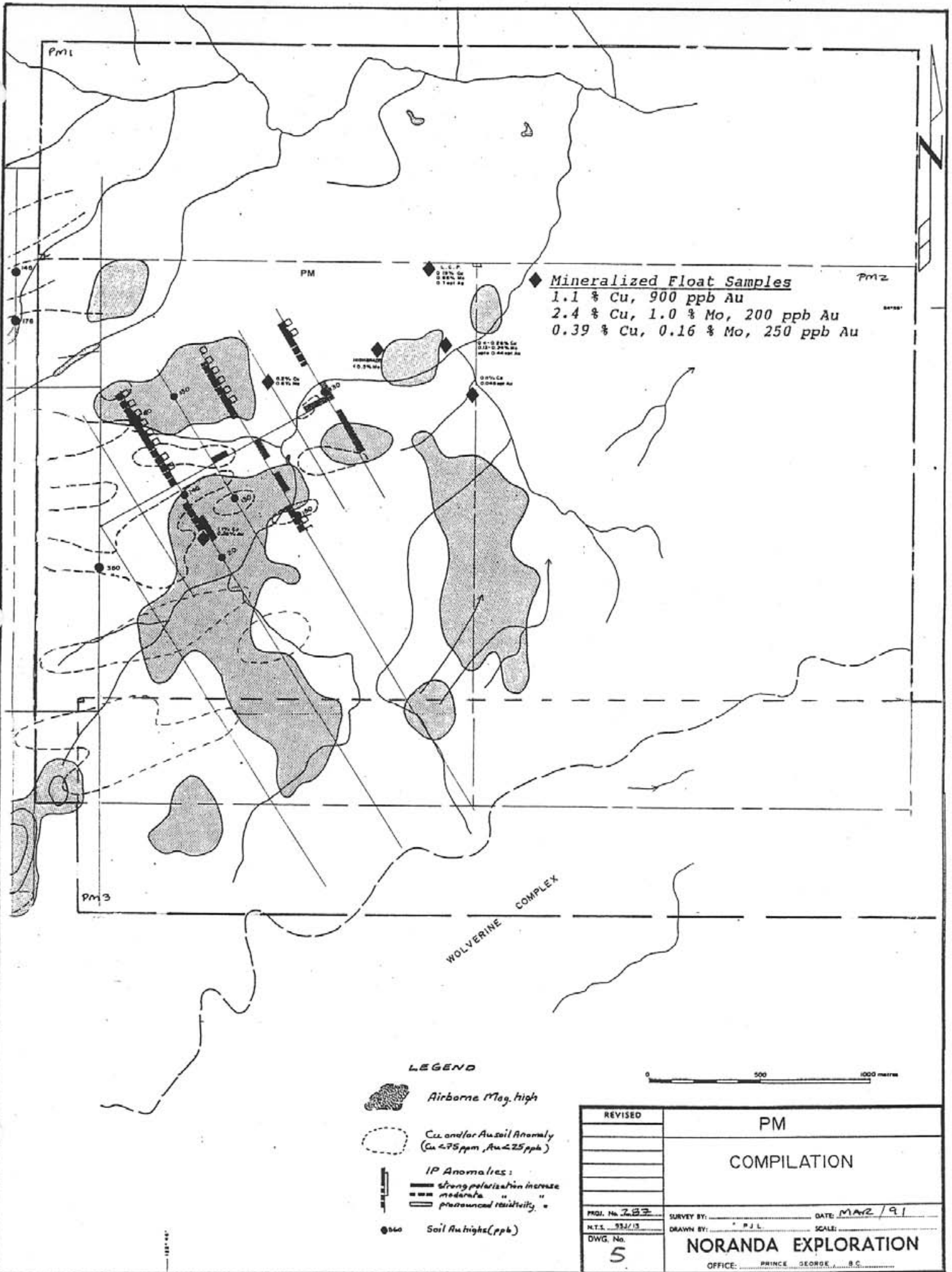
### LOCAL GEOLOGY

Observations made during follow-up surveys suggests that at least the northwest half of the property is underlain by Jurassic-Triassic rocks of the Takla Group. Outcrops of andesitic flows and volcanoclastics typical of the Takla Group are quite numerous in road cuts and creek valleys on the northern and western parts of the "boulder" grid.

Further to the south east, strongly foliated micaceous and chloritic schists more typical of the Wolverine metamorphic complex are exposed again in road cuts and drainages.







Between these two areas and generally within the angular airborne magnetic anomaly on the PM claim (Figure 5) outcrops of





**Mineralized Float Samples**  
 1.1 % Cu, 900 ppb Au  
 2.4 % Cu, 1.0 % Mo, 200 ppb Au  
 0.39 % Cu, 0.16 % Mo, 250 ppb Au

**LEGEND**

-  Airborne Mag. high
-  Cu and/or Au soil anomaly (Cu < 75 ppm, Au < 25 ppb)
- IP Anomalies:**
  -  strong polarization increase
  -  moderate "
  -  pronounced resistivity "
-  Soil Au highs (ppb)

REVISED	PM	
	COMPILATION	
PROJ. No. 283	SURVEY BY: P.J.L.	DATE: MAR 2/91
N.T.S. 93/13	DRAWN BY:	SCALE:
DWG. No. 5	<b>NORANDA EXPLORATION</b>	
	OFFICE: PRINCE GEORGE, B.C.	

monzonite and syeno-diorite were detected. This tends to suggest that the mag anomaly reflects a halo of increased magnetite/pyrrhotite around the margin of a zoned alkalic stock intruding Takla rocks.

Alteration and mineralization detected to date in outcrop consists primarily of chlorite-carbonates-epidote-py veining and disseminations within Takla and Wolverine rocks. This alteration-mineralization almost exclusively occurs in association with NE-SW and NW-SE trending shears and faults. One of these zones in the SW corner of the PM claim is weakly anomalous in Cu-Au, Ag and assayed up to 0.6% Mo.

The best mineralization identified to date and the initial reason for work in the area has been found only in float boulders forming a NE directed fan in the N half of the PM claim. These boulders are strongly foliated chlorite rich rocks containing heavy concentration of disseminated and veinlet py, moly and cpy. Assays from boulders in this train range from 0.17 to 2.4% Cu, 0.1 to 1.0% Mo, 9.0 to 33.9 gpt Ag and 0.1 to 1.5 gpt Au.

#### PREVIOUS WORK

Small scale placer mining has been attempted in the Philip Creek Valley north of the claims at several times since the mid 1950's when gold was first discovered during logging operations.

Other than this the only recorded work has been boulder prospecting by G. Klein in 1987, similar prospecting, soil geochemistry and airborne geophysical surveys by Norex in 1988 and 1989.

#### GEOCHEMICAL SURVEYS

During July and October 1990, Noranda personnel collected 203 soils from 200 m spaced infill and south easterly extensions of the 1989 boulder grid. The samples were preferentially taken from the "B" soil horizon and spaced at 50 m along the sample lines. Samples were placed in kraft paper bags, air dried and shipped to Noranda's Vancouver laboratory for 30 element I.C.P. and gold A.A. analysis. The copper and gold results are presented in plan as Figure 3, whilst the remaining elements can be reviewed in Appendix III.

### Discussion of Results -

Using a threshold value of 75 ppm the Cu analysis suggest several northeasterly trending areas of weak to moderate Cu enrichment. The largest anomaly lies south of Baseline 10,000N between lines 8,400E and 9,200E. This anomaly is up to 400 m wide, ranges in value up to 799 ppm Cu, and appears to lie along the northwestern flank of a NE-SW structural trend marked by local drainage and outcrop in the SW corner of the PM claim. Several groups of values on the ends of lines 16,400E, 8,600E and 8,800E may define a similarly trending anomaly on the SE flank of another NE-SW structural zone. Caution however, must be applied to placing too much emphasis on the orientation of these anomalies since the local glacial transport direction is SW to NE.

Anomalous gold values (ie: > 20 ppb) are few and tend to be single scattered points with the exception of one group of three values ranging up to 150 ppb on line 9,200E. This anomaly however, lies within a creek valley and may represent a local placer accumulation.

Twenty-three rock samples were also analyzed for multi-element I.C.P. and Au A.A. at Acme Analytical labs in Vancouver. The majority of the samples returned background or only slightly elevated metal values. Two, however, did have significantly anomalous values. The highest values were from a float sample on line 8,800E which contained 1.15% Cu, 24.0 gpt Ag, 0.9 gpt Au and 236 ppm As. The other was from sheared clay altered granite outcrop at the south end of line 9,200E; this ran 495 ppm Mo.

### GEOPHYSICAL SURVEYS

During July, 1990, a geophysical program consisting of an Induced Polarization Survey was carried out on the PM Property.

The surveys were conducted by Pacific Geophysical of Vancouver, B.C. with assistance of Noranda personnel. Instrumentation included the BRGM IP-6 receiver, and the 1.2 Kw Phoenix IPT-1 I.P. transmitter powered by a Phoenix MG-1 motor generator. The period of the transmitted signal was 8 seconds, 50% duty. The double dipole electrode array was used with dipole spacings of 50 m. Readings were recorded for n = 1 to n = 5

Production totalled 3.8 Km. Three NE - SW lines, L.8800E, L.9200E, and L.9600E were surveyed in addition to the crossline, L.10000N.

The I.P. results are presented in pseudo-section format at a scale of 1:5000 (Appendix IV).

#### Discussion of Results -

The threshold chargeability response of the limited I.P. survey is considered to be 5 mV/V with the maximum responses being two to three times this value.

The resistivity sections indicate a consistent, lithological change across the north side of the 3 NW - SE lines with a gradual transition from high resistivity rocks at the north end of the lines to low resistivity rocks at the south.

The anomalous I.P. responses correlates well and are confined to within the high resistivity rock unit. The principle responses on lines 8,800E and 9,200E are open to the northwest.

The crossline provides sufficient coverage over only the middle NE - SW line, L.9200E, and the results indicate anomalous responses to be sourced at 9125E.

### CONCLUSIONS

The mineralized float detected to date consists of large (up to 50 lb.) boulders of schistose mafic rocks containing py, cpy and moly which assay up to 2.4% Cu, 1.0% Mo, 33.9 gpt Ag and 1.5 gpt Au. These boulders form a NE trending train across the north half of the PM claim. Soil geochem surveys in the heavy drift covered area at the apparent up ice locus of this train have detected one large and several patchy Cu +/- Au, Mo anomalies.

The airborne mag-EM survey outlined a doughnut shaped magnetic and resistivity anomaly along the south edge of the boulder train and the soil anomalies. The nature of this anomaly and scattered outcrop within it suggest the presence of a dioritic to monzonitic stock.

The small IP survey over the NW edge of this airborne feature and the coincident geochem detected a moderate chargeability anomaly which is open in two directions.

Multi-directional structural zone with some associated trace element enrichment have also been documented in outcrop and can be inferred from the geophysical surveys. Several of these zones appear to intersect in the area of the boulder train apex, soil geochem and I.P. anomalies.

This scenario of anomalous Cu-Au +/- Mo in soils and rocks, more or less coincident I.P. anomalies and multi-directional structure along the magnetically anomalous margin of an alkalic to felsic intrusion within Takla volcanics is similar to several alkali porphyry Cu-Au deposit settings within the Quesnel Trough.

### RECOMMENDATIONS

Additional I.P., ground magnetics, infill soil sampling and trenching are recommended to further define and extend the current ground anomalies, evaluate the rest of the airborne anomaly and define drill targets.

REFERENCES

- MacArthur, R., 1988: Geochemical Report on the PM Claims.
- MacArthur, R., 1989: Follow-Up Geochemical Report on the PM Claims.
- Muller, J.E. and Tipper, H.W., 1968: Geology, McLeod Lake Sheet, Map 1204A, NTS 93J.
- Walker, T., 1990: Airborne Geophysical Report on the PM Group of Claims.

Assessment Report  
GEOCHEMICAL & GEOPHYSICAL REPORT  
PM GROUP OF CLAIMS

April, 1991

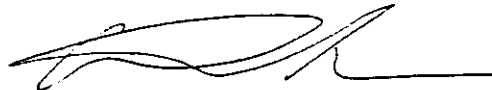
APPENDIX I

STATEMENT OF QUALIFICATIONS

## STATEMENT OF QUALIFICATIONS

I, Terence Walker, of Prince George, British Columbia hereby certify that:

1. I am a graduate of University College, London with a B.Sc. degree in Geology (1968) and a graduate of McGill University, Montreal with an M.Sc. in Mineral Exploration (1978).
2. I have practiced my profession with various mining companies in Europe and North America since graduation.
3. I am currently employed as a Senior Project Geologist working for Noranda Exploration Company, Limited.
4. I am a member of the Canadian Institute of Mining and Metallurgy, the Geological Association of Canada, the Prospectors and Developers Associations and the British Columbia and Yukon Chamber of Mines.
5. The information contained in this report is based on published and unpublished reports on the property and surrounding area, and on work done by Noranda.
6. I have no current interest in the property.



Terence Walker  
Sr. Project Geologist



APPENDIX II

STATEMENT OF EXPENDITURES

GRID PREPARATION:

Flagged Line - 9.5 km @ \$120/km	\$ 1,140.00
Cut line - 4.5 km @ \$400/km	1,800.00
Camp & Supplies - 12 md @ \$50/md	600.00
Truck Rental - 4 days @ \$50/day	<u>200.00</u>
Sub - Total:	\$ 3,740.00

GEOPHYSICAL SURVEY:

I.P. Contract - 3.8 km @ \$1,275/km	\$ 4,845.00
Geophysicist - 2 md @ \$300/md	600.00
Camp & Supplies - 20 md @ \$50/md	1,000.00
Truck Rental - 5 days @ \$50/day	<u>250.00</u>
Sub - Total:	\$ 6,695.00

GEOCHEMICAL SURVEY:

Sample Collection - 6 md @ \$130/md	\$ 780.00
Camp & Supplies - 6 md @ \$50/md	300.00
Truck Rental - 3 days @ \$50/day	150.00
Analysis - soils 203 @ \$13.50/sample	2,740.50
- rocks 23 @ \$14.50/sample	<u>333.50</u>
Sub - Total:	\$ 4,304.00

GEOLOGICAL SURVEY:

Senior Geologist - 2 md @ \$260/day	\$ 540.00
Geologist - 6 md @ \$175/day	1,050.00
Geological Assistant - 6 md @ \$125/day	750.00
Camp & Supplies - 12 md @ \$50/day	600.00
Truck Rental - 4 days @ \$50/day	<u>200.00</u>
Sub - Total:	\$ 3,140.00

REPORT PREPARATION:

Geologist - 2 md @ \$260/day	\$ 540.00
Geophysicist - 1 day @ \$300/day	300.00
Drafting - 1 day @ \$130/day	130.00
Typing - 1 day @ \$125/day	<u>125.00</u>
Sub - Total:	\$ 1,095.00

TOTAL PROGRAM EXPENDITURES:

\$18,974.00

Assessment Report  
GEOCHEMICAL & GEOPHYSICAL REPORT  
PM GROUP OF CLAIMS

April, 1991

---

APPENDIX III

ANALYTICAL DATA

ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

PM # 287 (RMC)

Noranda Exploration Co. Ltd. PROJECT 9006-014 287

File # 90-1676

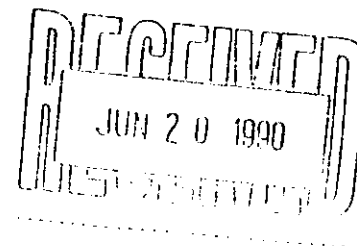
P.O. Box 2380, 1050 Davie St., Vancouver BC V6B 3T5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
25524	1	17	8	71	.5	34	20	665	4.91	4	5	ND	1	158	.6	11	2	94	3.19	.107	2	97	2.73	186	.17	6	2.31	.01	.37	1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Rock

DATE RECEIVED: JUN 8 1990 DATE REPORT MAILED: *June 13/90* SIGNED BY: *C. Leong* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

*file  
PM*



GEOCHEMICAL ANALYSIS CERTIFICATE

Noranda Exploration Co. Ltd. PROJECT 9007-059 287 File # 90-2645

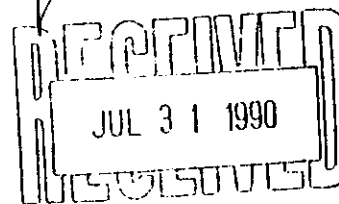
P.O. Box 2380, 1050 Davie St., Vancouver BC V6B 3T5

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb
55251	1	86	4	138	.1	97	35	1255	6.75	15	5	ND	1	157	.9	6	2	155	3.84	.149	2	273	4.57	67	.14	4	3.69	.01	.05	1	10
109351	1	157	5	43	.2	64	33	483	5.91	13	5	ND	1	44	.5	3	2	82	1.49	.120	2	151	2.43	20	.13	5	1.72	.02	.13	1	3
109352	2	254	9	48	.7	19	15	249	17.76	47	5	ND	1	61	.8	2	2	120	.24	.159	2	279	1.02	26	.12	9	1.20	.01	.21	1	12
109353	1	467	8	99	.7	55	37	830	6.82	23	5	ND	1	121	1.0	4	2	176	3.36	.067	2	143	2.33	44	.32	7	2.08	.01	.41	1	25
109354	1	28	9	93	.1	40	23	680	4.85	6	5	ND	2	206	.7	8	2	67	2.13	.181	25	25	1.24	156	.28	9	3.68	.48	.05	1	3
109355	2	13	11	55	.1	23	6	436	4.33	6	5	ND	5	6	.2	2	2	38	.12	.051	10	67	1.13	18	.01	6	1.50	.02	.08	1	1
109356	3	15	7	10	.1	9	2	69	1.01	2	5	ND	4	12	.2	2	2	4	.20	.076	10	9	.12	22	.01	5	.44	.02	.11	2	3
109357	20	3	14	34	.1	6	5	223	1.72	10	6	ND	23	3	.2	2	2	7	.02	.035	46	7	.03	26	.01	4	.56	.01	.06	2	1
109358	8	3	13	36	.1	6	1	68	1.30	6	6	ND	26	4	.2	2	2	7	.01	.027	38	7	.09	27	.01	3	.44	.03	.09	2	1
109359	495	5	66	51	1.6	4	2	276	1.58	26	5	ND	32	2	.2	2	6	1	.03	.034	51	4	.03	19	.01	2	.47	.01	.09	1	4
109360	5	169	20	87	1.4	87	32	409	10.36	27	5	ND	7	5	.9	7	2	120	.09	.051	6	82	2.62	49	.32	7	4.72	.03	1.11	1	2
109361	1	218	14	80	.7	63	14	354	25.52	25	5	ND	1	25	2.0	6	2	273	.29	.029	2	208	2.85	36	.05	5	2.94	.01	.04	1	17
109362	1	130	4	68	.1	70	27	840	5.12	11	5	ND	1	104	.5	3	2	122	1.66	.100	2	170	3.61	61	.20	4	3.01	.01	.01	1	1
109363	1	17	5	47	.2	24	14	580	3.93	17	5	ND	1	48	.2	4	2	87	1.07	.049	2	46	2.48	20	.01	4	2.17	.01	.03	2	1
109364	3	82	5	71	.5	12	7	542	6.27	20	5	ND	2	44	.3	5	2	71	.14	.106	4	20	2.15	71	.03	6	2.15	.03	.19	1	10
109365	4	6	3	4	.1	9	1	37	.32	2	5	ND	1	1	.2	2	2	1	.02	.003	2	9	.02	3	.01	6	.04	.01	.01	2	3
109370	1	50	18	127	.1	33	14	708	5.55	13	5	ND	6	39	.5	6	2	101	1.00	.331	52	62	2.21	229	.24	8	2.52	.04	.51	1	2
131126	4	11509	2	63	24.0	21	150	35	2.04	236	5	2	1	2	6.5	2	2	1	.02	.005	2	11	.01	5	.01	5	.03	.01	.01	2	900
131127	2	84	3	46	.4	5	10	994	3.86	25	5	ND	4	54	.4	2	2	46	2.00	.129	5	3	1.31	110	.01	2	1.70	.03	.18	2	8
STANDARD C/AU-R	19	58	43	132	7.0	72	28	1046	4.08	42	23	8	39	53	18.8	15	20	58	.53	.100	39	60	.96	181	.09	37	1.98	.06	.13	11	520

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Rock AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 18 1990 DATE REPORT MAILED: *July 23/90* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ASSAY RECOMMENDED

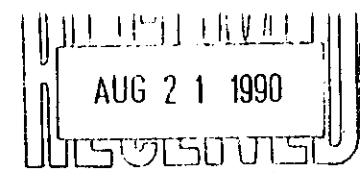


*Copy to Terry*

# NORANDA VANCOUVER LABORATORY

## Geochemical Analysis

*25  
Accuracy  
Results*



Project Name & No.: PM - 287

Geol.: C.C.

Date rec'd: JUL 18

LAB CODE: 9007-059

Material: 88 SOILS

Sheet: 1 of 3

Date compl: AUG. 14

Remarks:

Au - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO<sub>4</sub>/HNO<sub>3</sub> (4:1) at 203 °C for 4 hours diluted to 11 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, Ga, La, Li are rarely dissolved completely from geological materials with acid dissolution methods.

*Copy to Terry*

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
2	8600E-9500N	5	0.2	3.54	9	170	0.8	2	1.75	0.2	40	11	86	33	4.04	32	0.25	17	23	0.88	344	1	0.04	30	0.11	8	200	0.29	170	90
3	9550	5	0.2	4.08	9	244	1.0	2	1.63	0.2	43	20	82	88	4.32	26	0.36	19	37	1.21	933	1	0.05	43	0.10	10	173	0.21	156	109
4	9600	5	0.2	3.65	10	167	0.8	2	2.21	0.2	49	12	74	129	3.90	29	0.30	23	29	1.09	469	4	0.05	41	0.11	8	261	0.25	147	68
5	9650	5	0.2	3.59	11	197	0.8	2	1.46	0.2	52	17	58	100	4.16	25	0.39	25	40	1.37	592	1	0.05	39	0.10	7	176	0.22	147	79
6	8600E-9700N	5	0.2	3.42	12	178	0.8	2	1.74	0.2	44	18	71	146	4.32	27	0.35	22	34	1.52	674	2	0.05	44	0.11	5	190	0.26	157	78
7	8600E-9750N	5	0.4	3.13	15	167	0.7	2	1.96	0.4	43	19	56	203	4.21	27	0.25	21	28	1.46	695	1	0.03	41	0.14	5	239	0.22	162	73
8	9800	5	0.2	3.29	16	177	0.6	2	1.57	0.2	39	18	61	120	4.29	27	0.28	18	26	1.51	644	2	0.04	42	0.11	9	199	0.22	158	100
9	9850	5	1.4	3.60	20	187	0.9	2	1.42	0.5	55	28	67	225	4.68	29	0.31	27	38	1.49	1156	4	0.05	57	0.12	10	176	0.22	149	165
10	9900	5	0.6	3.38	13	228	0.9	2	1.42	0.5	38	27	95	159	4.51	28	0.29	19	34	1.54	1470	2	0.04	60	0.13	7	170	0.23	159	116
11	8600E-9950N	5	0.6	3.17	13	218	0.7	2	1.04	0.2	41	17	94	84	3.61	15	0.30	20	23	0.85	724	1	0.04	40	0.08	6	134	0.22	128	80
12	8600E-10000N	5	2.0	3.93	15	237	0.8	2	0.94	0.2	43	15	94	97	4.05	17	0.37	22	33	1.35	624	1	0.04	37	0.10	8	133	0.18	141	93
13	10050	30	0.4	3.38	24	178	0.6	2	0.86	0.3	35	14	87	49	5.18	17	0.30	17	32	1.00	438	1	0.04	28	0.09	16	117	0.20	165	124
14	10100	5	1.0	3.22	19	167	0.7	2	0.83	0.2	30	15	77	49	4.88	19	0.31	14	32	1.17	482	1	0.04	27	0.12	10	121	0.18	177	84
15	10150	5	1.0	3.37	34	177	0.7	2	0.80	0.2	34	18	57	69	5.08	19	0.33	16	38	1.41	605	1	0.03	27	0.13	11	120	0.16	184	72
16	8600E-10200N	5	0.4	3.11	20	189	0.6	2	0.90	0.2	38	13	63	51	4.56	22	0.35	18	25	0.97	461	1	0.04	23	0.17	10	140	0.19	160	93
17	8600E-10250N	5	0.6	3.08	24	209	0.7	2	0.84	0.4	37	15	64	58	4.69	22	0.36	17	26	0.96	627	1	0.04	28	0.13	12	119	0.19	161	125
18	10300	5	0.2	2.96	22	248	0.5	2	0.64	0.2	35	17	52	46	4.49	24	0.42	16	22	0.71	1157	1	0.04	19	0.20	18	103	0.18	180	81
19	10400	5	1.0	4.55	44	321	1.1	3	0.74	0.2	37	29	60	140	5.80	23	0.76	15	43	1.91	1202	1	0.04	37	0.14	72	87	0.14	179	89
20	10450	10	0.4	3.31	20	241	0.7	2	0.66	0.2	49	13	65	43	4.42	25	0.50	22	29	0.85	568	1	0.05	24	0.07	21	107	0.19	147	123
21	8600E-10500N	5	1.2	3.30	19	264	0.6	2	0.72	0.2	46	7	60	26	3.18	16	0.65	25	11	0.47	329	1	0.05	13	0.08	16	130	0.19	144	61
22	9000E-9500N	5	0.2	3.27	16	188	0.7	2	1.23	0.2	40	20	86	84	3.91	19	0.36	19	21	1.14	639	1	0.04	41	0.13	9	158	0.20	145	70
23	9550	5	0.4	3.40	16	209	0.8	2	1.34	0.2	43	15	62	77	3.65	23	0.32	20	29	1.34	618	1	0.04	36	0.08	7	164	0.22	140	70
24	9600	5	0.2	3.17	15	195	0.7	2	1.28	0.2	45	15	65	82	3.67	25	0.36	22	23	1.15	489	1	0.04	33	0.12	9	159	0.22	144	81
25	9650	10	0.4	3.35	19	164	0.7	2	1.41	0.2	44	18	63	71	3.89	29	0.26	20	32	1.18	501	1	0.04	37	0.10	9	187	0.22	148	102
26	9000E-9700N	5	0.8	3.12	11	202	0.7	2	1.61	0.2	42	13	58	70	3.12	30	0.22	20	22	0.95	413	1	0.04	27	0.08	8	215	0.22	137	64
27	9000E-9750N	5	0.8	3.19	21	213	0.8	2	1.70	0.8	44	22	68	159	4.31	31	0.30	18	32	1.25	974	2	0.04	43	0.14	10	182	0.20	153	111
28	9800	130	1.2	3.85	12	194	0.7	2	2.56	0.5	46	19	52	107	4.73	35	0.26	19	22	1.53	1510	4	0.04	36	0.22	9	289	0.29	184	122
29	9850	5	0.2	3.31	12	136	0.6	2	1.40	0.2	45	11	61	39	3.11	30	0.24	20	26	1.03	360	1	0.05	26	0.08	10	194	0.23	140	71
30	9900	5	0.2	3.64	28	250	1.0	4	2.99	0.4	50	26	59	152	4.61	33	0.57	21	31	1.98	1037	1	0.05	54	0.14	12	206	0.18	163	104
31	9000E-9950N	5	1.2	3.02	17	219	0.7	2	1.16	0.2	36	17	78	89	3.59	16	0.31	18	20	1.05	666	1	0.04	32	0.12	6	159	0.18	146	69
32	9000E-10000N	5	2.0	3.08	18	199	0.6	2	0.93	0.4	37	16	88	113	4.50	19	0.39	19	21	1.09	609	1	0.04	37	0.12	8	127	0.20	160	98
33	10050	5	1.4	2.76	13	214	0.6	2	1.48	0.2	38	17	80	104	3.68	23	0.31	16	17	0.94	1187	1	0.06	32	0.17	8	176	0.19	152	78
34	10100	20	1.0	3.00	17	170	0.6	2	1.38	0.2	41	13	73	69	4.04	23	0.26	18	24	0.98	428	1	0.06	31	0.09	9	172	0.23	155	55
35	10150	5	2.0	3.18	23	185	0.6	2	1.13	0.4	31	17	71	95	4.61	24	0.32	14	20	1.23	537	1	0.03	35	0.14	10	165	0.18	177	72
36	9000E-10200N	5	0.2	3.02	15	183	0.6	2	0.99	0.2	34	12	74	38	3.99	23	0.33	17	23	0.82	386	1	0.04	22	0.08	7	148	0.24	157	83

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	9007-059 Pg. 2 of 3
37	9000E-10250N	5	0.2	3.29	11	304	0.6	2	0.83	0.2	39	13	71	31	3.80	24	0.47	19	25	0.89	600	1	0.05	22	0.11	9	114	0.21	137	85	
38	10300	5	0.2	3.32	9	375	0.6	2	0.80	0.8	38	26	89	42	5.42	26	0.35	18	32	1.51	844	1	0.04	29	0.23	10	156	0.20	184	128	
39	10350	130	0.4	2.93	18	221	0.6	2	1.16	0.2	35	13	75	43	4.25	27	0.35	15	24	1.01	540	1	0.04	26	0.20	11	139	0.21	163	81	
40	10400	5	0.2	3.18	20	208	0.6	4	0.82	0.2	42	11	82	28	4.20	27	0.40	19	23	0.88	464	1	0.04	19	0.08	11	111	0.19	162	67	
41	9000E-10450N	5	0.2	3.94	42	356	0.6	2	0.45	0.2	23	18	44	51	4.71	7	0.94	14	19	0.96	592	1	0.04	14	0.11	11	62	0.14	190	71	
42	9000E-10500N	5	0.2	3.63	9	152	0.5	2	0.54	0.2	34	9	32	22	2.99	11	0.52	19	14	0.69	301	1	0.04	10	0.06	8	80	0.14	184	48	
43	9200E-8100N	5	0.6	4.06	13	182	1.3	2	0.82	0.2	61	13	59	50	3.09	19	0.62	32	34	1.04	552	1	0.04	31	0.10	18	110	0.16	110	80	
44	8150	5	0.2	3.60	13	230	0.9	2	0.73	0.2	56	12	59	40	3.21	25	0.51	29	25	0.80	543	1	0.05	27	0.09	14	107	0.19	116	85	
45	8200	5	0.2	3.20	10	199	0.7	2	0.87	0.2	50	9	61	34	2.82	27	0.41	24	17	0.69	365	1	0.05	21	0.09	13	125	0.21	118	59	
46	9200E-8250N	20	1.4	3.58	14	209	1.4	2	0.80	0.2	60	10	60	102	3.43	28	0.49	30	22	0.57	336	1	0.04	30	0.15	13	115	0.21	124	67	
47	9200E-8300N	5	0.4	3.26	13	164	1.1	2	0.97	0.2	73	12	41	57	2.78	31	0.50	36	26	0.81	409	1	0.04	25	0.11	17	119	0.16	101	56	
48	8350	5	0.2	3.10	15	219	1.5	3	0.95	0.2	75	25	46	44	3.15	27	0.41	32	29	0.79	2436	11	0.04	34	0.12	15	133	0.15	101	106	
49	8400	5	0.4	2.97	14	239	1.2	2	0.79	0.2	56	9	49	68	2.90	29	0.51	29	15	0.47	960	1	0.04	28	0.11	13	114	0.18	115	65	
51	8450	5	0.2	3.69	14	227	1.1	2	1.07	0.2	63	18	69	52	3.58	27	0.41	33	42	0.88	1544	6	0.04	34	0.11	13	145	0.20	134	122	
52	9200E-8500N	5	0.4	3.82	15	229	1.1	2	0.89	0.2	68	13	76	65	3.72	24	0.49	36	25	0.66	708	1	0.04	28	0.11	11	143	0.21	135	81	
53	9200E-8550N	90	0.2	2.95	15	200	0.7	2	1.09	0.2	55	11	65	38	3.71	26	0.34	26	25	0.78	381	1	0.04	24	0.09	7	152	0.20	132	80	
54	8600	5	0.2	3.28	9	217	0.8	2	0.91	0.2	57	9	54	33	2.73	25	0.44	28	20	0.63	383	1	0.04	19	0.06	10	139	0.20	116	66	
55	8650	5	0.2	3.50	5	204	1.1	2	0.93	0.2	71	9	49	40	2.35	24	0.48	37	22	0.65	277	1	0.04	20	0.06	14	127	0.16	96	68	
56	8700	5	0.2	3.17	12	209	0.7	2	0.78	0.2	64	8	58	26	2.97	26	0.52	31	15	0.54	273	1	0.04	18	0.06	14	123	0.21	131	62	
57	9200E-8750N	5	0.2	3.53	7	132	0.6	2	1.67	0.2	73	6	20	13	2.03	36	0.43	41	6	0.60	263	1	0.04	13	0.04	8	249	0.25	114	40	
58	9200E-8800N	5	0.4	2.85	11	146	0.8	2	0.90	0.2	64	8	60	26	3.85	27	0.32	33	14	0.45	295	1	0.05	16	0.12	30	147	0.22	144	89	
59	8850	5	0.2	3.82	16	167	0.8	2	0.93	0.2	52	11	50	40	4.09	27	0.43	28	26	0.80	328	1	0.04	22	0.18	15	137	0.20	153	79	
60	8900	5	0.2	3.77	13	157	0.8	2	0.89	0.2	48	11	66	34	4.52	26	0.34	24	37	0.76	333	1	0.05	24	0.17	11	127	0.21	156	112	
61	8950	5	0.4	3.41	9	166	0.7	2	0.79	0.2	47	7	62	21	3.67	11	0.36	26	21	0.44	234	1	0.05	14	0.15	7	124	0.22	134	82	
62	9200E-9000N	5	0.2	3.04	2	170	0.7	2	0.79	0.2	85	3	40	10	0.94	13	0.52	45	11	0.21	176	1	0.05	5	0.03	14	130	0.18	70	31	
63	9200E-9050N	5	1.2	4.50	9	367	1.9	2	0.42	0.4	77	31	43	85	6.66	22	0.77	41	55	1.27	799	2	0.03	43	0.26	13	60	0.35	144	220	
64	9150	5	0.4	2.99	3	145	0.7	2	0.77	0.2	64	8	57	20	2.65	22	0.48	33	16	0.43	704	1	0.04	14	0.09	20	119	0.21	109	102	
65	9200	5	0.6	3.51	14	146	0.8	2	0.74	0.2	61	11	48	32	4.42	25	0.39	30	26	0.76	444	1	0.05	21	0.16	21	115	0.20	141	122	
66	9250	90	1.0	3.67	12	195	0.9	2	0.93	0.2	68	12	58	40	3.85	25	0.49	34	28	0.96	366	1	0.04	27	0.13	11	132	0.21	134	109	
67	9200E-9300N	5	1.0	3.46	12	227	1.5	2	0.84	0.4	78	16	45	98	3.19	28	0.56	38	36	0.96	1032	1	0.06	32	0.07	26	116	0.20	112	223	
68	9200E-9350N	5	0.8	2.99	12	178	0.7	2	0.96	0.2	60	11	50	44	3.17	30	0.38	28	18	0.77	352	1	0.05	23	0.08	9	135	0.21	124	64	
69	9400	5	4.4	4.38	13	279	1.3	2	0.69	0.2	46	15	69	146	3.84	25	0.43	24	27	0.83	824	1	0.05	39	0.22	13	99	0.19	130	117	
70	9200E-9450N	5	0.2	3.10	21	160	0.7	2	1.11	0.2	42	19	60	73	4.38	31	0.38	18	25	1.31	728	1	0.03	40	0.16	14	139	0.19	152	81	
71	9400E-9500N	5	0.6	4.33	14	216	0.8	2	1.64	0.2	37	19	63	76	4.91	19	0.40	20	35	1.59	588	1	0.03	33	0.07	8	224	0.22	198	97	
72	9400E-9550N	5	0.2	2.74	8	195	0.5	2	1.21	0.2	45	10	63	24	3.00	20	0.37	22	14	0.64	468	1	0.05	19	0.12	8	169	0.24	132	60	
73	9400E-9600N	5	0.2	3.13	17	177	0.6	2	1.34	0.2	36	15	70	47	4.36	23	0.37	18	25	1.13	426	1	0.04	30	0.15	8	182	0.24	175	80	
74	9650	5	0.4	4.70	24	168	1.1	2	1.36	0.2	46	26	59	93	5.41	25	0.62	22	45	2.30	917	1	0.03	53	0.14	11	161	0.18	197	103	
75	9700	5	0.4	4.04	34	157	1.1	2	1.42	0.6	44	33	56	133	6.68	31	0.39	20	40	1.76	962	1	0.03	43	0.17	15	188	0.21	202	100	
76	9750	5	0.2	4.64	19	191	1.0	2	1.66	0.2	47	25	34	106	5.20	32	0.62	22	42	2.02	661	1	0.03	36	0.15	10	218	0.21	197	92	
77	9400E-9800N	5	0.2	3.69	19	114	0.8	2	1.48	0.2	44	19	47	109	4.90	32	0.24	20	32	1.39	497	1	0.04	37	0.10	11	230	0.23	176	85	
78	9400E-9850N	5	0.4	2.95	9	267	0.5	2	1.17	0.2	63	10	68	22	2.57	32	0.42	30	12	0.72	305	1	0.05	46	0.04	9	181	0.24	135	55	
79	9900	5	0.2	4.08	20	222	0.8	2	1.84	0.2	43	26	45	97	4.91	34	0.50	18	33	2.05	632	1	0.03	46	0.13	9	220	0.26	195	88	
80	9950	5	0.6	3.39	17	145	0.6	2	1.35	0.2	55	12	63	32	3.88	35	0.29	25	25	0.71	640	1	0.04	20	0.12	11	206	0.23	163	80	
81	9400E-10000N	5	0.2	3.52	9	154	0.7	2	1.39	0.2	35	15	42	48	3.51	16	0.31	17	19	0.93	603	1	0.04	29	0.13	6	205	0.21	148	76	

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	8007-059 Pg. 3 of 3
82	9400E-10050N	5	0.2	3.61	11	171	0.7	2	0.94	0.2	27	15	58	50	4.24	15	0.31	14	23	1.00	574	1	0.05	32	0.20	7	132	0.24	149	121	
83	9400E-10100N	5	0.6	2.56	11	286	0.5	2	2.24	0.2	33	11	65	42	3.32	24	0.20	14	35	0.71	459	1	0.04	20	0.09	5	231	0.21	132	75	
84	10200	5	1.0	3.34	12	201	0.7	2	1.34	0.2	36	15	64	72	3.81	22	0.27	17	29	0.99	361	1	0.04	29	0.06	9	183	0.21	160	65	
85	10250	5	0.2	2.89	11	187	0.5	2	1.05	0.2	36	11	76	34	3.69	20	0.39	18	19	0.77	410	1	0.04	20	0.16	7	143	0.22	150	89	
86	10300	5	0.2	3.67	11	289	0.8	2	0.87	0.2	44	13	58	32	3.59	22	0.60	22	29	0.95	364	1	0.03	24	0.05	9	122	0.17	136	86	
87	9400E-10350N	5	0.2	4.50	11	386	1.0	2	0.54	0.2	35	16	35	61	4.34	17	0.97	19	32	1.58	438	1	0.03	22	0.17	8	67	0.12	153	83	
88	9400E-10400N	5	0.4	2.81	8	232	0.5	2	1.10	0.2	41	11	39	30	3.05	24	0.44	20	16	0.86	401	1	0.04	13	0.09	7	218	0.20	145	60	
89	10450	5	0.4	3.32	18	243	0.7	2	1.02	0.2	31	17	72	62	4.29	23	0.42	15	31	1.36	498	1	0.03	31	0.15	8	155	0.18	154	76	
90	9400E-10500N	5	0.6	3.22	15	244	0.7	2	0.86	0.2	35	13	65	40	3.86	22	0.38	16	35	1.16	413	1	0.04	24	0.13	28	112	0.18	138	78	

# NORANDA VANCOUVER LABORATORY

## Geochemical Analysis

OCT 22 1990  
LAB CODE: 9010-012

Project Name & No.: PM - 287

Geol.: A.T.

Date rec'd: OCT. 03

Material: 65 SOILS & 4 RX

Sheet: 1 of 2

Date comp OCT. 17

Remarks: \* Sample screened @ -35 MESH (0.5 mm).

□ Organic

Au - 10.0 g sample digested with aqua-regia and determined by A.A. (D.L. 5 PPB)

ICP - 0.2 g sample digested with 3 ml HClO<sub>4</sub>/HNO<sub>3</sub> (4:1) at 203 °C for 4 hours diluted to 11 ml with water. Leeman PS3000 ICP determined elemental contents.

N.B. The major oxide elements and Ba, Be, Ce, La, Li are rarely dissolved completely from geological materials with this acid dissolution method.

*Copy to Tracy*

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
69	8400E-8300N	5	0.4	5.32	12	207	2.0	2	0.73	0.2	71	18	44	40	3.88	1.39	31	34	0.98	547	1	0.04	33	0.11	31	111	0.18	110	105
70	8350	5	0.6	4.29	9	314	1.3	3	1.13	0.2	97	10	48	24	3.40	1.26	44	28	0.70	965	3	0.08	21	0.13	27	122	0.15	107	118
71	8400	5	1.4	4.01	18	205	1.5	7	0.82	0.2	79	18	60	46	4.93	0.58	41	38	0.84	422	2	0.04	28	0.30	68	122	0.17	132	209
72	8450	5	1.2	6.43	7	540	1.7	3	0.21	0.2	183	7	24	37	6.20	2.48	92	49	1.06	252	44	0.04	18	0.13	37	267	0.11	147	104
73	8400E-8500N	5	0.4	4.47	20	238	1.3	2	0.50	0.2	107	8	27	36	3.97	0.84	56	31	0.74	436	1	0.02	17	0.14	29	78	0.11	97	192
74	8400E-8550N	5	0.6	4.36	8	185	1.2	2	0.71	0.2	75	12	48	46	4.49	0.70	34	37	0.91	393	1	0.04	28	0.10	7	99	0.19	129	117
75	8600	5	0.6	3.98	14	188	1.1	3	0.96	0.2	81	20	66	91	4.45	0.40	28	34	1.35	677	1	0.04	40	0.07	11	130	0.21	148	128
76	8650	5	0.6	3.55	9	185	0.8	4	0.79	0.3	54	16	75	32	4.45	0.34	23	36	1.10	501	1	0.05	29	0.12	9	106	0.21	147	165
77	8700	5	0.6	3.30	11	180	0.7	3	0.89	0.2	55	12	76	51	5.12	0.33	23	22	0.85	447	1	0.05	25	0.18	8	120	0.24	162	88
78	8400E-8750N	5	0.2	3.46	14	166	0.8	2	0.96	0.2	59	14	69	76	4.15	0.31	24	23	1.02	425	1	0.04	29	0.14	6	127	0.22	145	73
79	8400E-8800N	5	1.0	3.21	9	171	1.1	2	0.85	0.3	87	7	60	63	2.99	0.38	32	19	0.50	264	1	0.04	19	0.10	18	122	0.20	118	70
80	8850	5	0.4	3.58	18	175	0.9	4	1.15	0.2	56	13	56	49	4.20	0.38	23	27	1.00	442	1	0.04	28	0.12	8	150	0.22	144	83
81	8900	5	0.4	3.83	12	217	1.0	2	1.03	0.2	63	14	70	51	4.23	0.41	30	31	0.97	450	1	0.04	28	0.11	6	155	0.21	150	86
82	8950	5	0.8	3.49	8	219	0.8	2	0.80	0.2	46	12	67	81	3.95	0.37	21	25	0.87	417	1	0.05	30	0.12	2	114	0.22	129	94
83	8400E-9000N	5	1.0	3.44	5	219	0.8	2	0.89	0.3	44	11	64	76	3.32	0.31	20	24	0.90	472	1	0.04	29	0.14	4	126	0.20	116	87
84	8400E-9050N □	5	1.4	3.57	2	257	0.9	2	1.05	0.2	51	13	58	114	3.22	0.37	23	17	0.70	759	1	0.05	26	0.16	6	161	0.23	130	88
85	9100	260	0.8	3.54	8	198	0.8	2	1.04	0.2	54	13	64	62	3.58	0.36	23	26	0.98	544	1	0.05	28	0.12	4	149	0.22	133	109
86	9150	5	1.0	2.95	12	264	0.9	2	1.05	0.4	51	15	87	71	3.01	0.32	23	18	0.72	937	1	0.05	28	0.13	5	123	0.20	115	100
87	9200	5	0.8	4.55	10	201	0.9	2	3.06	0.2	49	22	36	63	4.68	0.27	17	28	1.75	643	1	0.03	30	0.17	3	358	0.36	192	109
88	8400E-9250N	5	0.2	3.04	13	166	0.6	2	1.29	0.2	43	12	79	43	3.91	0.29	17	18	1.04	386	1	0.04	31	0.12	5	169	0.22	180	79
89	8400E-9300N	5	0.2	3.28	23	146	0.8	2	1.39	0.2	48	19	75	82	5.00	0.30	18	31	1.27	570	1	0.03	40	0.18	4	159	0.20	163	90
90	9350	5	0.2	3.74	28	155	0.8	4	1.63	0.2	49	28	74	87	6.54	0.34	17	30	1.68	879	1	0.03	42	0.19	7	235	0.24	232	104
91	9400	5	1.0	4.37	12	186	1.1	2	2.80	0.2	57	28	45	141	5.52	0.30	23	36	2.02	1052	1	0.03	37	0.19	7	349	0.29	196	128
92	9450	5	1.0	2.98	13	174	0.6	2	1.32	0.2	41	13	63	51	4.38	0.24	16	30	0.95	334	1	0.03	24	0.06	3	184	0.18	160	79
93	8400E-9500N	5	0.4	3.57	17	189	0.8	2	1.53	0.2	46	18	69	86	5.10	0.20	17	38	1.79	546	1	0.03	48	0.11	3	207	0.21	179	81
94	8400E-9550N	5	0.8	3.69	12	139	0.8	2	1.42	0.2	46	16	92	119	4.35	0.18	18	39	1.99	513	1	0.04	69	0.09	2	198	0.26	152	103
95	9600	5	0.2	2.72	10	261	0.5	2	2.28	0.2	44	19	57	37	3.95	0.21	18	27	1.28	1761	4	0.03	31	0.13	3	266	0.17	139	86
96	9650 □	5	1.2	0.49	9	204	0.5	2	4.87	1.1	21	5	14	234	0.56	0.04	8	3	0.15	487	5	0.02	18	0.09	3	320	0.02	16	42
97	9700 □	5	3.8	2.17	9	247	0.8	2	3.43	5.7	35	15	76	799	2.58	0.14	16	19	0.68	744	7	0.03	45	0.23	4	306	0.11	82	211
98	8400E-9750N	5	0.4	3.33	12	167	0.8	2	1.13	0.2	43	23	138	79	5.08	0.23	16	44	1.84	563	1	0.04	69	0.08	2	139	0.25	174	101
99	8400E-9800N	5	0.6	3.64	17	174	0.9	2	1.58	0.2	54	23	99	126	4.40	0.30	21	33	1.29	819	1	0.05	66	0.10	3	167	0.24	146	92
101	9850	5	0.6	3.85	15	283	1.2	2	0.91	0.4	57	22	97	97	4.53	0.51	27	38	1.52	798	1	0.04	54	0.12	10	113	0.18	142	126
102	9900	5	1.0	3.85	23	213	0.9	2	0.82	0.2	49	19	88	53	5.74	0.37	22	47	1.61	618	1	0.03	42	0.11	11	109	0.17	168	126
103	9950	5	1.0	3.55	11	196	0.7	2	0.84	0.2	47	13	79	63	4.47	0.35	21	31	0.97	444	1	0.05	32	0.09	7	121	0.23	153	104
104	8400E-10000N	5	0.2	3.56	12	200	0.8	2	0.82	0.2	53	13	73	79	4.52	0.34	23	32	0.88	497	1	0.05	29	0.08	5	119	0.24	138	123



T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm	9010-003 Pg. 2 of 2
105	8800E-8000N	5	0.8	3.21	9	158	0.9	2	0.90	0.2	71	9	59	35	3.75	0.45	32	25	0.89	388	1	0.04	24	0.12	7	122	0.20	119	81	
106	8050	5	0.4	4.78	12	254	1.7	2	0.68	0.2	72	15	46	67	4.61	1.09	34	40	1.04	710	1	0.04	45	0.11	16	109	0.20	135	108	
107	8100	5	0.6	5.43	10	253	1.7	2	0.44	0.2	75	13	55	38	5.40	1.23	37	50	1.16	733	1	0.04	41	0.11	17	85	0.17	122	117	
108	8150	5	0.8	4.83	12	158	1.3	2	0.39	0.2	102	8	54	19	4.17	0.85	50	35	0.85	335	1	0.03	23	0.08	19	69	0.17	122	81	
109	8800E-8200N	5	0.8	3.19	11	150	0.8	2	1.00	0.2	63	8	60	20	3.75	0.33	26	21	0.55	313	1	0.04	17	0.25	7	134	0.21	129	76	
110	8800E-8250N	55	0.6	3.68	13	153	1.0	2	1.02	0.2	55	13	71	53	4.77	0.42	22	17	0.86	437	1	0.04	28	0.13	10	132	0.28	150	78	
111	8300	5	2.2	4.38	6	188	1.5	2	0.30	0.2	90	8	28	28	3.19	1.06	53	14	0.37	321	1	0.03	12	0.14	40	65	0.12	91	87	
112	8350	5	0.2	4.83	2	204	1.3	2	0.47	0.2	82	6	27	15	2.78	1.03	42	19	0.50	322	1	0.04	13	0.15	12	78	0.16	82	85	
113	8400	5	0.2	5.18	2	174	1.5	2	0.19	0.2	67	3	7	11	1.64	1.00	39	13	0.32	127	1	0.02	7	0.06	9	39	0.09	49	63	
114	8800E-8450N	5	0.2	5.97	2	150	1.7	2	0.20	0.2	92	3	6	7	1.19	1.29	53	13	0.30	153	1	0.03	4	0.04	10	41	0.10	48	46	
115	8800E-8500N	100	0.4	4.00	10	154	1.0	2	0.85	0.2	66	12	59	38	5.30	0.40	30	32	0.86	345	1	0.04	25	0.31	13	114	0.23	168	91	
116	8600	5	0.2	3.87	8	301	1.0	2	1.00	0.2	50	19	70	55	4.05	0.32	21	32	0.88	941	1	0.05	35	0.11	6	130	0.22	133	114	
117	8650	5	0.2	2.92	4	168	0.7	2	1.15	0.2	51	11	52	34	2.97	0.34	21	21	0.84	379	1	0.04	25	0.09	3	151	0.20	113	73	
118	8700	5	0.2	3.21	3	164	0.7	2	1.14	0.2	48	11	75	31	3.03	0.31	19	22	0.98	355	1	0.04	28	0.07	4	147	0.20	113	69	
119	8800E-8750N	5	0.2	3.17	4	175	0.7	2	1.11	0.2	55	10	54	34	2.66	0.33	23	24	0.76	316	1	0.05	21	0.08	6	150	0.22	114	62	
120	8800E-8800N	5	0.2	3.19	5	163	0.7	2	1.15	0.2	58	9	68	35	2.77	0.35	24	20	0.78	330	1	0.04	20	0.08	4	155	0.21	116	55	
121	8850	5	0.2	3.28	11	190	0.9	2	1.07	0.2	54	15	65	52	3.65	0.30	25	26	0.94	432	1	0.04	30	0.12	8	147	0.20	137	83	
122	8900	5	0.4	3.26	6	176	0.8	2	1.03	0.2	60	9	59	70	3.07	0.34	25	17	0.66	317	1	0.04	18	0.09	5	153	0.21	124	58	
123	8950	5	0.4	3.60	7	168	0.8	2	1.18	0.2	57	11	54	62	3.70	0.35	23	24	1.02	426	1	0.04	25	0.11	4	158	0.23	135	74	
124	8800E-9000N	5	0.4	3.22	9	187	0.7	2	1.10	0.2	51	10	63	50	3.78	0.30	21	23	0.81	498	1	0.04	21	0.11	3	152	0.23	146	87	
125	8800E-9050N	5	0.2	3.40	12	195	0.8	2	1.17	0.2	49	12	71	79	3.79	0.28	20	27	0.97	410	1	0.04	28	0.11	3	155	0.21	141	76	
126	9100	5	0.6	3.55	5	246	1.0	2	1.40	0.6	58	17	64	111	3.55	0.39	26	26	1.05	803	1	0.05	31	0.14	5	157	0.22	134	101	
127	9150	5	0.4	4.02	8	255	1.1	2	1.22	0.2	58	15	71	92	3.71	0.38	25	31	1.02	736	1	0.05	34	0.18	5	152	0.22	140	110	
128	9200	5	0.6	4.50	9	289	1.0	2	1.12	0.2	48	18	61	85	4.48	0.36	20	32	1.31	688	1	0.05	43	0.16	3	149	0.22	148	134	
129	8800E-9250N	5	0.6	3.24	13	232	0.8	2	0.97	0.2	56	11	78	76	3.53	0.34	24	19	0.71	444	1	0.04	27	0.18	4	132	0.21	121	92	
130	8800E-9300N	5	0.2	3.20	11	169	0.7	2	1.16	0.2	48	12	80	44	3.42	0.27	18	25	1.04	364	1	0.04	27	0.09	3	160	0.20	133	67	
131	9350	5	0.6	3.22	12	202	0.9	2	0.93	0.2	51	14	77	49	4.04	0.34	23	26	0.95	453	1	0.04	30	0.11	8	133	0.20	142	91	
132	9400	5	0.2	3.19	10	240	0.9	2	1.22	0.2	58	21	65	72	3.93	0.46	23	23	1.19	821	1	0.05	37	0.13	6	150	0.21	144	74	
133	8800E-9450N	5	0.2	3.10	13	190	0.8	2	1.39	0.2	55	20	66	77	3.89	0.41	21	21	1.12	779	1	0.04	35	0.12	5	170	0.21	141	73	
134	RX 134354	5	0.2	2.11	2	97	0.6	2	0.28	0.2	65	6	76	6	2.76	0.65	36	22	0.72	207	2	0.03	8	0.18	4	22	0.07	48	29	
135	RX 134355	5	0.2	1.29	14	286	1.0	2	1.30	0.2	105	2	81	10	0.78	0.58	54	6	0.14	350	1	0.05	2	0.05	10	75	0.02	12	31	
136	134356	5	0.2	3.59	7	46	0.7	2	4.46	0.2	29	31	76	76	5.51	0.06	9	50	4.53	1228	1	0.03	61	0.09	2	228	0.17	196	96	
137	RX 134357	5	0.2	1.44	2	34	0.4	2	0.05	0.2	23	4	164	7	1.38	0.36	12	13	0.32	118	1	0.02	9	0.02	8	6	0.04	31	22	

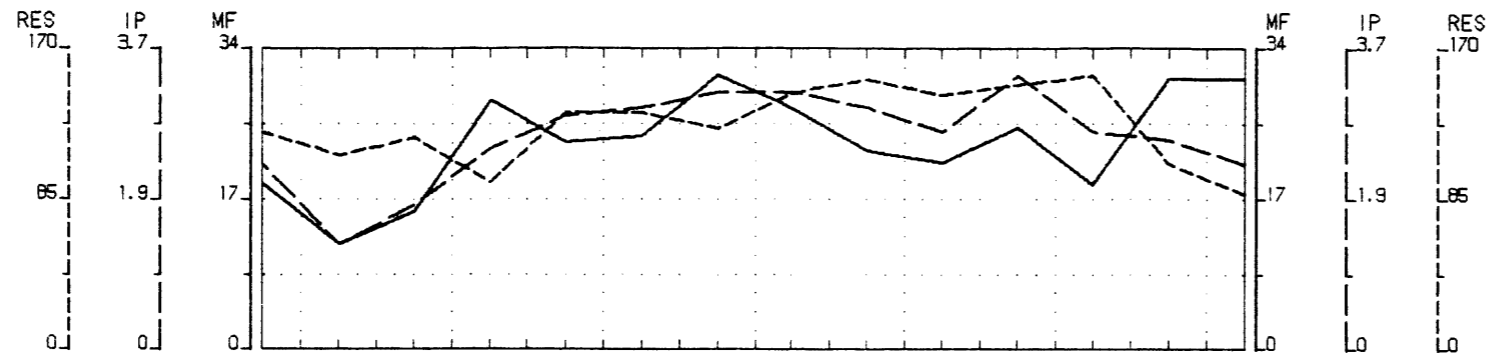
Assessment Report  
GEOCHEMICAL & GEOPHYSICAL REPORT  
PM GROUP OF CLAIMS

April, 1991

---

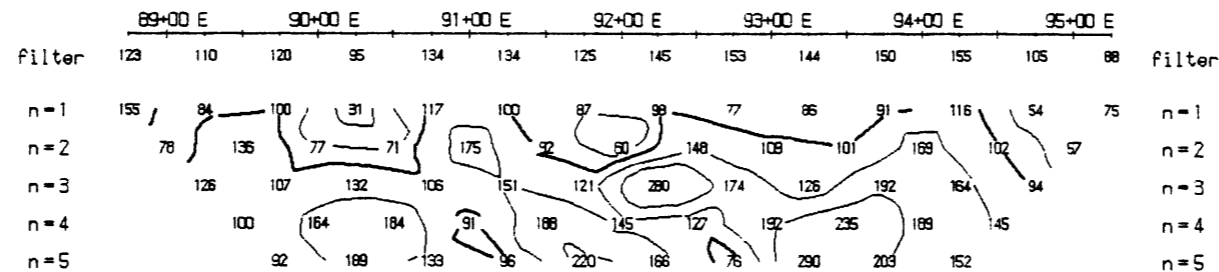
APPENDIX IV

I.P. PSEUDO-SECTIONS

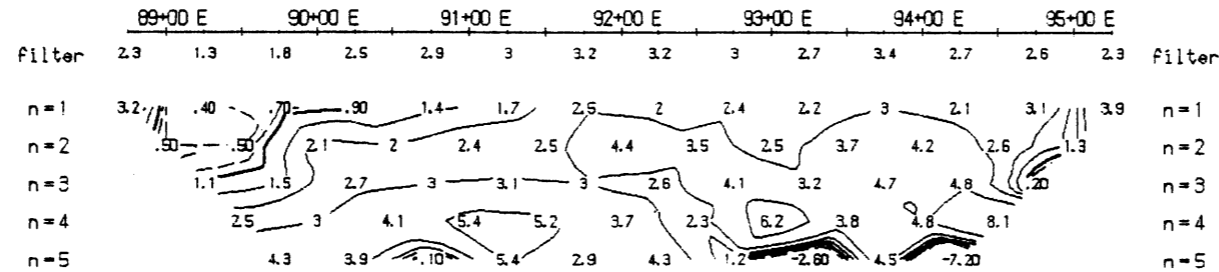


INTERPRETATION

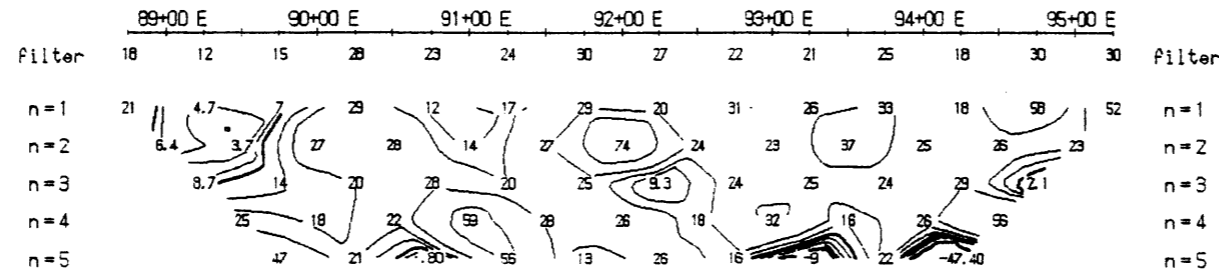
RESISTIVITY  
(OHM\_M)



IP  
(mV/V)

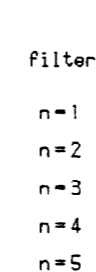


METAL FACTOR  
(IP/res \* 1000)

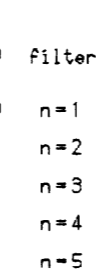


INTERPRETATION

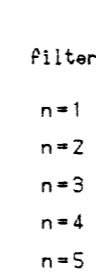
RESISTIVITY  
(OHM\_M)



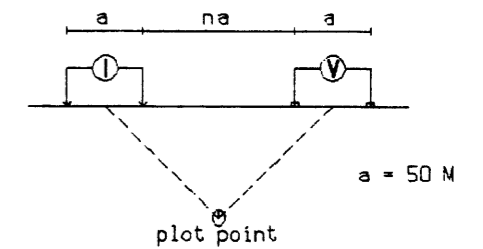
IP  
(mV/V)



METAL FACTOR  
(IP/res \* 1000)



Line 10000 N  
Dipole-Dipole Array



Filter

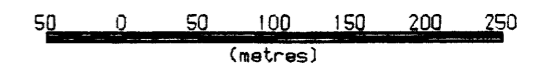


Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Pronounced resistivity increase
- Pronounced resistivity decrease

Scale 1:5000



PM-KLEIN PROPERTY

INDUCED POLARIZATION SURVEY  
Line 10000 N  
Project 287

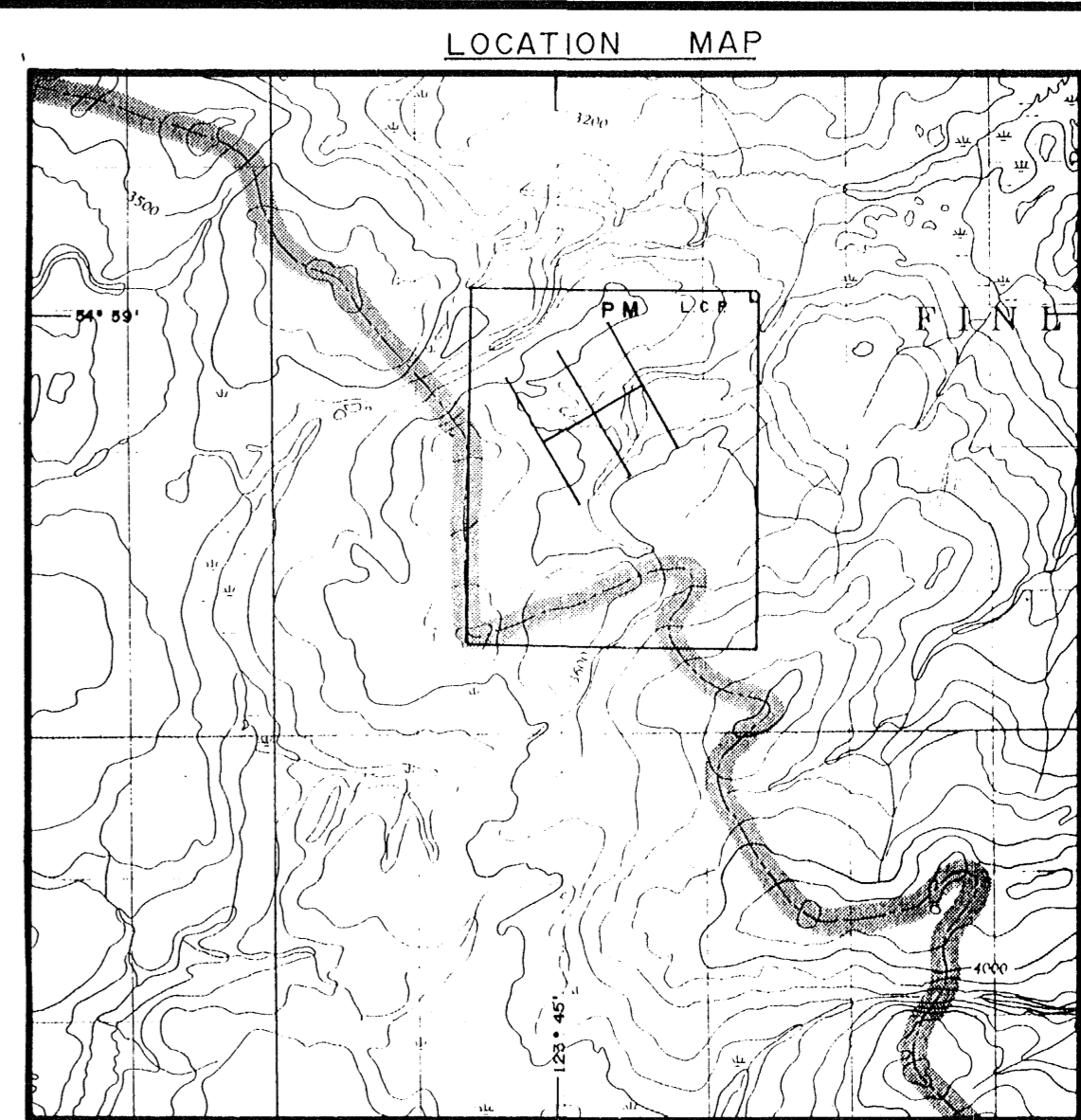
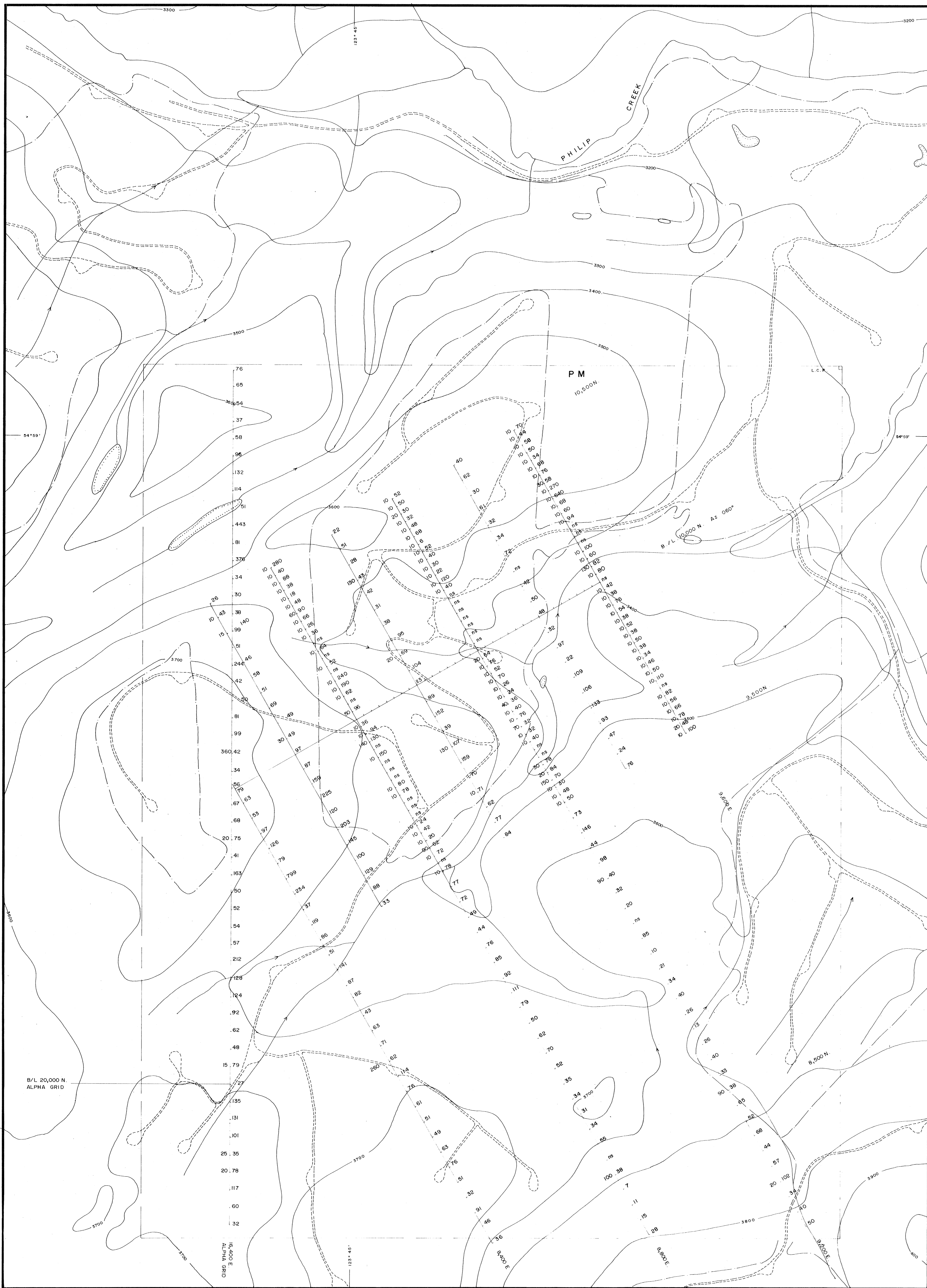
Date: 91/06/20  
Interpretation by: L. Bradish

*noranda*









SCALE 1:50,000

**LEGEND**

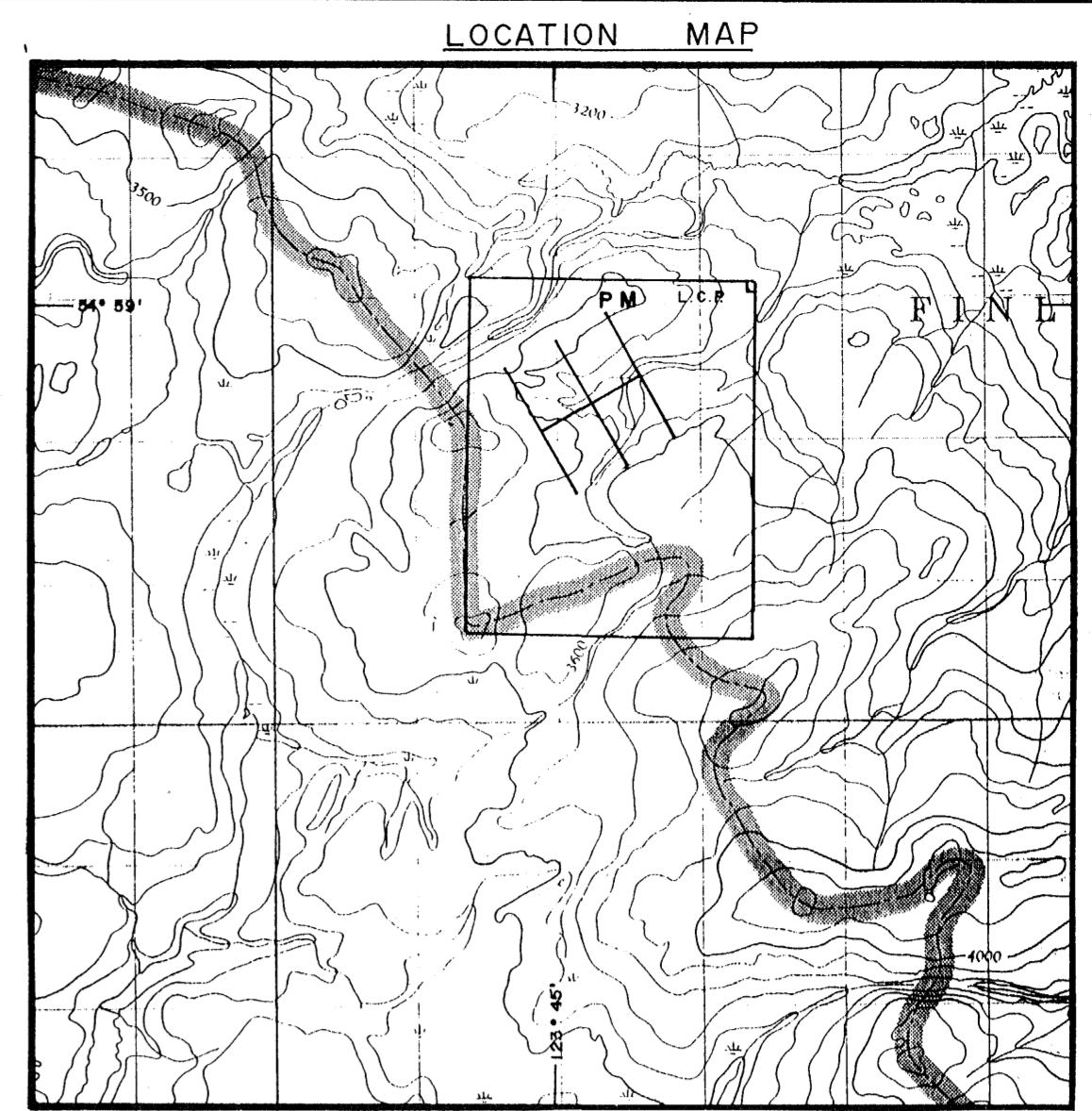
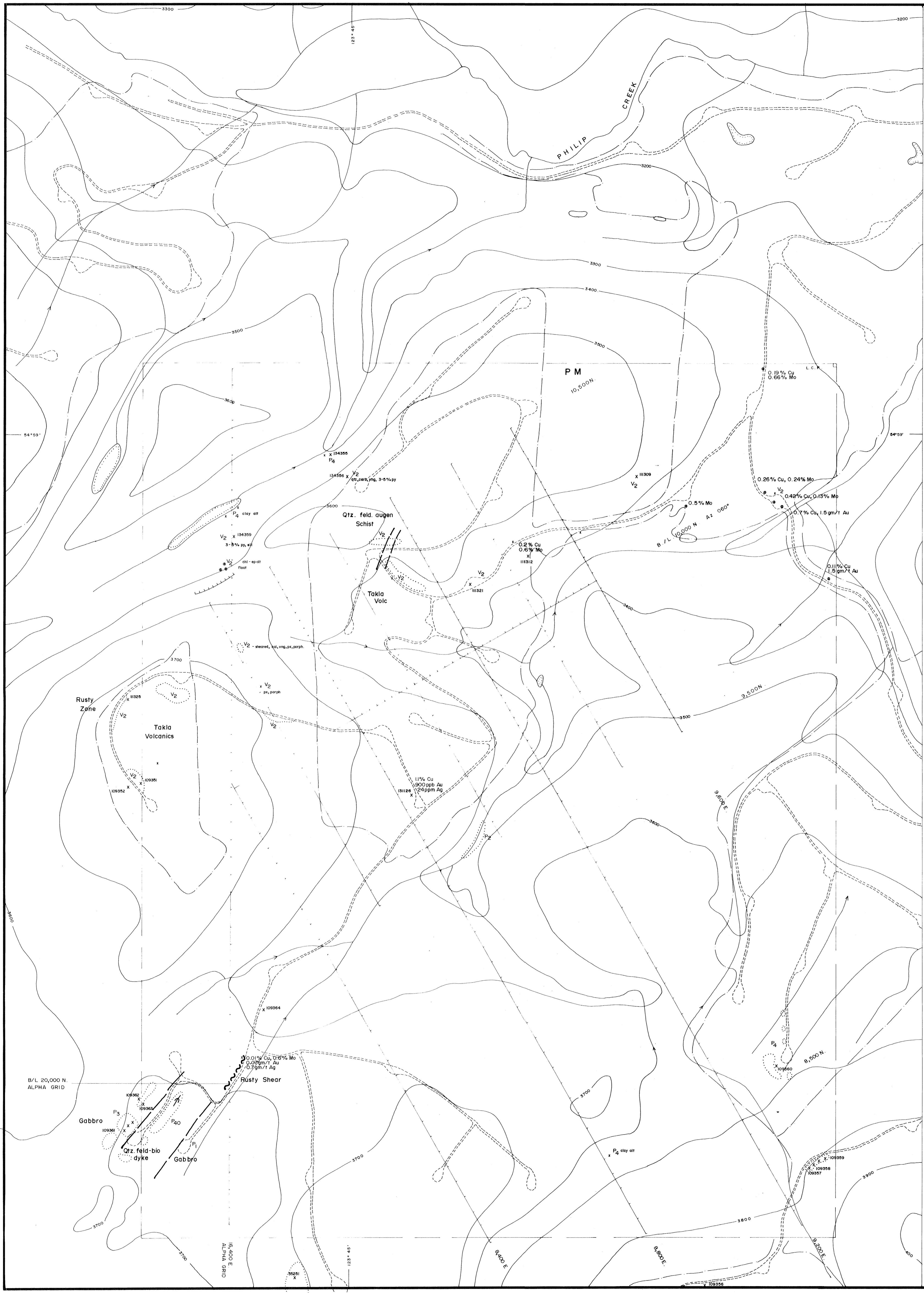
Au > 10(ppb) | 10-40 | Cu(ppm) | Soil Geochem Survey

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**21,473**

SCALE 1:5,000

REVISED	PM CLAIMS	
NOV. 9/90 P.J.L.		
	SOIL GEOCHEM SURVEY	
	Au(ppb) & Cu(ppm)	
PROJ. No	SURVEY BY	DATE APRIL, '91
N.T.S. 93 J/13	S.K.B.	SCALE 1:5,000
DWG. No	<b>NORANDA EXPLORATION</b>	
3	OFFICE PRINCE GEORGE, B.C.	

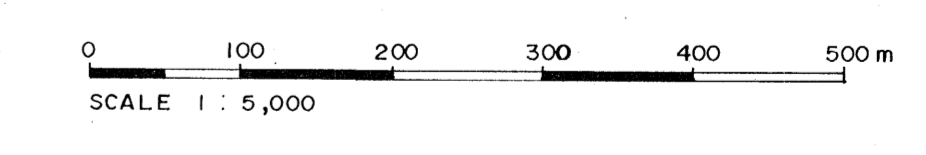


**LEGEND**

- Geology**
- G - Gabbro
  - P - Diorite
  - P<sub>1</sub> - Granite
  - P<sub>11</sub> - Granite Dyke (Qtz, feld, bio)
  - V - Takla Volcanics:  
augite porphyry flows & tuffs

- Abbreviations**
- py - pyrite
  - tr - trace
  - vng - veins, veining
  - alt - alteration
  - qtz - quartz
  - feld - feldspar
  - bio - biotite

- Symbols**
- x 4327 - Outcrop Sample
  - x - Small Outcrop
  - - Float Sample
  - - Large Outcrop
  - - - - - Geological Contact



REVISED	PM CLAIMS	
	GEOLOGICAL MAP	
PROJ. No. ....	SURVEY BY: .....	DATE: APRIL 1991
N.T.S. 93.1/13	DRAWN BY: S.K.B.	SCALE: 1:5,000
DWG. No. 4	<b>NORANDA EXPLORATION</b>	
	OFFICE: PRINCE GEORGE, B.C.	

GEOLOGICAL BRANCH ASSESSMENT REPORT

21,473