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14536

PRELIMINARY GEOCHEMICAL AND GEOPHYSICAL REPORT

SLEEPER GROUP

06/86

OMENICA M.D.

WHITESAIL LAKE (93E/6E)

53° 27' N 127° 11' W

For:

Westrex Development Ltd.

and

Whitecap Energy Corp.

FILMED

1985

By: Dr. T.A. Richards

R.R. #1

Hazelton, B.C.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,536

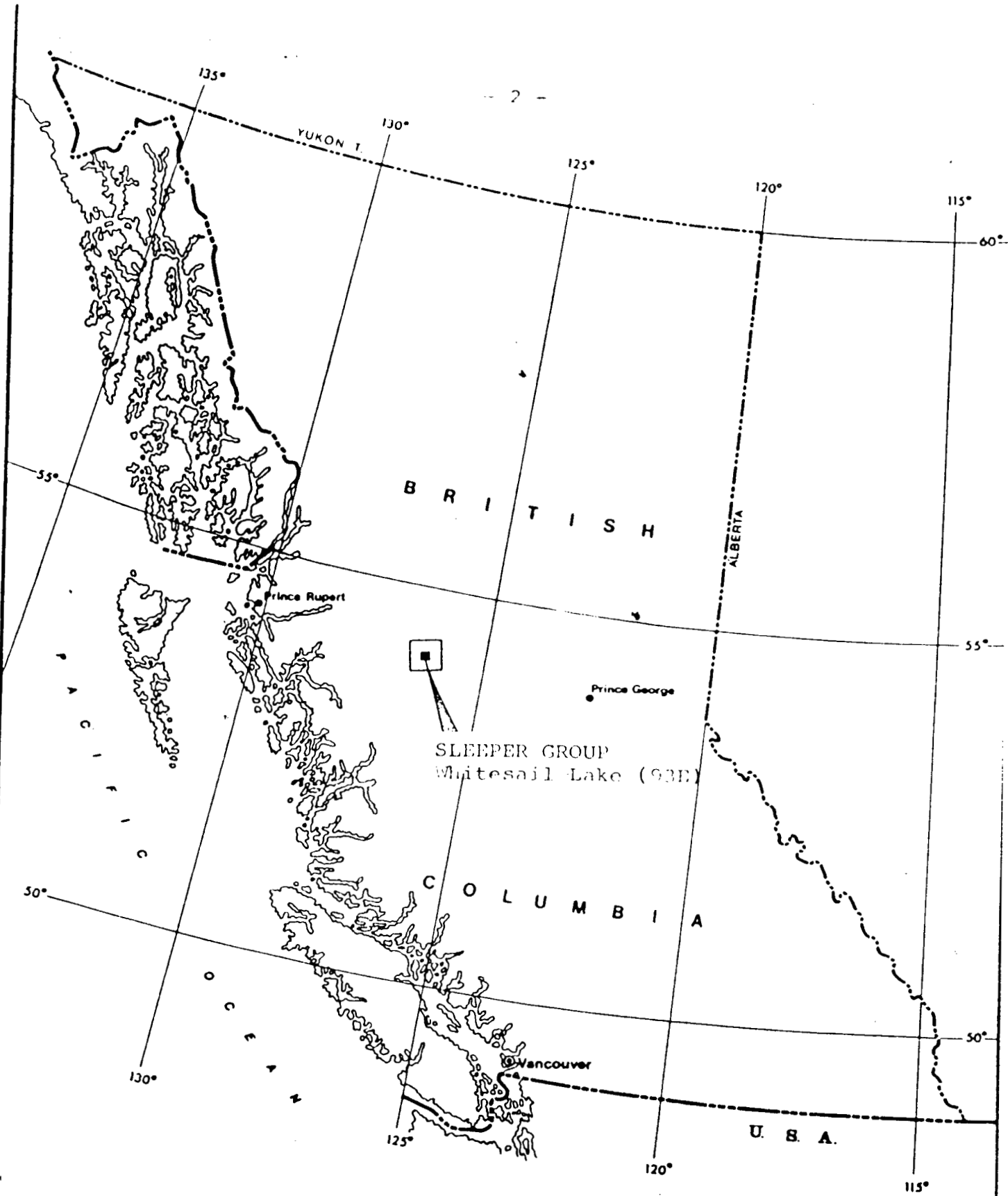
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LOCATION AND ACCESS

The Sleeper Group comprises four claim blocks comprising 75 units located between Core Mountain and Troitsa Creek in the Whitesail Lake map area (93E/6E). The centre of the group is at approximate $54^{\circ} 27'$ N latitude and $127^{\circ} 11'$ W longitude. It lies some 130 kilometers south of Houston, B.C.

Access is via boat from Ootsa Lake to Whitesail Lake, a distance of some 70 kilometers or by fixed wing or helicopter from Smithers or Houston, B.C.



SLEEPER GROUP		
LOCATION MAP		
OMINECA M.D., B.C.		NTS 93 E
DATE: Sept. 1983	SCALE: 0  100 miles	FIG. 1

PHYSIOGRAPHY

The Sleeper Group underlies variable topography from mountains to swampy lowland areas east of the Coast Mountains bordering on the western margin of the Nechako Plateau. The southern part of the claims is underlain by the northern half of Core Mountain (elevation 5680 feet, 1731 meters), a prominent block-like mountain. It has an uplifted plateau surface at higher elevations, its north face is steep and rugged. The northern half of the claim group is underlain by a low, broad swampy valley, rising gently to the north from 3000 feet (915 meters) to 3500 feet (1070 meters).

Upper elevations of Core Mountain are open alpine with little or no vegetation, its slopes are dominated by scrub spruce, balsam and hemlock on snow-slide chutes. The lower bottom land is mature balsam and spruce with little undergrowth. The broad, central valley is mainly grassy swamp land.

CLAIMS AND OWNERSHIP

The Sleeper Group consisted of 75 units, which includes the following claim blocks;

<u>Claim</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry</u>
Rasta	20	5322	23 June 1985
Lucky Buck	15	5323	23 June 1985
Sleeper	20	5324	23 June 1985
Northside	20	5325	23 June 1985

It has been reduced to 40 units in June, 1985 comprising the Sleeper - 20 units, and the Northside - 20 units.

The claims were staked by T.A. Richards and acquired by Westrex Development Corp. and Whitecap Energy Inc. under an option agreement.

PREVIOUS WORK

There is no record of previous work on the claims area excepting the 1984 Assessment Report done for Westrex Development Corp. and Whitecap Energy Inc. by the author.

The 1984 program uncovered a zone of anomalous silver mineralization of indeterminate size and two areas of chalcopyrite mineralization hosted in volcanic rocks. Poor snow conditions in June 1984 hindered evaluation.

PRESENT WORK

The present work took place in three stages, a silt sampling program in August, 1984, reconnaissance VLF and mag-survey in December, 1984, and a sampling, geophysical-trenching program in June, 1984. Trenching comprised the hand-exposure of the silver anomaly in Coles Creek, noted in 1984 and a limited VLF-EM survey was run across the extension of this zone.

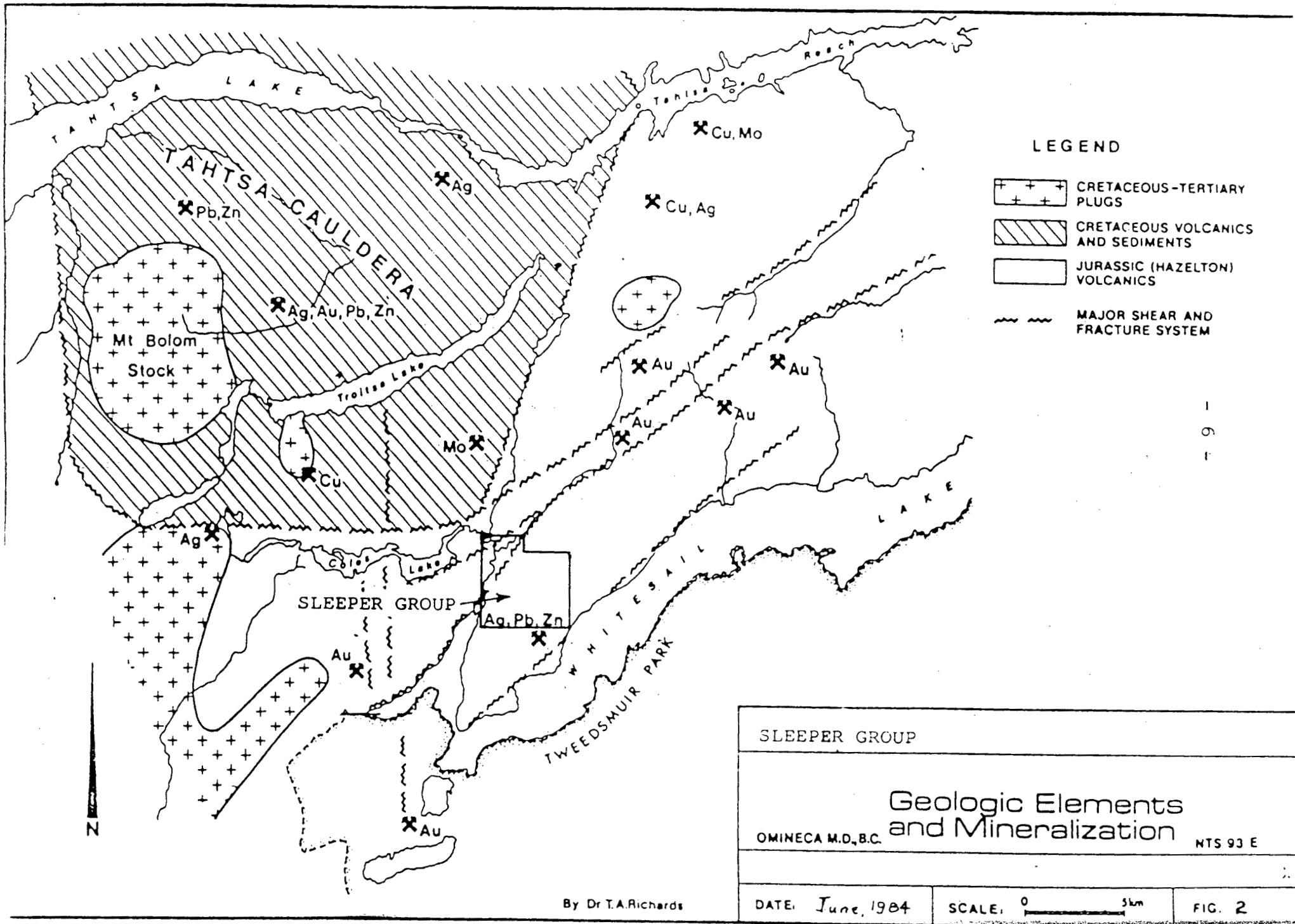
The major period of work was in June, 1985, designed to follow up on anomalous silt and rock geochemistry noted in 1984. Extremely poor snow conditions during this time limited any follow-up and hindered further exploration.

GEOLOGICAL SETTING

The Whitesail area lies along the eastern margin of the Coast Plutonic Complex. Upper Paleozoic metamorphic rocks within the Coast Plutonic Complex represent the oldest rocks known in the area. Immediately east of the Coast Plutonic Complex, Lower Jurassic volcanic and sedimentary rocks of the Hazelton Group predominate. These are overlain by generally epiclastic rocks of the Upper Jurassic Ashman Formation and the Lower Cretaceous Skeena Group, followed by volcanic rocks of the Upper Cretaceous Kasalka Group. The final major rock-forming events in the area were episodes of Tertiary volcanism that deposited the siliceous volcanic rocks of the Ootsa Lake Group and the basalts of the Endako Group. A variety of intrusive rocks outcrop in the area. They range in composition from granite to gabbro and they range in age from Paleozoic (?) to Tertiary. The area is cut by major systems of generally north-easterly or northerly trending faults. For detailed geological descriptions see Duffell (1959), Hodder and MacIntyre (1980), Tipper et al. (1979) and Woodsworth (1980).

A resurgent caldera (Tahtsa caldera), at least 20 km in diameter, was mapped about 7 km north of the claims by D.G. MacIntyre. The collapsed caldera centre is occupied by rocks

of the Kasalka and Skeena Groups and by a variety of intrusions. Several potentially economic mineral deposits are associated with small granodioritic stocks around the periphery of the caldera, possibly localized at intersections between ring and radial fractures related to caldera development (Hodder and MacIntyre, 1980). Recent work by T.A. Richards (1984) and G. Woodsworth (1980) indicates that the caldera extends further south than previously mapped and that a section of the caldera ring fracture zone underlies the Coles property.



PROPERTY GEOLOGY

The Sleeper Group is underlain by two units; the Lower Jurassic Hazelton volcanics and intrusive rocks related to the Upper Cretaceous Kasalka volcanics. Faulting is common with strong north-east trending and a north-south trending component.

The main massif of Core Mountain is underlain by subareal deposited pyroclastics and intravolcanic sediments of the Hazelton Group. In the upland area and steep north-facing slopes of the mountain, interbedded red tuff, lapilli tuff, tuffaceous mudstone and minor sandstone. The units are well bedded and are horizontal to gently warped. Thick interbeds of light purple rhyodacite flows stand out as prominent steps on the mountain slope.

Low, rolling hills to the northwest of Core Mountain and immediately east of Coles Creek are exposures of massive bedded feldspar andesite and a large, prominent flow-banded rhyolite exposed mainly south of the small west-draining creek. Bedrock exposures adjacent Coles Creek are mainly massive bedded lapilli tuffs.

MINERALIZATION

Near the mouth of Coles Creek, on the Sleeper Claim, a 0.1 to 3 meter wide alteration-shear zone, trending 060°, was noted in 1984. Alteration was mainly propylite, with lenses and stringers of silicified volcanic material to the alteration. These lenses are up to 10 cm width, contain disseminated chalcopyrite and a dark grey sulphosalt (tetrahedrite) that gave values of 83 and 160 ppm silver (1984) and greater than 100 ppm silver (1985). On the west bank of Coles Creek, a 5 meter wide shear-alteration zone contained minor chalcopyrite and vuggy, fine-grained quartz stringers. A one meter channel on this gave 170 ppb gold and negligible silver. Hand trenching on these showing revealed no significant increase in mineralization. Exposures are restricted to the immediate banks of Coles Creek.

Astride the western boundary of the Sleeper Claim, a large, vuggy quartz boulder contained pyrite, sphalerite and hematite, and assayed 3400 ppb gold and greater than 100 ppm silver. Follow-up on this occurrence uncovered no further mineralization.

Unseasonable snow conditions prohibited further follow-up of chalcopyrite showings that contained anomalous values of 16 and 14 ppm silver on the northwest slopes of Core Mountain.

Figure 1 Rock and Silt Sample Locations; Sleeper Group Claims
 Omenica M.D.; Whitesail Lake (93E/6)

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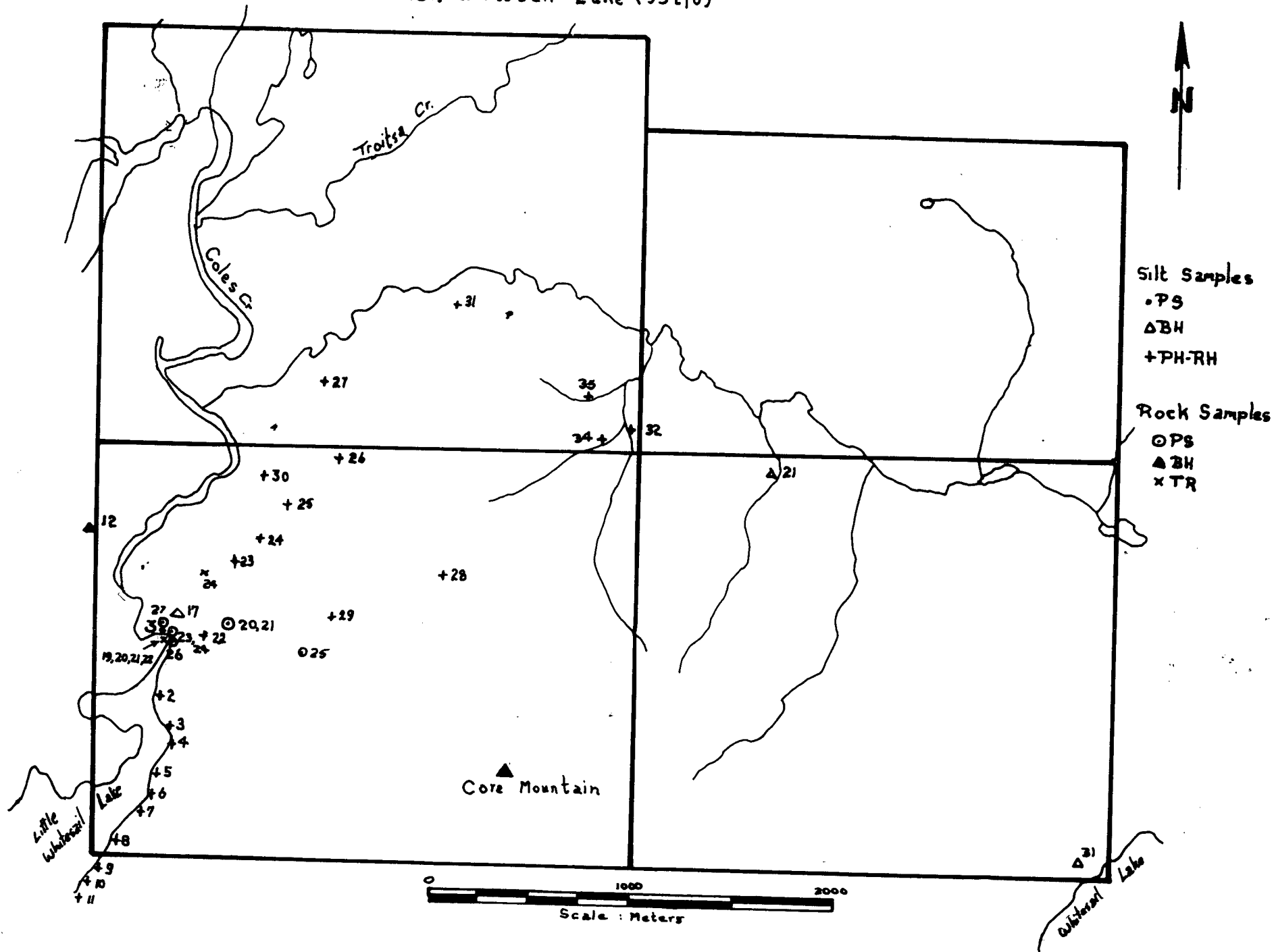


Figure 5 Anomalous Rock Geochemistry; Sleeper Group Claims.
 Omenica M.D., Whitesail Lake (93E/6)

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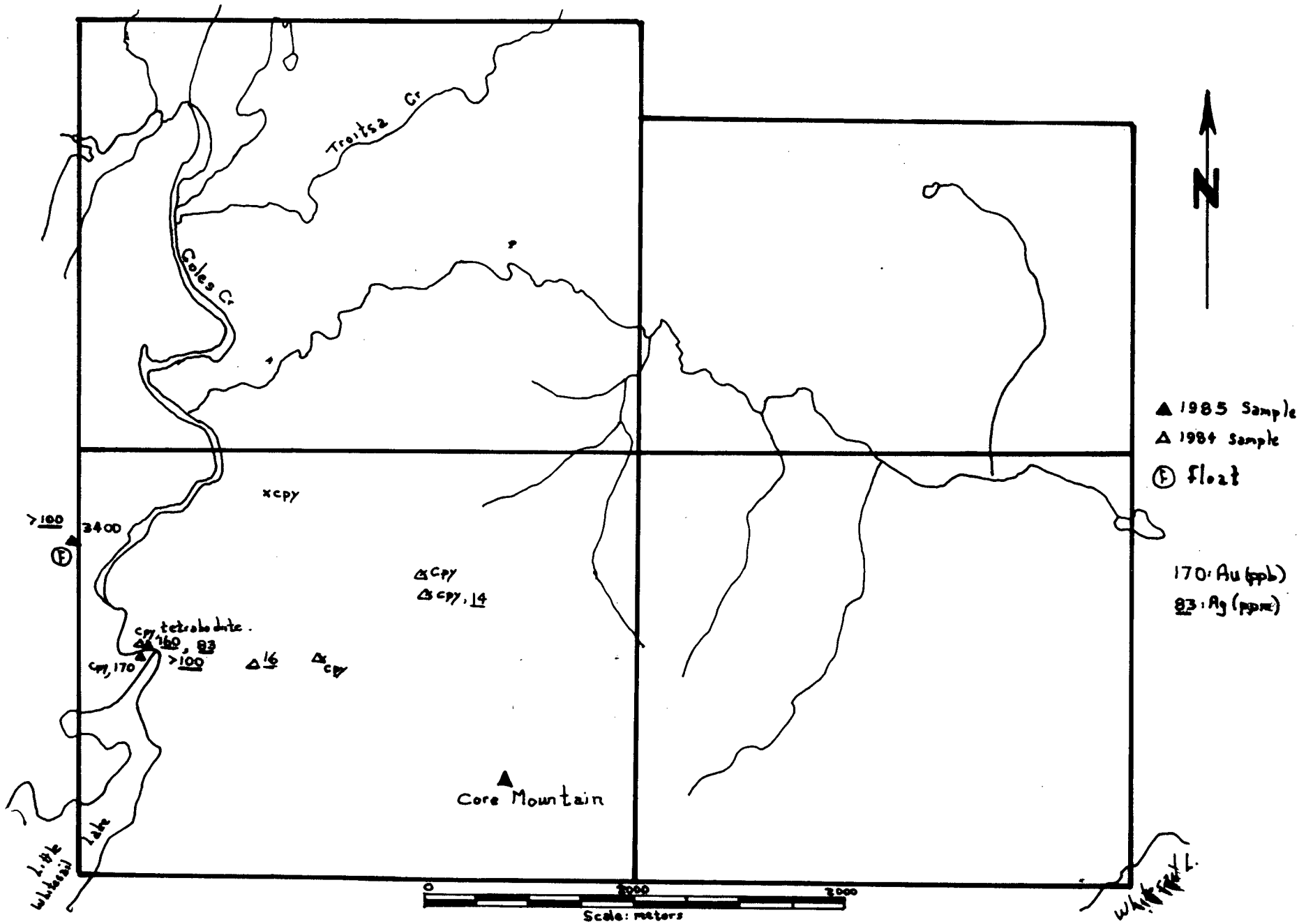


Figure 6: Anomalous Silt Geochemistry, Sleeper Group Claims.
 Omenica M.D., Whitesail Lake (93E/6)

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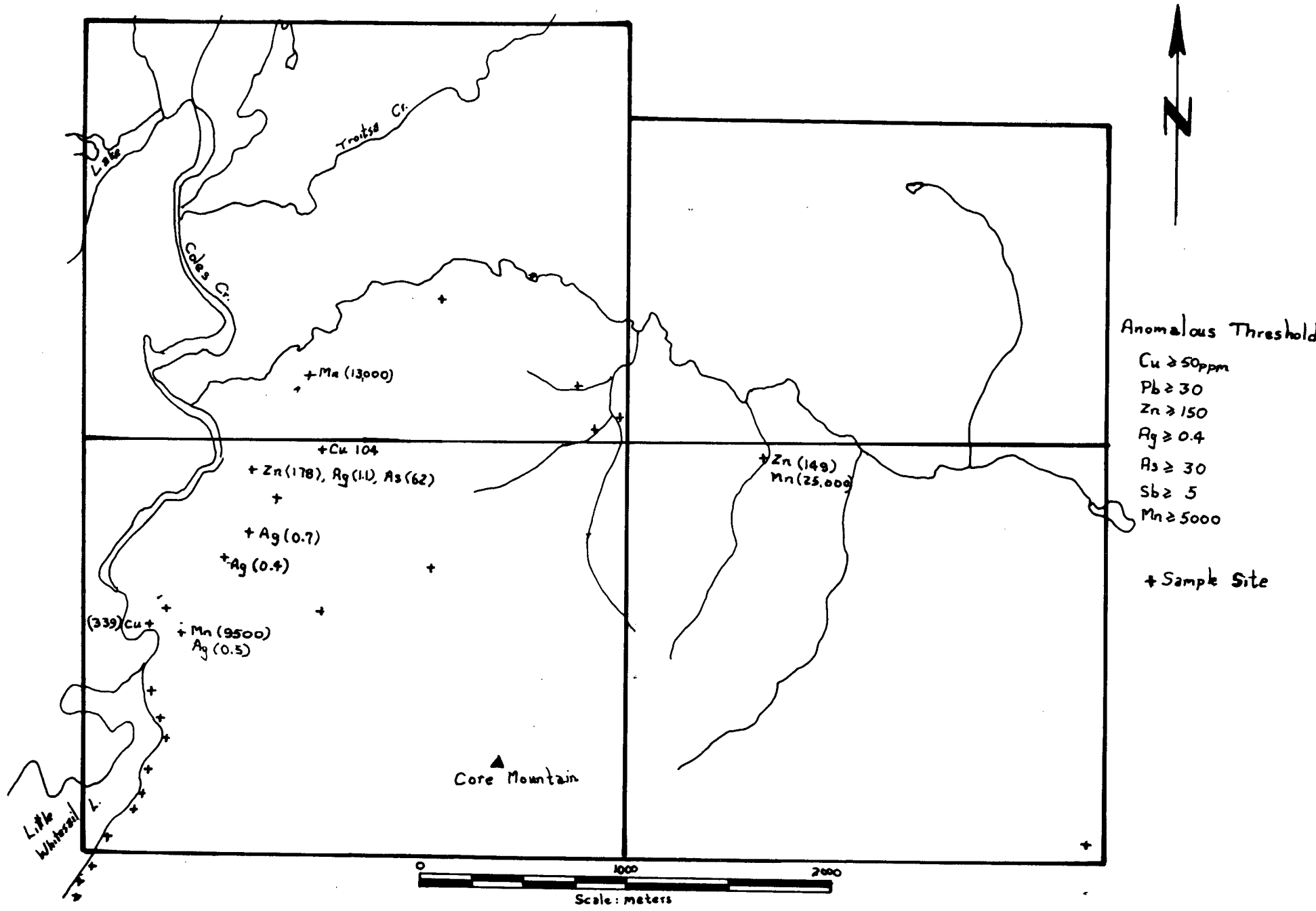
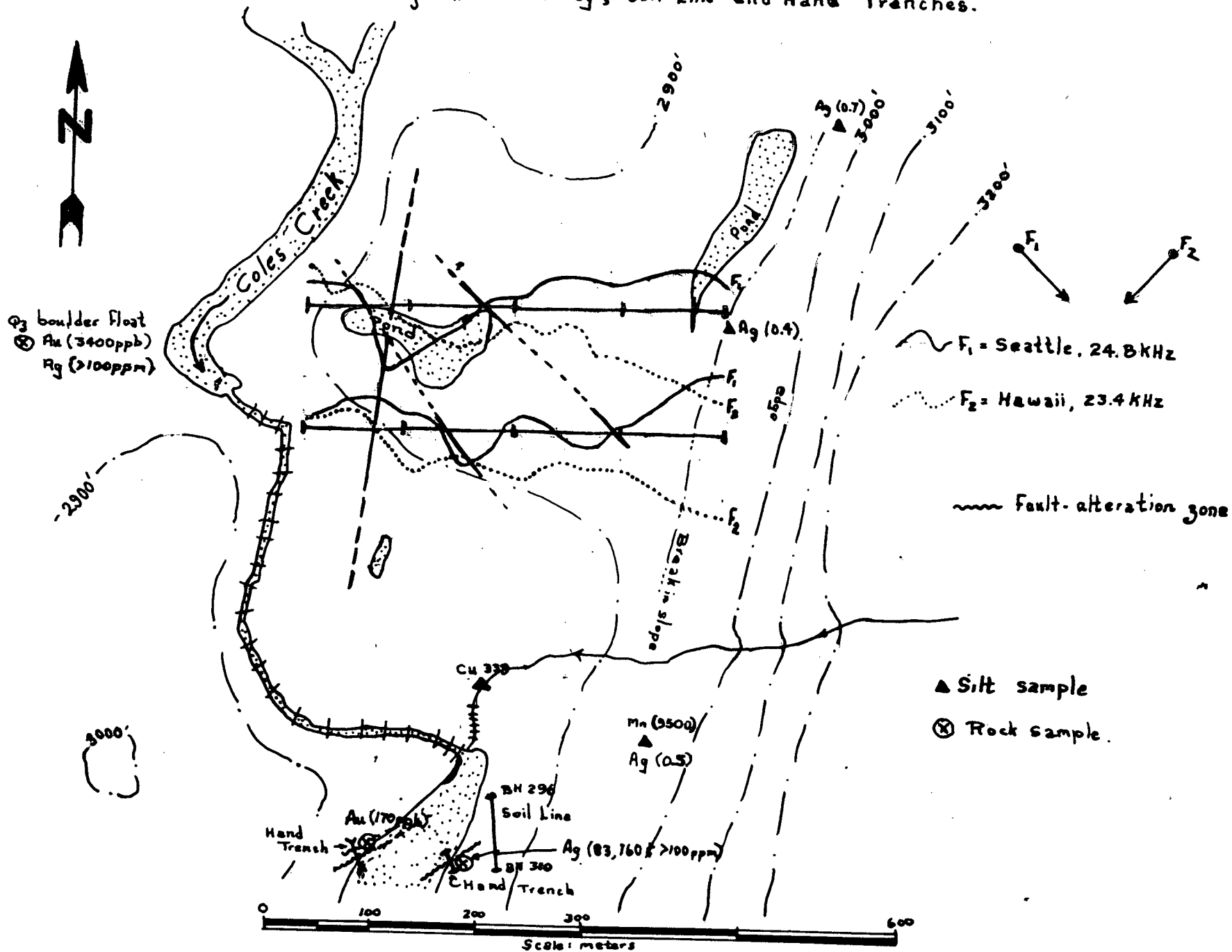


Figure 7 Mouth of Coles Creek, Sleeper Group Claims
 Preliminary VLF-EM survey, soil Line and Hand Trenches.



SILT GEOCHEMISTRY

Twenty-seven silt samples were collected from the Sleeper Group mineral Claims. Most were collected from the north-west slopes of Core Mountain, east of Coles Creek. Anomalous values of 0.4, 0.5, 0.7 and 1.1 ppm silver were noted from the area east of Coles Creek. In addition, copper values of 339 and 104 ppm arsenic and 178 ppm zinc were noted from this region. Three manganese values of 9500, 13,000 and 25,000 ppm were found on the property, two east of Coles Creek and the latter sample north-east of Core Mountain Peak. No significant values were noted from drainages into the east shore of Little Whitesail Lake.

SOIL GEOCHEMISTRY

A single soil line was run across the showing along the east side of Cole Creek to cross the projection of the anomalous silver showing noted in 1984 (samples 85 BH. 300 - 309). One sample gave 0.6 ppm silver and 4 ppm bismuth (BH 303). Samples were at 10 meter intervals. Snow patches and frozen ground hindered further sampling.

VLF - EM SURVEY

Two east-west lines, 100 meters apart were run across the flats between Coles Creek and the break-in-slope of the base of Core Mountain. Each line measured 400 meters, with stations at 25 meter intervals. Stations received were; F-1, Seattle at 24.8 KHz and F-2, Hawaii at 23.4 Khz.

F-1 gave two prominent cross-over points and F-2 a single well defined cross-over; the latter one likely reflecting part of the north to northeast trending Coles Creek fault zone.

CONCLUSION

Much of the property remains to be investigated.

Silt and rock sampling indicated the existence of a zone of anomalous silver mineralization extending from the mouth of Coles Creek, northward for some 800 meters, located adjacent the slope break between Coles Creek Valley and Core Mountain.

The source of the 3400 ppb gold boulder could not be located, although it appears to be of proximal nature.

REFERENCES

- Cukor, V., 1983, Coles property: Unpublished report for Nuspar Resources Ltd., 18 p.
- Duffell, S., 1959. Whitesail Lake map-area British Columbia: Geol. Survey of Canada, Mem..299, 119 p.
- Hodder, R.W., and MacIntyre, D.G., 1980, Place and time of porphyry-type Cu-Mo mineralization in Upper Cretaceous caldera development, Tahtsa Lake, British Columbia, in Ridge, J.D., ed., IAGOD Symposium, 5th Proc.: Stuttgart, E. Schweizerbart'sche Verlagsbuchhandlung, p. 175-183.
- Richards, T.A., 1984, Geology, geochemistry and prospecting, Coles property: Unpublished report, 27 p.
- Tipper, H.W., Campbell, R.B., Taylor, G.C., and Stott, D.F., 1979, Pat'snip River British Columbia: Geol. Survey of Canada, Map 1424A, Sheet 93, Scale 1:1 000 000.
- Woodsworth, G., 1980, Geology of Whitesail Lake (93E) map-area B.C.: Geol. Survey of Canada, O.F. 708.

Specifications

PHOENIX VLF - EM - 2 ELECTROMAGNETIC UNIT

- Parameters Measured** : Orientation and magnitude of the major and minor axes of the ellipse of polarization.
- Frequency Selection, Front Panel** : Dual channel, front panel selectable (F1 or F2) each with independent precision 10-turn dial gain control.
- Frequency Selection, Internal** : F1 and F2 can be selected by internal switches within the range 14.0 to 29.9 kHz in 100 Hz increments.
- Detection And Filtering** : Superheterodyne detection and digital filtering provide a much narrower bandwidth and thus greater rejection of interfering stations and 60 cycle noise than conventional receivers.
- Meter Display** : 2 ranges: 0 to 300 or 0 to 1000. Background is typically set at 100. Meter is also used as dip angle null indicator and battery test.
- Audio** : Crystal speaker. 2500 Hz used as null indicator.
- Clinometer** : $\pm 90^\circ$, $+0.5^\circ$ resolution. Normal locking, push button release.
- Battery** : One standard 9v transistor radio battery. Average life expectancy - 1 to 3 months (battery drain is 3 mA)
- Temperature Range** : -40° to $+60^\circ$ C.
- Dimensions** : 8 x 22 x 14 cm (3 x 9 x 6 inches).
- Weight** : 850 grams (1.9 pounds).

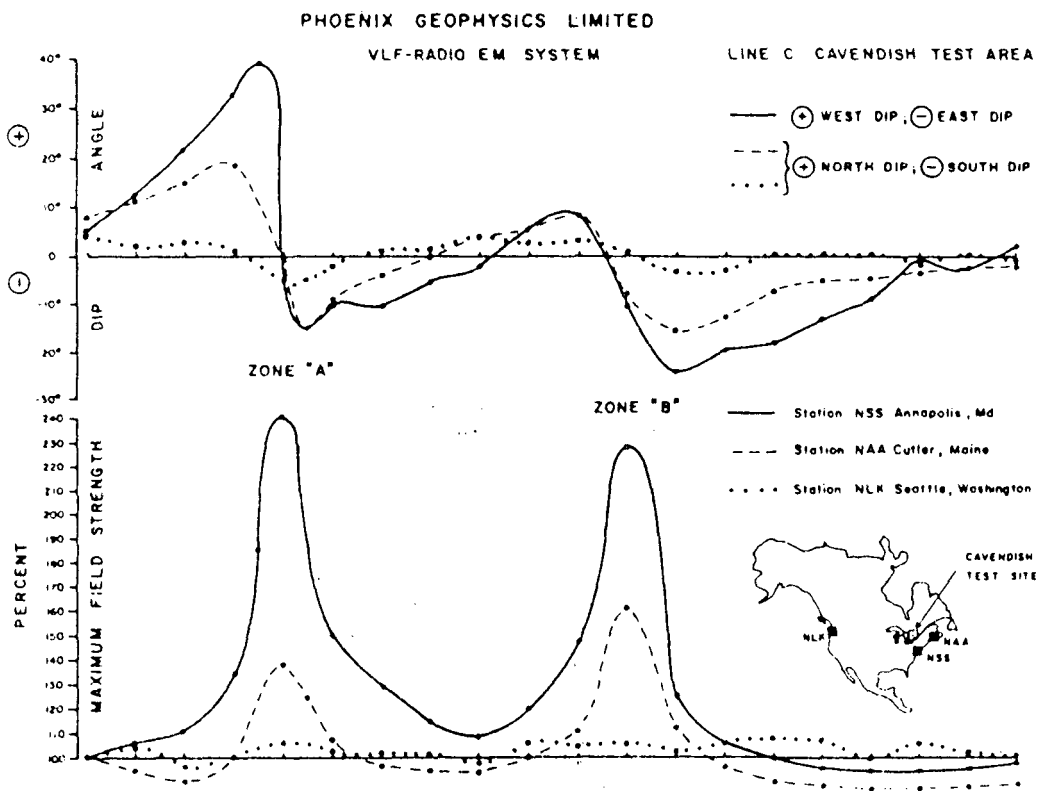
All of the established stations may be selected, or alternatively, a local VLF transmitter may be used which transmits at any frequency in the range 14.0 to 29.9 kHz.

VLF Station	Frequency (kHz)
Bordeaux, France	15.1
Odessa (Black Sea)	15.6
Rugby, U.K.	16.0
Moscow, U.S.S.R	17.1
Yosamoi, Japan	17.4
Hegaland, Norway	17.6
Malabar, Java	19.0
Oxford, U.K.	19.6
Paris, France	20.7
Annapolis, Maryland	21.4
Northwest Cape, Australia	22.3
Loulualei, Hawaii	23.4
Buenos Aires, Argentina	23.6
Cutler, Maine	24.0
Seattle, Washington	24.8
Rome, Italy	27.2
Aguada, Puerto Rico	28.5

Field Data

The results below illustrate the need for using two orthogonal stations when the strike of the prospective conductor is not well-known. The dip angle and amplitude data measured using station NLK in Seattle, Washington, show only a very weak anomaly associated with the two conductive sulphide zones at Cavendish, Ontario.

The results obtained using Cutler, Maine reveal a more prominent anomaly, but the best response was obtained using Annapolis, Maryland since the station lies almost due south and the transmitted electromagnetic field is thus maximum-coupled with the North-South trending conductors.



Rock Geochemistry: Gold - 23 -



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REPORT NUMBER: 85-75-008

JOB NUMBER: 85313

MR. TOM RICHARDS

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SAMPLE #	Au
	ppb
85 PS 20R	10
85 PS 21R	5
85 PS 23R	nd
85 PS 24R	10
85 PS 26R	25
85 PS 27R	10
85 BH 12	3400 ✓
85 TR 19	5
85 TR 20	nd
85 TR 21	30
85 TR 22	170
85 TR 24	nd

SAMPLE NAME	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PR PPM	PD PPM	PT PPM	SB PPM	SM PPM	SR PPM	U PPM	V PPM	ZN PPM
85 PS 20R	1.0	.58	166	ND	118	ND	.27	.1	2	100	18	2.01	.09	.18	324	3	.01	4	.04	11	ND	ND	ND	ND	5	ND	ND	15
85 PS 21R	4.6	.57	11	ND	299	ND	.06	1.5	3	131	20	1.42	.06	.26	194	12	.01	10	.01	101	ND	ND	ND	ND	8	ND	ND	145
85 PS 23R	10.7	1.85	9	ND	45	ND	.10	.9	9	87	6	2.88	.09	1.10	557	42	.01	15	.03	57	ND	ND	4	ND	11	ND	ND	140
85 PS 24R	3.8	1.44	8	ND	128	ND	.13	.5	9	75	10	3.17	.11	.57	369	88	.01	630	.05	83	ND	ND	5	ND	8	ND	ND	165
85 PS 26R	>100	.63	70	ND	260	ND	.76	51.9	6	42	6221	1.75	.10	.37	447	4	.01	25	.03	23	ND	ND	994	ND	96	ND	ND	808
85 PS 27R	3.6	.76	38	ND	224	ND	.29	.7	8	125	90	1.54	.08	.41	970	66	.01	900	.02	24	ND	ND	15	ND	7	ND	ND	40
85 BH 12	>100	.13	40	3	26	ND	.24	6.8	1	130	46	.93	.05	.99	3684	66	.01	10	.01	1535	ND	ND	38	ND	6	ND	ND	660
85 TR 19	.1	1.01	46	ND	30	ND	.59	.6	4	76	6	1.73	.06	.60	775	6	.01	20	.01	19	ND	ND	3	ND	13	ND	ND	52
85 TR 20	.1	3.90	5	ND	49	4	3.60	1.8	30	147	7	5.34	.22	2.97	1852	1	.01	122	.06	43	ND	ND	ND	ND	225	ND	8	249
85 TR 21	.1	1.98	121	ND	25	5	.21	.5	18	121	6	2.91	.05	1.72	735	23	.01	55	.03	16	ND	ND	4	1	10	ND	ND	51
85 TR 22	.1	3.37	244	ND	85	5	.19	.6	24	156	12	5.10	.06	2.92	741	5	.01	77	.04	15	ND	ND	ND	2	11	ND	8	59
85 TR 24	.2	.85	ND	ND	1353	ND	6.76	13.4	8	19	87	3.66	.16	1.35	2188	2	.01	114	.02	17	ND	ND	6	1	233	ND	ND	1036

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Rock Geochemistry: ICP.

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	N ₂	K	W
RH 228 84	3	17	19	73	.5	5	21	9557	3.98	11	5	ND	2	27	2	2	29	.43	.15	11	7	.28	421	.01	7	1.18	.01	.02	2	
RH 238 84	1	46	23	120	.4	16	12	1263	3.67	7	5	ND	2	26	1	2	56	.35	.08	7	28	1.01	130	.05	5	1.75	.02	.05	2	
RH 248 84	2	24	1	35	.7	4	5	1687	.52	2	8	ND	2	161	1	2	8	1.81	.25	9	8	.12	477	.01	4	.74	.01	.03	2	
RH 258 84	1	17	19	121	.2	12	11	1319	3.59	3	5	ND	2	16	1	2	57	.22	.03	5	18	.78	140	.05	8	1.54	.02	.05	2	
RH 268 84	1	104	18	78	.2	9	27	2607	5.61	4	5	ND	2	15	1	2	80	.25	.03	8	15	.50	171	.02	10	1.24	.01	.05	2	
RH 278 84	4	65	21	114	.2	9	44	13335	7.07	11	5	ND	2	15	1	2	79	.25	.06	10	14	.53	371	.03	8	1.36	.01	.04	2	
RH 288 84	4	13	11	45	.2	5	8	2434	2.37	6	5	ND	2	11	1	2	25	.22	.06	7	11	.31	119	.03	7	.91	.01	.06	2	
RH 298 84	1	13	14	74	.1	10	9	1958	3.82	13	5	ND	2	17	1	2	49	.26	.06	11	14	.52	243	.04	3	1.15	.01	.07	2	
→ RH 308 84	2	44	23	178	1.1	16	14	2022	3.45	62	5	ND	2	26	1	2	44	.40	.10	13	20	.84	179	.02	5	2.01	.01	.07	2	
RH 318 84	3	25	24	114	.3	23	22	4165	5.27	8	5	ND	2	14	1	2	104	.25	.06	12	56	1.29	129	.12	2	1.75	.02	.05	2	
RH 328 84	3	25	20	113	.2	26	22	4172	5.29	4	5	ND	2	14	1	2	105	.25	.06	11	59	1.29	128	.12	5	1.73	.02	.05	2	
RH 348 84	2	21	7	111	.1	18	15	2769	4.05	6	5	ND	2	14	1	2	63	.27	.08	12	46	.71	152	.05	5	1.34	.02	.10	2	
RH 358 84	2	24	13	87	.1	11	11	2370	2.64	5	5	ND	2	17	1	2	41	.38	.10	10	28	.45	132	.02	2	1.23	.01	.07	2	
BH 315	1	29	15	84	.1	9	10	978	3.57	6	5	ND	2	22	1	2	65	.40	.05	10	22	.67	130	.04	9	1.22	.02	.05	2	

Silt Geochemistry

SAMPLE NAME	AG PPM	AL 1	AS PPM	AU PPM	BA PPM	BI PPM	CA 1	CD PPM	CO PPM	CR PPM	CU PPM	FE 1	V 1	MG 1	MN PPM	MO PPM	NA 1	NI PPM	P 1	PR PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZN PPM
85 PS 33	.2	2.08	18	ND	95	ND	.19	.1	8	12	339	2.87	.08	.59	516	1	.01	9	.05	12	ND	ND	ND	ND	14	ND	ND	63
85 BH 300	.1	4.29	ND	ND	77	ND	.08	.2	7	19	27	4.74	.08	.55	346	1	.01	10	.05	19	ND	ND	ND	ND	10	ND	ND	60
85 BH 301	.1	2.32	8	ND	73	ND	.08	.2	4	14	24	3.02	.06	.30	203	ND	.01	5	.02	18	ND	ND	ND	ND	10	ND	ND	39
85 BH 302	.1	2.82	ND	ND	103	ND	.08	.1	10	68	9	5.42	.11	.53	1076	1	.01	20	.05	18	ND	ND	ND	ND	4	ND	ND	42
85 BH 303	.6	2.01	9	ND	108	4	.16	.3	13	33	30	3.57	.08	.71	606	1	.01	14	.06	16	ND	ND	ND	1	12	ND	4	56
85 BH 304	.3	2.71	ND	ND	120	ND	.09	.1	11	20	19	6.66	.12	.55	883	2	.01	9	.04	17	ND	ND	ND	2	9	ND	ND	77
85 BH 306	.1	1.67	10	ND	88	ND	.37	.6	9	10	19	2.53	.09	.53	1213	1	.01	9	.08	9	ND	ND	ND	ND	23	ND	ND	86
85 BH 307	.1	3.14	5	ND	108	ND	.43	1.0	10	12	35	3.22	.08	.63	1777	ND	.01	9	.08	6	ND	ND	ND	ND	23	ND	ND	132
85 BH 309	.3	1.69	7	ND	99	ND	.42	.5	7	28	18	2.34	.07	.61	826	1	.01	15	.03	6	ND	ND	ND	ND	17	ND	ND	88

Soil

Silt Geochemistry.

TOM RICHARDS PROJECT # 85-314 SOLUTION FROM MINORIONEN JOB# 84-112 FILE # 84-1016 PAGE 1

SAMPLE#	Al	Ca	Fe	In	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Os	Sb	Bi	V	Os	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
1- BH 175	1	22	15	105	.1	9	10	1717	3.77	13	5	ND	2	16	1	2	2	46	.30	.06	12	18	1.92	212	.02	5	1.51	.01	.07	2
2- BH 219	6	21	15	149	.3	14	60	25671	7.89	19	5	ND	2	20	1	2	2	69	.34	.10	17	21	1.67	643	.05	4	1.90	.02	.05	2
*PH 25 B4	8	21	14	57	.1	4	15	4973	3.04	6	5	ND	2	36	1	2	2	47	.42	.12	16	11	1.39	146	.02	5	1.65	.01	.04	2
*PH 33 B4	1	40	17	86	.1	11	10	1923	3.31	13	5	ND	2	39	1	2	2	48	.81	.11	15	14	1.57	401	.02	3	1.50	.01	.05	2
*PH 45 B4	1	38	10	104	.2	7	14	1865	4.85	7	5	ND	2	37	1	2	2	90	.54	.08	9	19	1.15	218	.05	10	1.91	.02	.06	2
*PH 55 B4	1	50	19	104	.1	11	12	1333	4.08	9	5	ND	2	21	1	2	2	61	.32	.05	8	22	1.89	281	.04	7	1.80	.01	.05	2
*PH 65 B4	1	32	17	72	.1	8	9	1098	3.12	9	5	ND	2	21	1	2	2	46	.34	.06	8	14	1.53	276	.03	7	1.38	.01	.04	2
*PH 75 B4	2	41	9	62	.2	5	6	1474	1.16	4	7	ND	2	72	1	2	2	15	1.41	.17	14	8	1.27	469	.01	6	1.19	.01	.04	2
*PH 85 B4	1	24	8	59	.2	8	8	1119	2.27	10	5	ND	2	45	1	2	2	33	.85	.09	6	16	1.54	251	.02	3	1.22	.01	.05	2
PH 95 B4	1	24	7	81	.1	13	11	893	3.75	9	5	ND	2	18	1	2	2	58	.26	.04	2	28	1.08	182	.05	3	1.73	.02	.06	2
PH 105 B4	1	25	14	57	.1	6	7	576	2.20	5	5	ND	2	45	1	2	2	32	.71	.09	6	12	1.43	352	.02	4	1.32	.01	.04	2
PH 115 B4	3	55	20	151	.2	9	10	1475	4.38	32	5	ND	2	22	1	2	2	38	.35	.08	2	22	1.09	243	.01	4	1.82	.02	.07	2

ITEMIZED COST STATEMENT

Sleeper Group
Omenica M.D.
Whitesail Lake (93E/6)

Man Time:

Dr. T.A. Richards	- 5 days @ 400/day =	\$ 2,000.00	
Colin Harivel, Geologist	- 1 day @ 250/day =	250.00	
B. Holden, Prospector	- 1 day @ 150/day =	150.00	
P. Suratt, Prospector	- 2 days @ 150/day =	300.00	
J. Stephens, Labourer	- 2 days @ 125/day =	250.00	
R. Himmelright, Labourer	- 2 days @ 125/day =	250.00	
Employees Expenses		<u>190.00</u>	3,390.00
Food - 13 days @ 20/day			260.00
Camp Costs - 13 days @ 20/day			260.00
Transportation:			
Helicopter		550.00	
Truck - 2 days @ 35/day		70.00	
Boat Charter		200.00	
Boat/motor Rental - 2 days @ 50/day		<u>100.00</u>	920.00
Expiditing/Office - 4 days @ 25/day			100.00
Supplies - 10/man day			130.00
Equipment Rentals: VFF-EM, Magnetometer			210.00
Shipping			25.00
Geochemistry			453.50
Report Preparation, secretarial, drafting			<u>750.00</u>
Total			<u>6,498.50</u>

AUTHORS RESUME

Dr. T.A. Richards
RR#1,
Hazelton, B.C.
VOJ IYO

1. Collection, interpretation and presentation of data is wholly the responsibility of Dr. T.A. Richards.
2. I received my B Sc., Geology from the University of B.C. in 1965 and my Ph D., Geology from the University of B.C. in 1971.
3. I am a Fellow of the Geological Association of Canada.
4. I was a Research Scientist with the Geological Survey of Canada, Cordilleran Section from 1972 to 1978.
5. I have been involved in mineral exploration in British Columbia from 1979 to the present.