GEOCHEMICAL ASSESMENT REPORT
ON THE
EASTER SEAL MINERAL CLAIM AND ENVIRONS
PINE PROPERTY
FINLAY RIVER AREA, B.C.
94E

57 15'N, 126 40'W
OMINECA MINING DISTRICT

BY
COLIN HARIVEL, P.Geo

DATED: May 21st, 1992

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GEOCHEMICAL ASSESSMENT REPORT
ON THE EASTER SEAL MINERAL CLAIM
PINE PROPERTY
FINLAY RIVER AREA, B.C.
94E/2,7

INTRODUCTION:

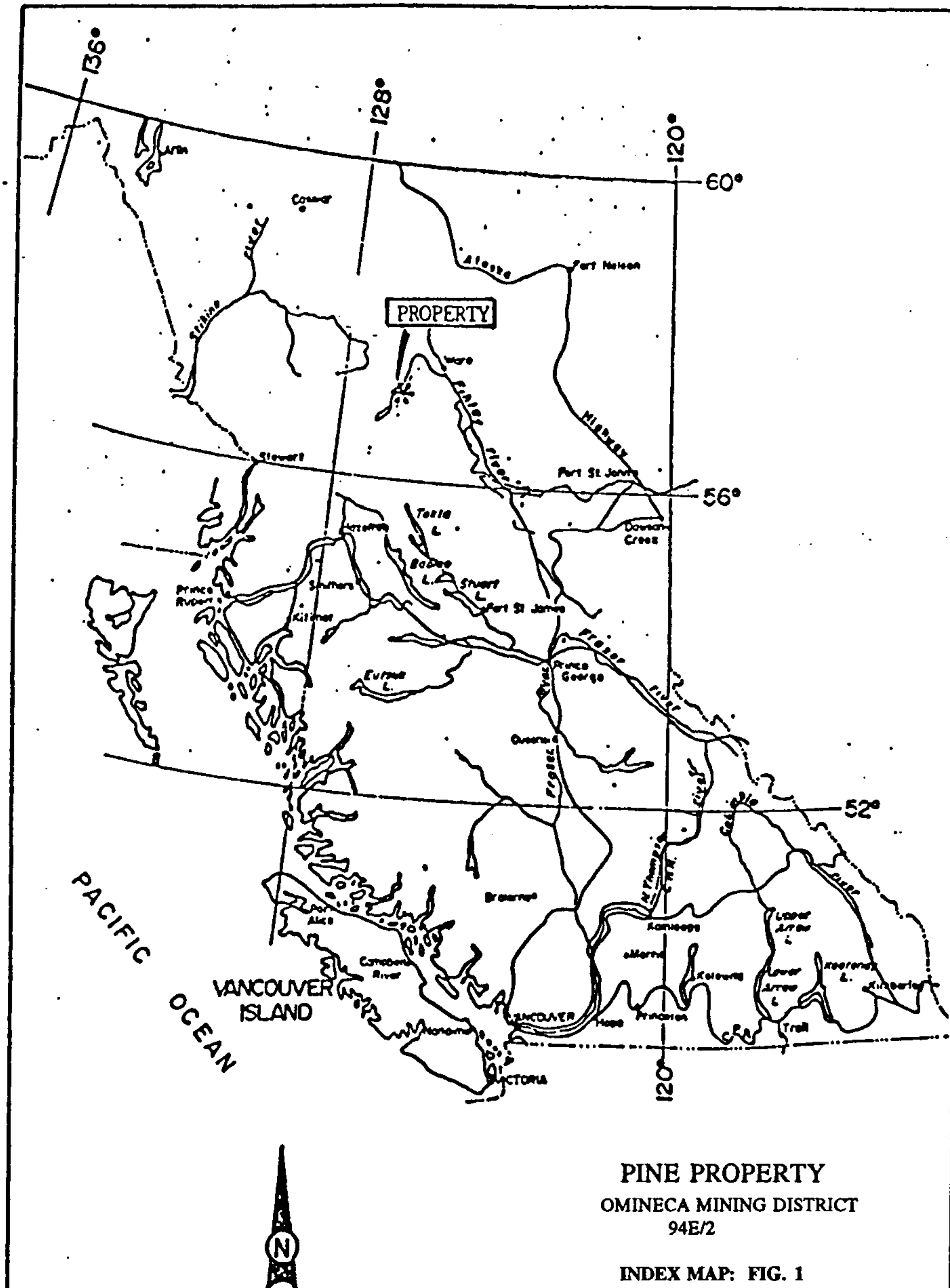
This report concerns the Pine Property, in the Toodoggone area of British Columbia. The general location is shown in Fig. 1. The work was done from August 6, 1991 to August 11, 1991 and this report describes sampling and prospecting results from traverses on and in the vicinity of the Easter Seal Mineral Claim. The claim is owned by Dr. John Barakso and is valid until August 8, 1993. A claim map is shown as Fig. 2.

The claim was staked to cover ground believed to be prospective based on geochemical sampling performed by a previous operator. The claim adjoins on the north the previously located Easter and Fin series of claims. The Easter Seal claim straddles the Finlay River which passes north easterly through the west part of the claim.

Access to the claim was via fixed wing charter and scheduled aircraft from Smithers which landed at Sturdee River strip. Casual charter helicopters were then used for the final fifteen kilometer northeasterly trip to the property.

The physiographic relief on the property ranges from about 1000m at the Finlay River to about 1800m on the east boundary of the valley. The mountains above treeline are gullied by relatively well defined watercourses which commonly become ill defined in areas of their respective aluvial delta deposits.

The area investigated is entirely within the Finlay River valley and all samples were collected west of the river. See Fig. 3 for sample locations.



PINE PROPERTY
OMINECA MINING DISTRICT
94E/2

INDEX MAP: FIG. 1
August 1991

MINERAL CLAIMS:

Ownership:

The Pine Property claims are listed in Table 1, with expiry and ownership as appropriate.

TABLE 1

CLAIM NAME	UNITS	RECORD #
FIN 3	1	3064
FIN 11	20	9663
FIN 12	20	9664
FIN 14	20	9665
FIN 16	20	9666
FIN 17	8	9667
FIN 18	12	9668
FIN 19	6	9669
FIN 20	20	11441
FIN 21	16	11442
EASTER 2	12	11766
EASTER 3	20	11767
EASTER 4	20	11768
EASTER SEAL	20	303156

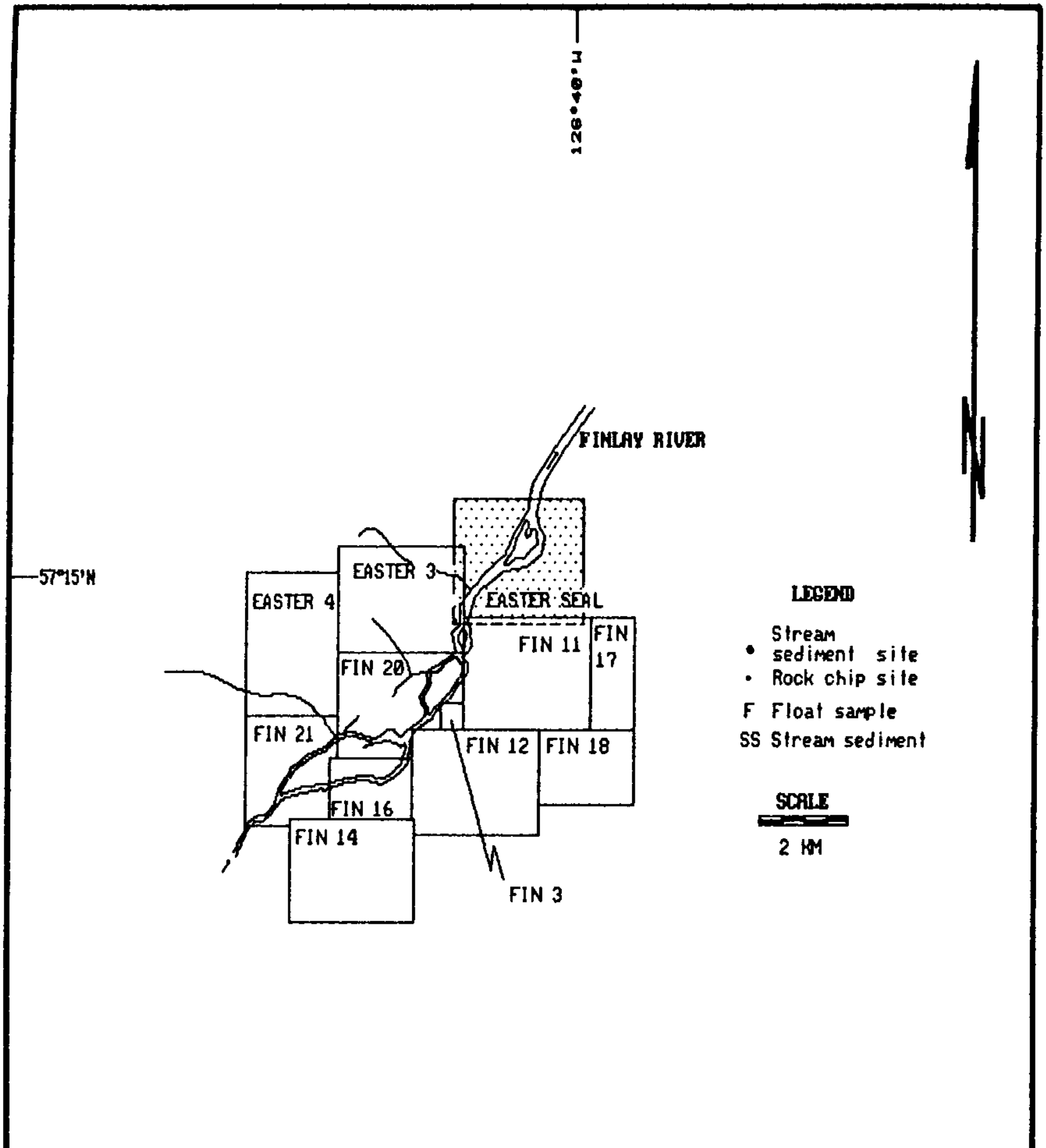
REGIONAL GEOLOGY:

Dominant elements of the regional geology are indicated on the Tectonic Assemblage Map of the Canadian Cordillera by J.O. Wheeler and P. McFeely. The oldest rocks in the area which surrounds the property are assigned to Cassiar Terrane. Along a strong northwesterly trend east of the property mainly clastic continental margin sediments which include grits, sandstones, siltstones and shales are exposed.

Moving westerly, a panel of Upper Proterozoic Eagle Bay Group equivalents assigned to Kootenay Terrane and comprised of clastics and volcanics extend westerly along the northwesterly trend to the Finlay Fault. This fault is the east boundary of a fault-bounded panel of predominantly augite porphyry volcanics of Nicola Group equivalents and assigned to Quesnel Terrane. The west bounding fault locus occupies the valley of the Finlay River within the property area.

The contact region between Cassiar and Kootenay terrane rocks is intruded in the property area by mid-Cretaceous quartz monzonite and granodiorite. The intrusives are bounded on the west by the Finlay Fault.

West of the Finlay River, Quesnel Terrane intrusive rocks of Early Jurassic age are prominently exposed. These coarse grained rocks are predominantly quartz monzonites. West of these intrusives, which are bounded by the Kutcho Fault, are Jurassic Hazelton Group volcanic arc rocks assigned to Stikine Terrane.



PINE PROPERTY

EASTER SEAL CLAIM AREA

CLAIMS LOCATION SKETCH

FIGURE 2

DATE	MAP #
AUGUST, 1991	94E/2E,7E

LOCAL GEOLOGY:

The local geology is dominated by Early Jurassic intrusive rocks and taken from previous assessment work reports. The property geology is depicted in Fig. 4.

Litholgy:

On the west side of Finlay River the geology is dominated by quartz mononitic intrusives of assumedly Early Jurassic age. The rocks are generally coarse grained , feldspar porphyries which in fresh specimens range from grey to strongly pink-hued but which generally have a pink cast. In altered specimens the rocks range from pale grey-green to green grey. The fresh to moderately altered rocks are commonly magnetic.

Near the Finlay RIver and its side channels which pass through the northwest portion of Fin 20, the extreme southeast part of Easter #3 and the western portion of the newly staked easter Seal mineral claims, the intrusive rocks are weakly to strongly fractured and commonly pyritized.

Alteration and Mineralization:

Alteration of intrusive quartz monzonite varies from weak propylitic (weak chloritized mafics, weakly epidotized feldspars) to strongly propylitic with local sulfateric alteration on shear zones. Epidotization is locally strongly evidenced as fracture coatings and in veining. In areas of weak propylitic alteration primary magnetite has not been converted (completely) to hematite.

Pyritized rock was noted in outcrop along or near the Finlay River (samples Ch 113-116 and 105-108). Sulfaterically altered rock in the hanging wall of a small fault zone was sampled (see CH 111, 112). Pyrite commonly occurs as fine frains and in veinlets.

Chalcopyrite as fine grains was locally associated with disseminated pyrite.

GEOCHEMICAL RESULTS AND INTERPRETATION:

Stream sediment sampling was concentrated in the areas adjecent to the west bank of the Finlay River and its westernmost side channels. Sampling by previous operators had indicated a zone of copper anomalous samples at or below the break of slope to the river course.

Stream sediments taken were from 0.4 to 1.5 kg in weight of -80 mesh sieved material from which organic matter had been substantially removed. Many of the watercourses sampled had low water levels.

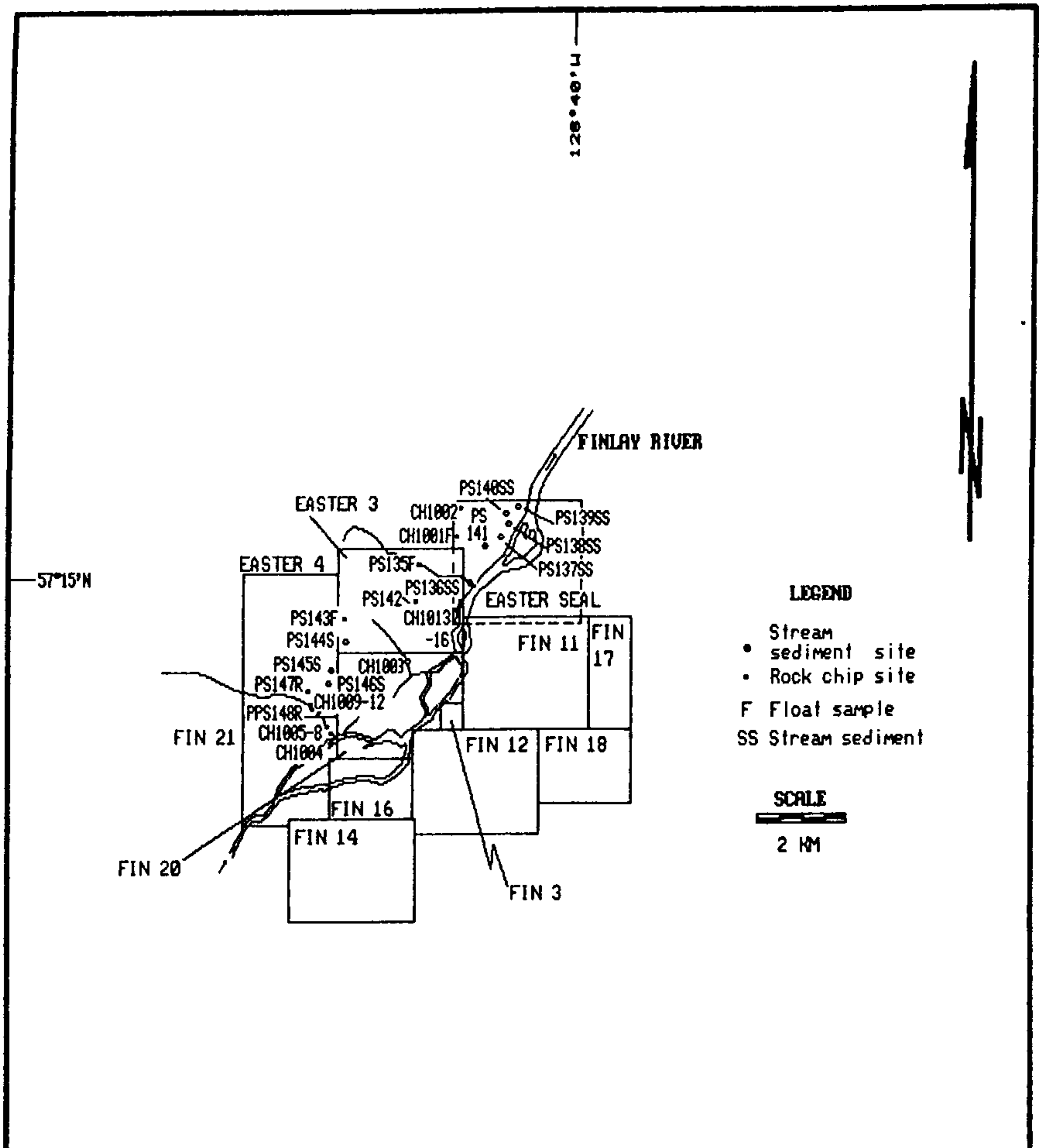
The results gave only weak support to earlier results. The previous sampling was for heavy metals and results reflect mechanically derived material. These recent stream sediment samples, are biased to the fine sized fraction in bed material and the results suggest that the elevated and anomalous samples are caused by seepage from nearby elevated groundwater sources, the ionic metal components of which were electrically adsorbed by clay particles.

One sample, PS139, gave anomalous results for gold at 246ppb. The remainder of the analysed elements gave no significant support to this result howver, suggestive of particle effect.

The stream sediment sample values for copper range from a high of 227 ppm to a low of 28 ppm with average results in the order of 45 ppm (the number of sample taken is too low for rigorous statistical treatment). Sample CH104, which returned the clearly anomalous result of 227 ppm also gave 11 ppm Mo which is supporting evidence for porphyry copper type mineralization as a source.

The rock chip samples gave little encouragement. The highest value in copper was 193 ppm and the lowest, 9 ppm. The high values for sample PS135(F) are worthy of note. This sample ran anomalously in Cu (193ppm), Zn (29,566ppm), Ba (1081ppm), Cd (325ppm), and Pb (214ppm). Sample PS143 ran anomalously in Zn (539ppm), Pb (777ppm)and Ba (2926ppm) while Cu was weakly anomalous at 91 ppm. Sample PS142 returned the highest value in Au at 40ppb but was supported in the analytical results by few other elements in anomalous amounts.

All results are included in Appendix A and the Copper values are inlcuded on Fig. 4; the gold results appear on Fig. 5. The sample descriptions are included in APPENDIX C.



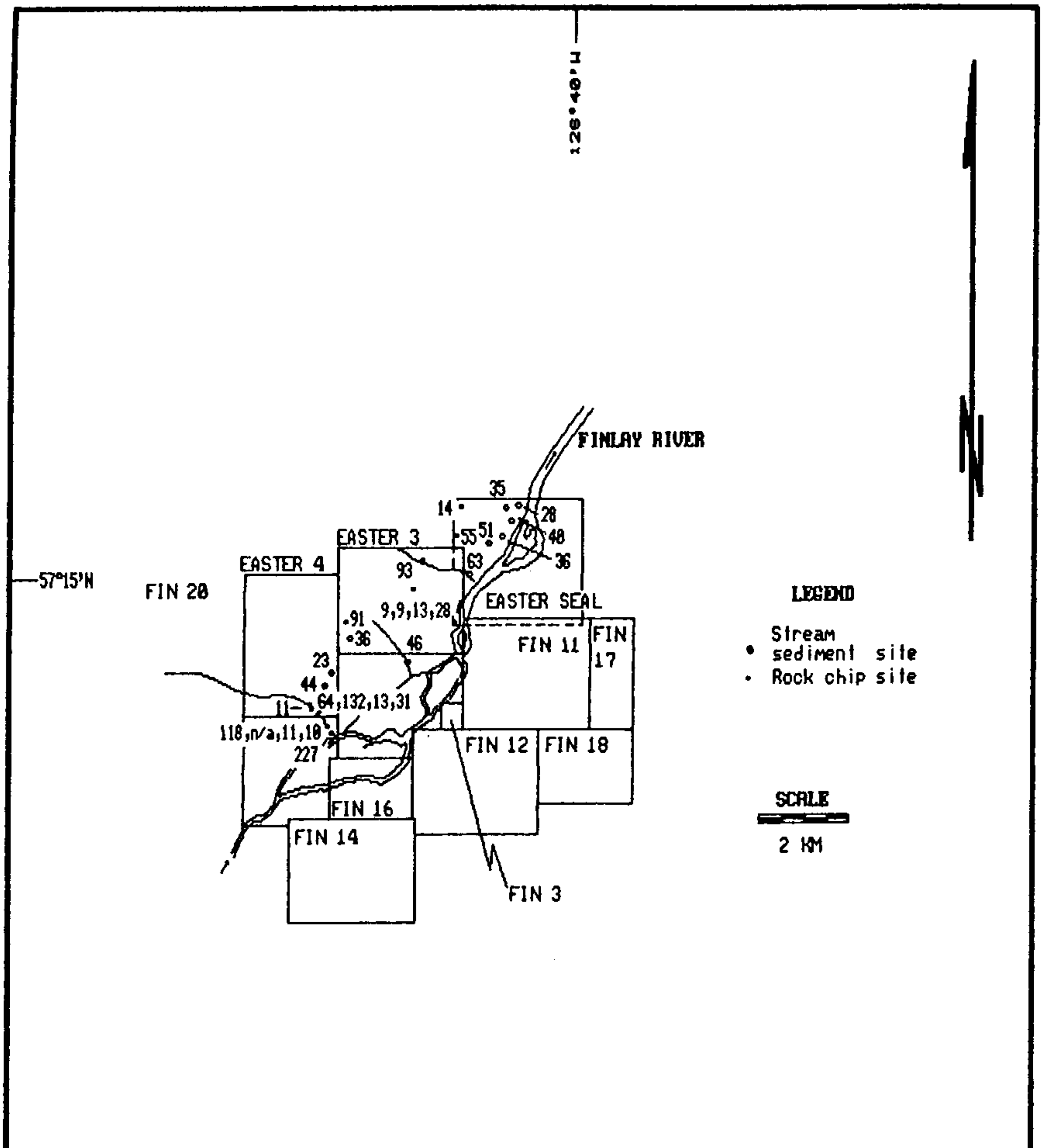
PINE PROPERTY

EASTER SEAL CLAIM AREA

SAMPLE LOCATION SKETCH

FIGURE 3

SAMPLED BY	DATE	MAP #
P. SURATT & C. HARMEL	AUGUST, 1991	94E/2E,7E



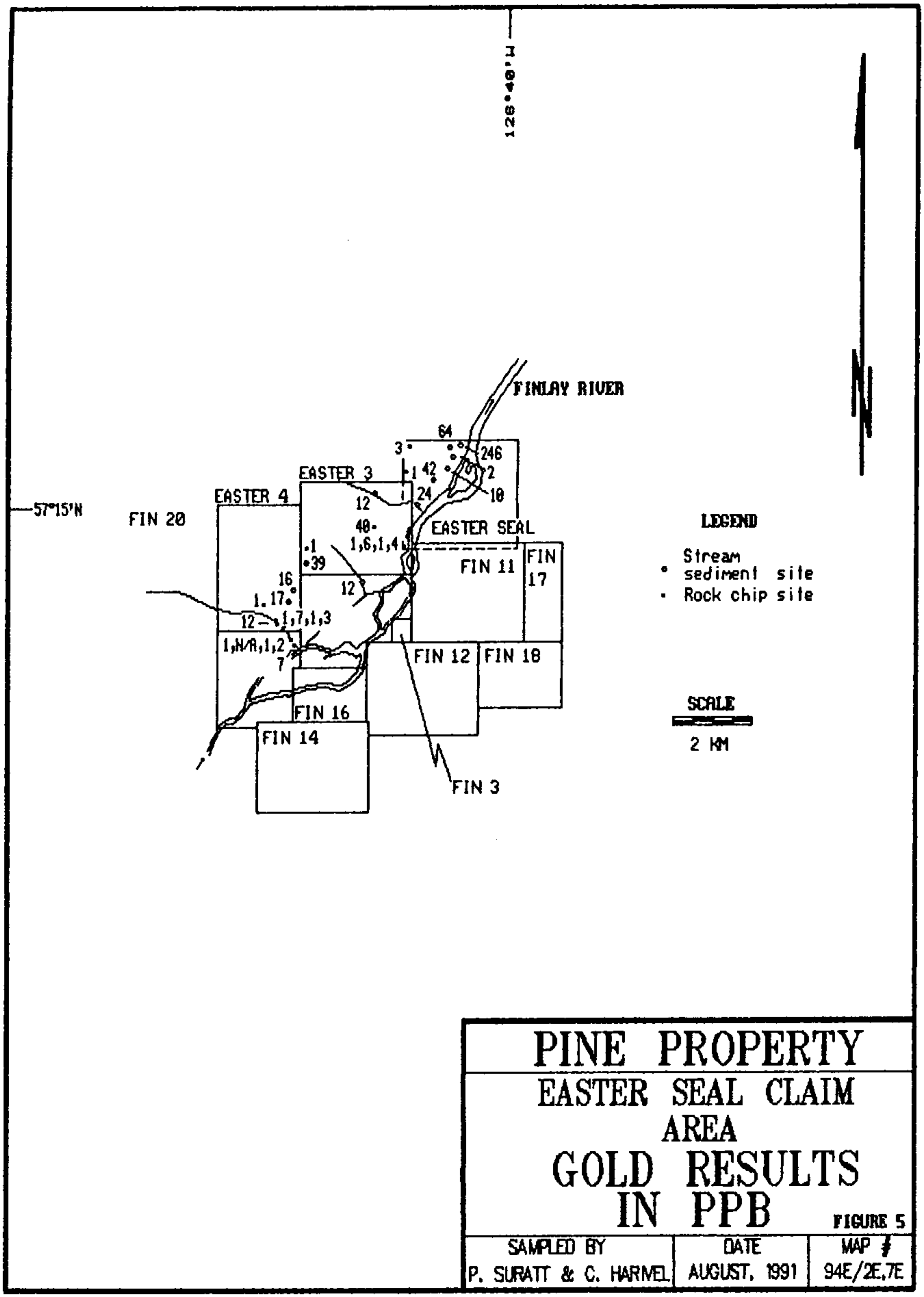
PINE PROPERTY

EASTER SEAL CLAIM AREA

COPPER RESULTS IN PPM

FIGURE 4

SAMPLED BY	DATE	MAP #
P. SURATT & C. HARMEL	AUGUST, 1991	94E/2E,7E


128°40'W
FINLAY RIVER
N
64
3
246
42
1
2
24
10
EASTER 3
12
EASTER 4
57°15'N
FIN 20
40
1,6,1,4
EASTER SEAL
FIN 11
FIN 17
1
39
16
1.17
12
12
1,7,1,3
1,N/A,1,2
7
FIN 12
FIN 18
FIN 16
FIN 14
FIN 3
LEGEND
Stream sediment site
Rock chip site
SCALE
2 KM
PINE PROPERTY
EASTER SEAL CLAIM AREA
GOLD RESULTS IN PPB
FIGURE 5
SAMPLED BY
P. SURATT & C. HARMEL
DATE
AUGUST, 1991
MAP #
94E/2E,7E

CONCLUSION & RECOMMENDATIONS:

The sampling programme did not provide any strong evidence for a well mineralized, near surface copper porphyry system lying just west of the Finlay River in the Easter Seal mineral claim. Elevated sample results in copper and gold in this area, while not clearly indicative of mineralization, suggest that work to the north and west may be warranted.

The differences between older sampling and the most current work suggests that groundwater seepages with elevated levels of dissolved metals account for the anomalous and elevated results in current stream sediments for copper and other base metals.

Based on work to date, the most prospective ground lies to the southeast of the Easter Seal Claim, on the East of the Finlay River.

STATEMENT OF COSTS

	Personnel:	
1.	C. Harivel; Geologist	
	6 days @ $300/day (incl. 1 prep. day)	$1800.00
2.	P.Suratt; Prospector	
	6 days @ $250/day (incl. 1 prep. day)	1500.00
	Dates August 6-11th, 1992 + August 4, 1992	
	Transportation:	
3.	Fixed Wing in: Sched. flight + XS baggage ($363 + $154)	518.30
4.	Helicopter: 1.2 hrs; move in and recce. south of river	921.65
5.	Helicopter out: 1.8 (work sth. of Finlay River; demobe)	1382.48
6.	Fixed wing out: charter 206 (50% split)	397.25
	Food:	
7.	Super Valu docket	209.44
	Radio Rentals:	
8.	CP34 SSB (Trio Enterprises Invoice)	107.00
9.	Hand held portables	74.90
	Expended Supplies:	
10.	Thread, sample bags, flagging, flares, tags	100.00
11.	Telephone, Fax:	48.00
12.	Camp Gear: charged at $30/man/day; 12 mandays	360.00
13.	Freight etc.	48.50
14.	Report:	
	Two days @ $300/day	600.00

TOTAL OF EXPENSES	....	$8,067.52

STATEMENT OF QUALIFICATIONS

I, Colin Harivel, of business address P.O. Box 233, Smithers, B.C., V0J 2N0, do hereby state:

1. I am a graduate geologist and have practised my profession in Canada, Australia and the United States, as a mineral exploration specialist since graduation from the University of British Columbia in 1972 (BSc);

2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia;

3. I have searched for mineral deposits of the type that may reasonably be expected to occur on the ground which is the subject of this report and have substantial applicable experience;

4. I visited the Pine Property in August, 1991, and this report is based on a literature survey of the area, on my observations, on the notes and observations of those under my supervision and on discussions with previous operators of the claims area.

Signed:

Colin Harivel, P.Geo

Dated: May 21, 1992

APPENDIX A

COMP: JOHN BARAKSO
PROJ: PINE
ATTN: J.BARAKSO/C.HARIVEL

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 1V-0911-RJ1
DATE: 91/09/12
* ROCK * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU-FIRE PPB
91CH 1001	.8	14450	2	3	450	.1	8	12270	.1	11	55	27140	580	2	11460	1204	2	410	1	740	12	1	99	2	1697	64.1	135	3	2	4	68	1
91CH 1002	.5	8570	5	2	80	.1	5	7180	.1	6	14	17780	1180	1	4760	479	1	500	1	480	5	1	30	1	1214	27.9	43	2	1	4	81	3
91CH 1005	1.0	15190	1	3	51	.1	11	11890	.1	12	118	39780	1670	6	12520	1129	1	640	1	1120	8	1	25	1	2687	107.2	80	3	2	4	59	1
91CH 1007	1.7	18040	3	1	43	.1	9	9640	.1	11	13	30480	2420	1	13370	950	13	330	1	1000	249	1	72	1	2016	60.5	74	4	2	4	61	1
91CH 1008	1.1	16590	8	1	42	.1	8	8860	.1	10	14	30440	2070	1	12320	947	1	260	1	870	70	1	64	1	1767	55.8	78	4	2	3	46	2
91CH 1009	.9	10440	6	1	37	.1	7	6730	.1	10	64	19480	1490	1	6520	981	20	440	1	600	52	1	23	2	1454	32.2	85	3	2	5	103	1
91CH 1010	1.2	12090	2	1	127	.1	9	7370	.1	12	132	26810	5520	1	1730	224	4	170	1	270	10	1	56	1	1680	38.0	10	1	1	3	61	7
91CH 1011	.1	10400	1	2	209	.1	6	2640	.1	30	13	62920	6270	1	1000	277	3	170	1	240	2	1	2	1	1092	25.1	3	1	1	4	114	1
91CH 1012	.6	13700	1	1	46	.1	9	10520	.1	13	31	39460	1140	1	8520	649	1	590	1	1080	9	1	31	1	1967	84.6	33	3	2	3	43	3
91CH 1013	.9	9590	5	1	40	.1	6	6650	.1	5	9	19280	1850	1	5650	711	7	430	1	520	16	1	25	1	1193	35.1	47	3	1	5	122	1
91CH 1014	.5	8370	7	1	67	.1	4	5260	.1	7	9	19930	1750	1	5650	651	1	450	1	550	16	1	16	2	1092	35.8	61	3	1	4	94	6
91CH 1015	.2	13540	7	1	96	.1	6	5320	.1	9	13	36620	2770	1	8010	1355	2	130	1	530	27	1	13	1	1251	34.8	86	3	1	5	127	1
91CH 1016	.6	11290	5	1	69	.1	6	5430	.1	11	28	25860	2510	1	7380	880	35	300	1	580	24	1	16	1	1085	28.7	87	3	1	4	96	4
PS/135F/91	2.5	3220	20	2	1081	.1	5	3470	325.8	5	193	8590	710	1	1460	1204	9	30	5	120	214	4	22	1	30	5.6	29566	1	1	10	214	12
PS/142R/91	.9	12950	7	1	60	.1	5	6370	.1	4	12	25780	2540	1	6150	1008	3	350	1	670	29	1	31	1	959	27.2	300	3	1	4	98	40
PS/143F/91	2.5	21520	13	1	2926	.1	6	13520	1.5	7	91	29340	1440	1	11500	3106	6	170	3	530	777	1	137	1	569	27.6	539	4	1	6	131	1
PS/147R/91	1.0	16370	6	1	124	.1	7	11970	.1	9	24	26650	980	1	8970	1230	3	390	1	660	41	1	79	2	1504	50.3	143	4	2	5	93	1
PS/148R/91	.3	17320	11	1	133	.1	5	5360	.1	8	11	29750	4140	1	9490	1270	4	670	1	860	24	1	12	2	838	39.8	93	3	1	4	77	12

COMP: JOHN BARAKSO
PROJ: PINE
ATTN: J.BARAKSO/C.HARIVEL

MIN-EN LABS — ICP REPORT

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(604)980-5814 OR (604)988-4524

FILE NO: 1V-0911-HD1
DATE: 91/09/12
* H.M. NON-MAG * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU-FIRE PPB	HM %
91CH 1003	.3	11880	24	7	59	.1	12	14910	.1	20	46	76300	300	10	6330	805	1	50	1	2670	41	2	62	1	2145	198.9	265	1	1	3	26	12	2.69
91CH 1004	.3	16740	7	4	117	.1	31	14670	.1	26	227	94550	380	10	5480	2498	11	60	1	1740	71	1	111	1	2669	107.8	787	1	1	1	4	7	3.17
PS/1445/91	1.5	11510	8	1	173	.1	11	15080	.6	9	36	25910	300	3	3090	963	1	20	1	780	55	2	105	1	2140	52.4	150	1	1	1	2	39	1.55
PS/1465/91	1.3	18910	9	1	305	.2	11	16600	.1	11	44	38080	620	7	2630	1234	5	80	1	740	131	6	136	1	1907	72.4	215	1	1	2	3	17	1.71
PS/13655/91	2.7	17040	1	1	117	.1	27	27120	.1	20	63	66600	610	7	6200	1002	1	100	1	6450	35	1	134	12	5641	184.0	122	1	3	4	29	24	2.66
PS/13755/91	2.0	14500	1	1	88	.1	24	19620	.1	18	36	68260	370	5	4790	1006	1	60	1	1870	26	1	114	1	5239	196.5	143	1	2	4	21	10	3.13
PS/13855/91	2.2	13810	1	1	95	.1	21	18570	.1	17	40	70010	320	5	4680	1036	1	50	1	2030	26	1	113	1	4465	204.2	173	1	2	4	18	2	3.47
PS/13955/91	1.7	14200	1	1	105	.1	21	18140	.1	17	28	70770	350	4	4600	1051	1	50	1	1440	29	1	118	1	4535	200.3	123	1	2	4	18	246	4.31
PS/14055/91	1.8	13630	1	1	81	.1	19	19610	.1	13	35	52990	370	4	4510	947	1	50	1	2920	24	1	122	1	3903	152.2	155	1	2	3	15	64	4.49
PS/14155/91	1.5	15110	1	1	87	.1	17	17450	.1	17	51	62580	320	5	5850	934	1	60	1	1880	37	2	111	1	3774	168.3	179	1	1	3	17	42	3.84
PS/14505/91	1.2	14070	3	1	265	.1	10	15130	.1	14	23	39900	380	5	2620	2163	3	110	1	550	97	3	121	1	1896	69.9	238	1	1	1	2	16	1.54

APPENDIX B

SAMPLING METHODS:

Rock-Chip Samples:

These samples, intended generally for geochemical, multi-element analysis, were taken from the outcrops or float boulders. Representative samples of between 0.3 and 2.5 kg were selected and comprised chips of between 50 and 200 g in weight. They were placed in previously labelled kraft paper bags and shipped for analysis.

Stream Sediment Samples:

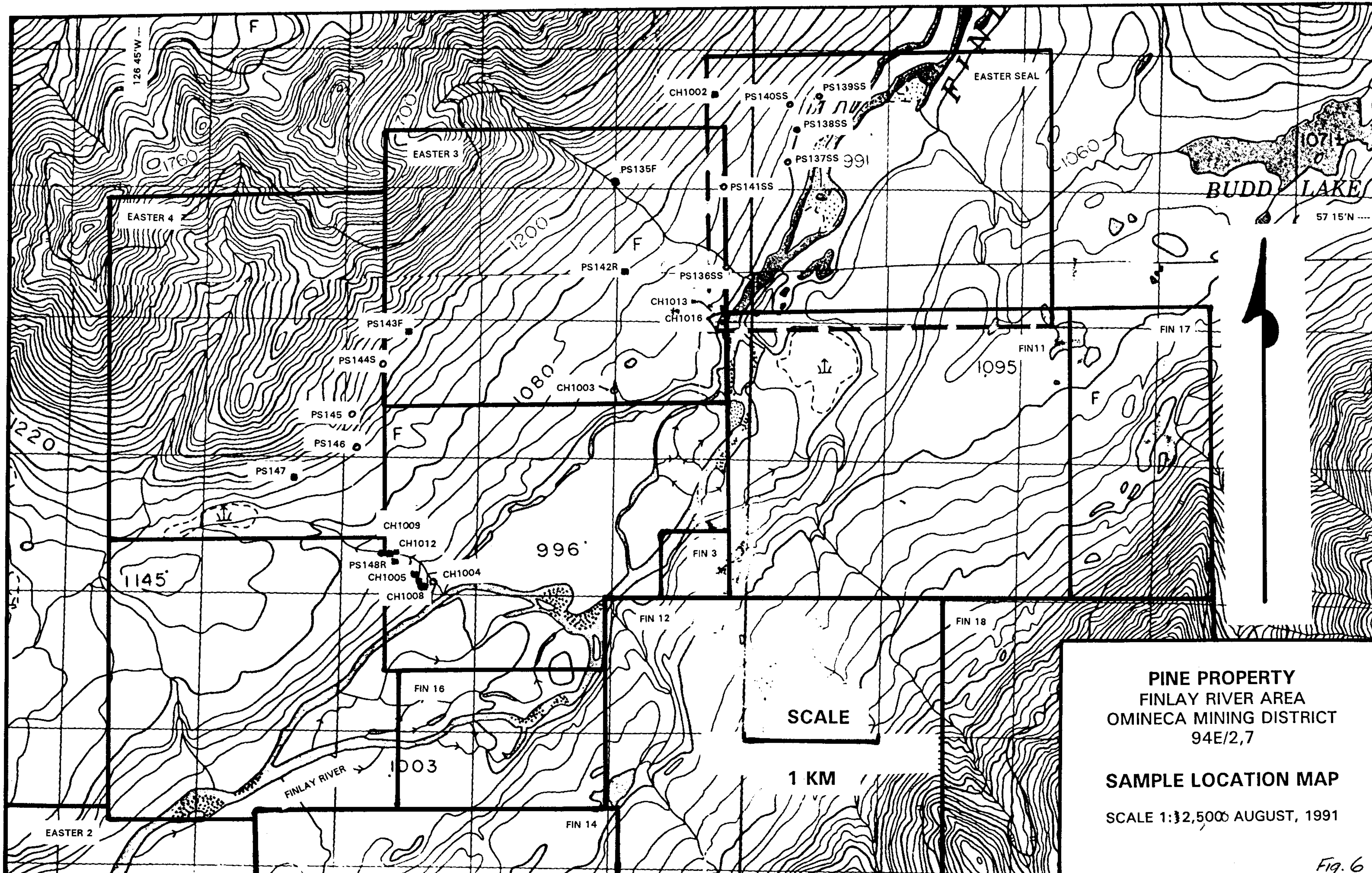
The samples were taken from areas of active sediment transport. A 20 cm diameter sieve was filled and washed through a number of times to produce at least 400 g of -80 mesh sample. The sample was transferred to numbered kraft paper bags and delivered to the lab for analysis.

The analytical procedure is summarized on the results sheet which is included as Appendix A.

APPENDIX C

CH 1001	RK-FLOAT	Monzonite; med-crse grained, pink alt'd f'spar porphyry INTRUSIVE; weakly magnetic mafics; chloritized
CH 1002	RK-FLOAT	Qtz. Monzonite; m. grained, pink-stained INTRUSIVE; wkly magnetic; epid. veinlets & fract-coatings + diss. epid; chlor'zed
CH 1003	STREAM SED	
CH 1004	STREAM SED	
CH 1005	RK. CHIP	Diorite(?); grey, pink w'ring; med. gr; mod. mag. mafics; wkly chlor. h'blende
CH 1006	RK. CHIP	Monz.(?); grey-green w'ring; equigran.; med. gr; mod-str. magnetic.
CH 1007	RK. CHIP	INTRUSIVE; green and pink altered; oblit. text.; qtz-epid.-pyrite veinlets and fract. coatings
CH 1008	RK. CHIP	INTRUSIVE; grey-green alt'd; fine-med.gr.; monzonite?; not magnetic; chloritized mafics; diss py.
CH 1009	RK. CHIP	Monzonite -> qtz. monz.;pink and green altered; med. - f.gr.; not magnetic
CH 1009A	RK. CHIP	Monzonite; pnk- w'ring; coarse f'spar porphyry; chloritize mafics; h'bl -> biot; 12-15% mafic
CH 1010	RK. CHIP	Altered rock in vicinity fault zone; pyritic
CH 1011	RK. CHIP	Altered rock in fault zone; bleached, grey; pyritic
CH 1012	RK. CHIP	Grey, pyritic intrusive; oblit. text.
CH 1013	RK. CHIP	Qtz. monz; pinlk and greenish w'ring; med-coarse grained; weakly magnetic; chlor'zed mafics
CH 1014	RK. CHIP	Pyrite fractures and veinlets in above
CH 1015	RK. CHIP	Qtz. monz.; stronly pyritized as diss. and fracts; mafics chlor'ized;
CH 1015A	RK. CHIP	Qtz. monz.; biot after h'bl; epid. fracts; magnetite grains in qtz grains; mod-str. magnetic
CH 1016	RK. CHIP	Qtz. monz.; pink and greenish w'ring; med-crse gr.; diss pyrite assoc w. mafics; 10% pyrite; str. py fracts.

PS 135F	RK. CHIP (FLT)	Intrusive - monz.?
PS 136	STREAM SED.	
PS 137	STREAM SED.	
PS 138	STREAM SED.	
PS 139	STREAM SED.	
PS 140	STREAM SED.	
PS 141	STREAM SED.	
PS 142	RK. CHIP	Pink intrusive + epidote; no veining; minor py; wkly limonitic.
PS 143	RK. CHIP (FLT)	F. gr. intrusive; py + barite + hem + chlorite; some xtalline qtz.
PS 144	STREAM SED.	
PS 145	STREAM SED.	
PS 146	STREAM SED.	
PS 147	RK. CHIP	Common intrusive
PS 148	RK. CHIP	Intrusive



126 45'W
57 15'N
EASTER SEAL
EASTER 3
EASTER 4
EASTER 2
BUDD LAKE
FIN 3
FIN11
FIN 12
FIN 14
FIN 16
FIN 17
FIN 18
CH1002
CH1003
CH1004
CH1005
CH1008
CH1009
CH1012
CH1013
CH1016
PS135F
PS136SS
PS137SS
PS138SS
PS139SS
PS140SS
PS141SS
PS142R
PS143F
PS144S
PS145
PS146
PS147
PS148R
FINLAY RIVER
1760
1200
1080
1060
1095
1145
1220
996
991
1003
1071
SCALE
1 KM
PINE PROPERTY
FINLAY RIVER AREA
OMINECA MINING DISTRICT
94E/2,7
SAMPLE LOCATION MAP
SCALE 1:12,500 AUGUST, 1991

Fig. 6