ASSESSMENT REPORT

on the

FLO #9 to #12 CLAIMS

Toba Inlet

Vancouver Mining Division - British Columbia

N.T.S. 92 K/7

Latitude 50° 19' N. Longitude 124° 45' W.

for

Alan R. Raven

by

Alan R. Raven, Prospector
and
D. J. Brownlee, Geologist

December 29, 1987 Vancouver, B.C.

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SUMMARY

Alan R. Raven holds the FLO #9 to #12 mineral claims, located in the Vancouver Mining Division on the north shore of Toba Inlet across from Double Island.

The FLO claims are underlain by granodiorite and quartz monzonite of the Coast Intrusions, which have been intruded by volcanic dykes. The central portion of the claims is underlain by a roof pendant of basic to felsic volcanics. Mineralization is restricted to pyrite occurring as fracture fillings in the granodiorite and as disseminations and fracture fillings within the volcanic roof pendant.

A. Raven and E. Raven conducted a preliminary soil geochemical and prospecting program on the claims from October 1st to 7th, 1986, with a total of 22 rock samples and 43 soil samples being collected. D. J. Brownlee and D. Allen conducted a geological examination of the property on May 24-25, 1987 collecting 7 rock and 1 soil sample.

INTRODUCTION

Mr. A. Raven holds the FLO #9 to #12 two-post mineral claims, located on the north shore of Toba Inlet, opposite Double Island. This assessment report covers the geochemical soil sampling and prospecting conducted by A. Raven and E. Raven from October 1 to 7, 1986 and the geological examination of the property by D. J. Brownlee and D. Allen on May 24-25, 1987.

LOCATION, ACCESS, PHYSIOGRAPHY

The zone of interest covered by the FLO #9 to #12 claims lies north of Double Island at an elevation of 1,700 feet to 2,200 feet. There are two methods of access: helicopter to recent logging roads at an

elevation of 2,500 feet, or by boat to the beach, then by foot up the trail to the showing (Figure 1).

The showings are best exposed in a creek bed at an elevation of 1,900 feet. This area is in a strip of virgin timber between logged areas. The lower elevations were logged some time ago with the logging done of the immediate area in the late 1960's and early 1970's.

The topography is steep, but most areas are covered with second growth, virgin timber and the normal undergrowth of the West Coast rain forest environment.

CLAIM DATA

The property consists of four two-post mineral claims, located in the Vancouver Mining Division (Figure 2).

Claim Name	Record No.	Record Date
Flo # 9	1996	October 8, 1986
Flo #10	1997	October 8, 1986
Flo #11	1998	October 8, 1986
Flo #12	1999	October 8, 1986

Alan R. Raven holds 100% interest in the FLO #9 to #12 claims.

HISTORY

There is no known previously recorded work on the property.

GEOLOGY

The area is underlain by granodiorite and quartz monzonite of the Coast Intrusives. The granodiorite and quartz monzonite have been intruded by andesitic to felsic dykes trending north-south and


LOCATION MAP
SCALE
200 0 200 KILOMETRES
100 0 100 MILES
YUKON TERRITORY
NORTHWEST TERRITORIES
BRITISH COLUMBIA
ALBERTA
PACIFIC OCEAN
MACKENZIE RIVER
ARCTIC CIRCLE
GREAT SLAVE LAKE
QUEEN CHARLOTTE ISLANDS
VANCOUVER ISLAND
FLOCLAIMS

FIGURE – 1

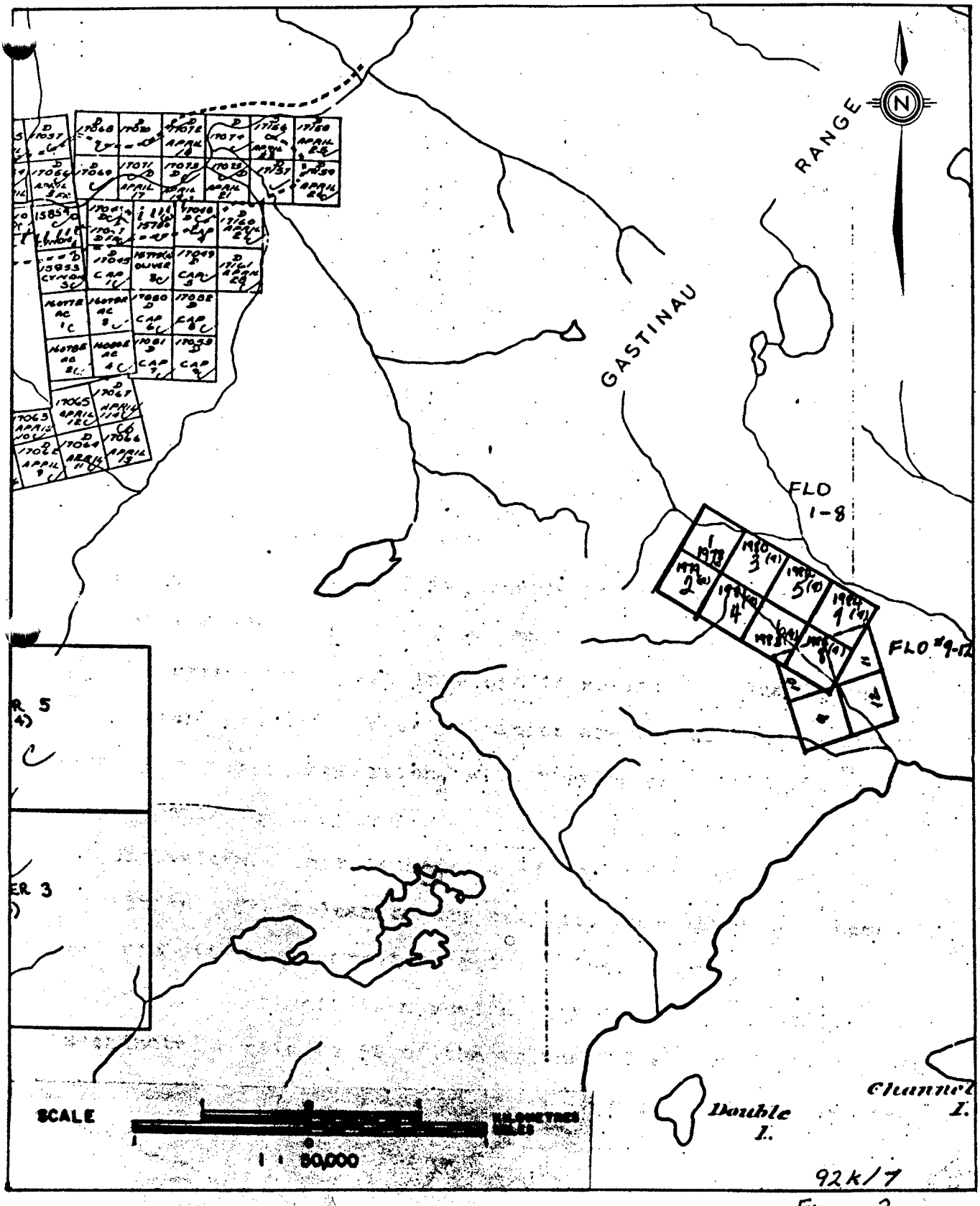
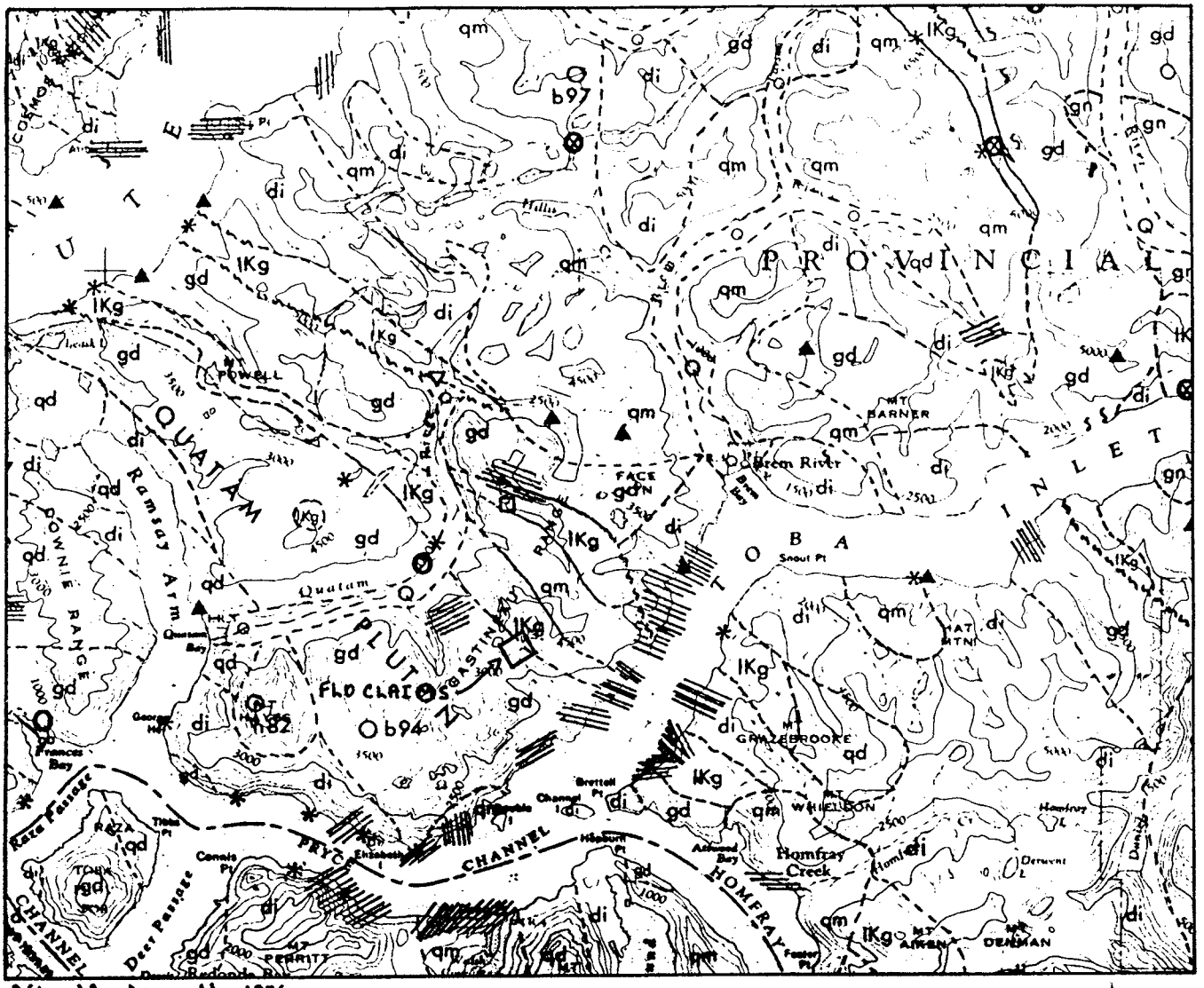


Figure 2

CLAIM MAP



After Woodsworth 1976

GEOLOGY MAP

Figure 3

LEGEND

STRATIFIED ROCKS

QUATERNARY

Q — Alluvial and glacial deposits

CRETACEOUS

LOWER CRETACEOUS

GARIBALDI GROUP

lKg — Greywacke, volcanic breccia, argillite, conglomerate, limestone, and schist

PLUTONIC ROCKS

qm — Quartz monzonite

gd — Granodiorite

qd — Quartz diorite

di — Diorite

Geological boundary (defined, approximate or assumed)

Attitude of bedding or flow (inclined, vertical)

Attitude of foliation, cataclasite (inclined, vertical)

Axis of multiple minor folds (showing plunge direction; axial plane vertical)

Fault (defined, approximate, assumed)

Anticline (axial trace defined, approximate)

Syncline (axial trace defined, approximate)

Dyke swarm (Mesozoic parallel trend)

Potassium-argon age determination: single ○ ; multiple ● ; biotite = b; hornblende = h; WBC determination = ■

Observed minerals: chalcopyrite = □ ; garnet = ⑥ ; magnetite = ⓜ ; molybdenite = Ⓜ ; pyrite = ✱ ; pyrrhotite = ▽ ; sillimanite = ⑤ ; andesite = ▲

Fossil locality ⓕ

SCALE

5 0 5 KILOMETRES
5 0 5 MILES

1 : 250,000

northeast-southwest (Figure 3).

Associated with these dykes are pyrite veins and veinlets up to 2.5 centimetres thick within fractured granodiorite and quartz monzonite.

A roof pendant comprised of greenstone, and felsic volcanics with minor basaltic units outcrops in the central portion of the claims. A breccia unit (breccia pipe) occurs within the greenstone "unit". In the vicinity of the breccia, the volcanics carry up to 10% disseminated pyrite and the breccia shows extensive pyrite fracture filling.

WORK PROGRAM

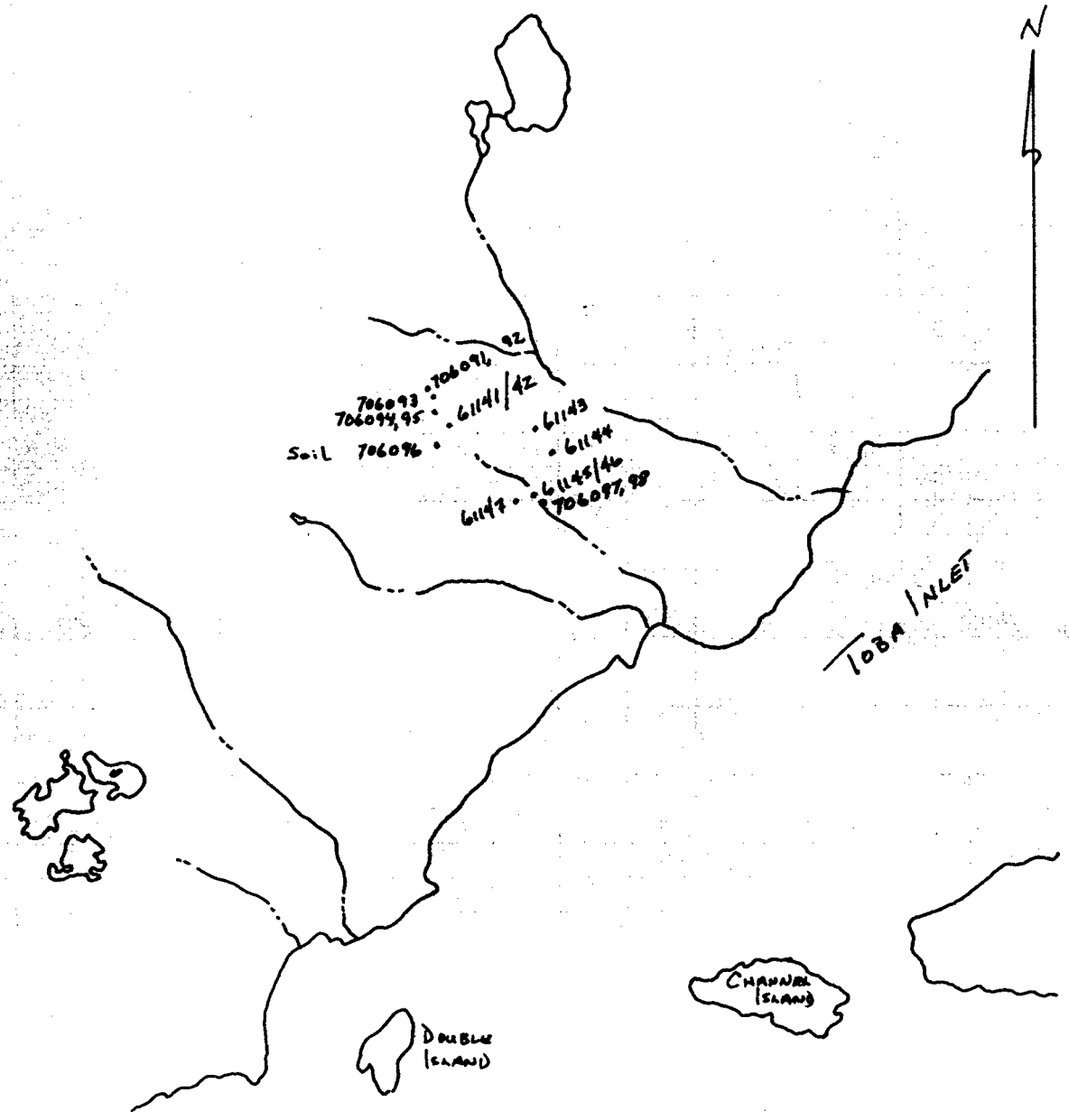
A total of 22 rock samples and 43 soil samples were collected by A. Raven and E. Raven from October 1 to 7, 1986 (Figures 4, 5 and 6).

Seven rock and one soil sample were collected by D. Allen and D. J. Brownlee on May 24 and 25, 1987. poorly developed "B" horizons were sampled at 15-35 cm depths

GEOCHEMISTRY

The soil geochemical results show the area to have elevated backgrounds in copper (100 parts per million +) and silver (1 part per million +).

The rock geochemistry indicates that the gold is associated with the pyrite, both in fracture fillings of the granodiorite (Sample 706091, 540 parts per billion) and the disseminated pyrite and veins within the volcanic roof pendant (Sample 61145, 230 parts per billion gold and Sample 61147, 280 parts per billion gold).

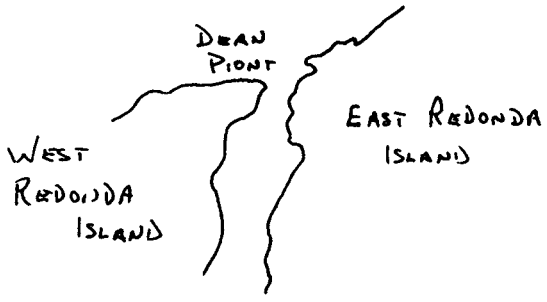


PYRCE CHANNEL

ROCK SAMPLE LOCATIONS

SCALE 1:50.000

fig 4



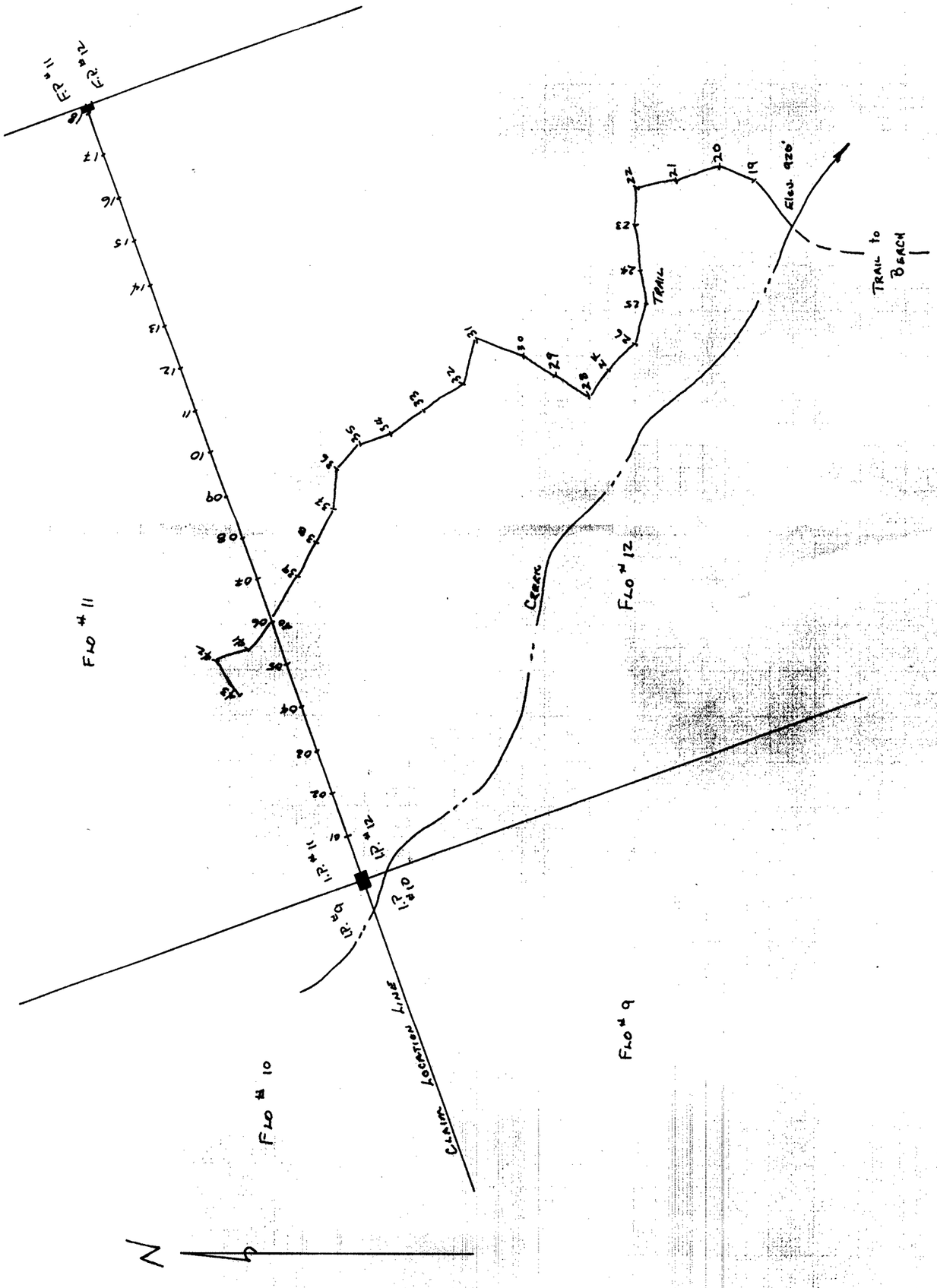
Soil Sample location MAP

Fig 6

/30 - Soil Sample Site

Scale: 1:2500

0 25 50



ROCK SAMPLE LOCATION MAP

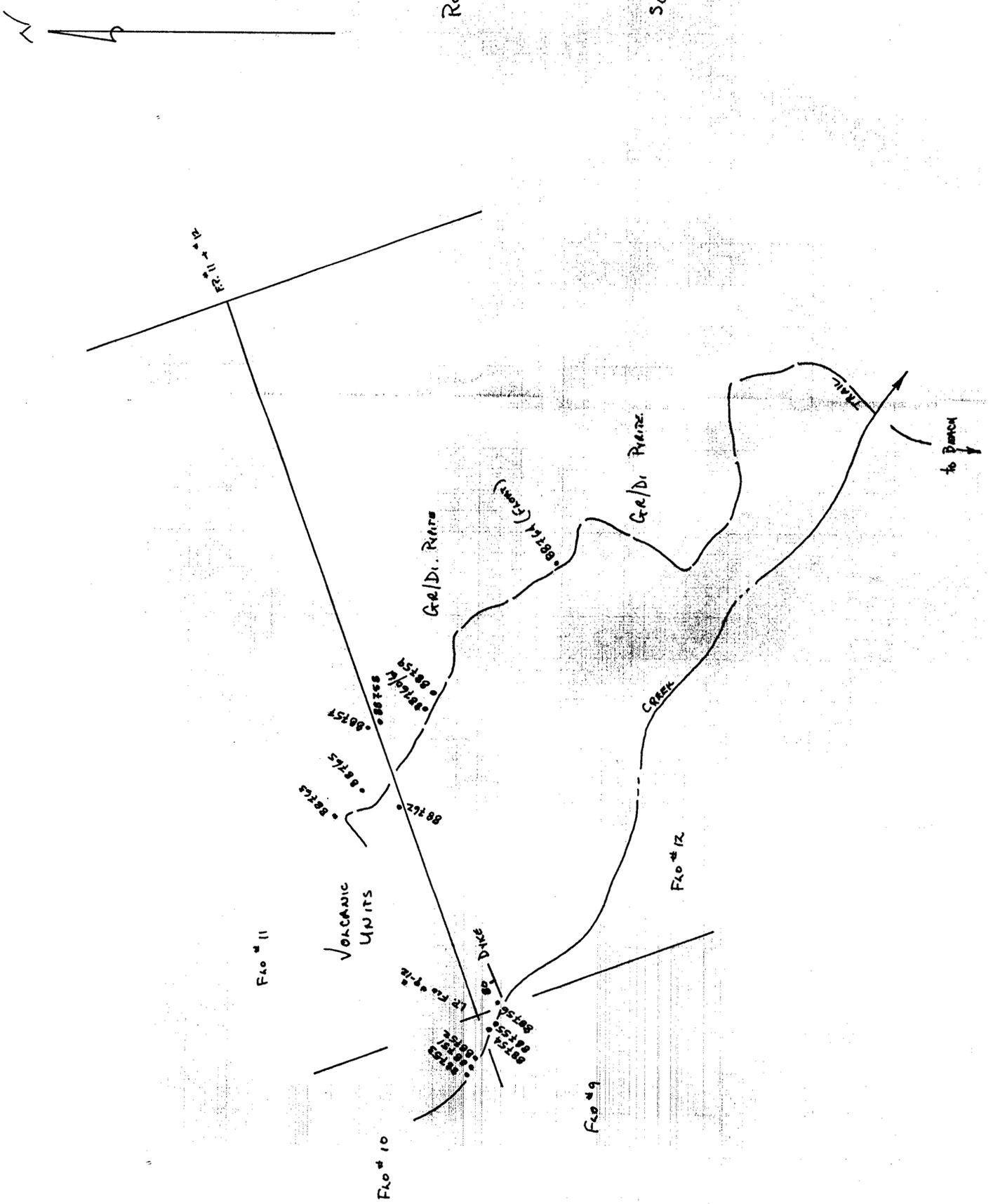
• BB759 - ROCK SAMPLE SITE

GR/D1 - GRANODIORITE

SCALE: 1:2500

0 25 50

Sig 5



STATEMENT OF QUALIFICATIONS

I, Alan R. Raven, certify the following:

Experience

1969-73 Mineral Exploration and Prospecting in British Columbia

1973-74 Mineral Exploration and Prospecting in Australia

1974-86 Mineral Exploration and Prospecting (including project management) in British Columbia and Western U.S.A.

Formal Prospecting Courses

1977 Prospector's Course, College of New Caledonia, Prince George, British Columbia

1977 Advanced Prospector's Course, Selkirk College, Castlegar, British Columbia

1986 Advanced Prospector's Course, Malaspina College, Mesachie, British Columbia.

CERTIFICATE

I, Douglas J. Brownlee, do hereby certify that:

1. I am a geologist residing at Suite 101 - 2615 Lonsdale Avenue, North Vancouver, British Columbia.

2. I am a graduate in Geology Specialization from the University of Alberta (1980).

3. I have practised my profession in British Columbia since January, 1980.

4. I conducted the work described with D. Allen, on May 24 to 25 and inspected the work completed from October 1 to 7, 1986.

December 29, 1987
Vancouver, B.C.

Douglas J. Brownlee,
Geologist

APPENDIX I

Geochemical Results

APPENDIX II

Sample Descriptions

SAMPLE DESCRIPTIONS

Sample No.	Description
61141	Fractured, silicified granodiorite massive pyrite to 2 centimetre filling fractures, picked sample.
61142	As above, but more representative of general outcrop area.
61143	Medium grey meta volcanic with pyrite to 15%, well disseminated.
61144	Breccia(?) of altered granodiorite fragments and siliceous light grey volcanic fragments (rhyolite), pyrite to 10% in blebs throughout the matrix.
61145	Greenstone with massive pyrite veins, sample approximately 80% pyrite, 230 ppb Au, 13.8 ppm Ag.
61146	Medium grey volcanic breccia pyrite to 5%.
61147	Altered felsic volcanic with pyrite to 5%, 280 ppb Au, 14.0 ppm Ag.
D- 1 88751	Dark green volcanic dyke rock, pyrite to 10-15%, 5.2 ppm Ag.
D- 2 88752	Altered granitic unit, massive pyrite veins, epidote, some included volcanic dyke material, 1.6 ppm Ag.
D- 3 88753	As above with more disseminated pyrite, 1.0 ppm Ag.
D- 4 88754	Altered granitic unit, massive pyrite veins.
D- 5 88755	A picked sample of massive pyrite in quartz vein in green volcanic dyke which intrudes granitic unit, 3.6 ppm Ag.
D- 6 88756	Dyke material, altered volcanic(?), epidote, quartz with pyrite.
D- 7 88758	Altered volcanic.
D- 8 88759	Altered granitic unit included in volcanic dyke material, massive pyrite.

SAMPLE DESCRIPTIONS (Cont'd.)

Sample No.	Description
D- 9 88760	Altered siliceous rhyolite (tuff) blebs of massive pyrite, yellow staining.
88761	Altered basic volcanic(?), pyritic.
D-10 88762	Altered granitic unit with volcanic dyke material massive pyrite.
D-11 88763	Brecciated granitic unit, massive pyrite.
88764	Breccia (volcanic)? quartz fragments, malachite, pyrite, float.
88765	Breccia similar to above, but lighter in colour, pyritic.
706091	Pyritic veined diorite/minor quartz.
706092	Pyritic veined diorite.
706093	Pyritic veined material - selected.
706094	Pyritic veined diorite, Tr MoS_2.
706095	Pyrite-quartz veined diorite.
706096	Stream silt sample.
706097	Pyrite-rich diorite boulder and greenstone dyke.
706098	Breccia float fragments/disseminated pyrite.

APPENDIX III

Affidavit of Expenses

AFFIDAVIT OF EXPENSES

This will certify that the work program covered by this report was carried out during the periods of October 1 to 7, 1986 and May 24 to 25, 1987 on the FLO #9 to #12 Claims, Vancouver Mining Division, British Columbia, to the value of the following:

Salaries		
D. J. Brownlee, Geologist	2 days @ $300/day May 24-25, 1987	$ 600.00
A. Raven, Prospector	7 days @ $250/day Oct. 1-7, 1986	1,750.00
E. Raven, Assistant	7 days @ $100/day Oct. 1-7, 1986	700.00
		$3,050.00
Field		
Air Fare	Fixed wing Oct. 1 & 7, 1986	$1,283.40
	Helicopter May 25, 1987	1,100.00
Radio		150.00
Groceries, etc.		187.60
Camp rental	7 days @ $40/day Oct. 1-7, 1986	280.00
Assays	1986 1987, 8 samples @ $12.50/sample Au and I.C.R.	573.10 100.00
		$3,674.10
	GRAND TOTAL	**$6,724.10**

8609-029

RUSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE
BURNABY, B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : NORANDA EXPLORATION CO. LTD.
1050 DAVIE STREET
VANCOUVER B.C.

PROJECT: 240 8609-029 Prospector Samples (RMc)
TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 86431
INVOICE#: 6741
DATE ENTERED: 86-09-12
FILE NAME: NOR86431
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
T	61141	16	0.2	108	2	5	8
T	61142	24	0.6	114	14	5	4
T	61143	4	0.2	72	6	5	20
T	61144	6	0.4	328	12	5	18
T	61145	2500	13.8	176	82	230	12
T	61146	14	0.4	64	2	5	22
T	61147	104	14.0	54	12	280	76

Copy to A Raven
Sept 23

16/9/86 RMc DP

CERTIFIED BY : A. Russbacher

8610-072

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE
BURNABY, B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : NORANDA EXPLORATION CO. LTD.
1050 DAVIE STREET
VANCOUVER B.C.

PROJECT: 240-F3 8610-072
TYPE OF ANALYSIS: GEOCHEMICAL General (RMc)

CERTIFICATE#: 86578
INVOICE#: 7071
DATE ENTERED: 86-10-22
FILE NAME: NOR86578
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
T	88751	226	5.2	1380	94	5	22
T	88752	36	1.6	308	58	5	40
T	88753	78	1.0	172	28	5	10
T	88754	60	0.8	120	22	5	2
T	88755	1020	3.6	156	14	5	4
T	88756	44	0.6	90	4	5	6
T	88757	12	0.4	60	2	5	4
T	88758	102	0.6	58	4	5	12
T	88759	152	0.6	62	4	5	8
T	88760	248	0.4	18	2	5	2
T	88761	40	0.4	60	2	5	14
T	88762	98	0.8	84	14	5	8
T	88763	104	0.6	86	4	5	8
T	88764	162	0.6	76	2	5	4
T	88765	32	0.2	68	2	5	2

RECEIVED
OCT 28 1986
RESOURCES

Al Raven

Office Copy

Copy to Al Raven

21/10/86 RMc DP

CERTIFIED BY : D. Rossbach

MIN-EN LABORATORIES LTD.

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE:(604)980-5814 OR (604)988-4524 TELEX:VIA USA 7601067 UC

Certificate of GEOCHEM

Company: J. POLONI
Project:
Attention: J. POLONI/A.RAVEN

File: 6-1201/P1
Date: NOV. 24, 1986
Type: SOIL GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM	
01	230	54	101	1.6	
02	126	53	92	2.7	
03	325	33	104	1.0	
04	285	35	124	1.3	
05	370	32	95	1.9	
06	410	33	110	3.4	
07	168	29	132	1.7	
08	53	20	76	1.0	
09	164	22	86	1.2	
10	2050	37	121	4.1	
11	630	21	109	1.6	
12	1100	19	130	1.9	
13	78	29	98	1.5	
14	375	28	129	1.3	
15	275	23	107	1.3	
16	99	25	130	1.0	↑
17	123	24	120	1.2	CLAIM LINE
18	167	35	280	1.4	—
19	65	27	93	1.1	TRAIL
20	59	24	110	2.3	↓
21	21	16	87	0.9	
22	46	15	74	0.7	
23	530	22	116	1.6	
24	315	26	89	1.3	
25	545	30	102	2.7	
26	260	27	86	1.2	
27	69	14	40	0.5	
28	400	22	78	1.5	
29	420	23	79	1.3	
30	215	21	77	1.1	

Certified by _____

MIN-EN LABORATORIES LTD.

MIN-EN LABORATORIES LTD.
Specialists in Mineral Environments
705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE:(604)980-5814 OR (604)988-4524 TELEX:VIA USA 7601067 UC

Certificate of GEOCHEM

Company: J. POLONI
Project:
Attention: J. POLONI/A.RAVEN

File: 6-1201/P2
Date: NOV. 24, 1986
Type: SOIL GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	CU PPM	PB PPM	ZN PPM	AG PPM
31	137	24	157	1.0
32	325	37	170	1.5
33	440	34	315	1.5
34	390	35	320	1.7
35	335	28	350	1.6
36	430	42	315	1.5
37	345	27	180	1.3
38	180	18	102	1.1
39	310	36	121	2.1
40	405	25	118	1.7
[illegible]	370	29	77	1.5
42	425	21	110	1.8
43	560	24	89	1.8

Certified by _____

MIN-EN LABORATORIES LTD.

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE
BURNABY, B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
614-850 W. HASTINGS STREET
VANCOUVER B.C.

Al Rowen's Toba Inlet Property

PROJECT: 383
TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 87230
INVOICE#: 7654
DATE ENTERED: 87-06-04
FILE NAME: A&M87230
PAGE # : 1

PRE FIX	SAMPLE NAME	PPB Au
A	706091	540
A	706092	20
A	706093	5
A	706094	30
A	706095	5
S	706096	5
A	706097	5
A	706098	5

CERTIFIED BY : J. Rossbach

ACME ANALYTICAL LABORATORIES 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.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 CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOLUTION

DATE RECEIVED: JUNE 09 1987 DATE REPORT MAILED: June 11/87 ASSAYER. D. Toye. DEAN TOYE, CERTIFIED B.C. ASSAYER

ROSSBACHER LABORATORY CERT # 87230 File # 87-1662 PROJECT 383

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
AP 706091	6	21	14	83	.1	6	6	615	4.53	6	5	ND	3	20	1	2	8	56	.45	.073	7	86	.76	44	.15	2	1.11	.04	.18	1
AP 706092	1	60	17	309	.1	5	8	1267	3.60	3	5	ND	3	37	3	2	5	60	.83	.101	7	53	1.35	33	.22	5	1.97	.04	.19	1
AP 706093	129	26	18	55	.4	9	72	272	13.51	2	5	ND	1	20	1	2	2	15	.39	.032	3	69	.16	4	.04	7	.88	.04	.22	2
AP 706094	19	21	13	86	.1	7	9	892	3.35	2	5	ND	6	37	1	2	5	43	.49	.057	5	48	1.02	35	.16	2	1.37	.06	.15	1
AP 706095	72	17	72	551	.4	12	8	1048	2.20	2	5	ND	9	38	4	2	2	14	.40	.034	5	53	.68	71	.07	2	1.19	.08	.24	1
S 706096	2	25	11	95	.1	3	6	657	2.37	3	5	ND	2	16	1	2	2	36	.22	.057	6	9	.43	32	.09	4	1.80	.01	.04	1
AP 706097	11	721	31	119	1.8	9	15	1736	10.90	9	5	ND	2	12	1	2	14	82	.35	.088	3	32	1.60	22	.16	2	1.83	.02	.28	15
AP 706098	8	13	10	47	.1	5	8	772	3.28	3	5	ND	2	15	1	2	2	31	.41	.059	4	38	.86	29	.08	2	1.25	.04	.16	2
STD C	19	58	35	127	6.8	63	27	970	3.97	42	18	7	31	45	16	15	20	60	.43	.097	34	56	.86	171	.08	36	1.74	.06	.11	14