

COMINCO LTD.

EXPLORATION

NTS: 94E/2

WESTERN DISTRICT

LOG NO: 09-21	RD.
ACTION:	
FILE NO:	

ASSESSMENT REPORT ON ROCK SAMPLING
AND LINE CHAINING

ON THE

PINETREE PROPERTY

OMINECA MINING DISTRICT, BRITISH COLUMBIA

JUNE 28 - JULY 14, 1990

LATITUDE: 57°14'

LONGITUDE: 126°41'

SUB-RECORDER
RECEIVED
SEP 19 1990
M.R. # \$
VANCOLIVER, B.C.

AUGUST, 1990

S.W. SMITH

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

20,300

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ASSESSMENT REPORT ON ROCK SAMPLING
AND LINE CHAINING
ON THE PINETREE PROPERTY

1. SUMMARY

The Pinetree property is a porphyry copper prospect. The program described here deals with 17 field days of work in June and July of 1990 when rock sampling, prospecting and chaining of lines were carried out over part of the property.

The geochemical sampling outlined a small zone of elevated copper-gold on the southwest side of the property. Also outlined was an elevated copper-molybdenum trend near the centre of the property.

The total expenditure for work performed on the property for this 1990 program was \$38,772.80.

2. INTRODUCTION

The Pinetree property is a porphyry copper prospect located in the Finlay River area of British Columbia. From June 28 to July 14, field work entailing geochemical sampling, prospecting and the chaining of 41.7 km of lines, was carried out over part of the property. The claims worked on were: Fin 3, 11, 12, 14, 16, 18 and 19.

Personnel involved on the property were: A.M. Pauwels, Sr. Geologist; S.W. Smith, Geologist; J. Thomlinson, Technician and I. Stillwell, Field Assistant.

3. LOCATION AND ACCESS

The claims worked on are located in the Omineca Mining Division on NTS map 94E/2, approximately 20 km northeast of the northern end of Thutade Lake on the south side of the Finlay River. The claims are centred on latitude 57°14' and longitude 126°41'W.

Access to the property was from Smithers, British Columbia. Men and equipment were mobilized by fixed-wing aircraft to the Sturdee River airstrip, approximately 27 km west of the property. Access to the property itself was by helicopter.

4. PHYSIOGRAPHY

The property is situated along the Finlay River which at this point flows northeast along a broad (5 km wide) valley through the Swannel Ranges. The valley is covered predominantly by Lodgepole Pine and some Spruce with minor swampy ground to the northeast. Elevations range from 1,000 m to 1,300 m above sea level.

5. PROPERTY AND OWNERSHIP

The claims owned by Cominco, were optioned from Electrum Resources in May, 1990. The claims worked on, their record numbers and date staked are given in the table below. Plate number 1 shows the location of the grid relative to the claim boundaries.

TABLE 1
CLAIM STATUS

<u>Claim Name</u>	<u>Record Number</u>	<u>Date Staked</u>
Fin 3 (1 unit)	3064	July 31, 1980
11 (20 units)	9663	August 11, 1988
12 (20 units)	9664	August 11, 1988
14 (20 units)	9665	August 11, 1988
16 (6 units)	9666	August 11, 1988
18 (12 units)	9668	August 11, 1988
19 (6 units)	9669	August 11, 1988

6. HISTORY AND PREVIOUS WORK

The Pinetree property covers an area that was worked by Kennco Exploration (Western) Ltd. during the period June, 1968 to April, 1973. Kennco's work included soil and silt sample surveys, ground and airborne magnetic surveys, reconnaissance IP and geological mapping. Details of this work is documented in B.C. Mines assessment reports 1846, 1886, 1983, 2035, 2326, 2380, 3031, 3120, 3266, 4396.

In 1978 Bradford D. Pearson staked and optioned the ground to Riocanex. Work by Riocanex in 1979 included line cutting, geological mapping and soil and silt sampling. This was followed in late 1979 with 377 m of diamond drilling in 2 holes.

In 1980 Riocanex drilled an additional 10 DDH's totalling 977 m in addition to a ground magnetometer survey of 50.7 km. The drilling was confined to the southwestern and central parts of the property.

A 1982 mapping program for Brinco Mining Ltd. was confined to the northeastern and central parts of the property.

The results of this work found copper mineralization in at least four locations on the property. The soil sampling outlined zones of anomalous copper, molybdenum and gold. The drilling was centred on the copper-gold areas and found weak disseminated chalcopyrite with gold values. Best results were in DDH 79-1 which graded 0.34% Cu over 25 m.

7. GEOLOGY

(a) Regional

The Pinetree property is near the southeast margin of the Toodoggone precious metal camp; it is about 40 km southeast of Cheni Gold's Lawyers Mine.

The Toodoggone area lies in the eastern part of the Intermontaine Belt. The geological map (open file map 306) by H. Gabrielse et al. assigns the volcanic strata along the southeast part of the property to the Hazelton Group. Within and adjacent to the wide Finlay River valley northeast of the property are some basic volcanic rocks that are mapped as the Takla Group. The Hazelton Group are Lower Jurassic and the Takla Group are Upper Triassic.

East of the property and to the east of the Finlay River, these strata are intruded by the Omineca intrusions of Jurassic and Cretaceous ages. These intrusions are probably the source of the boulder erratics of quartz monzonite (Woodcock and Gorc, 1982). However, the syenomonzonite bodies and feldspar porphyry dykes may be of a later age. T.G. Schroeter (1980, 1981) suggests that such intrusions may be feeders to the Toodoggone volcanic rocks which unconformably overlie the Takla Group. The Toodoggone volcanics are probably Early to Middle Jurassic.

(b) Property

Woodcock and Gorc (1982) divided the area into a plutonic region with mainly hornblende granodiorite and biotite granodiorite versus a volcanic region. Swarms of red dykes of a variety of compositions cut these rock types. Those of the plutonic region have intense hematite dusting giving them a brick-red colour; those of the volcanic region are also somewhat red with hematite.

The volcanic rocks are probably of the Hazelton Group; the pluton could be part of the Omineca intrusions (Mesozoic); and the later red dykes may be feeders to the Toodoggone volcanics.

Some 85% of the property is covered by overburden including bog, swamp material or unconsolidated glacial debris.

Lon. 127°

Iskut



Cheni Mine

PINE PROPERTY

Lat. 57°

ALASKA

Stewart

57

Granisle

Smithers

Terrace



Drawn by:		Traced by: J.T.	
Revised by	Date	Revised by	Date

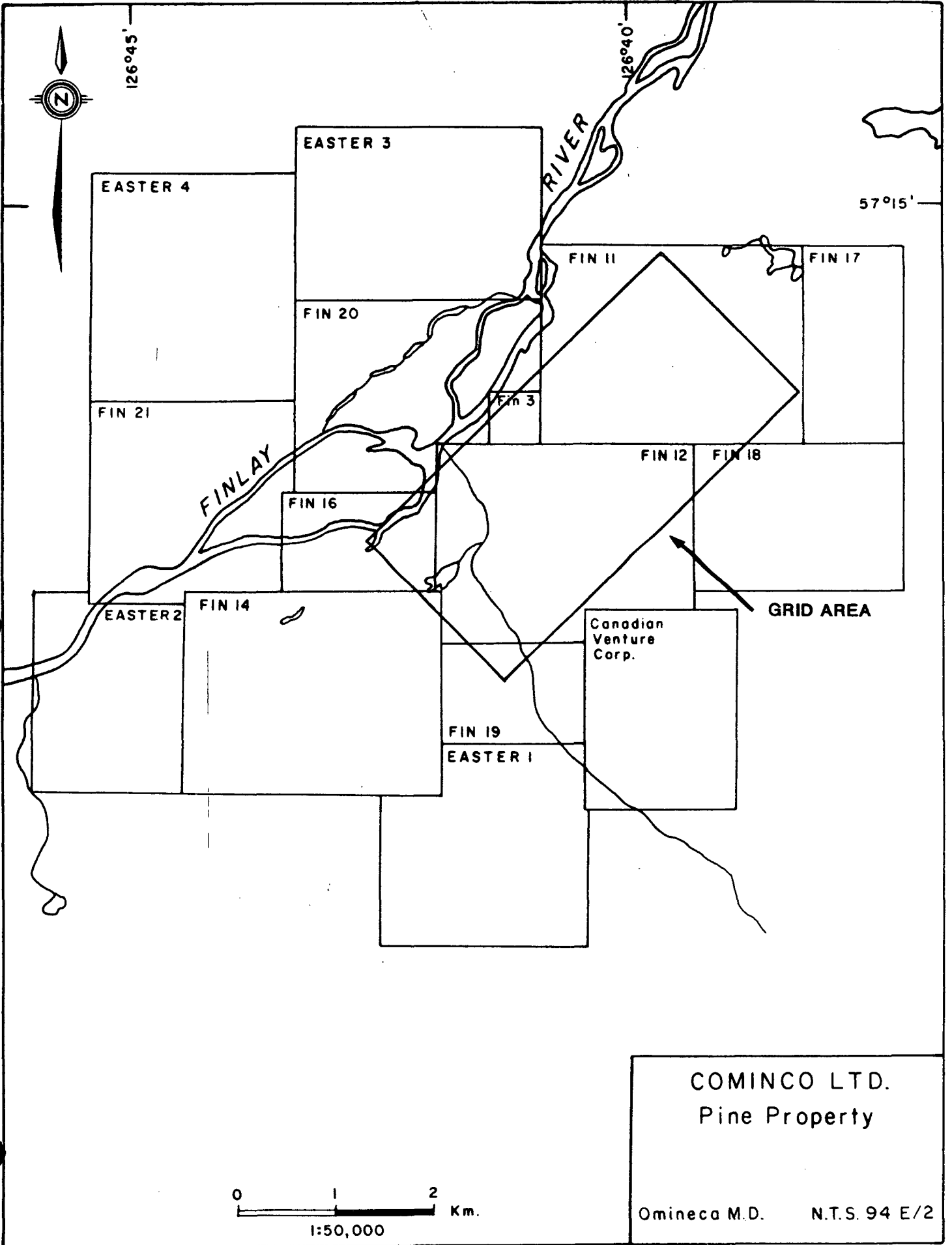
INDEX MAP



Scale: 1 2,000,000

Date: Sept. 14 / 1990

Plate:



126°45'

126°40'

57°15'

EASTER 3

EASTER 4

RIVER

FIN 11

FIN 17

FIN 20

FIN 3

FIN 21

FINLAY

FIN 16

FIN 12

FIN 18

EASTER 2

FIN 14

Canadian
Venture
Corp.

GRID AREA

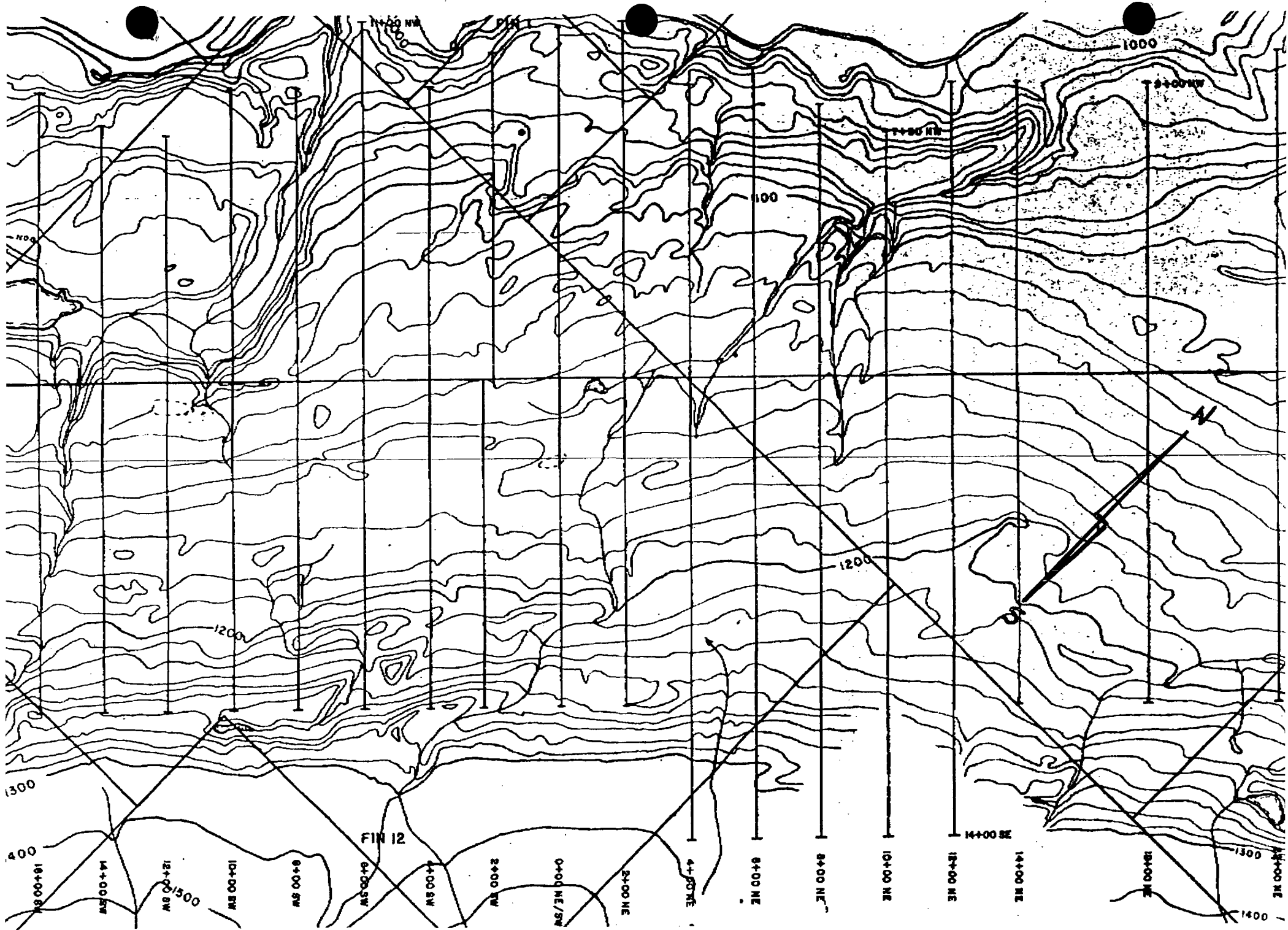
FIN 19

EASTER 1

COMINCO LTD.
Pine Property

0 1 2 Km.
1:50,000

Omneca M.D. N.T.S. 94 E/2



500 M NTS 94E/2 LOMINGO LTD PINE PROPERTY GRID PLAN

8. GEOCHEMISTRY

One hundred twenty-six rock samples were collected over the property. The new grid was used for control. The old base line, N45°E, used in 1982 was re-established by chain and compass for the new grid. All rock samples were analyzed for Au, Ag, Cu, Mo, Pb, Zn and As.

Twenty-two soil samples were collected at 100 m stations to the northwest and southeast of the base line on lines 0+00 NE/SW and 2+00 NE. This was to correlate geochemical bark sampling, to be done at a later time. All soil samples were analyzed for Au, Ag and Cu.

All samples taken from the Pinetree property were analyzed at the Cominco Exploration and Research Laboratory in Vancouver. Analytical methods are given in Appendix II.

Copper values range from 2 ppm (in the post mineralization dykes) to 952 ppm (in volcanic rocks). Values of 683 and 492 ppm copper were also found in granodiorite rocks. Silver values which closely coincide with the copper, range from <.4 ppm to 4.4 ppm. The elevated copper rocks seem to be found in an east-west trend close to the north claim line of Fin 12. Another small grouping of elevated copper values are centred at 22+50NE 6+50SE.

Elevated gold values ranging from 30 ppb to 122 ppb are found only in volcanic rocks. Centred at 5+75SW 2+30NW is a small zone where the highest copper and gold values occur together.

Molybdenum values range from <2 ppm to 183 ppm. The elevated molybdenum rocks follow to a lesser extent the east-west trending zone of the elevated copper. Elevated molybdenum values are not found in the volcanic rocks and therefore no elevated gold and molybdenum values occur together.

Zinc and lead, which range from 18 to 799 ppm and <4 to 467 ppm respectively, seem to be elevated for the most part on the periphery of the sampled area, with minor isolated exceptions.

Arsenic values obtained do not seem to be elevated to any significant amount throughout the property.

9. CONCLUSION AND RECOMMENDATIONS

Two different types of mineralization seem to be indicated by the geochemistry results. A copper-gold mineralization within the volcanic rocks and a copper-molybdenum mineralization within the plutonic rocks.

With 85% overburden on the property, it is recommended to do an IP survey to outline more favourable areas of potential mineralization.

Report by: Scott W. Smith
Scott W. Smith
Geologist

Endorsed by: A.M. Pauwels
A.M. Pauwels
Senior Geologist

Approved for
Release by: W.J. Wolfe
W.J. Wolfe
Manager, Exploration
- Western Canada

SWS/jd

Distribution: Mining Recorder (2)
Western District (1)
Admin (1)

APPENDIX I
EXPENDITURES

MOBILIZATION/TRAVEL/CAMP CONSTRUCTION

Planning, Report: A.M. Pauwels, 2 days @ \$401.60	\$ 803.20
Salaries: A.M. Pauwels, 5 days @ \$401.60	2,008.00
S.W. Smith, 5 days @ \$216.80	1,084.00
J. Thomlinson, 5 days @ \$179.93	899.65
I. Stillwell, 5 days @ \$122.91	614.55
Mobilization/Demobilization:	
Airfares: Vancouver-Smithers-Vancouver	1,626.40
Meals/Motel in Smithers	428.96
DC-3 Smithers-Sturdee	2,514.90
Helicopter Sturdee-Pine Camp	6,451.80
Otter Sturdee-Smithers	1,501.00
Helicopter Pine Camp-Smithers	1,755.52
Camp Costs: 4 persons, 1 day @ \$60	240.00
Radio Rental	255.00
Expediting	350.00
Drafting, Reproduction, Typing	<u>250.00</u>
TOTAL	\$20,782.98

Based on field days 26/56 is allocated to rock sampling and 30/56 is allocated to line chaining.

ROCK SAMPLING

Allocated from above 26/56 * 20,782.98	\$9,649.24
Salaries: A.M. Pauwels, 12 days @ \$401.60	4,819.20
S.W. Smith, 12 days @ \$216.80	2,601.60
J. Thomlinson, 1 day @ \$179.93	179.93
I. Stillwell, 1 day @ \$122.91	122.91
Camp Costs: 26 man days @ \$60	1,560.00
Analytical Costs: 105 rock samples for Cu, Pb, Zn, As, Au, Mo, Ag @ \$16.50	<u>1,732.50</u>
TOTAL ROCK SAMPLING	\$20,665.38

LINE CHAINING

Allocated from above: 30/56 * 20,782.98	\$11,133.70
Salaries: A.M. Pauwels, 2 days @ \$401.60	803.20
S.W. Smith, 2 days @ \$216.80	433.60
J. Thomlinson, 13 days @ \$179.93	2,339.09
I. Stillwell, 13 days @ \$122.91	1,597.83
Camp Costs: 30 man days @ \$60	<u>1,800.00</u>
TOTAL LINE CHAINING	\$18,107.42

APPENDIX II
ANALYTICAL METHODS

All analyses were carried out at the Cominco Exploration and Research Laboratory in Vancouver.

- Au: Aqua regia decomposition followed by solvent extraction and AAS.
- Ag: Digestion in 20% HNO₃ followed by AAS.
- Cu: Digestion in 20% HNO₃ followed by AAS.
- Pb: Digestion in 20% HNO₃ followed by AAS.
- Zn: Digestion in 20% HNO₃ followed by AAS.
- Mo: Digestion in 20% HNO₃ followed by HClO₄ decomposition and AAS.
- As: Pyrosulphate fusion/colorimetric.

APPENDIX III

ROCK SAMPLE DESCRIPTIONS
AND ANALYTICAL RESULTS

Sample No.	Coordinates		Rock Type	Alteration	Sulphides %	Au ppb	Ag ppm	Cu ppm	Zn ppm	Pb ppm	As ppm	Mo ppm
	SW/NE	NW/SE										
PT-01	1+50NE	7+00NW	syenite	chl, ep	py 1%	<10	<.4	93	194	<4	5	<2
PT-02	2+10NE	5+90NW	volcanic	chl, qz		<10	<.4	15	63	<4	4	<2
PT-03	2+00NE	5+40NW	granodiorite	ep, chl	py 1%	<10	<.4	28	52	18	4	<2
PT-04	2+05NE	5+40NW	granodiorite	K, ep, chl	py <1%	<10	<.4	67	70	<4	5	3
PT-05	2+05NE	4+55NW	granodiorite	K, ep	py <1%	<10	<.4	27	62	9	7	2 PT-05
PT-06	2+00NE	3+80NW	volcanic	ep	py 2-3%	<10	<.4	48	155	299	10	<2
PT-07	1+85NE	2+00NW	granodiorite	K, ep	py 2-3%	<10	1.7	149	86	8	5	53
PT-08	1+80NE	1+60NW	granodiorite	K, ep	py 2-3%	<10	2.8	140	80	88	<2	38
PT-09	1+85NE	2+30SE	granodiorite	ep, chl	py 2%	<10	<.4	120	52	14	4	7
PT-10	2+00NE	1+85SE	granodiorite	ep, chl		<10	<.4	48	56	5	4	<2 PT-10
PT-11	2+00NE	0+85SE	syenite	ep, chl	py 4%	<10	<.4	10	70	10	2	2
PT-12	4+00NE	6+70NW	granodiorite	ep	py 1%	<10	<.4	16	37	6	2	<2
PT-13	4+00NE	5+35NW	granodiorite	ep	py 1%	<10	<.4	18	34	4	3	<2
PT-14	3+90NE	4+60NW	syenite,	chl	py 1%	<10	<.4	41	145	7	3	2
PT-15	7+75NE	1+70NW	porphyry syenite,	chl	py <1%	<10	<.4	58	73	5	5	<2 PT-15
PT-16	8+00NE	3+40NW	syenite	chl	py 4%, mt 1%	<10	<.4	114	33	5	8	<2
PT-17	6+05NE	6+15NW	granodiorite	ep, K, chl	py <1%	<10	<.4	11	30	9	<2	3
PT-18	5+95NE	2+65NW	granodiorite	ep, K, chl	py <1%	<10	<.4	39	65	<4	8	5
PT-19	5+95NE	2+45NW	syenite	K, ep, chl	mt 1%	<10	<.4	31	193	<4	4	2
PT-20	6+00NE	0+60NW	granodiorite	ep, K		<10	<.4	41	47	6	14	20 PT-20
PT-21	5+35NE	0+00BL	granodiorite	ser, chl	py 1%	<10	<.4	49	92	5	4	12
PT-22	4+35NE	13+50SE	syenite	chl, ep	py 1%	<10	<.4	19	167	6	5	<2
PT-23	3+95NE	12+70SE	volcanic	ep, chl	py 2%	<10	<.4	30	165	8	7	<2
PT-24	4+00NE	11+95SE	volcanic	ep, chl	py 2%	<10	<.4	12	162	5	6	<2
PT-25	4+00NE	2+50SE	granodiorite	ep, K	py 1%	<10	<.4	48	63	5	2	13 PT-25
PT-26	10+00NE	0+30SE	granodiorite	K, ep, chl	mt 1%	<10	<.4	12	88	<4	<2	<2
PT-27	10+30NE	12+00SE	syenite	ep, chl, qz	mt 1%	<10	<.4	11	119	<4	5	<2
PT-28	10+00NE	12+95SE	syenite	ep, chl, qz	mt 1%	<10	<.4	15	104	<4	5	<2
PT-29	9+30NE	12+50SE	syenite,	chl	py 5%	<10	<.4	25	45	104	<4	14
PT-30	8+00NE	4+80SE	granodiorite	K, ep	py 4%	<10	<.4	36	90	11	2	<2 PT-30
PT-31	8+00NE	1+35SE	granodiorite	K, ep	py <1%	<10	<.4	11	67	4	<2	2
PT-32	11+75NE	0+80NW	granodiorite	K, ep, chl	py 2%	<10	.5	213	188	13	<2	52
PT-33	11+95NE	2+95NW	granodiorite	K, ep	py 1%	<10	<.4	4	38	11	4	<2

Sample No.	Coordinates		Rock Type	Alteration	Sulphides %	Au ppb	Ag ppm	Cu ppm	Zn ppm	Pb ppm	As ppm	Mo ppm
	SW/NE	NW/SE										
PT-34	9+95NE	4+75NW	syenite	chl	mt 3%	<10	.6	34	225	12	4	<2
PT-35	9+95NE	4+75NW	diorite? dyke		mt 2%	<10	<.4	37	662	<4	6	<2 PT-35
PT-36	10+05NE	4+25NW	granodiorite	K, ep, chl	py 1%	<10	<.4	8	214	41	<2	<2
PT-37	10+00NE	3+05NW	syenite	K, chl	mt 1%	<10	<.4	1	103	5	3	4
PT-38	9+95NE	1+00NW	granodiorite	K, ep, chl	py 2%, cpy tr.	<10	<.4	185	29	8	4	9
PT-39	14+00NE	3+50SE	granodiorite	K, ep, chl	py 2%	<10	<.4	10	45	<4	2	<2
PT-40	14+00NE	6+90SE	granodiorite	K, ep, chl	py 2%, mo tr.	<10	<.4	26	40	6	<2	34 PT-40
PT-41	14+05NE	8+00SE	granodiorite	K, ep, chl	py 2%	<10	<.4	26	66	18	3	3
PT-42	11+90NE	6+05SE	granodiorite	K, ep, chl	py 2%, mt 3%	<10	<.4	12	62	16	10	<2
PT-43	18+40NE	6+70SE	syenite, porph	ep, chl	mt 2%	<10	<.4	2	39	5	2	<2
PT-44	18+40NE	6+50SE	syenite	ep, chl		<10	<.4	3	43	<4	4	<2
PT-45	22+05NE	8+10SE	granodiorite	K, ep, chl	mt 3%	<10	<.4	9	49	11	4	<2 PT-45
PT-46	22+10NE	7+05SE	granodiorite	K, ep, chl	py 3%, cpy 1% mo trace	<10	.5	683	87	4	5	15
PT-47	23+00NE	6+30SE	granodiorite	K, ep, chl	py 3%, cpy 1%	<10	<.4	148	38	4	5	11
PT-48	22+20NE	5+50SE	syenite	K, chl		<10	<.4	16	169	<4	7	<2
PT-49	22+50NE	5+40SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	250	129	<4	4	9
PT-50	22+10NE	7+15SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	329	59	<4	8	18 PT-50
PT-51	22+20NE	7+05SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	170	40	<4	2	19
PT-52	22+35NE	7+00SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	161	42	<4	3	37
PT-53	22+50NE	6+90SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	19	96	17	3	17
PT-54	22+50NE	6+70SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	32	60	<4	3	8
PT-55	22+65NE	6+55SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	139	49	<4	5	12 PT-55
PT-56	22+75NE	6+45SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	109	52	4	<2	39
PT-57	22+85NE	6+35SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	67	39	4	2	22
PT-58	23+00NE	6+25SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	27	57	6	5	22
PT-59	21+50NE	8+40SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	62	70	<4	19	10
PT-60	21+05NE	7+95SE	granodiorite	K, ep, chl	py 3%, cpy tr.	<10	<.4	6	71	8	2	2 PT-60
PT-70	22+10NE	6+25SE				<10	<.4	34	117	4	<2	3
PT-71	22+15NE	6+30SE				<10	<.4	20	65	<4	5	6
PT-72	22+30NE	6+25SE				<10	.5	13	38	9	4	9
PT-73	22+40NE	6+25SE				<10	<.4	15	46	5	<2	3
PT-74	22+50NE	6+10SE				<10	<.4	19	44	25	<2	16
PT-75	22+95NE	6+20SE				<10	<.4	16	45	<4	3	3 PT-75
PT-76	23+15NE	6+20SE				<10	<.4	17	86	4	7	<2

Sample No.	Coordinates		Rock Type	Alteration	Sulphides %	Au ppb	Ag ppm	Cu ppm	Zn ppm	Pb ppm	As ppm	Mo ppm
	SW/NE	NW/SE										
PT-80	22+05NE	6+05SE				<10	<.4	124	93	<4	<2	<2
PT-81	22+20NE	6+10SE				<10	<.4	27	130	<4	4	4
PT-82	22+35NE	6+05SE				<10	<.4	47	80	<4	<2	<2
PT-83	22+50NE	6+00SE				<10	<.4	22	90	<4	3	<2
PT-84	22+75NE	5+95SE				<10	<.4	117	43	5	4	57
PT-85	22+95NE	6+00SE				<10	<.4	62	293	<4	3	<2
PT-86	23+15NE	5+90SE				<10	<.4	22	104	6	<2	<2
PT-87	23+35NE	6+25SE				<10	<.4	11	47	<4	4	<2
PT-88	23+15NE	6+40SE				<10	<.4	26	48	<4	3	<2
PT-100	195SW	460NW	syenite	ep		<10	<.4	19	143	20	6	<2
PT-101	150SW	400NW	granodiorite	ep, ser	py trace	<10	1.4	186	57	26	6	148
PT-102	250SW	350NW	syenite			<10	<.4	22	52	7	3	<2
PT-103	90SW	340NW	monz/weath		py trace	<10	<.4	13	112	5	5	<2
PT-104	110SW	350NW	monz	chl	py 1%	<10	<.4	25	73	5	4	7
PT-105	200SW	300NW	syenite	ep, chl	py trace	<10	.8	89	68	467	5	<2
PT-106	170SW	200NW	granodiorite	ser	py 2%	<10	.5	47	42	4	<2	<2
PT-107	410SW	740NW	syenite p.	ep		<10	<.4	15	25	6	<2	<2
PT-108	420SW	630NW	andesite	Ksp, chl	py 3%	<10	.9	670	87	5	13	2
PT-109	380SW	175NW	syenite	ep, chl		<10	<.4	35	67	6	7	<2
PT-110	800SW	750NW	syenite p.			<10	<.4	28	79	<4	<2	<2
PT-111	595SW	240NW	diorite	Ksp, qz, chl	py 1%, mag 2%	78	1.0	188	137	12	<2	10
PT-112	575SW	230NW	diorite	qz, chl	mag 2%, py 5%	122	1.3	225	236	26	2	4
PT-113	580SW	220NW	diorite	qz, chl	cpy trace, mag 2%, py 3%	62	.5	952	799	16	5	2
PT-114	70NE	590NW	syenite,porph			<10	<.4	22	122	4	7	2
PT-115	10NE	590NW	granodiorite	chl, qz	py 2%	<10	1.8	289	86	12	4	4
PT-116	25SW	450NW	granodiorite	chl	py 1%	<10	4.4	140	37	15	6	44
PT-117		390NW	granodiorite	ep, chl	py trace	<10	3.3	257	44	19	26	183
PT-118	10NE	290NW	granodiorite	ser, ep	py 1%	<10	1.5	199	55	12	5	29
PT-119	50NE	50NW	granodiorite	ser	py 1%	<10	<.4	23	92	15	5	8
PT-120		350SE	granodiorite	ser	py 1%	<10	<.4	38	63	5	4	<2
PT-121	75NE	900SE	syenite,porph			<10	<.4	39	310	<4	4	<2
PT-122	170NE	529NW				<10	<.4	73	51	<4	<2	<2
PT-123	1200NE	250NW				<10	1.5	262	87	18	<2	3
PT-124	400SW	25NE	granodiorite	ep	py 5%	<10	<.4	37	51	4	60	<2
PT-125	1025SW	20NW	granodiorite	ser, ep, qz	py 3%	<10	<.4	12	102	20	24	<2

high copper
PINETREE FZ

high moly.

Sample No.	Coordinates		Rock Type	Alteration	Sulphides %	Au ppb	Ag ppm	Cu ppm	Zn ppm	Pb ppm	As ppm	Mo ppm
	SW/NE	NW/SE										
PT-126	975SW	400NW	granodiorite	chl	py 5%	102	<.4	65	158	7	7	<2
PT-127	800SW	530NW	andesite	chl, ep	py 3%	<10	<.4	20	77	12	12	3
PT-128	750W	620NW	andesite	ep, chl	py 2%	<10	<.4	36	80	12	17	<2
PT-129	750SW	390NW	andesite	chl	py 3%	98	.5	53	138	5	7	<2
PT-130	2020SW	205SE	granodiorite		py 1%	<10	<.4	7	56	16	<2	<2 PT-130
PT-131	1980SW	360SE	andesite	ep	py 1%	<10	<.4	6	211	8	27	<2
PT-132	1980SW	720SE	andesite	ep	py 3%	<10	<.4	10	96	5	<2	<2
PT-133	1800SW	800SE	andesite		py trace	<10	<.4	13	67	27	4	<2
PT-134	no sample											
PT-135	1490SW	310NW	andesite	chl	py 2%	30	<.4	9	258	114	<2	4 PT-135
PT-136	1340SW	300NW	andesite	chl	py 3%	<10	<.4	13	96	195	<2	<2
PT-137	60SW	90SE	granodiorite	ser, chl	py tr, mo tr	<10	1.1	492	34	4	<2	51
PT-138	10SW	110SE	granodiorite	ser, chl	py 0.5%	<10	2.4	223	44	14	3	30
PT-139	100NE	50SE	granodiorite	ser, ep	mo trace	<10	1.9	313	107	7	5	<2 PT-140
PT-140	1425SW	150SE	andesite/w.		py 2%	<10	<.4	7	18	24	75	<2
PT-141	1450SW	250SE	andesite	chl	py 1%	<10	<.4	10	42	6	11	<2
PT-142	1460SW	450SE	andesite	chl	py 1%	<10	<.4	5	84	11	19	<2
PT-143	1230SW	550SE	andesite		py 2%	<10	<.4	11	78	14	5	<2
PT-144	1020SW	570SE	andesite		py 1%, mag 3%	<10	<.4	5	76	10	<2	<2
PT-145	870SW	540SE	andesite		py 1%	<10	<.4	9	45	6	6	<2 PT-145
PT-146	212SW	10SE	syn, porph	ser		<10	<.4	12	38	20	<2	<2
PT-147	800SW	100SE	granodiorite		mag 3%, py 0.5%	<10	2.0	20	251	85	4	<2
PT-148	600SW	965SE	monzonite	ep	mag trace	<10	<.4	23	64	<4	4	<2
PT-149	370SW	990SE	monzonite	ep	mag trace	<10	<.4	40	74	9	<2	20

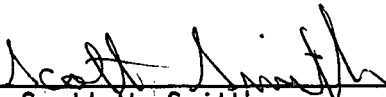
APPENDIX IV

STATEMENT OF QUALIFICATIONS

I, SCOTT W. SMITH, of 209 - 1555 East 6th Street, Vancouver, British Columbia, Canada, declare:

1. I am a Geologist, residing at the above address.
2. I am a member in training of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
3. I graduated from the University of Alberta with a Bachelor of Science (Geology) degree in 1988.
4. This report is based on my personal field examination of the property.

Dated at Vancouver, British Columbia,
this ____ day of August, 1990.



Scott W. Smith,
Geologist

APPENDIX V

REFERENCES

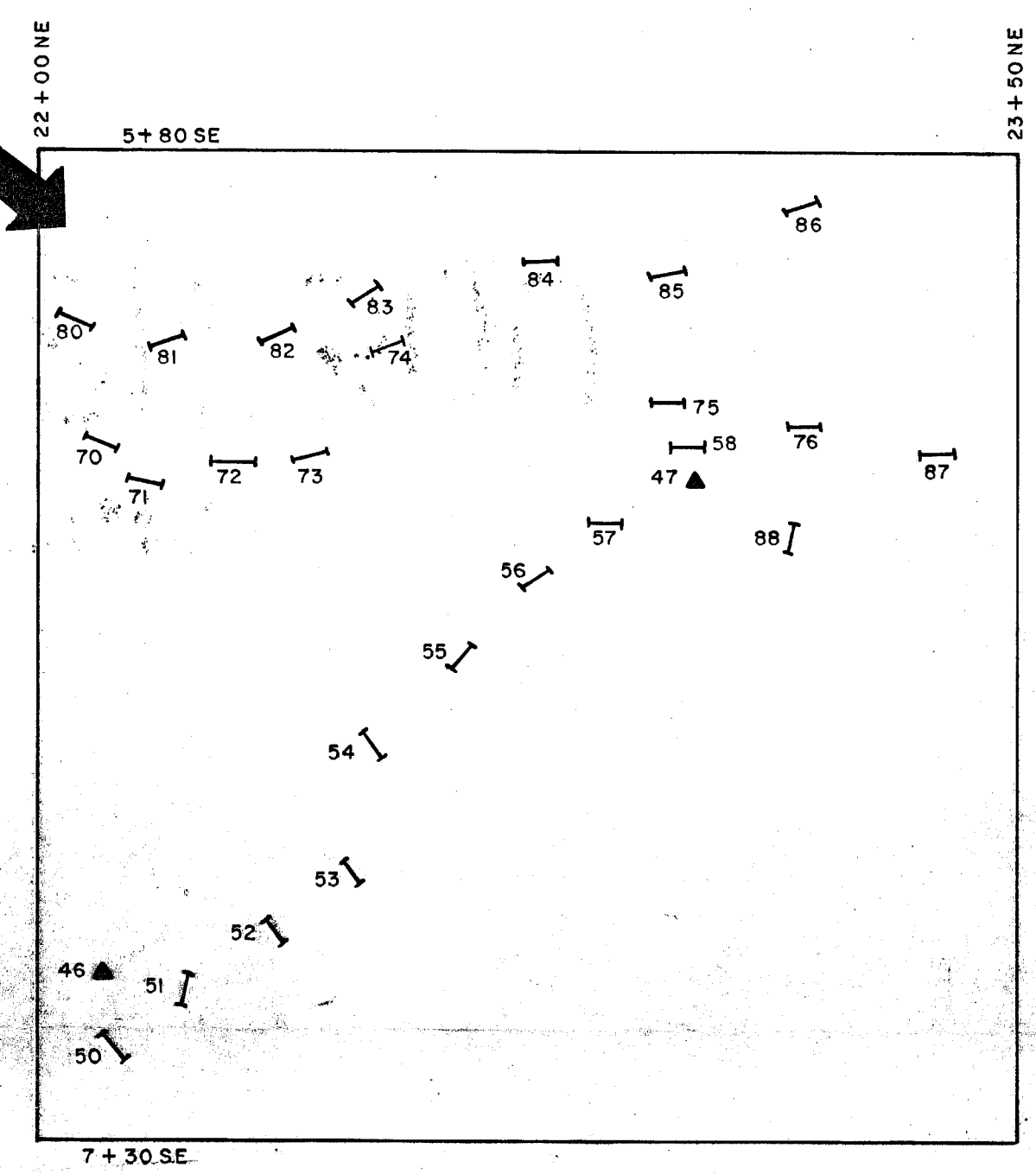
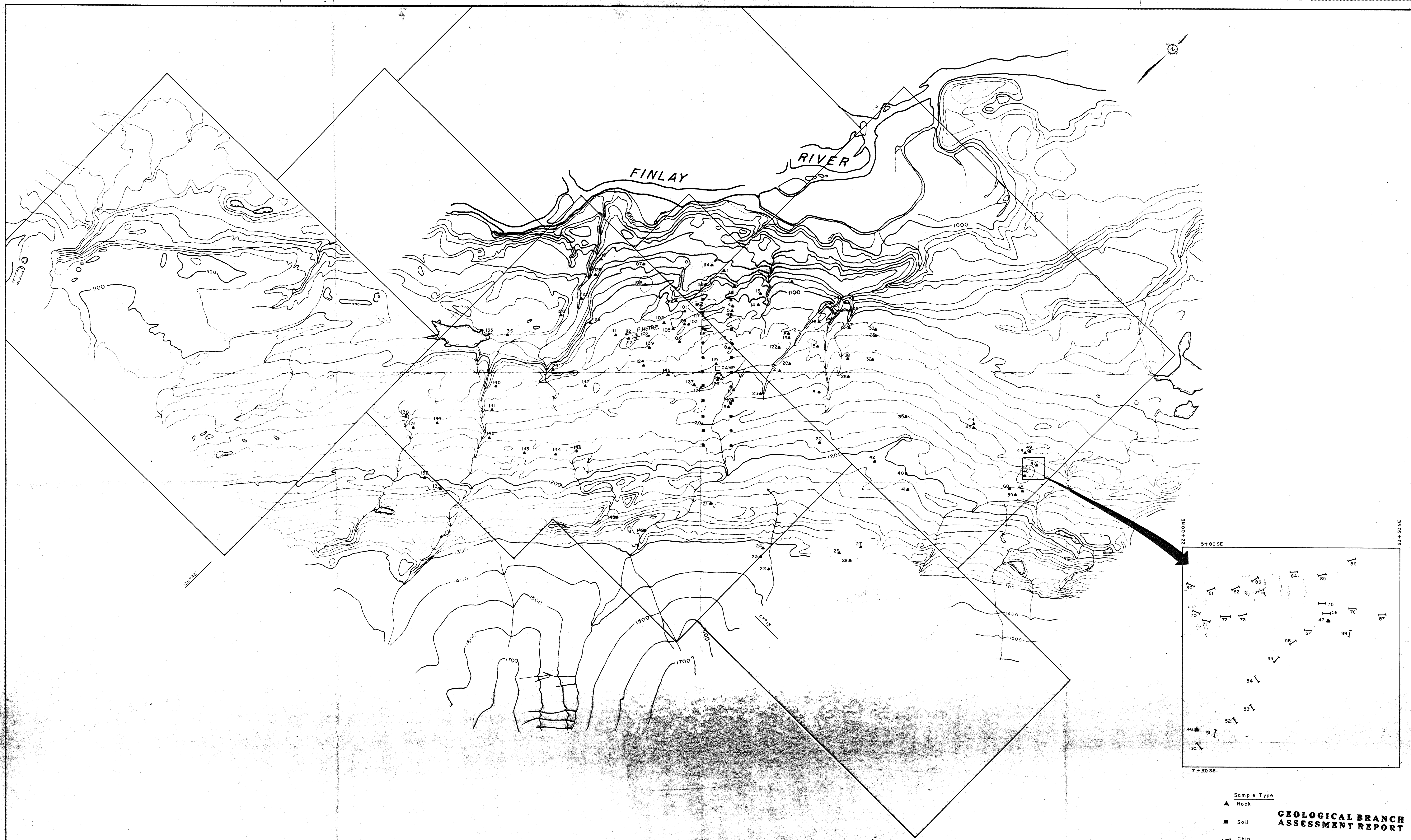
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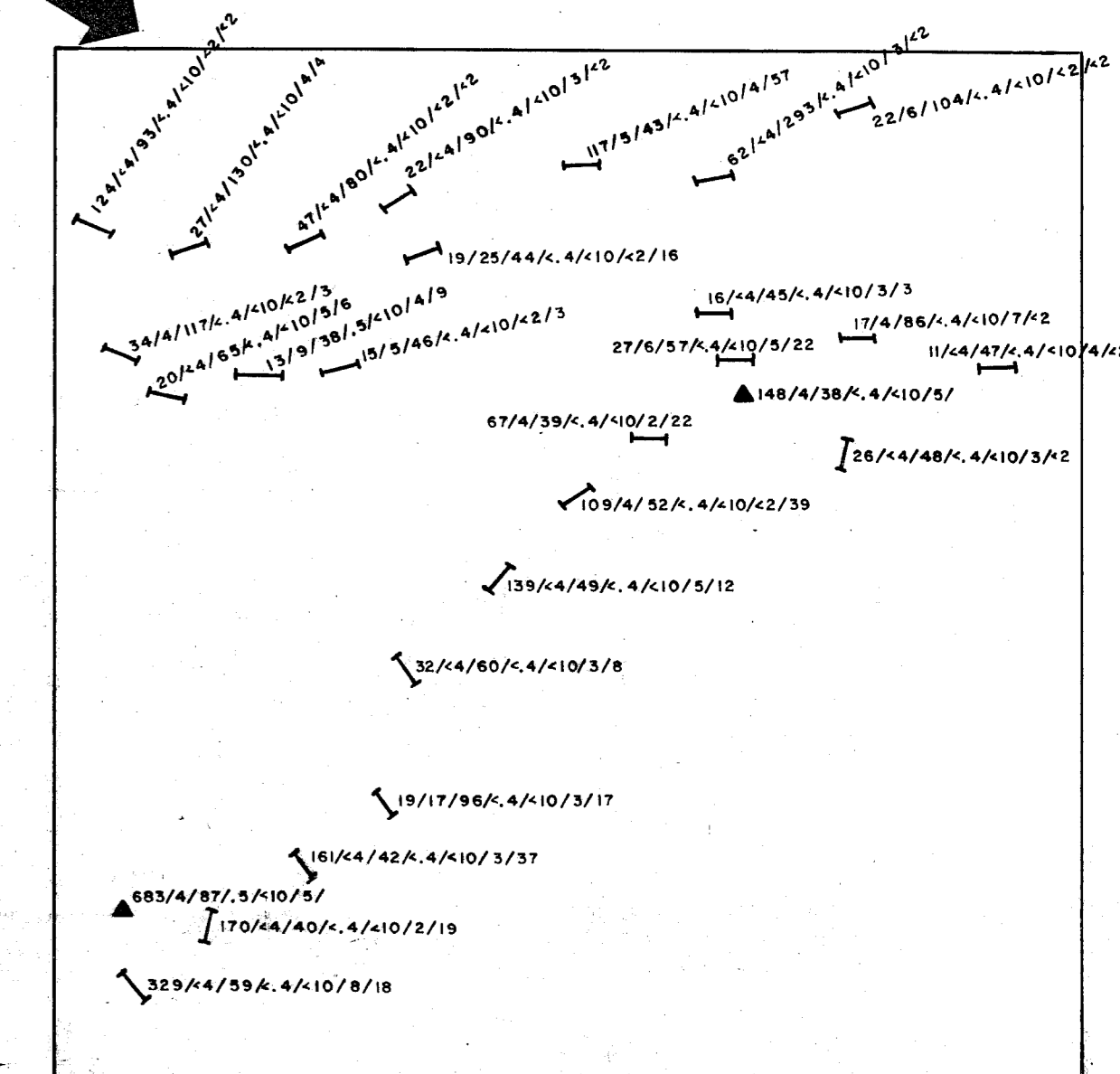
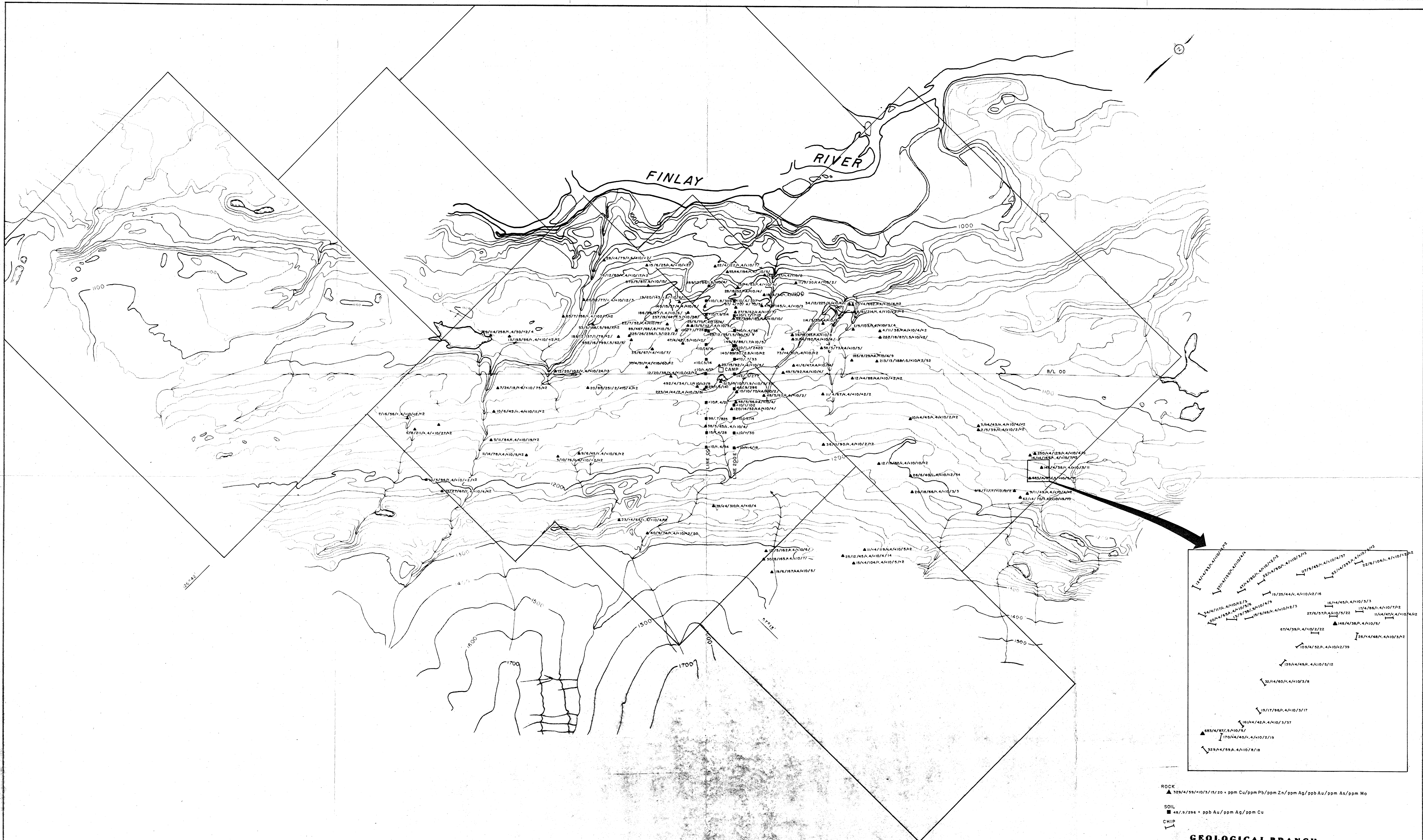
Sample Type
 ▲ Rock
 ■ Soil
 L Chip

**GEOLOGICAL BRANCH
 ASSESSMENT REPORT**

20,300

N.T.S. 94 E/2

PINETREE PROPERTY			
Drawn by	Traced by	Sample Location Map	
Number by Date	Number by Date	Scale: 1:10,000	Date: Aug. 1990
			Plate



ROCK ▲ 329/4/59/4/10/3/15/20 = ppm Cu/ppm Pb/ppm Zn/ppm Ag/ppb Au/ppm As/ppm Mo
 SOIL ■ 46/3/296 = ppb Au/ppm Ag/ppm Cu
 CHIP I

**GEOLOGICAL BRANCH
 ASSESSMENT REPORT**

20,300

N.T.S. 94E/2

PINETREE PROPERTY

Drawn by:	Traced by:

GEOCHEMISTRY

Scale 1:10,000 Date Aug. 1990 Plate